

Set-Up for Success: Lessons Learned from Governments in Implementing Effective and Equitable Clean Energy Programs

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ABSTRACT

With federal efforts to respond to and mitigate climate change, address infrastructure challenges, and provide relief from the impacts of COVID-19, cities, states, and other governments face an opportunity to deploy federal funding to support their clean energy goals. For example, the American Rescue Plan Act (ARPA) provides significant funding to cities, states, and tribal governments to address the pandemic while also combatting climate change. By extension, ARPA provides opportunities to develop or expand energy efficiency and other clean-energy activities. The research in this paper was conducted to support governments that are looking to use prospective federal opportunities to develop new programs or expand clean energy efforts.

In previous research, we compiled a database of strong energy efficiency programs and guiding principles for program design using literature review and suggestions from practitioners and subject matter experts. These programs set clear goals, have a high energy- and emissions-saving potential, show replicability, and advance social equity. From these examples, we found that several guiding principles were important components of program success: conducting rigorous public engagement, defining program benefits, using a data-driven approach, setting goals and accountability, maintaining program flexibility, and aiming for comprehensiveness.

This paper builds on existing research by presenting case studies that demonstrate each principle. The experience of program staff members provides concrete, actionable guidance and examples that governments can use to inform their efforts. We use interviews to collect information about how cities and states successfully deployed energy initiatives. These examples provide a roadmap for governments in designing effective, equitable programs as they take advantage of new federal funding opportunities to meet their energy goals.

Introduction

As the COVID-19 pandemic swept across the globe in early 2020, it highlighted several parallel crises. In the United States, the pandemic exacerbated and exposed longstanding health, racial, and income inequities, as poorer people of color suffered disproportionate rates of infection and death compared to affluent white Americans (Watson et al. 2020; Ajilore and Thames 2020). At the same time, natural disasters like wildfires in the western United States, severe winter storms in the eastern part of the country, and tornados in the Midwest reminded Americans that climate change was another crisis that threatened lives (Smith 2022).

In response to these simultaneous emergencies, the federal government passed multiple financial relief packages to spur equitable economic recovery. The American Rescue Plan Act (ARPA) established the Coronavirus State and Local Fiscal Recovery Funds for state, local, and other governments to support their recovery from the COVID-19 emergency (U.S. Department of the Treasury 2021). The Infrastructure Investment and Jobs Act (colloquially known as the

Bipartisan Infrastructure Law, or BIL) directed billions of dollars toward improving public roads and public transit, electrifying vehicles, and building clean energy infrastructure (The White House 2021). These are just two examples of recent funding that state and local governments can access for economic recovery related to COVID-19, and Congress continues to consider other initiatives related to energy and climate.

Energy efficiency is an effective solution for addressing climate change and improving health and economic well-being by reducing energy burden, especially for under-resourced communities. For governments that do not currently operate energy efficiency programs, it may be daunting to design a program completely from scratch. Local and state governments often have limited capacity to quickly expand existing programs. Fortunately, multiple state and local governments from across the United States have already implemented successful programs that can serve as models for new programs.

A previous research project by the American Council for an Energy-Efficient Economy (ACEEE) assessed dozens of state and local energy efficiency programs, highlighting 17 examples for their successes in reducing energy use and advancing clean energy in a way that supports equitable outcomes (Dewey, Mah, and Howard 2021). We acknowledge that no program has perfectly achieved equitable energy outcomes for all residents, but we prioritized programs that offered lessons and valuable advice for approaching energy programs in a way that reaches communities that have been disinvested. While each example offered unique lessons for governments to follow, several key themes emerged from the data that were common across the featured programs. The key features of model programs serve as six guiding principles that governments can leverage to support their efforts to achieve energy savings and advance equity simultaneously, including undertaking rigorous public engagement, defining multiple benefits, using a data-driven approach, setting goals and maintaining accountability, enhancing program flexibility, and maximizing comprehensiveness.

