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States Should Spur Use of "Direct Pay" Tax Credits to Advance Clean Energy in Low-Income Communities

By Rachel Jacobson and Samantha Jacoby

Climate change and aging energy infrastructure disproportionately impact people with low incomes and people of color, who — due to myriad factors including redlining and other discriminatory systems — are likelier to live in communities where polluting industries are more prevalent and where investments to the public good have been lacking.[1] Black and Hispanic people are exposed to 56 and 63 percent more air pollution than they create, respectively,[2] and low-income households spend three times more of their income on utilities than do high-income households, making cost a more salient factor in their family budgets. The Inflation Reduction Act of 2022 (IRA) created an innovative tax credit system known as direct pay that can help address pollution, under-investment, and cost by spurring major new investments in low-income communities that improve health and decrease energy costs while improving economic opportunity for local residents.

Seventy percent of the IRA's *$400 billion* in climate investments is in the form of these uncapped tax credits, which are available through at least 2032. Beyond its scale, direct pay is unique in its availability to tax-exempt and public entities — nonprofits, state and local governments, economic development agencies, and the like — which can receive a cash refund for a portion of the cost of clean energy projects and electric vehicle purchases. These entities are well positioned to partner with low-income communities to ensure they can access the credits' benefits, instead of being passed over for investment.

However, extensive advocacy, education, upfront financing, and supporting infrastructure are necessary to help communities and nonprofits navigate the novel and complex process for claiming tax credits through direct pay. The upfront resources and expertise required are significant but

[1] Environmental Protection Agency, "Climate Change and Social Vulnerability in the United States: A Focus on Six Impacts," 2021, https://www.epa.gov/cira/social-vulnerability-report; Raymond Zhong and Nadja Popovich, "How Air Pollution Across America Reflects Racist Policy From the 1930s," New York Times, March 9, 2022, https://www.nytimes.com/2022/03/09/climate/redlining-racism-air-pollution.html#:~:text=Urban%20neighborhoods%20that%20were%20redlined,across%20the%20United%20States%20today.

[2] Christopher W. Tessum *et al.*, "Inequity in consumption of goods and services adds to racial–ethnic disparities in air pollution exposure," Proceedings of the National Academy of Sciences, Vol. 116, No. 13, March 2019, https://www.pnas.org/doi/10.1073/pnas.1818859116.

achievable — and necessary, to ensure that everyone can access healthy, reliable, and affordable energy and transportation. One solution is for green banks — mission-driven financial institutions working to finance clean energy technologies — and other funders to provide "bridge financing" so that projects can get started as they wait for a credit, which only provides funding after the project is complete and put into use, and to develop other innovative tools to lower the cost of project financing.

Action to mitigate the effects of climate change is urgent. That is especially true for people with low incomes, who live in places where we can expect to see health impacts as the climate changes, including the highest increases in childhood asthma and in mortality due to climate-driven extreme temperatures.[3] Policy action is needed to ensure low-income communities are not left behind in this effort.

Indeed, state and local governments are already taking action to promote highly successful clean energy projects that can serve as a model for future projects. For example, a school district in Batesville, Arkansas, installed solar panels and made its buildings more energy efficient, then used the money saved to raise teacher pay. The Batesville program predated the IRA but offers important lessons for other governments. San Antonio, Texas, installed solar canopies at 42 city-owned sites and expects to claim direct pay credits, saving the city government up to $11 million in energy costs over the life of the project.[4] The Standing Rock Sioux are using direct pay to establish a wind farm on their lands. Such a large project requires support, including from the Treasury Department, which is helping the tribe navigate the direct pay process. But once complete, the project promises the tribe energy independence, and future electricity sales and energy savings will double the tribe's revenues.

States should take action to ensure the benefits of the IRA credits flow to residents of low-income and marginalized communities. State policymakers can, for example, help communities understand the range of investments that can receive support through direct pay and the process for securing clean energy project financing, increase access to that financing, create incentives to site clean energy projects in low-income communities, and ensure that the jobs offer opportunities and living wages for community residents.

Direct Pay Model Puts Communities, Not Shareholders, First

Thanks to the IRA's extension of clean energy tax credits to entities like nonprofits and local governments — previously available only to for-profit companies — those key community partners can now take part in the tremendous growth in the renewable energy industry that the credits have spurred in recent years. (See box for a list of entities now eligible.)

But direct pay does more than just help level the playing field between for-profit companies and tax-exempt entities. It also enables a shift in ownership of energy generation from private to public and nonprofit entities, creating the conditions for consumer-centric asset management. In 2021-

[3] U.S. Environmental Protection Agency, "Findings on Disproportionate Risks of Climate Change to Low Income Individuals," September 2021, https://www.epa.gov/system/files/documents/2021-11/factsheet_low-income.pdf.

[4] Jackie Lombardi, Hannah Perkins, and Matthew Popkin, "How Cities Can Scale On-Site Solar with New Federal Incentives," RMI, January 11, 2024, https://rmi.org/how-cities-can-scale-on-site-solar-with-new-federal-incentives/.

2022, for-profit companies owned approximately three-quarters of electricity generation in the U.S.[5] The business models associated with these ownership arrangements incentivize financial returns for shareholders over community benefits, often leading to higher utility bills and, sometimes, dangerously inadequate service. In 2021, for instance, proprietors' cost cutting and underinvestment in energy infrastructure left millions of Texans without power during a dangerous cold snap.[6] Another more recent mass outage, exacerbated by vulnerable infrastructure, hit Houston residents following Hurricane Beryl.[7]

Entities Eligible for Clean Energy Tax Credits through Direct Pay[a]

- Nonprofit organizations
- State, local, and territorial governments[b]
- Agencies and instrumentalities of state, local, or territorial governments, including water districts, school districts, economic development agencies, certain public universities, and hospitals
- Native nations, including federally recognized tribal governments, their subdivisions, and their agencies, and Alaska Native Corporations
- Rural electric cooperatives
- The Tennessee Valley Authority

[a] IRS, "Elective Pay and Transferability Frequently Asked Questions: Elective Pay," https://www.irs.gov/credits-deductions/elective-pay-and-transferability-frequently-asked-questions-elective-pay#eligibility.

