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Strategies for Optimizing WIP Investment in State Energy Offices

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Introduction

This report outlines strategies for Weatherization and Intergovernmental Programs Office (WIP) investment aimed at improving state energy office programs. The project was funded by WIP within the U.S. Department of Energy (DOE) office of Energy Efficiency and Renewable Energy (EERE). WIP aims “to enable strategic investments in energy efficiency and renewable energy technologies through the use of innovative practices across the United States in partnership with a wide range of stakeholders, including state and local organizations and community-based nonprofits.” Across its programs, WIP has created thousands of jobs, maintains an investment ratio of 4.1 to 1, and increases U.S. economic output by 1.2 billion a year.¹ This project was funded in the FY21 budget cycle and originally focused on improving WIP energy efficiency funding and programs. The project gathered information from various state energy offices to understand how WIP funding and processes can be optimized to improve state-level energy efficiency programs. We propose that the conclusions are also broadly applicable to weatherization and renewable energy deployment programs.

The report is based primarily on interviews conducted with 15 state energy office representatives. The states interviewed were California, Connecticut, the District of Columbia, Idaho, Louisiana, Maryland, North Carolina, New Mexico, Nevada, Ohio, Pennsylvania, Texas, Utah, Washington, and Wisconsin. These states were selected by the WIP as part of the original

funding agreement. We also conducted a brief literature search to identify other sources of information.

Below we present several recommendations for improving state energy efficiency initiatives based on challenges and successes identified in our interviews. We have divided the actions into those that may be “easy” and can be rolled out immediately or in the short term, and those that are “hard” and may require more substantial change and occur over a longer period of time. We also present specific sections on equity and resilience considerations for state energy efficiency programs.

Short-Term Actions

Create a set of reporting best practices.

Reporting was identified as an important component of several successful programs. Reporting can help assure projects are successful after energy efficiency interventions are installed, track job creation and other important metrics, and provide feedback for program improvements. Across state energy offices, reporting and data collection scope varied widely. Several programs interviewed did little to no data gathering or reporting. Creating a set of reporting best practices for different types of programs based off feedback from states could provide value to a range of state energy office programs, such as understanding how different customer types, populations of interest, or demographic groups utilize the program or determining which mechanisms have the best return on investment.

¹ EERE. 2021. “Weatherization and Intergovernmental Programs Office.” DOE/EE-2129. Washington, D.C.: DOE. <https://www.energy.gov/eere/wipo/downloads/weatherization-and-intergovernmental-programs-office-fact-sheet>.



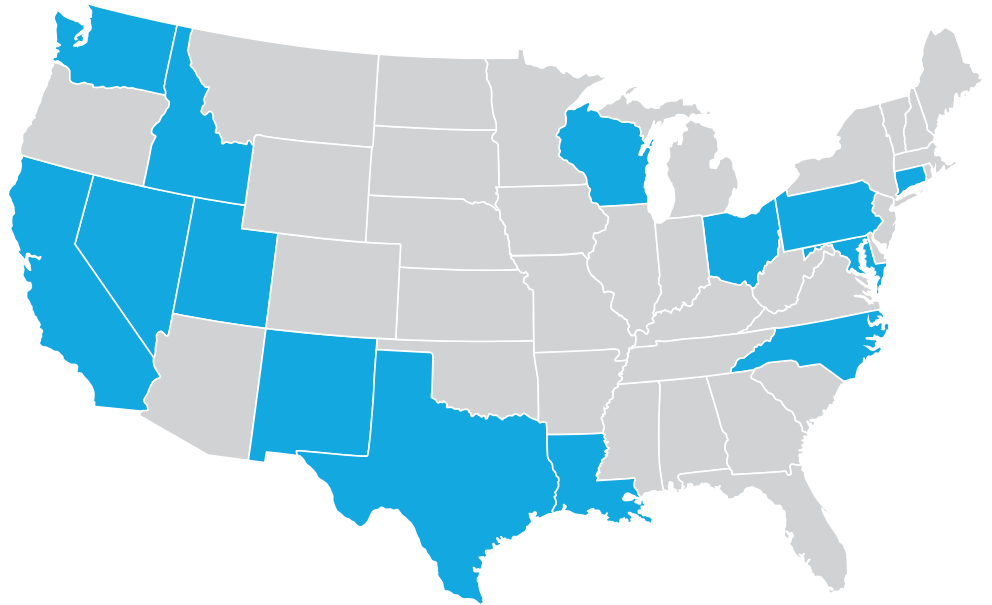
Out of 15 states surveyed:

