Extending the Benefits of Nonresidential Energy Efficiency to Low-Income Communities

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Contents

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Acknowledgments

Executive Summary

Key Takeaways

- Community-serving institutions—organizations that provide local and direct services to communities, such as nonprofits and schools—face many barriers to participating in energy efficiency programs, yet they also receive many benefits.

- Nonresidential programs that serve buildings in low- to moderate-income (LMI) communities tend to make additional outreach efforts or offer additional incentives to buildings in these communities through standard programs rather than design programs to solely target this sector.

- Program implementers can use studies of energy savings potential and analyze current program offerings to determine how well they currently reach community-serving institutions in LMI communities.

- Regulators and/or implementers can enact policy or make commitments to better serving this sector and ensuring that programs remain equitable and financially accessible, address split incentives, and create a diverse energy efficiency workforce.

Executive Summary

Community-serving institutions are organizations that provide local and direct services to communities and include, for example, nonprofits, schools, municipal buildings, small businesses, and clinics. Community-serving institutions in low- to moderate-income (LMI) communities often face challenges to participating in energy efficiency programs that go beyond typical barriers.[1]

These may include competing priorities, a lack of up-front capital and financing options, limited energy efficiency expertise, the need for enhanced incentives and support, split incentives with building owners, and mistrust and uncertainty about program benefits.

This is due in part to historical policies of economic and social exclusion that have left community-serving institutions in LMI communities and communities of color with fewer resources and greater barriers to accessing affordable energy efficiency investments.

Many program implementers offer energy efficiency programs for commercial and industrial customers, a sector that technically includes many community-serving institutions. However, because these programs often focus on large and small businesses, they can frequently leave out many types of community-serving institutions, such as nonprofits, schools, and municipal buildings.

Despite these barriers, community-serving institutions have much to gain from energy efficiency investments, such as reducing capital and maintenance costs, shortening time spent on building maintenance, and lowering monthly utility costs. This leads to more available capital for organizations to invest in their missions. Community-serving institutions can also benefit from improved indoor air quality, health, and indoor comfort.

Implementers can also scale up programs through community-targeted approaches that identify communities and organizations for program enrollment. Broader community benefits include reduced greenhouse gas emissions, positive environmental justice impacts, and improved economic stability.

1   Definitions of low- to moderate-income communities vary. Two common low-income household definitions used by policymakers and program implementers include households with incomes below 80% of the area median income (AMI), and households with income below 200% of the federal poverty level (FPL).

Research Methods

We conducted a literature review and administered an online survey to gather examples of energy efficiency programs serving nonresidential community institutions. We received 39 survey responses from 28 program implementers across 22 states and territories in the United States and Canada. To qualify for inclusion in this study, the program had to focus exclusively on nonresidential buildings in or serving LMI communities or had to make specific outreach, marketing, or other enrollment efforts to better reach organizations in LMI communities as part of a broader nonresidential program.

Program Trends

This sample of programs provides a snapshot of broad trends and illustrative examples of specific approaches. We find that programs that solely target nonresidential organizations in LMI communities are uncommon, with only 6 of the 39 programs in the study exclusively offered to organizations in LMI communities. The other 33 provide additional outreach or incentives to buildings in LMI communities as part of a broader set of nonresidential efficiency offerings. Program implementers in this study use numerous definitions to identify target communities, employing factors such as household income, housing costs, and the number of individuals receiving help from social support programs. About a third of the energy efficiency programs specifically target buildings under a certain size or those that use less than a certain amount of energy, which helps identify smaller businesses and buildings that are generally overlooked by traditional energy efficiency programs. Lighting is the most common measure, followed by heating and cooling upgrades and education and program support.

Marketing and outreach strategies such as targeted campaigns and partnerships with other organizations prove important to program success. Program funding sources include local and state dollars, third-party financing or loans, ratepayer funds, or foundation support. Funds can be used for incentives, financing, rebates, or measures provided at no cost. About

a quarter of the programs also employ workforce development strategies to build employment readiness in LMI communities.

Of the 39 programs, 22 have publicly available evaluation data, which illustrate that programs vary in terms of energy saved and number of buildings served. Many programs have a goal to serve historically underserved markets with energy efficiency offerings, with sub-goals such as achieving local carbon reduction targets, improving energy affordability, and reaching new building types. While some implementers have more flexible or more relaxed cost-effectiveness requirements for these programs, the vast majority follow the cost-effectiveness requirements established for their overall commercial and industrial program portfolios. Implementers can improve their ability to track program progress by collecting additional program-related data.