[b] Certain rules limit the applicability of direct pay in U.S. Territories. Most notably, the investment tax credit cannot be claimed for energy property located in the territories unless the project is owned by a U.S. citizen who is not a resident of a territory. These limitations do not apply to the production tax credit. See Internal Revenue Service, "Elective Pay and Transferability Frequently Asked Questions," Q7, https://www.irs.gov/credits-deductions/elective-pay-and-transferability-frequently-asked-questions-elective-pay.

Direct-Pay-Eligible Tax Credits for Clean Electricity and Clean Vehicles

Direct pay applies to 12 tax credits.[8] Two of them — the long-standing Investment Tax and Production Tax Credits (ITC and PTC) — have already helped spur tremendous growth in renewable energy generation, particularly for solar and wind energy. Relative to the other IRA clean energy tax credits that are eligible for direct pay, the ITC and PTC will likely be the most impactful in terms of overall climate change mitigation and potential benefits for low-income communities given the large size of the relevant subsidies and maturity of the available technologies.

[5] Edison Electric Institute, "Industry Data," https://www.eei.org/resources-and-media/industry-data

[6] According to the American Public Power Association, customers of investor-owned utilities pay the highest average utility bills https://www.publicpower.org/resource/public-power-statistical-report; https://news.climate.columbia.edu/2021/02/22/texas-power-grid-failure-deregulation/.

[7] Alejandra Martinez and Emily Foxhall, "Why Texas' mass power outages continue to happen," Texas Tribune, July 18, 2024, https://www.texastribune.org/2024/07/18/texas-energy-grid-power-outages-climate-change-infrastructure/.

[8] For a helpful summary of tax credits and applicable requirements, see United States Environmental Protection Agency, "Summary of Inflation Reduction Act provisions related to renewable energy," https://www.epa.gov/green-power-markets/summary-inflation-reduction-act-provisions-related-renewable-energy.

The tax credits for purchases of electric vehicles and charging infrastructure will also likely be an important first step for many public entities seeking to use IRA tax credits and access direct pay, because the processes for vehicle procurement are well known to local governments and state agencies.

These direct-pay-eligible credits will enable entities to recoup upfront investment costs, generate longer-term income streams from the generation and selling of clean energy, and transition to clean vehicle fleets where uptake so far has been very low, putting both small- and large-scale clean energy projects newly within reach.

- **The Investment Tax Credit (ITC)**. The ITC is effectively a rebate of a percentage of the total eligible costs of certain types of clean energy projects (most commonly, solar energy projects).[9] For qualifying projects meeting applicable labor requirements for pay and worker development,[10] the base credit amount is 30 percent of the project's costs. For example, a $3 million, 1.1-megawatt (MW) solar energy facility could qualify for a $900,000 base ITC.

  Bonus credits are available to projects meeting additional requirements: a 10 percent bonus credit for projects meeting "domestic content" requirements (minimums for domestically produced steel, iron, and manufactured products),[11] a 10 percent bonus for projects in certain economically or environmentally disadvantaged areas traditionally associated with the energy sector,[12] and a 10 to 20 percent bonus for certain projects located within designated economically distressed communities or on tribal lands.[13]

- **The Production Tax Credit (PTC)**. The amount of the PTC is determined based on the total amount of electricity a clean energy facility produces and sells in a year. Eligible projects can continue to claim and receive the PTC for ten years after the project is placed in service,

[9] For 2023 and 2024, solar photovoltaic energy, wind energy, geothermal electricity, energy storage technologies, micro grid controllers, geothermal heat pumps, and interconnection costs for systems under 5 MW are eligible for the ITC. Beginning in 2025, the ITC will be replaced by a new technology-neutral credit, which will apply to any resource with zero estimated net greenhouse gas emissions.

[10] The IRA advances fair pay and worker development, respectively, through the "prevailing wage and apprenticeship" requirements. For projects meeting these requirements the ITC is worth 30 percent of the cost of the project. For projects not meeting these requirements, the credit is worth 6 percent of the cost. Projects under 1 MW are exempt from the requirements, meaning that they will automatically receive the 30 percent credit. See IRS, "Prevailing Wage and Apprenticeship Requirements," https://www.irs.gov/credits-deductions/prevailing-wage-and-apprenticeship-requirements.

[11] Beginning in 2024, the credit will be reduced to 90 percent of its full value for projects that do not satisfy the domestic content rules, and it will phase out entirely by 2026. The IRA provides for waivers from the domestic content requirements if compliance would result in unreasonable cost or if domestic materials and components are unavailable. Projects under 1 MW are exempt from domestic content requirements, meaning that they will automatically receive the higher credit value.

[12] There are three types of such energy communities: brownfield sites (as defined in the Comprehensive Environmental Response, Compensation, and Liability Act of 1980); a statistical area with unemployment equal to or higher than the national average or which any time after 2009 had at least 0.17 percent direct employment from or 25 percent local tax revenues related to fossil fuels; and a census tract in which a coal mine closed after 1999 or coal-fired electricity generating unit was retired after 2009, or any adjoining census tract.