This paper provides a more detailed and actionable exploration of the guiding principles. We selected six case studies as examples, and this expanded discussion outlines program successes, challenges, and lessons for other governments. While most of these examples relate to building energy use, others provide valuable insights into community-led decision making, accessible transportation, and sustainable finance. All case studies serve as a resource to guide the implementation of new programs given the growing opportunities for local and state governments.

Research Methods

The researchers held interviews with staff members in the spring of 2022. Table 1 lists the programs and organizations represented in this report.

Table 1. Featured programs and organizations

Program name	Organization	Most relevant design principle
Minneapolis Green Zones	City of Minneapolis	Undertake rigorous public engagement processes
Our Community CarShare	Sacramento Metropolitan Air Quality Management District	Define multiple benefits
Washington DC Building Energy Performance Standards (BEPS) and the BEPS Affordable Housing Retrofit Accelerator	DC Department of Energy and Environment	Use a data-driven approach
Portland Home Energy Scores	City of Portland	Set goals and maintain accountability
Connecticut Green Bank	Connecticut Green Bank	Enhance program flexibility
California Low-Income Weatherization Program (LIWP)	Association for Energy Affordability	Integrate resources and programs

The loosely structured interviews tied back to the programs and guiding principles presented in ACEEE's previous research report. Interviewees discussed general program updates from mid-2021 to early 2022, lessons learned related to ACEEE's identified guiding principles in the Ready to Go toolkit (Dewey, Mah, and Howard 2021), potential uses for new federal funding, and advice for other governments based on the experience of program staff.

Findings: Key Considerations for Programs and Example Case Studies

ACEEE research is summarized in this section, based on the guiding principles and case studies mentioned previously. While conducting initial research on model programs, the researchers identified the following guiding principles that supported success across several programs, listed in Figure 1 (Dewey, Mah, and Howard 2021):

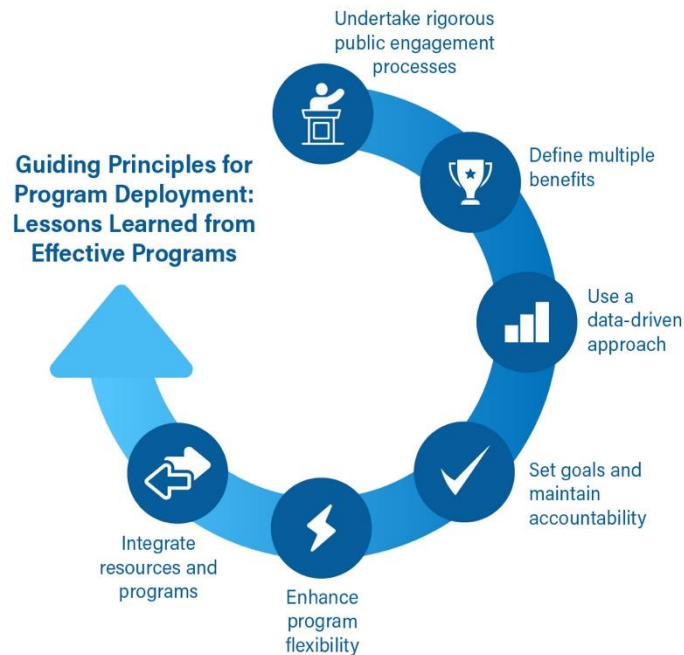


Figure 1. Guiding principles for program development (Dewey, Mah, and Howard 2021)

The following section gives a brief description of each principle and a case study that illustrates the principle in practice.

Principle: Undertake Rigorous Public Engagement Processes

It is essential for governments to engage with community members at all stages of the decision making process, especially during the initial stages of program development. Meaningful engagement can increase participation, inform effective program design, and ensure that programs are designed to meet the needs of all, but especially under-resourced community members (Gonzalez 2020; Drehobl 2021). Government communication with community members can occur along a spectrum. At one end, governments ignore community feedback in the decision making process, implying that their voices do not matter. At the other end, governments defer to community members and collaborate with them as equal partners. Incorporating community feedback into a process or policy falls near the middle of the spectrum. Figure 2 shows this spectrum of engagement as defined by Facilitating Power (Gonzalez 2020).



Figure 2, Spectrum of community engagement from marginalization to community ownership (Gonzalez 2020).