60% only serve public institutions

53% of programs started with federal dollars

33% mentioned administrative barriers

27% of programs are open to residential consumers



Recommend a general framework for enabling legislation.

Many states described challenges caused by their enabling legislation. In some cases, the legislation was perceived as restrictive or alternatively not prescriptive enough, causing the program to be less successful. Interviewees identified enabling legislation and in general, support from state leadership as an essential piece of program success. One interviewee identified having drafted legislation to push up to state leadership as a useful strategy to ‘lead from below’. WIP-led publications on best practices in enabling legislation could support states in overcoming this barrier.

“I want to emphasize ‘leading from below.’ Don’t wait. Don’t wait for the governor to issue an executive order because they’ve got other things they are probably thinking about, but there’s nothing to keep an agency from drafting a piece of legislation and having it sponsored and sent up to the governor.”

—David St. Jean, Director
Office of Energy and Sustainability at Maryland
Department of General Services

Provide funding to fully subscribed programs.

Several loan program administrators to whom we spoke indicated that their pool of money was fully subscribed and had more organizations interested in applying for loans than money available. One of the most direct and efficient ways to allocate funds and positively impact WIP’s objectives may be to provide additional funding or help states identify additional funding streams to these fully subscribed programs. For example, the Louisiana loan program is fully subscribed and perceived as highly successful. Expanding successful loan programs or making other investments in those programs would quickly leverage dollars and guarantee impact.

Encourage administrative changes.

A diverse set of states expressed that certain administrative changes in the federal program oversight and funding process would benefit state-level programming. Although many federal requirements are outside the control of WIP, strategies to lower reporting and paperwork burden are valuable to state energy offices and programs, including any methods to lower the burden of the Davis Bacon Act. Specific administrative changes could include decreases in federal reporting requirements, broader uses for funds, and the structure of funding instruments.

Hire additional staff.

Several state energy offices indicated they had a small and overwhelmed staff. Office size varied widely across the energy offices interviewed, and many programs did not have dedicated staff. Those with larger staffs were able to expand their programs and decrease risk by doing site follow-ups. Hiring community engagement representatives could also allow programs expand their reach, gain important feedback to improve specifics of their program, and address equity. Providing funding or support to identify additional financial support to hire additional staff could help programs grow, diversify, and decrease risk.

Incentivize specific goals.

Current support to state energy offices is fairly open-ended and lets the states almost fully define their goals. In many cases, states define these goals around least-risk or greatest-return. However, this can leave out specific market segments. State programs may be better able to expand into underserved market segments through support and incentive programs targeting those specific areas of interest. For example, a portion of the funding could be earmarked for low-income areas if the program focuses on the residential or commercial sectors. For programs that give grants to government entities only, funding could be dedicated to schools or other government offices that serve low-income communities or could stipulate that a portion of the work be contracted to local residents or companies.

Long-Term Actions

Provide funding models for infrastructure that does not have a built-in savings model.

Many states' programs focused on energy-saving measures with fairly short payback periods and built-in savings models, such as lighting and HVAC upgrades. While these are helpful in saving money and emissions, they may not address some community needs. Funding could be provided for technologies that do not have as clear a built-in savings model, or require long payback times, such as electric vehicle supply equipment, battery storage, microgrids, and other technologies that would improve community resilience and quality of life.

Create new programs focused on carbon emissions reduction.