[13] In statute they are referred to as "Indian land." Department of Energy, "Low-Income Communities Bonus Credit Program," https://www.energy.gov/justice/low-income-communities-bonus-credit-program#:~:text=The%20Department%20of%20the%20Treasury%20and%20the%20Internal,of%20affordable%20housing%20developments%2C%20and%20benefitting%20low-income%20households.

creating a longer-term, stable income stream. For 2023, the base credit amount equals 2.75 cents per kWh of energy produced if prevailing wage and apprenticeship requirements are met, with additional bonus credits available for certain qualifying projects.

Entities generally may only claim one type of tax credit for each energy project, and because many types of clean energy projects may be eligible for either the PTC or the ITC, project owners will have to determine which credit would be most valuable depending on project economics, financing sources, and other considerations. Typically, the ITC is most useful for smaller projects, for which upfront costs tend to be higher per unit of energy produced. The ITC may also be more desirable for financing-constrained entities because it is received as a lump sum earlier in the project's useful life, while the PTC is received in smaller increments over ten years. On the other hand, the PTC is often more economically valuable for large utility-scale facilities that produce more energy relative to their start-up costs. The PTC has historically been most closely associated with wind energy, but it is also available to several other clean energy technologies.[14]

- **Tax credits for clean vehicles and fueling infrastructure**. School districts, local governments, and state agencies can use IRA tax credits to transition their transportation fleets to electric vehicles. Entities can receive a credit for clean vehicles placed into service, equal to 30 percent of the value of a fully electric or fuel-cell-powered vehicle, capped at $7,500 for small vehicles (under 14,000 pounds) and $40,000 for large vehicles (over 14,000 pounds). For example, a city that spends $1 million to replace a fleet of 20 passenger vehicles with fully electric vehicles could receive a credit of $150,000 (that is, $7,500 per vehicle).

  Entities can also receive a credit of up to 30 percent of the cost of charging infrastructure for electric vehicles, up to $100,000. The credit is only available if the property is located in a non-urban area or a designated low-income census tract — that is, areas that have faced significant underinvestment in clean vehicle infrastructure. For example, a city that installs $100,000 of charging infrastructure in a low-income neighborhood could receive a $30,000 tax credit.

Benefits of Direct Pay

As public and nonprofit entities begin to use IRA tax credits in conjunction with other state and federal policy tools,[15] we can expect a proliferation of robust, sustainable, and equitable energy investments that benefit communities historically passed over for investment.

Currently, Black and Latine people disproportionately bear the burden of air pollution from fossil fuels.[16] And Black people, people with low incomes, children, older adults, and people living in rural

[14] The PTC will also be transitioning to a "tech-neutral" credit beginning in 2025.

[15] Treasury guidance makes clear that entities can use direct pay in conjunction with other state or federal subsidies; that is, using tax-exempt grants or forgivable loans does not affect the amount an entity receives through direct pay, unless the total amount of the grant plus the direct pay refund exceeds 100 percent of project costs.

[16] Savannah Bertrand, "Fact Sheet | Climate, Environmental, and Health Impacts of Fossil Fuels (2021)," EESI, December 17, 2021, https://www.eesi.org/papers/view/fact-sheet-climate-environmental-and-health-impacts-of-fossil-fuels-2021#3

areas experience more significant impacts from power outages.[17] In both rural and urban areas, low-income households spend significantly more of their income on energy than higher-income households, which means that efforts to lower energy costs are of particular help to families with low incomes;[18] these high energy burdens also disproportionately impact Black, Latine, multifamily, and renter households.[19]

Direct-pay-eligible projects — including investments in clean energy, renewable energy, electric vehicles, and electric vehicle charging infrastructure — can improve health, decrease ongoing energy costs, improve energy reliability, and build local wealth and autonomy. (See Figure 1.) For example:

- **Adding rooftop solar to trusted community spaces will create reliable electricity, safety from extreme temperatures, and much-needed cost savings for use on other priorities.** Nonprofits and local governments can use direct pay for the ITC to upgrade energy systems in community centers with rooftop solar and energy storage systems. During emergency events, such as a heatwave, this would allow community members who do not have air conditioning, cannot pay for the energy to run their air conditioning, or experience a power outage to access air conditioning, electricity, and other supportive services in a nearby, trusted space. Solar energy systems combined with battery storage capacity are well suited for this because they can operate even when the main power grid is down and is clean and renewable.

  Petersburg, Virginia's "the Heights" neighborhood is turning the historic Beaux Twenty building, located in the heart of a neighborhood of color, into a community solar resilience hub.[20] Resilience hubs support communities and residents both year-round and in emergencies, by coordinating and distributing resources and services. A solar resiliency hub refers to the fact that solar energy allows the facility to produce its own electricity rather than rely on the electric grid, which could fail during an emergency event. Direct pay can provide an important funding source for creating resilience hubs, like the one in the Heights, in low-income communities nationwide.

  Solar roofs also offer an important pathway for energy cost savings for school districts. For example, a school district in Batesville, Arkansas installed solar panels and made its buildings more energy efficient, then used the money saved to raise teacher pay.[21] While the project was conceived and placed in service before the IRA, direct pay creates the opportunity for many

[17] Scott C Ganz, Chenghao Duan, and Chuanyi Ji, "Socioeconomic vulnerability and differential impact of severe weather-induced power outages," PNAS Nexus, Vol. 2, Issue 10, October 2023, https://academic.oup.com/pnasnexus/article/2/10/pgad295/7286530?login=true; Adam X Andresen *et al.*, "Understanding the social impacts of power outages in North America: a systematic review," Environmental Research Letters, Vol. 18, Issue 5, May 2023, https://iopscience.iop.org/article/10.1088/1748-9326/acc7b9.