To bridge the gaps between community and governance, governments need to make their engagement opportunities accessible to all community members. Offering multiple communication platforms, from online forums to in-person gatherings, can maximize participation rates. To encourage participation among under-resourced communities, governments can provide financial compensation, food, and transportation services for community members who lead outreach activities. Interpretation services and translated communication materials can reach individuals who speak languages other than English, and on-site childcare services can support parents of young children to participate. By meeting the needs of community members, governments can build trust and ensure that community members have an equal part in the decision making and program design process.

Case study: Minneapolis Green Zones. Minneapolis’s Green Zones program provides an example of moving decision making power from traditional government structures to the hands of community members. The city designated two geographic areas in the city that had been subject to disproportionate environmental injustice (City of Minneapolis n.d.). The city convened a group of residents from each of these two zones, Southside Green Zone and Northside Green Zone, to develop recommendations and priority actions around environmental justice and sustainability in each community. By incorporating community members who decided priorities and devised action plans, as opposed to authorizing city staff to develop plans and request feedback, Minneapolis demonstrated a method of meaningfully engaging community members in city clean energy and climate efforts.

When undertaking engagement in the Green Zones program, Minneapolis pursued practices that acknowledged the community members’ time and expertise. For example, providing stipends to participants compensates them for their time participating and acknowledges the costs that come with participation in the group (e.g., transportation, childcare). Similarly, the city made efforts to provide food for participants in meetings. Although Minneapolis has since enacted more restrictive rules around using government funds for these types of expenses, city staff still strive to fund compensation from external sources like private grants.¹ The city also pursued internal efforts to prepare staff members for effective and equitable engagement. For example, staff members received training on trauma-informed engagement that supported them

¹ According to a representative from the City of Minneapolis, previous grant funders include the state of Minnesota, Partners for Places, and the McKnight Foundation.

in developing trust and pursuing relationships accounting for historical mistrust between the community and city.

Other governments can benefit from some lessons that the City of Minneapolis learned in its approach to community engagement and shifting power to the hands of its community members. One challenge the city experienced throughout the initiative was navigating different expectations about speed and timelines among city decision makers, funders, and community members. It takes time to build and repair trust, and government efforts will not be successful if they push forward to meet arbitrary timelines without allotting sufficient time for community members to engage and navigate complex issues. City staff learned that “moving at the speed of community” is important and worked to communicate that to city leaders and program funders.

The program was also limited by funding in multiple ways (City of Minneapolis n.d.; The Funders Network n.d.). Staff discussed the importance and value of dedicated staff time in providing city support and bolstering the initiative, indicating that staff support for each Green Zone would be valuable. Perhaps more importantly, dedicated funding to complete the actual recommendations of the Zones would support implementation of the important work priorities identified by residents, especially if the funding had a long-term commitment that allowed for maximum program continuity.

Principle: Define Multiple Benefits

Saving energy and money are traditionally considered benefits of energy efficiency, but they are not the only benefits communities can receive from energy efficiency programs. Reducing energy consumption can improve the health of residents by reducing air pollution, and it can combat climate change by reducing greenhouse gas emissions (EPA 2021). Governments can survey community members and other stakeholders to understand how energy efficiency can meet a variety of needs. This feedback can inform the development of comprehensive programs that accomplish multiple environmental, economic, and social goals at once.

If designed well, energy efficiency programs can improve economic and physical well-being for households that suffer from high energy burden². These households often consist of individuals with low income who reside in older, inefficient buildings that frequently contain numerous health hazards like mold and materials that cause asthma and allergies (Drehobl, Ross, and Ayala 2020; U.S. Department of Housing and Urban Development, n.d.). For example, residential retrofits that remove hazardous structures and provide better insulation can result in lower energy bills and improved respiratory health for such households (ACEEE n.d.). If governments consider these types of energy efficiency benefits, they can serve communities most in need of investment.

