

Bringing Energy Efficiency to Residents of Albuquerque

Prosperity Works launched the Community Energy Efficiency (CEE) project in Albuquerque, New Mexico, in 2020. Prosperity Works is a nonprofit organization that provides limited-income New Mexicans with social and financial assets to ensure sustainable and equitable solutions for thriving communities. Many of these low-income communities experience high energy burden, which the U.S. Department of Energy defines as "the percentage of gross household income spent on energy costs."1 Prosperity Works created CEE because it recognized that energy burden must be addressed to close Albuquerque's wealth gap. CEE (formerly known as the Sustainable Household Energy Management Initiative) provides free energy efficiency retrofits to low-income Albuquerque households. Eligible households receive energy efficiency services, duct and air sealing, attic insulation, water heater pipe insulation, water tank insulation, faucet aerators, advanced power strips, smart thermostats, and energy efficient refrigerators, LED lighting, and high efficiency toilets.

The New Mexico Collaborative Zone Grant kickstarted CEE, and the Albuquerque City Council has since provided \$100,000 per year to maintain the project. CEE has also partnered with the Albuquerque Bernalillo County Water Utility Authority and investor-owned utilities, including the Gas Company of New Mexico and the Public Service Company of New Mexico (PNM).

Fast Facts

Program scope: Free energy efficiency retrofits to low-income Albuquerque households.

Communities served: Low-income Albuquerque households (200% of federal poverty level).

Funding: City of Albuquerque, Public Service Company of New Mexico (PNM).

Key partners: City of Albuquerque, PNM, Gas Company of New Mexico, El Paso Electric, Albuquerque Bernalillo County Water Utility Authority.

Promising practices:

Compensating community leaders, surveying prospective participants, braiding funding, building community trust.

The Collaborative Zone Grant funded CEE's pilot project, which provided energy efficiency services to 350 Albuquerque households. The eligibility requirement for CEE is that household incomes are at or below 200% of the federal poverty level. The project does not require income verification but relies on self-reporting by households.

¹ U.S. Department of Energy, 2023. https://www.energy.gov/scep/slsc/low-income-community-energy-solutions



CEE's first 350 participants were identified by community leaders who are trained and compensated to identify applicants, as well as qualify and schedule the energy assessments and retrofits. These community leaders—many of whom are bilingual—help promote the program and are present when energy audits and energy efficiency services are conducted. Having community leaders present when audits and services are being conducted can make homeowners feel more comfortable and ease communication with service providers. Prosperity Works also conducts an energy audit on each CEE household to determine what energy efficiency services they need. Specialists employed by Prosperity Works are then deployed to implement the energy efficiency upgrades on each home.

Community History

Located in a desert, Albuquerque receives an average 9 inches of rainfall each year and has very low humidity.² Given its arid environment, water conservation has also become a priority for the city. When CEE program administrators learned that many residents used at least 5 gallons of water to flush their toilets, they saw an opportunity for the program to expand its efficiency services. Now, CEE works with the City County Water Authority to install low-flush toilets in participating households. Each of these low-flush toilets saves a minimum of 6,500 gallons of water each year, which ultimately lowers energy use, as less energy is required to treat and pump smaller amounts of water.

CEE operates within Albuquerque's metropolitan area; the city's low-income residents are known to have a disproportionately high energy burden. Nearly all of CEE's pilot households had experienced having to choose between paying their utility bills and paying for medicine, medical care, or food. Considering this, the city has made energy and environmental justice a priority in recent years—establishing a <u>Justice40 oversight committee</u>. Justice40 is a federal initiative that ensures at least 40 percent of specific federal investments flow to disadvantaged communities.³ Many federal programs require applicants, including states and local governments, to explain in their application how a project will meet Justice40 requirements. Similarly, Prosperity Works has ramped up its energy justice work, with CEE creating a path to reduced emissions, more affordable utility bills, and the improved health, safety and comfort of limited income households.

² Visit Albuquerque, 2023. https://www.visitalbuquerque.org/about-abq/weather/

³ The White House, 2022. https://www.whitehouse.gov/environmentaljustice/justice40/



Community Engagement

CEE program administrators believe gaining community trust is essential for program success. Prosperity Works has operated in Albuquerque for 25 years, and, over time, has developed a strong reputation and diverse community partnerships. Beyond leveraging Prosperity Works' existing partnerships, CEE also trains and compensates community leaders who perform outreach within their own communities and who participate in program implementation. Utilizing community leaders has been effective in building trust within Albuquerque's low-income communities and helps the program reach non-native English speakers.

CEE has also used surveys to help the program understand community needs. These surveys gather household income and energy use data, as well as ask what the greatest needs of each household are. For example, CEE is now working with the local electric company to deploy subsidized electric bikes in low-income communities, based on survey results that showed considerable interest in electric bikes as a solution to Albuquerque's transportation challenges. Besides these surveys, community leaders and CEE implementers go to homes to provide services and support to participating households. While doing so, they engage directly with participants, which provides a constant source of program feedback.

Key Partners

CEE has a diverse team of partners that help deliver energy services to residents of Albuquerque's metropolitan area. The partners below play key roles in program funding and implementation.