[18] Lauren Ross, Ariel Drehobl, and Brian Stickles, "The High Cost of Energy in Rural America: Household Energy Burdens and Opportunities for Energy Efficiency," American Council for an Energy-Efficient Economy (ACEEE), July 2018, https://www.aceee.org/sites/default/files/publications/researchreports/u1806.pdf; Ariel Drebhol and Lauren Ross, "Lifting the High Energy Burden in America's Largest Cities: How Energy Efficiency Can Improve Low Income and Underserved Communities," ACEEE, April 2016, https://www.energyefficiencyforall.org/resources/lifting-the-high-energy-burden-in-americas-largest-cities-how-energy/.

[19] Dominic Bednar and Tony Reames, "Recognition of and response to energy poverty in the United States," Nature Energy, Vol. 5, March 2020, https://www.nature.com/articles/s41560-020-0582-0.

[20] Petersburg Community Resiliency Hub, https://www.upalnational.org/petersburg-community-resiliency-hub.

[21] Batesville School District, "BSD Solar Initiative," https://www.batesvilleschools.com/solar.

more school districts to access this type of cost savings and electricity reliability. That includes projects placed into service in 2023.

Solar roofs help residents in multifamily affordable housing save money on their electricity bills. Direct pay will help more states implement programs that require a certain percentage of energy savings go to the tenant, like California's Solar on Multifamily Affordable Housing program.[22]

- **Replacing diesel school buses with electric will improve community health and lower student absences.** School districts can claim electric vehicle tax credits through direct pay to help pay for diesel school bus replacements. This credit adds a financing tool to existing programs such as those enacted in bipartisan infrastructure legislation in 2021. Diesel bus replacements, especially in urban areas, are projected to result in reduced mortality overall and fewer childhood asthma cases due to reduced exposure to fine particulate matter,[23] and increased student attendance due to reduced exposure to diesel exhaust, which causes respiratory illness and other harmful effects that cause students to stay home from school.[24] Only around 2 percent of total school buses purchased or in service are electric, making this an area primed for growth.[25]
- **Installing utility-scale clean energy on tribal lands will build wealth, lower electricity costs, and increase reliability.** Tribes can use direct pay to claim the PTC to finance large-scale clean energy production on native lands. For example, the people of Standing Rock Sioux Tribe are building a large wind farm. The tribe, which experiences 50 percent unemployment and a 37 percent poverty rate due to historical and ongoing U.S. policies like forced displacement, relocation, and lack of investment into basic human needs, cite the project's capacity to bring energy independence, revenue from the sale of the clean energy it will generate, and jobs to the reservation. The project is estimated to double Standing Rock Sioux's annual revenue.[26]

IRA tax credits can also bring jobs and economic opportunities to areas receiving clean energy investments, especially if local hiring and training are a focus of the project. Jobs may include designing, manufacturing, distributing, installing, constructing, operating, or maintaining clean energy and clean vehicle facilities and products.

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[22] SOMAH, Tenant Benefits,https://calsomah.org/tenant-benefits.

[23] Ernani F. Choma, Lisa A. Robinson, and Kari C. Nadeau, "Adopting electric school buses in the United States: Health and climate benefits," PNAS, Vol. 121, No. 22, May 20, 2024, https://www.pnas.org/doi/10.1073/pnas.2320338121#sec-1.

[24] Kim North Shine, "Upgraded school buses linked to increased student attendance," UMich News, April 10, 2023, https://news.umich.edu/upgraded-school-buses-linked-to-increased-student-attendance/.

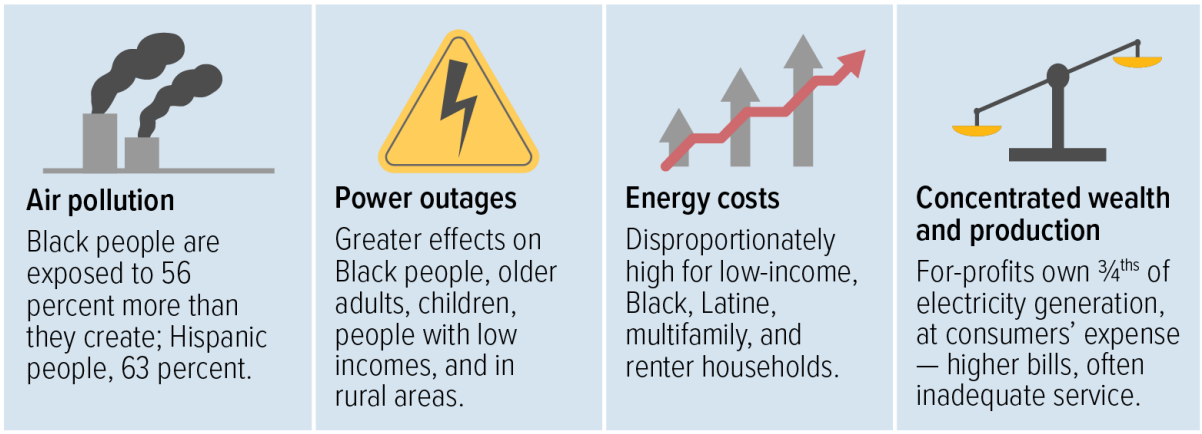
[25] L. Lazer, L. Freehafer, and B. Zepka, "A Dataset of Electric School Bus Adoption in the United States," World Resources Institute, April 2024, https://datasets.wri.org/dataset/electric_school_bus_adoption.

[26] To learn more from two of this project's administrators, including some of the funding challenges involved in a project that is community- rather than developer-centric, the benefits of direct pay, and the need for accessible, upfront dollars — all to ensure tribal ownership, see Maria McCoy, "Standing Rock's Wind Project Puts People First — Episode 208 of Local Energy Rules," Institute for Local Self-Reliance, April 24, 2024, https://ilsr.org/articles/standing-rocks-wind-project-puts-people-first-episode-208-of-local-energy-rules/. See also Anpetu Wi Wind Farm at https://anpetuwi.com/.