Case study: Our Community CarShare Sacramento. Sacramento Metropolitan Air Quality Management District (AQMD) launched “Our Community CarShare (OCCS) in 2017 (Sacramento Metropolitan Air Quality Management District n.d.). As the agency works to improve air quality, the OCCS program provides access to clean vehicles to under-resourced communities. Sacramento AQMD partnered with Zipcar and Breathe California to launch the program, which provides zero-emission vehicles (ZEV) to designated communities. To be eligible for the program, one must reside in a designated OCCS community. Residents in an

² A household can be described as energy burdened if it spends more than 6% of its income on energy bills (Drehobl, Ross, and Ayala 2020).

OCCS community can reserve a vehicle for up to three hours per day (Sacramento Metropolitan Air Quality Management District n.d.). Participation was initially free but has recently transitioned to a new program phase that uses a cost-share model. Participants pay \$4 per hour for use of the vehicle, and the program also piloted monthly subsidies of \$125 for public transportation or ride-hailing services for residents of the OCCS communities (California Climate Investments 2019).

While the program includes a significant focus on air quality by removing tailpipe-polluting vehicles from the streets, it was also designed with an acknowledgement of the importance of mobility and economic opportunity. Because most residents of disenfranchised communities would not be able to purchase an efficient ZEV, the OCCS program makes the technology accessible for these communities. In addition to reduced emissions, the program considers benefits like air quality, economic and community development, and well-being as it provides access to clean vehicles where people may have limited transportation opportunities.

OCCS's experience offers valuable lessons for other governments as they deploy programs while considering the multiple benefits that can come from clean energy programs. First, the program administrators learned the importance of robust community outreach and trust building to reach participants and structure the program so that actual community members could benefit (California Climate Investments 2019). For example, throughout various program phases staff members have navigated decisions around technology and the program's online portal, length of reservation, and community cost. Local partners were essential for facilitating meaningful community connections and making decisions that would meet community members' needs. Additionally, some of the broader benefits acknowledged by the program can be more difficult to quantify than traditional energy measures like emissions reductions or cost metrics. Staff found through surveys and community outreach that community members were using the cars to access grocery stores and health care, thereby improving their well-being and meeting their needs. However, these types of benefits are not easy to quantify, so staff rely on local experts and lived experience of participants to consider and communicate these benefits. Other governments can build on this approach by collecting feedback and data on multiple outcomes beyond narrow energy measures and can partner with community-based organizations to identify benefits and challenges for community members.

Principle: Use a Data-Driven Approach

Accurate data collection is essential for understanding program needs, participants, and impacts. At the same time, some governments may have limited capacity for data collection. Tools like [the State and Local Planning for Energy \(SLOPE\) Platform](#) created by the U.S. Department of Energy can support governments with planning and data issues (National Renewable Energy Laboratory n.d.). To fill data gaps, governments can consult other agencies that may collect data or partner with community-based organizations to collect information that will allow them to measure program progress and success. Qualitative data collection methods like focus groups or stakeholder surveys can also help governments develop programs that are grounded in evidence.

Data collection not only helps governments design effective programs but can also help establish trust with stakeholders. Publicly available data help stakeholders understand the goals and motivations of a program and allow them to hold governments accountable to meeting

program targets. During program administration, data can serve as an indicator of program effectiveness.

Case study: DC Building Energy Performance Standards (BEPS) and Affordable Housing Retrofit Accelerator. In 2018, Washington, DC, established energy performance standards for buildings, or Building Energy Performance Standards (BEPS), as an action in the District's climate action plan (*Clean Energy DC Omnibus Amendment Act of 2018*; District of Columbia Department of Energy & Environment 2018). The performance requirements are being phased in over time, with larger buildings having earlier compliance deadlines. Because the legislation makes building owners responsible for meeting requirements, the District also provides support for compliance that helps program success, including delayed timelines (*D.C. Law Library - Establishment of a Building Energy Performance Standard Program* 2019). This support also promotes equitable outcomes by helping owners of affordable housing to participate. For example, the District has recently deployed an [Affordable Housing Retrofit Accelerator](#) in partnership with the DC Green Bank and DC Sustainable Energy Utility using funding from the American Rescue Plan Act (D.C. Sustainable Energy Utility 2021). The Accelerator provides financial and technical support to affordable housing owners in complying with the BEPS.