As more and more states set emissions reduction targets, energy efficiency programs are taking advantage of the opportunity to be part of those plans. Several states indicated their mission did not originally include carbon emissions reductions, but, following the implementation of an executive or legislative carbon emissions target, it became part of their mission, either by executive direction or their own impetus. The federal government could incentivize longer-payout energy efficiency interventions with higher emissions reductions and incentive tracking avoided emissions with funding.

Increase the types of sectors served by energy efficiency programs.

Many state energy offices had loan programs designed for only public entities, such as state executive departments and universities. Others also included local governments and schools. Of states interviewed, 9 of the 15 only served public institutions and only 4 had programs serving residential customers. Expanding eligibility to serve more residential and commercial sectors could have more immediate community impacts and could reduce greenhouse gas emissions on a wider scale.

Upfront funding for new programs

A clear pattern emerged in the interviews with state energy office officials when asked about the genesis of their programs. Many states established programs through the petroleum violation escrow funds, ARRA, or DOE grants and still utilize those same funds through loan programs today. If large-scale grants or similar funding mechanisms were feasible, it could provide offices the upfront capital to start new programs to reach different constituencies and goals.

Equity Considerations

We were able to identify several equity considerations in this research, though equity was not a part of the original scope of the project or interview questions.

It may be helpful for each state energy office to, either internally or through hiring a consultant, examine who benefits from their programs. While programs that improve energy efficiency in government buildings or university campuses may save taxpayers money, the surrounding community may not always see those benefits. Potential ways to pass on the benefits include:

- Requiring some of the energy efficiency upgrades be conducted by local companies
- Requiring some work be conducted by women- and minority-owned contractors
- Creating programs targeted to address the needs of low-income communities.

“Thirty percent of our funding had to be spent in the low income community. That’s a big number. Thirty-five percent of our funding had to be spent with D.C.-based contractors. This was supposed to open up contracting opportunities for businesses that were headquartered here in the city... I don’t think many other programs around the country have something like this... third we had to create the equivalent of 88 full-time jobs for D.C. residents every year.”

-Ted Trabue, Director
District of Columbia Sustainable Energy Utility



Photo by Dennis Schroeder, NREL 21480

Moving forward, it may be useful to return to the states interviewed and ask additional questions that specifically relate to equity.

Resilience Considerations

The energy efficiency upgrades most frequently mentioned in our interviews would do little to improve resilience, such as lighting upgrades or HVAC efficiency improvements. WIP may be able to incentivize states to invest in resilience-focused interventions instead of those with the easiest short-term payback.

Resilience strategies could include:

- Funding resilience assessments across jurisdictions
- Specific disaster recovery funds allocated to state energy offices for resilience/efficiency upgrades.

Wisconsin's Focus on Energy program provides an example of how energy offices can integrate resilience concepts into their work. Wisconsin offered two programs focused on disaster recovery and future resilience. First, the Flood Relief Offering was a campaign that doubled the incentive for an already-established small business energy efficiency program in areas affected by flooding. The second program, the Farm Disaster Bonus, works similarly. The program provides an extra financial bonus to farmers after a disaster to rebuild with energy-efficient upgrades.

Similar to the equity considerations, going back out to states with specific questions about resilience may provide valuable information to inform investment.

Conclusions

WIP investment in state energy offices has the potential to catalyze investment in energy efficiency measures, weatherization upgrades, and renewable energy deployment. This report has outlined short-term and long-term actions that could improve the efficacy of WIP investments and the success of state energy offices.

The interviews also highlighted areas where more information and data would be valuable. First, the genesis of this project originally focused solely on energy efficiency. The conclusions that were highlighted can be broadly applied across program types, but specific interviews with weatherization and technology deployment program representatives would add nuance to the specific applications to those programs. Expanding the geographic scope of the inquiry and interviewing a broader selection of energy office officials would also be valuable.

There are clear short-term and long-term actions that can be drawn from this project to mitigate barriers to decarbonization at the state level and promote equity. These actions will mobilize WIP resources and advance WIP's goals.