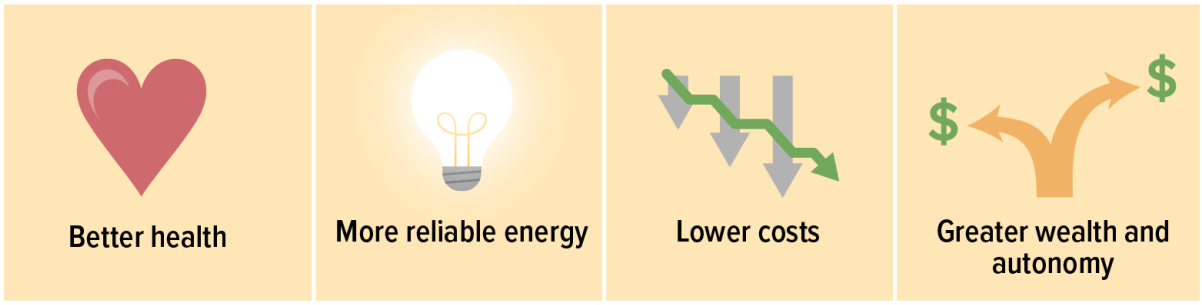
FIGURE 1

Benefits of Direct-Pay-Eligible Projects

Harms of climate change, aging energy infrastructure, and structural inequities include:



Direct-pay-eligible projects in low-income communities — like clean and renewable energy and electric vehicles and infrastructure — can help reverse these trends, promoting:



Source: Jacobson and Jacoby, "States Should Spur Use of 'Direct Pay' Tax Credits to Advance Clean Energy in Low-Income Communities"

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States' Key Role in Ensuring Direct Pay Benefits Low-Income Communities

Maximizing the benefits of direct-pay-eligible projects in low-income and under-resourced communities requires siting projects in those communities and fostering ownership by community residents. States have tremendous influence over the factors influencing siting and ownership, which include state and local regulations, resident support, management capacity, and access to financing. States can:

- improve community awareness of — and readiness to access — tax credits;
- increase access to upfront capital and other necessary financing options;
- provide incentives and guidance to projects that receive or wish to receive state support; and
- track and communicate direct pay uptake and use. (See Figure 2.)

Improve Community Awareness and Readiness

Many local governments and community-based organizations lack the capacity to conduct even the early-stage work that would help them identify eligible projects that could benefit their communities. This work includes creating community-level plans for climate action initiatives that are designed around residents' interests and concerns, setting goals for clean energy development, identifying available clean energy funding and technical assistance resources and project sites, prioritizing projects, getting community buy-in, and obtaining necessary project permits.

Importantly, that work also includes involvement with the IRS in a way that non-taxable entities won't be familiar with. Entities seeking to claim tax credits through direct pay must complete a pre-filing registration process through an online portal for each energy project for which they are seeking direct pay. And to claim the credits, they must submit a tax return and certain supplemental documentation. (See box: "Navigating the Direct Pay Process.")

Navigating the Direct Pay Process

Entities seeking to claim clean energy tax credits through direct pay will need to complete several steps in accordance with IRS and Treasury Department guidance. This process includes:

- **Completing the project and putting it into service.** Clean energy tax credits and direct pay are not available until after projects are completed and put into service, so project owners will still need sufficient upfront capital or financing to pay for the full cost of the project. (Discussion of how states can assist with this financing challenge is below.)
- **Pre-filing registration with the IRS.** Entities must complete a pre-filing registration process through an online portal for each energy project for which they are seeking direct pay. This step should be completed after the relevant project has been placed in service and at least 120 days before filing a tax return claiming tax credits through direct pay.[a] They will be required to provide information about their organization, the credits they are seeking, and information on each energy project that they are seeking direct pay for. The IRS will provide a registration number for each project, which must be included on a subsequently filed tax return.
- **Filing a tax return.** Entities seeking to claim tax credits through direct pay must submit a tax return for the year the project is placed in service, along with certain supplemental documentation.[b] This process may be unfamiliar for state and local government entities and community-based organizations, which will have to determine their tax filing deadline, their tax year, and which forms to file (among other requirements).

a IRS, "Register for elective payment or transfer of credits," updated September 9, 2024, https://www.irs.gov/credits-deductions/register-for-elective-payment-or-transfer-of-credits.

b See Lawyers for Good Government, "Elective Pay & IRA Tax Incentives Resources Page," June 3, 2024, https://www.lawyersforgoodgovernment.org/elective-pay-ira-tax-incentives. The due date for sending in a tax return and claiming direct pay is 4.5 months after the end of an entity's "tax year," with an option for a six-month extension. For entities that do not normally file a tax return, the tax year will typically be the organization's established accounting period or fiscal year.

States can support community readiness to access IRA tax credits by providing grant funding and technical assistance for climate planning, potential project identification, and project selection. States need to create these funding and technical assistance mechanisms, appropriate funds for them, and help communities understand their benefits and access them. For example, a Massachusetts

program[27] provides grants for climate resilience planning; New York[28] offers grants, rebates for electric vehicles, and free technical assistance; and a California program[29] builds capacity of under-resourced communities to apply for state climate funds. New York has registered more than 425 local governments in its Climate-Smart Communities Program, providing a framework to develop climate action goals and making them eligible for grants, free technical assistance, and electric vehicle rebates.

Some local governments and community-based organizations may have already undertaken planning processes and identified projects but do not know about direct pay or that it applies to them. States should conduct outreach to communities to educate them about IRA clean energy tax credits and direct pay, in collaboration with trusted community partners such as community-based organizations and faith groups.