DC Department of Energy and Environment uses data to drive its approach in several ways. Over years of collecting and publishing data on building benchmarking, the department has developed data partnerships and regularly uses data to target its work. For example, staff have published a cost-benefit analysis that measures total cost of compliance for buildings to meet a 20% energy reduction (Government of the District of Columbia 2022). The results of this study were used to identify eligible buildings for the Affordable Housing Retrofit Accelerator.

The District's work provides lessons on successfully using a data-driven approach. First, interviews with staff members conducted during this research demonstrated that the District endeavors to be transparent in its efforts to use data to inform its programming. This includes regularly seeking public feedback from the community. For example, the District's staff have presented analyses related to energy benchmarking at public meetings and adjusted their approach in response to suggestions from attendees. Consistently reporting on their approach and use of data, and doing so in a public format, helps to create complete and accessible records.

The District has also developed strong organizational partnerships that strengthen its approach and improve capacity. For example, the District has data sharing partnerships with the DC Sustainable Energy Utility and the DC Green Bank. Other partnerships, such as a membership in Northeast Energy Efficiency Partnerships, has allowed it to build out tools and resources at a reduced cost.

Principle: Set Goals and Maintain Accountability

Defining clear, achievable goals is an important step in a program design process. Goals can be quantitative (e.g., kilowatt hours of energy saved) or qualitative (e.g., improved health and comfort), but they should be measurable. For accountability, governments can create metrics and performance indicators to measure their progress toward the program's overall goals (Hays et al. 2021).

If governments do not embed equity goals into program design, then equitable program results are unlikely to happen, and governments aren't able to hold themselves accountable to equitable intentions. To serve under-resourced communities, governments can consult affected

community members to determine their unmet needs. From here, they can determine overarching goals and metrics to measure progress. Clear goals that are regularly tracked can allow governments to assess how effectively they are reducing energy use and how the benefits of programs are reaching various groups of residents.

Case study: Portland Home Energy Scores. In 2016, the City of Portland, Oregon, adopted a policy that requires home energy scores to be obtained through an audit process and disclosed at the time of selling a home (City of Portland Bureau of Planning and Sustainability n.d. "Home Energy Score Program"). The intention of the program is to allow people purchasing a home to evaluate the efficiency of their potential purchase and to give new owners information on potential efficiency improvements available to them. While the ordinance does not specify a specific reduction target, it aligns with the city's broader goals of reducing carbon emissions from residential buildings (City of Portland Bureau of Planning and Sustainability n.d. "Home Energy Score Program"). The city has also developed a supportive infrastructure to assist residents in complying with the ordinance by obtaining and disclosing their home's score and worked to make data more available to local community organizations. For example, low-income residents can obtain their home energy scores at no cost (City of Portland Bureau of Planning and Sustainability n.d., "Income Qualified Home Energy Score"). The city also works with Earth Advantage to refer residents to qualified professionals who can provide scores and other energy efficiency resources and links (Earth Advantage 2022, City of Portland Home Energy Score n.d.).

Other governments can learn from Portland's process for accountability in its programs. While accountability is a constant, evolving process that can always be improved, rather than something a government ever accomplishes fully, Portland has established some mechanisms for evaluating its program progress and adjusting its approach and operations accordingly. The ordinance required a report to the city council on program outcomes after 30 months (City of Portland Bureau of Planning and Sustainability 2020). This report included areas of strength and challenges experienced by the program. While the program had positive outcomes and performed well in its first years, providing 20,000 home energy scores in the first 30 months, the staff also recommended regular evaluations to continually evaluate progress (City of Portland Bureau of Planning and Sustainability 2020). Specifically, staff called out the importance of regularly evaluating impacts on vulnerable communities in Portland to ensure that those communities are not left behind or facing unintended negative consequences of the programs (City of Portland Bureau of Planning and Sustainability 2020). The program also includes quality assurance structures to ensure that assessors are scoring homes fairly. If a resident feels that their score is inaccurate, they can contact the assessor or request dispute resolution from the city's Home Energy Score Help Desk (City of Portland Bureau of Planning and Sustainability n.d.).