Strategies for Reaching Community-Serving Institutions

Key strategies for best reaching community-serving institutions with energy efficiency programs include continuously engaging stakeholders, developing strong partnerships, and tailoring program marketing. Program implementers can also use comprehensive community-focused qualifications such as income, energy and housing cost burdens, racial demographics, and prevalence of social support program enrollment to identify marketing opportunities to increase program uptake. Small businesses and nonprofits often face additional barriers and can benefit from best practices such as free or low-cost on-site assessments, benchmarking support, financial incentives, segmenting of building types, local partnerships, and tailored marketing.

Role of Policy

Decision makers can take action to ensure that the benefits of energy efficiency investments are accessible to all, including community-serving organizations. First, program implementers can establish baselines and identify savings potential from community-serving institutions in LMI communities. They can then analyze their current design and delivery practices to determine whether their existing programs adequately reach this sector, and if not, consider new program design options. Regulators can decide if targets, carve-outs, or expanded cost-effectiveness criteria for this sector are appropriate.

Policymakers can also ensure that robust funding and financing options are enabled to lower program participation barriers. Options may include on-bill financing, green leasing, green revolving loan funds, Commercial Property Assessed Clean Energy (C-PACE), Community Development Financial Institutions and New Markets Tax Credits, green banks, and community development block grants. They can also set policy to address split-incentive issues through green leasing and other policy mechanisms. Finally, policymakers and program implementers can set targets for diversity in job training, contracting, hiring, and accessibility. These efforts can improve equitable access to energy efficiency among community-serving institutions.

Introduction

Many utilities, states, local governments, and other energy efficiency providers are seeking new ways to reach historically underserved communities and organizations. Energy efficiency investments provide not only energy savings and lower utility bills but also benefits such as improved indoor air quality, comfort, and economic development.

Introduction

In common practice, energy efficiency programs designed to target low- to moderate-income (LMI) communities have focused mainly on residential single-family or affordable multifamily buildings. A more comprehensive approach to assisting LMI communities also includes programs that serve commercial and other nonresidential buildings.

For the purposes of this report, we focus on programs that offer energy efficiency upgrades and investments to community-serving institutions, which are businesses and organizations that provide important services to their local community. Energy efficiency investments can help sustain and enhance their services. Examples of community-serving institutions include:

- Nonprofit organizations
- Charitable and philanthropic organizations
- Religious centers
- Transitional centers and shelters
- Clinics and hospitals
- Municipal buildings
- Community centers
- Educational institutions (e.g., K–12 schools, community colleges, trade schools, vocational schools)
- Small commercial businesses (e.g., food service, retail, food sales, offices, entertainment), especially those that are locally owned or operated

Many energy efficiency implementers offer energy efficiency programs for commercial and industrial customers, a sector that includes many community-serving institutions. Even so, these programs often focus on recruiting large and small businesses for participation, and their program design may create additional barriers to participation for many community-serving institutions.

Community-serving institutions in economically disadvantaged areas often require additional assistance to overcome the typical barriers to energy efficiency retrofits, such as access to up-front capital and expertise to undergo substantial building upgrades without additional incentives, guidance, and support. Energy efficiency investments that address the barriers to serving this sector can allow these organizations to participate, save energy costs, and allocate more funds to community services and/or spur additional local economic development. Often the cost to reach community-serving institutions is higher than the cost to reach general commercial and industrial customers, due in part to the lower savings achieved from smaller buildings. Program cost-effectiveness tests and requirements may disincentivize program implementers from targeting and reaching these underserved organizations. Policymakers can assess the metrics they use to determine program success as well as program design barriers that limit the participation of community-serving institutions.

This report provides a snapshot of trends and strategies for energy efficiency program implementers and policymakers who want to better reach community-serving institutions. It provides details on program design, delivery, and cost effectiveness and also examines barriers to and benefits of engaging this distinct subset of nonresidential organizations and community-serving institutions. It concludes with policy strategies for advancing these programs at state and local levels.