States should work with these and other key partners to maximize the effectiveness, efficiency, and accessibility of state efforts.

- **Environmental and climate justice groups** are helping communities access federal funding and financing and flagging opportunities to ensure that projects advance not just environmental goals but broader climate justice goals. For example, the Southern Economic Advancement Project's (SEAP) Our Dollars Our Dreams initiative is working with the Black Clergy Collective to assess readiness of the collective's houses of worship to access direct pay.[30] States should connect with environmental and climate justice groups working in their state to learn about their priorities and identify points of intersection.[31]
- **Climate change, community development, and sustainability nonprofits** are improving community readiness and uptake nationwide. Examples include Urban Sustainability Directors Network, ICLEI — Local Governments for Sustainability, and Institute for Sustainable Communities. States can identify those active in their state and work together to share information and identify and address research, advocacy, and education needs.

  Of particular note is Lawyers for Good Government's (L4GG) Clean Energy Tax Navigator.[32] This interactive tool guides entities through the direct pay rules and filing process and quickly matches them to basic information, in-depth self-help resources, or dedicated technical assistance to help them successfully claim tax credits. CBPP is working in partnership with L4GG to train states and other entities on direct pay, the navigator tool, and a complementary

[27] Massachusetts Executive Office of Energy and Environmental Affairs, "Municipal Vulnerability Preparedness (MVP) program," https://www.mass.gov/municipal-vulnerability-preparedness-mvp-program.

[28] New York State, "Climate Smart Communities," https://climatesmart.ny.gov/.

[29] California Strategic Growth Council, "Community Assistance for Climate Equity Program," https://sgc.ca.gov/technical-assistance/cace/.

[30] Southern Economic Advancement Project," Our Dollars, Our Dreams," https://theseap.org/ourdollars-ourdreams/.

[31] To begin identifying grassroots climate justice groups in your state, visit the Climate Justice Alliance at https://climatejusticealliance.org/members-of-the-alliance/.

[32] L4GG, Clean Energy Tax Navigator, https://cleanenergytaxnavigator.org/.

tool — Atlas Public Policy's Project Finance Hub[33] — which helps entities identify bridge finance.[34]

Improve Access to Bridge Financing

Public and nonprofit entities developing clean energy projects will rely on a mix of financing and funding options to pay for a project investment, including loans, grant funding or other incentives, and direct pay tax credits. While clean energy finance is a well-developed market with many actors, this financing market is most robust for projects developed and owned by for-profit companies, and financing is generally cheaper and more accessible to larger projects.[35] Direct pay offers a new financing tool for smaller projects owned by public and nonprofit entities, but it presents challenges as well. Importantly, tax credits will be received after the projects have been built and placed in service, so project owners will need sufficient upfront financing, such as loans, to pay for the full cost of building the project, and tax credits can be used to help pay down these loans when they are received. This is often referred to as "bridge financing" or "gap finance."

States can support the provision of bridge financing by establishing new financing products targeted to local governments and community-based organizations. These could include state matching funds, revolving loan funds, and no-interest loans, each of which lower the cost of financing new clean energy projects or clean vehicle purchases. Green banks — mission-driven financial institutions working to finance clean energy technologies[36] — can offer such products, as can state energy offices and Treasury departments. (See box, "What Are Green Banks?") States should create these mechanisms, appropriate funds for them, and make them accessible particularly to low- to moderate-income or lower-credit communities and borrowers.[37]

- **Loan funds:** Most states have established state energy revolving loan funds, some of which are already financing clean energy projects. These funds make loans to public or private entities seeking to develop clean energy projects, and when the borrowers repay loans (with federal tax credits or other government funding, revenue from energy sales, or funds accrued through utility bill savings), the repaid loans are continuously re-lent to new borrowers. Such funds can be expanded to provide more financing options for a greater range of projects, with special considerations for low-income and lower-credit borrowers — in particular, reducing or eliminating interest and reducing credit and collateral requirements.

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[33] See Atlas Public Policy, Project Finance Hub via Climate Program Portal, at https://climateprogramportal.org/projectfinancehub/.

[34] L4GG, Webinars & Trainings, https://www.lawyersforgoodgovernment.org/navigator-trainings. Atlas Public Policy, Hubs, https://atlaspolicy.com/category/products/hubs/.

[35] One common barrier to public and nonprofit clean energy finance is these entities' lack of ability or willingness to take on additional debt. Investors may also be unwilling to finance smaller projects due to relatively large transaction costs.

[36] Coalition for Green Capital has recognized 23 green banks in the U.S., across 17 states and D.C. https://coalitionforgreencapital.com/wp-content/uploads/The-Case-for-the-Accelerator-.pdf. Others are in the process of being created, such as Minnesota; see Paul Huttner and Ngoc Bui, "New 'green bank' for climate projects set to launch this year," MPRNews, February 8, 2024, https://www.mprnews.org/episode/2024/02/08/new-green-bank-for-climate-project-set-to-launch-this-year.

[37] For some entities, such as credit-constrained local governments in low-income communities, grants may be more appropriate than loan financing.