Portland's experience offers lessons and opportunities related to maintaining accountability to goals. While the city hasn't yet published data on the program's GHG reduction impacts, it has used evaluation data to improve participants' experience. Portland uses and collects data to evaluate program performance over time and to adjust program specifics to reach goals and respond to feedback. For example, in response to nonprofit organizations and other partners, Portland adjusted program data access to make it more user friendly and available. The city also faced challenges in accessing data necessary to evaluate performance of the program with an equity lens and measuring the degree to which communities of color are accessing program services and weatherization as either buyers or sellers of properties. A central lesson

from Portland's approach is the importance of making changes as necessary to allow for measurement of progress toward goals.

Principle: Enhance Program Flexibility

Energy efficiency programs that offer flexibility in selecting solutions can be more effective than programs that prescribe a limited number of solutions. While some situations (e.g., meeting a specific regulatory requirement) may demand a specific energy efficiency measure, others present an opportunity for technology-agnostic solutions where equipment and service types are selected to best improve a building's energy efficiency. Program flexibility can also support a program's capability to adjust to changing conditions and public feedback.

Another aspect of program flexibility is applicability for different contexts. For example, owners of a commercial building may have different energy efficiency needs and preferences than residents of a multifamily building. A program that can tailor its offerings to different customer types may be able to achieve higher energy savings and serve more people.

Case study: Connecticut Green Bank. Connecticut Green Bank, created through legislation in 2011, uses public funds to spur private investment in green energy projects (Connecticut Green Bank n.d.; 2020a). The bank works in multiple building sectors, including residential, commercial, and industrial buildings, and provides a range of financing programs (U.S. Department of Energy n.d.). In its reporting and evaluations, the program considers metrics like job creation and energy burden, which can support equitable outcomes by including equity-related metrics in evaluating success (Connecticut Green Bank n.d.; 2020b). Connecticut Green Bank reports cutting carbon pollution by 8.9 million tons of carbon dioxide and reducing energy burdens for 55,000 families over its lifetime (Connecticut Green Bank 2020a).

Because of its broad structure, Connecticut Green Bank can support a range of projects and the most beneficial solutions for each building and situation, as opposed to a one-size-fits-all approach. Staff members indicate that the board of directors of the organization specifically aims to reach market segments that have been historically under-resourced, like households with low incomes. As such, the program regularly designs and reevaluates its programs with those goals in mind. Additionally, the organizational culture supports trying new things and making changes when needed.

The staff members interviewed provided lessons for other governments in the ways that programs and clean energy efforts can meet their goals through flexible approaches. Connecticut Green Bank staff emphasized the importance of building robust stakeholder relationships in supporting program success. These relationships allow for a supportive environment, valuable input in program direction, and a broad base of expertise. Program staff also highlighted the importance of enabling policies. Legislation that enables and supports technologies or approaches of a program are vital to a program's effectiveness, so program staff recommend consistently considering policy context and implications when designing a program.

Principle: Integrate Resources and Programs

Coordination among multiple government programs or efforts can streamline efforts to deliver greater energy efficiency benefits while avoiding unnecessary duplication. In addition, such coordination can present opportunities to link energy efficiency with initiatives that relieve

financial burdens for low- and middle-income households, such as through collaboration among housing, energy, and sustainability programs. Governments can accomplish this by working across several agencies or partnering with utilities.

Once governments assess their current offerings, they can be strategic about creating new programs. A single integrated program or interface for accessing multiple services is often more accessible to the public than separate programs spread across different agencies. To encourage greater program participation, governments can create a single, comprehensive application that covers all energy efficiency services. Governments that take these actions can recruit more program participants and distribute energy efficiency benefits to a wider audience, while being more efficient in their operations.