Background

Low-income and economically disadvantaged communities often have similar characteristics, such as racial segregation, high unemployment, high poverty rates, poor housing conditions, and lower educational opportunity, due in part to systemic policies leading to historical economic and social exclusion (Rothstein 2017).[2]

2   Policies that have acted as forms of economic and social exclusion in communities of color include neighborhood segregation and redlining, lack of access to mortgages and other loans, mass incarceration, employment discrimination, and the legacy of segregated and underfunded schools. Policies of prohibitive lending and underinvestment in marginalized communities that limited wealth accumulation for past generations continue to affect these communities today.

Background

Similarly, community-serving institutions in limited-income communities and communities of color—such as schools, nonprofits, hospitals, small businesses, and others—have often experienced a legacy of underfunding that creates barriers to accessing and benefiting from energy efficiency investments and programs.

Low-income communities and communities of color often experience higher energy burdens and less affordable energy. Recent ACEEE research finds that limited-income residential households—and particularly limited-income African-American and Latino/Latina households—experience higher energy burdens than other households (i.e., they spend a disproportionately high share of their income on energy bills) (Drehobl and Ross 2016; Ross, Drehobl, and Stickles 2018). These households also have higher energy costs per square foot, which suggests that they may live in less-efficient buildings. Higher energy burdens are correlated with long-term impacts on health and well-being, such as greater risk for respiratory diseases, increased stress and economic hardship, and difficulty in moving out of poverty (Drehobl and Ross 2016). These findings relating to residential housing may be indicative of similar energy affordability issues for nonresidential organizations within demographically similar communities.

An equity- and justice-driven approach to energy efficiency that addresses these realities can help reverse some of the structural inequality experienced by limited-income communities and communities of color. While commercial utility programs are in theory available to all customers, they are often designed for those who have access to up-front capital or financing and have larger energy loads. They often do not address the additional economic, social, and information barriers faced by building owners/tenants in under-resourced and limited-income communities. Many community-serving institutions do not own the space they occupy. Further, many use less energy than other commercial buildings, which means achieving savings can be less cost-effective from a program perspective. These barriers and others can lead to lower participation in energy efficiency programs and other utility program offerings. Ensuring that under-resourced communities can equitably participate in energy efficiency programs leads to multiple benefits for the utility, program participants, and community members.

Barriers

Many of the barriers faced by community-serving organizations in LMI communities are similar to those faced by small-business owners, though some barriers are compounded by limited resources (Nowak 2016). These barriers reduce program uptake and can make programs targeting underserved markets more expensive to design and implement. Our literature review and study findings indicate that common barriers include:

Competing priorities. Many small businesses and community-serving organizations have limited staff and resources and so must choose among organizational needs. They often prioritize their core function or mission over energy efficiency or other upgrades.

Lack of insight or expertise in building energy use to make energy efficiency investment decisions. Many owners, tenants, and managers of buildings occupied by community-serving institutions lack awareness or technical knowledge of the benefits of energy efficiency and the various upgrade options available to them. Program administrators can address this barrier by providing straightforward and easy-to-understand information about available measures, savings, and additional benefits, as well as enhanced program support from enrollment through project completion.

Lack of access to up-front capital and financing options to invest in new energy efficiency upgrades. Many community-serving institutions do not have much expendable capital to put toward building efficiency upgrades. Many may also lack access to affordable financing. To address these barriers, programs can provide financing options (e.g., on-bill financing) that are well integrated into the program. Implementers can also seek out external financing institutions to help remove financial barriers for participants.

Split incentives between building owners and tenants. Many community-serving institutions rent their facilities and therefore do not have decision-making control over upgrades to their buildings. Because tenants usually pay the energy bills, owners often lack an incentive to invest in energy-efficient upgrades. Energy efficiency

programs can use several methods to address split incentives, such as using on-bill tariffs or green lease clauses to encourage both owners and tenants to invest in efficiency and save energy.

Mistrust and uncertainty of program benefits. Community-serving institutions may not immediately see the benefits of energy efficiency upgrades and may fear that their organizational operations will be disrupted while upgrades are installed. Also, organizations may receive many solicitations for products and services from untrustworthy sources and may perceive energy efficiency programs as falling into this category. Program implementers can address this barrier by finding trusted partners—such as other, well-known community institutions and, in some cases, local governments—to instill trust and lend credibility to energy efficiency programs.