- PNM PNM is New Mexico's largest energy provider, powering more than 525,000 residents and businesses across the state.
- <u>U.S. Energy Foundation (EF)</u> A partnership of philanthropies working to secure a clean and equitable energy future, in order to address the climate crisis.
- <u>City of Albuquerque</u> City of Albuquerque, New Mexico, local government.
- New Mexico Gas Company New Mexico Gas Company operates in 27 of the 33 counties in New Mexico and serves 540,000 customers.
- <u>El Paso Electric (EPE)</u>* EPE provides generation, transmission, and distribution services to 460,000 customers acros the Rio Grande Valley in west Texas and southern New Mexico. *EPE's partnership with Prosperity Works is expected to launch in 2024.



- <u>Town of Bernalillo</u> Town of Bernalillo, New Mexico, local government.
- Albuquerque Bernalillo County Water Authority The largest wastewater utility in New Mexico, Albuquerque Bernalillo County Water Authority provides water and wastewater services to the Albuquerque metropolitan area.
- <u>EnergyWorks</u> EnergyWorks is a contracted partner that provides energy efficiency services to households in New Mexico and west Texas.

Several of these partners provide funding directly or indirectly to CEE, including the City of Albuquerque, PNM, New Mexico Gas Company. Other partners have supported outreach to communities or provided efficient products to CEE. For example, Albuquerque Bernalillo County Water Authority provides low-flush toilets to CEE projects. EnergyWorks acts as CEE's project implementation partner.

Funding Mechanism

The City of Albuquerque is one of CEE's direct sources of funding for its energy efficiency projects. Albuquerque City Council has appropriated \$100,000 to CEE each year for the last three years, resulting in a total of \$300,000.⁴ This funding from the City provides project participants with critical infrastructure improvements that are not available through income qualified programs provided by utilities. ENERGY STAR roofs, electrical panel upgrades and mini-split air conditioners have all been installed with City resources. PNM also provides funding directly to Prosperity Works to make CEE possible.

Besides this direct funding, PNM and the New Mexico Gas Company provide funding indirectly to CEE. CEE's specialists implement energy efficiency projects, then PNM and the New Mexico Gas Company reimburse them for the project costs. Utility support for CEE has largely been driven by the Efficient Use of Energy Act of New Mexico, which requires investor-owned utilities to provide energy efficiency programs for low-income customers.

Despite CEE's many partners, project funding is limited. As such, CEE program administrators must determine the best use of funds, which often means prioritizing projects based on impact. Energy audits determine the efficiency needs for each project, then program administrators

⁴ Ona Porter, 2023. Personal Communication.



determine which projects to fund by looking at projected energy efficiency impacts and overall benefits to program participants.

Program Impact

Since launching in 2020, CEE has provided energy efficiency services to approximately 800 homes. These energy efficiency services have resulted in significant reductions in energy and water use, costs, and emissions for participating households

Energy efficiency services vary from home to home and can include services such as air source heat pump HVAC systems, high-efficiency water heaters, LED lighting, advanced power strips, high-efficiency showerheads and faucet aerators, water heater tank and pipe insulation, air sealing, duct sealing, and efficient toilets. Some homes have received more extensive energy efficiency services, including electrical service upgrades and <u>ENERGY STAR</u> certified roofs. A 2023 CEE report estimated that the project has saved an average of \$2,600 per year in utility costs per household.⁵ Beyond energy savings and reduced energy bills, these upgrades also improve indoor air quality and overall safety and comfort in the home.

Barriers and Challenges

CEE program administrators note that funding is an ongoing challenge. Currently, they do not have adequate funding to support every low-income household in their service area or to provide extensive energy efficiency services to every home they serve. CEE is continuously looking for new funding opportunities. For instance, program administrators recently applied for the <u>U.S. Department of Energy's Buildings Upgrade Prize</u> in partnership with the town of Bernalillo, New Mexico. CEE is also applying on behalf of the Town of Bernalillo, the City of Albuquerque, and Bernalillo County, for the State funded Community Energy Efficiency Development (CEED) block grant.

CEE program administrators noted that access to continuous and robust funding is needed not only to fund energy efficiency services but also to maintain a high level of community confidence and engagement and provide for workforce development. Funding limits the project's ability to compensate community leaders and to obtain additional resources needed to address the extensive need for limited-income residential retrofits.

⁵ Prosperity Works, 2023. Community Energy Efficiency Project Report 2023 (unpublished).



Recommendations from the Field

CEE lends its success in part to the trust that Prosperity Works has developed across communities in Albuquerque. CEE community leaders have helped build this trust and have eased program implementation by providing confidence in the program, as well as support services such as translation and project scheduling. CEE administrators believe that creating high-trust relationships across communities and program partners has been just as essential as recruiting an effective team of specialists to implement their energy efficiency services. Beyond developing trusted partnerships, CEE has found it essential to seek all available resources. Diverse funding streams have allowed the program to provide comprehensive services to limited-income households.

For More Information

- Prosperity Works Home
- Zone Grant | Groundworks (groundworksnm.org)
- Buildings Upgrade Prize (Buildings UP) | Department of Energy
- CEED Program Energy Conservation and Management (nm.gov)