Case study: California's Low-Income Weatherization Program (LIWP). Low-income households in California receive energy efficiency retrofits and installation of solar systems through the state's Low-Income Weatherization Program (LIWP). Funding for the program comes from the state's cap-and-trade program through California Climate Investments (Hill, Dirr, and Harrison 2020). Projects are located in under-resourced communities and focus on farmworker housing, community solar, and multifamily housing with low-income residents (Hill, Dirr, and Harrison 2020; California Department of Community Services & Development n.d.). The program reached more than 8,400 households between 2016 and 2020 and reduced emissions by 167,460 metric tons of CO₂e while reducing energy bills for participants (California Department of Community Services & Development 2020; 2021).

A strength of this program is in bundling multiple technologies, programs, and services. In particular, combining energy efficiency retrofits with installation of solar maximizes the potential for energy savings. This comprehensiveness is related to the program's mission as a greenhouse gas reduction program, making eligible any initiative that reduces energy consumption and advances decarbonization. Staff indicate that making this approach successful requires moving away from using only a savings-to-investment ratio as a measure of cost effectiveness to account for broader measures beyond traditional energy efficiency.

The LIWP program offers several lessons for other governments in taking a comprehensive approach that streamlines greenhouse gas reduction efforts and supports success. Program staff found that making as many measures as possible eligible under a single program was helpful for reducing energy use and achieving decarbonization in each property. Staff members also emphasized the importance of planning for the complexity of retrofit and renewable energy projects. This requires providing sufficient timescales to allow for long project timelines, such as those required to retrofit and upgrade a multifamily building, and sufficient staff capacity to have people managing construction projects over extended periods of time.

Conclusion

Strong example programs provide valuable lessons for governments attempting to expand and deploy clean energy programs. This is especially important with recent and forthcoming federal funding opportunities. In evaluating the model programs identified by partners and in ACEEE research for the Ready to Go toolkit, several key guiding principles emerged. In this additional research, we leverage the insights of program implementors through interviews to provide advice and lessons learned on using these guiding principles, thereby identifying actionable suggestions for other governments.

The guiding principles and program insights are summarized as follows:

- Undertake rigorous public engagement processes
 - Governments need to undertake meaningful engagement throughout a program process to center the needs of all community members, especially those who have been disinvested, and to achieve their goals. The City of Minneapolis provides an example of shifting power to the hands of community members in its engagement approach. Its experience demonstrates the value of meaningful trust-building processes and deploying sufficient staff capacity and funding to support engagement and implement recommendations.
- Define multiple benefits
 - Programs can advance equity and strengthen outcomes by considering additional benefits beyond basic measures of energy savings. Sacramento's Our Community CarShare's work brings benefits like mobility and community well-being to its efforts to improve air quality and reduce emissions from vehicles. Its experience demonstrates the value of community partnerships in designing programs and the importance of considering qualitative data sources and lived experiences in communicating and valuing program outcomes.
- Use a data-driven approach
 - The District of Columbia uses data in its work to set energy performance standards for buildings and support compliance, including for owners of affordable housing buildings. The District endeavors to use a transparent approach to data. It also leverages partnerships and memberships to more efficiently deploy tools and gain access to resources at reduced cost.
- Set goals and maintain accountability
 - Setting clear goals and instituting structures for program accountability allows governments to measure progress, make necessary adjustments to their approach, and be transparent about their work. In response to feedback from partners and the community, Portland made changes to its use of data and approach to measuring its performance to support its accountability.
- Enhance program flexibility
 - Programs can be more effective if they have the flexibility to implement the best solution to reducing energy use in an individual property or case. The Connecticut Green Bank uses a flexible approach that can support a range of different measures, as opposed to being overly prescriptive in approach. The organization's experience emphasizes the importance of robust stakeholder relationships and relevant enabling policies to support success.
- Integrate resources and programs
 - Comprehensive integration of multiple programs under one umbrella provides reduced barriers for participation and can support more efficient program approaches. It can also improve program outcomes, like California LIWP's combination of retrofits and solar PV that reduces energy demand at the same time as deploying renewables. Staff experience emphasizes the importance of broad eligibility of program measures and planning proper resources and timescales to account for complex construction projects.

ACEEE plans to continue to provide insights and support to enable governments to pursue their clean energy goals in the wake of new funding opportunities. As these resources are published, they can be accessed through ACEEE's [resource page](#).

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