As they seek to serve the nonresidential LMI sector, program implementers also face barriers, largely relating to program design. Commercial and industrial programs have historically focused on projects that can achieve high levels of energy savings and cost effectiveness. Implementers often overlook small commercial organizations that offer more limited savings. This focus on large organizations and savings creates a barrier to engaging smaller community-serving institutions. Implementers should recognize the benefits of serving this sector and effect policy changes to better accommodate it.

For programs to be successful, implementers must address these barriers while also making programs easy to enroll and participate in. Programs should also be well marketed and easy to understand each step of the way.

Benefits

Community organizations and the wider communities they serve experience numerous benefits from energy efficiency investments (Nowak 2016; Fryer, LeZaks, and Hannigan 2018). From our literature review and research, we identify the following benefits:

Reducing capital and maintenance costs, time spent on upkeep, and monthly utility costs. Energy efficiency can lead to lower energy bills and more efficient building operations, which overall may reduce the need for new capital investments due to equipment failure. Energy efficiency can also lessen the need for additional maintenance and save employee time.

Increasing available capital for community-serving organizations to use to advance their missions. By lowering operating costs, community-serving institutions have more capital and time to spend on their missions. Over time, savings can provide numerous community benefits, such as ensuring the stable presence of affordable housing and child care, accessible health care, elder care, quality education, and other beneficial services in under-resourced communities. Investing in energy efficiency for nonprofits allows more individuals to benefit from the services offered by these organizations

Improving indoor air quality, health, and indoor comfort. Many community-serving institutions highly value the comfort of their customers, clients, students, and employees. Energy efficiency upgrades can tighten the building envelope and improve air quality, leading to healthier building occupants (EPA 2016). Upgrades made with indoor health in mind often address ventilation, air cleaning, and source control issues that can have negative health impacts if ignored. This has benefits not only for employees but for community members who spend time in these buildings, especially shelters, hospitals, schools, and clinics. Energy efficiency upgrades can also make it easier to maintain comfortable indoor air temperatures as well as improve visual and acoustic comfort.

Opportunity to scale up programs. By targeting community-serving institutions, program implementers have the opportunity to continually scale up their offerings. Programs developed for organizations across specific communities can conduct targeted outreach and purchase measures in bulk to reduce initial costs and increase cost-effectiveness. Some organizations also have multiple building locations, and investments in one location may lead to additional sites participating in the program.

Greenhouse gas reduction and positive environmental justice impacts. Reducing energy use through energy efficiency leads to many positive environmental outcomes, such as mitigating climate change and improving public health. Many communities of color are disproportionately impacted by pollution from power plants; energy efficiency can help reduce power plant emissions, thereby mitigating health effects and other negative impacts (Fleischman and Franklin 2017; Hayes and Kubes 2018).

Improving community economic stability. Energy efficient investments and upgrades benefit whole communities by improving building stock, lowering energy bills, and keeping local organizations economically viable, which helps create jobs and improve wages. Energy efficiency programs also create jobs and local economic investment.

Program administrators as well experience benefits from serving the nonresidential LMI sector. These programs can improve relationships between implementers and community members and between implementers and community-serving institutions. This in turn can lead to better outreach, partnerships, engagement, and participation in other residential or commercial programs. For utilities these programs can also help meet regulatory requirements (if any are in place), expand their reach and the number of customers they serve, reduce the risk of unpaid bills, and lessen overall demand and the need for new generation.

Research Methods

We gathered information for this report from a literature review of nonresidential program best practices, both generally and for underserved markets. We also surveyed energy efficiency program implementers to gather specific program examples and details.

Research Methods

We sent out a survey to relevant contacts (i.e., program administrators, utilities, local and state governments) to request information on nonresidential energy efficiency programs that either explicitly target underserved communities or make an additional effort to reach them.

The survey was open from April through May 2019, and we received 39 submissions that met our criteria. These programs spanned 22 states and territories in the United States and Canada and 28 program implementers. Through this survey we requested general program details such as a program description, years in operation, building types served, program goals, funding sources, partnerships, eligibility requirements, low-income targeting qualifications, and evaluation data.

After closing the initial survey, we sent a follow-up questionnaire to the 39 program respondents for more detailed information about eligibility requirements, measures, marketing, funding, and program objectives. We received 26 responses to the additional survey. Finally, we selected four unique and leading programs and conducted in-depth interviews with staff of these programs to gain deeper insights into their design, delivery, challenges, outcomes, and lessons learned, which we include as case studies in the body of the report.