New provisions in the bipartisan infrastructure law and the IRA also make it possible for the U.S. Department of Energy to provide financing through loan guarantees (that is, a promise that the federal government will repay the lender if the borrower defaults) for clean energy projects that are being supported by certain State Energy Financing Institutions. These "SEFIs" are designated state entities, such as green banks, that provide financial support to energy projects,[38] and by using them, states will unlock even more access to federal financing. Accessing loan guarantees through SEFIs makes direct pay projects, especially projects in low-income communities that may struggle to access financing, more viable.[39]

- **Grant programs:** States can provide grants to cover upfront project costs while restricting eligibility to low-income communities or granting them carveouts or enhanced consideration. For example, Ohio could modify its diesel emissions reduction grant program, which covers up to 80 percent of the cost of public transit diesel bus replacement, to prioritize transit systems that serve low-income communities.[40]
- **Federal funds:** Several federal grant programs in the bipartisan infrastructure law and the IRA can be used for planning, pre-development, and upfront project costs. For example, the Environmental Protection Agency is administering $1 billion in heavy duty electric vehicle replacement grants,[41] including for activities in the planning stages. The Energy Department is awarding $10.5 billion in grid resilience grants,[42] including for demonstration projects and partnership development activities. However, many of those grants require matching funds that can be difficult for low-income communities to obtain. States can establish a matching fund for federal grants to address this barrier. For example, New Mexico established a matching fund in 2024,[43] and Minnesota offers $100 million in matching funds from its State Competitiveness Fund to assist eligible entities seeking federal grant awards for certain energy projects.
- **State and municipal bonds:** Almost every state and U.S. Territory has used bonds to finance clean energy or environmental infrastructure.[44] States can use bonds to provide upfront capital for their own clean energy projects or authorize bonds to fund local projects. State and local governments choosing to finance projects with tax-exempt bonds should be aware, however,

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[38] U.S. Department of Energy, "State Energy Financing Institution (SEFI) Toolkit," https://www.energy.gov/LPO/SEFIToolkit; Advait Arun, "The SEFI Carveout," Center for Public Enterprise, December 2023, https://publicenterprise.org/wp-content/uploads/SEFI-Briefing-II-1.pdf.

[39] Evergreen Collaborative, "A Transformational Clean Energy Opportunity for States," October 11, 2023, https://www.evergreenaction.com/memos/transformational-clean-energy-opportunity-for-states#sefi.

[40] Ohio Environmental Protection Agency, "Diesel Emission Reduction Grants," https://epa.ohio.gov/divisions-and-offices/environmental-education/grant-programs/diesel-emission-reduction-grants.

[41] U.S. Environmental Protection Agency, "Clean Heavy-Duty Vehicles Program," https://www.epa.gov/clean-heavy-duty-vehicles-program.

[42] U.S. Department of Energy, "Grid Resilience and Innovation Partnerships (GRIP) Program," https://www.energy.gov/gdo/grid-resilience-and-innovation-partnerships-grip-program.

[43] Office of Governor Michelle Lujan Grisham, "New Mexico Match Fund overcomes final legislative hurdle," February 13, 2024, https://www.governor.state.nm.us/2024/02/13/new-mexico-match-fund-overcomes-final-legislative-hurdle/.

[44] U.S. Department of Energy, "Leveraging Bond Financing to Support Energy Efficiency and Renewable Energy Goals: A Resource Summary for State and Local Governments," October 2020, https://www.energy.gov/scep/slsc/articles/leveraging-bond-financing-support-energy-efficiency-and-renewable-energy-goals-1.

that tax credits for such projects will be reduced by an amount equal to the percentage of total project costs covered by tax-exempt bonds, capped at a 15 percent reduction in the amount of the credit.[45]

What Are Green Banks?

Green banks are organized in various ways, typically as public or quasi-public entities (or as private nonprofit entities) established at the state or local level, often initially capitalized using public funds. Green banks are mission driven and use their initial capital to finance climate projects, typically via loans or other credit products (such as loan guarantees).[a]

Clean energy projects often face challenges obtaining financing in traditional credit markets because they may, for example, have small project sizes, rely on newer technologies, or require longer payoff periods compared to traditional energy projects. Green banks can help increase the financial viability of these projects by making loans that a for-profit lender would not or by offering lower-cost financing. As loans for clean energy projects are repaid to green banks over time (through clean energy project revenues, for example), green banks can re-lend funds to new projects and thus spur a larger amount of clean energy investment.

[a] U.S. Environmental Protection Agency, "Green Banks," https://www.epa.gov/statelocalenergy/green-banks.

Notably the IRA included a $27 billion fund, known as the Greenhouse Gas Reduction Fund (GGRF), that significantly expands the availability of upfront capital, including loans, grants, and other financial assistance, for direct-pay-eligible projects. Through GGRF, many existing and newly created green banks and other financing providers will see an infusion of federal funding that will allow them to expand their lending portfolios and create new financing tools and opportunities, generating up to $250 billion in combined public and private investment.[46] Crucially, over two-thirds of the GGRF funding is required to go to low-income and disadvantaged communities that have traditionally faced significant barriers to obtaining financing for clean energy projects and other climate investments.

States can take advantage of money flowing from the GGRF by optimizing the function and governance of existing state-level green banks, establishing a state-level green bank if one does not yet exist, and influencing the investment priorities of local and regional financing institutions and green banks that receive state support. Green banks should have public transparency and accountability; diverse and equitable governance; holistic investment strategies that cut across decarbonization, climate resilience, and economic development; and coordination across state agencies in their establishment and administration.[47]

[45] For example, a $100,000 solar project that is otherwise eligible for a $40,000 tax credit and is fully financed using tax-exempt bonds would receive a credit reduction of 15 percent, or $6,000, and the project would qualify for a total credit of $34,000.

[46] Kevin Buehler *et al.*,"Delivering Impact From U.S. Green Bank Financing," McKinsey & Co, April 20, 2023, https://www.mckinsey.com/capabilities/sustainability/our-insights/delivering-impact-from-us-green-bank-financing.

[47] Jordan Haedtler and David Wood, "State and Local Government and the Formation of Green Banks," Boulder County, Colorado, https://bouldercounty.gov/climate/greenbank/.

Advocates can influence the actions of governors and state legislatures that impact the governance, function, and investment priorities of state-level, local, and regional green banks, and other financial institutions that receive state funding.[48] They can also provide tools and guidance to would-be claimants to help them secure financing for their projects; Atlas Public Policy's Project Finance Hub is one such resource.

Provide Incentives and Guidance to Projects Receiving State Support

States can improve benefits distribution and worker outcomes by providing incentives and guidance for direct-pay-eligible projects that receive state grants, loans, or technical assistance. For example, states making grant awards can prioritize projects that: benefit low-income communities; replace high-polluting energy sources; meet specific wage requirements, labor standards, and worker protection policies; or meet specific community benefit standards. States can create these incentives during program creation and agency rulemaking.

Although we have not yet seen states take this specific action, there is precedent for similar actions in conjunction with renewable energy legislation. For example, Illinois introduced a bill designed to encourage employment of people from underrepresented populations in renewable energy projects, and Hawai'i introduced a bill creating a state fund for electric vehicle charging stations and giving preference to infrastructure that serves low-income, moderate-income, underserved, or "environmental justice communities."[49]

Additional state and local action can ensure that standards are consistently applied to direct pay projects and that the projects advance workforce equity and expand training pathways to skilled trades careers[50] for local residents and members of historically excluded groups (especially Black, Indigenous, and other workers of color, and women workers). For example, state and local governments can enact ordinances ensuring contractors compete responsibly for projects ("responsible bidder ordinances"), adopt hiring policies that preference local candidates or candidates who face barriers to employment in the sector, and invest in registered apprenticeship and apprenticeship readiness programs with demonstrable success in recruiting and retaining local workers from underrepresented demographics. On major projects, these and other job quality and

[48] In states without a centralized green bank, the money will flow to local and regional entities, leaving states without access to an historic level of capital for their own priorities and projects. Therefore, in places without a statewide green bank where advocates want to support access to capital for state-level priorities and projects, they should push for the creation of a state-level green bank. However, this may not be the right strategy for all states, especially in places where local and regional entities are better able to priorities the needs of low-income and marginalized communities.

[49] This term is not defined in the statute but Hawai'i does have a definition for "frontline communities" — a term sometimes used synonymously with "environmental justice communities" — enshrined in the Declaring Racism as a Public Health Crisis Act of 2021: "communities that are disproportionately exposed and vulnerable to health threats, climate-based disruptions, and economic dislocation and that have fewer resources, capacity, safety nets, or political agency to respond to and withstand those risks. Frontline communities often include low-income communities; immigrant and refugee communities including those with undocumented immigrants; Native Hawaiian, Compact of Free Association (more commonly referred to as "COFA"), and other Pacific Islander communities; communities of color; people with disabilities; people experiencing houselessness or housing insecurity; the LGBTQ community; as well as women, keiki, kupuna, and anyone at the intersection of these identities."

[50] U.S. Department of Labor, "Building Pathways to Infrastructure Careers: Framework for Preparing an Infrastructure Workforce," October 21, 2022, https://www.dol.gov/sites/dolgov/files/ETA/advisories/TEN/2022/TEN%2008-22/TEN%2008-22%20%28Accessible%20PDF%29.pdf.

equity standards are ideally negotiated with labor unions and community stakeholders into legally binding project labor agreements or community workforce agreements.[51]

FIGURE 2

States' Key Role in Ensuring Direct Pay Benefits Low-Income Communities

Maximizing the benefits of direct-pay-eligible projects in low-income communities and communities of color requires state action to enable siting projects in those communities and fostering ownership by community residents.

ISSUE	STATE ROLE
Capacity Many direct-pay-eligible entities don't know the program exists or lack capacity to access it.	States should improve community awareness of — and access to — tax credits through: • Grant funding and technical assistance for project planning and pre-development; • Community outreach and education on IRA clean energy tax credits and direct pay.
Capital Tax credits will be received well after projects' completion, so projects' owners will need sufficient upfront capital, or financing, to pay for their full cost.	States should increase access to upfront capital and financing. They should: • Establish new financing products — e.g., state matching funds, revolving loan funds, no-interest loans — targeted to local governments and community-based organizations. • Streamline operations of state-level green banks, establish them if they don't yet exist, and guide investment priorities of relevant financial organizations receiving state support.
Siting Maximizing the credits' benefits requires siting projects in low-income and under-resourced communities and fostering community ownership.	State grants or technical assistance for direct-pay-eligible projects should prioritize projects that: • benefit low-income communities; • replace high-polluting energy sources; • meet wage requirements, worker protection policies, and community benefit standards.
Oversight Tracking direct pay uptake, use, and outcomes is necessary to evaluate the credits' impacts on low-income and under-resourced communities.	States should evaluate the impact of IRA tax credits by: • tracking who is using them; • understanding their impact on ownership and location of clean energy projects and vehicle purchases; and • assessing the projects' impacts on the health, safety, and wealth of low-income and marginalized people.

Source: Jacobson and Jacoby, "States Should Spur Use of 'Direct Pay' Tax Credits to Advance Clean Energy in Low-Income Communities"

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[51] U.S. Department of Labor, "Project Labor Agreement Resource Guide," https://www.dol.gov/general/good-jobs/project-labor-agreement-resource-guide.

Track and Communicate Direct Pay Need, Uptake, and Impact

States and stakeholders can evaluate the impact of IRA tax credits by tracking who is using them, understanding their impact on ownership and location of clean energy and clean vehicles, and assessing how the projects are impacting the health, safety, energy costs and reliability, and wealth of low-income and marginalized people.

Additionally, states and stakeholders can help promote uptake of direct-pay-supported clean energy projects that benefit under-resourced communities by: quantifying and communicating the social cost of the energy and transportation status quo; assessing community readiness and targeting resources to help improve readiness; creating and explaining upfront financing options that can make projects viable; and working to site projects in low-income and marginalized communities.