Program Trends

Through our survey of 39 programs, we identified numerous program trends related to program eligibility, partnerships, measures, outreach and marketing, funding and financing, workforce development, evaluation, and cost-effectiveness.

In this section, we discuss trends and program examples. See Appendix A for more detailed information about programs included in this report, such as program descriptions, building types served, funders and funding levels, and detailed evaluation data.

Overall Findings

Only six programs in this study exclusively serve organizations in LMI communities. All the others offer their services to all buildings in the commercial sector and also offer additional outreach and incentives to reach organizations in LMI communities. The most common type are commercial and small-business programs implemented by utilities. Third-party implementers and local and state governments are the next most-common program implementers. Some of the utilities and state implementers in our survey offer multiple programs. Table 1 gives more information.

Table 1. Program implementers and programs in the survey

Type of implementer	Number of unique implementers	Number of unique programs
Utility	9	18
Third-party implementer	6	8
Local government	5	5
State government	4	4
Nonprofit organization	4	4
Total	28	39

The majority of programs serve multiple types of organizations, such as nonprofits, restaurants, and small businesses. Nonprofit organizations were the most common organization type served. Overall, 28% of programs served only one organization type, with four serving nonprofits exclusively, three serving only schools, two dedicated to small businesses, and two exclusively for municipal buildings. The other programs served multiple organization types, which included:

- Nonprofits—68%
- Small businesses—53%
- Educational institutions—53%
- Municipal buildings—50%
- Religious organizations—45%
- Clinics and hospitals—39%
- Shelters—37%

On average, programs in this study have operated for five years. Twelve have been operating for a year or less. The longest-running is the Colorado Energy Office's Energy Performance Contracting program, which has been operating for 19 years. The next-longest are Austin Energy's Commercial and Small Business programs and Energy Outreach Colorado's Nonprofit Energy Efficiency Program (NEEP) at 12 years, followed by Efficiency Vermont's K–12 Support program and Southface Institute's GoodUse Grant program, both at 11 years. See Appendix A for information about duration for each program.

Program implementers indicate that partnerships are key to success. They typically work with a wide variety of partners, including local governments, community-based organizations, and chambers of commerce. These partnerships can foster trust and legitimacy and help increase program participation and customer satisfaction. They can also help support non-English-speaking building owners and tenants.

Although program approaches differ in their scope and target sectors, some common elements across programs include focusing on measures with high energy-saving potential and providing additional guidance and support throughout the program process, from the initial application to financing to installation. Lighting is the most common measure offered by the programs in this study, followed by heating and cooling upgrades, building energy assessments, and water-saving measures. Some programs also include renewable energy incentives, water conservation, and health and safety measures. Programs typically use some ratepayer funds, and many combine this funding with government resources, financing options, and/or foundation support. Most programs do not cover the full cost of measures, instead offering incentives and financing.

Eligibility Requirements

The following section breaks down the types of eligibility requirements program implementers use, highlighting programs that exclusively target LMI communities, definitions of target communities, program qualification weighting and incentives, and energy-use and building-size requirements.

PROGRAMS TARGETED EXCLUSIVELY AT LMI COMMUNITIES

As mentioned earlier, only six programs in this study exclusively serve LMI communities. The other 33 tend to serve all eligible organizations, with special targeting or incentives for those operating in LMI communities. Table 2 highlights the programs that focus solely on organizations in LMI communities or organizations that serve individuals in those communities, as well as the criteria they use to qualify program participants.

Table 2. Programs that serve only low-income communities

Administrator	Program	Qualification criteria
Center for Sustainable Energy	Automated Demand Response Workforce Development	Provides training to workforce from disadvantaged communities and enrolls small and medium-size buildings and public facilities in disadvantaged communities in Automated Demand Response incentive programs
ComEd*	Distressed Communities Outreach	Provides outreach services to municipal and business customers in economic distress
ComEd	Public Buildings in Distressed Communities	Provides no-cost LED lighting kits and discounted HVAC tune-ups for public buildings in economically distressed communities
District of Columbia Sustainable Energy Utility (DCSEU)	Income Qualified Efficiency Fund	Serves homeless shelters that assist low-income DC residents
Energy Outreach Colorado*	Nonprofit Energy Efficiency Program (NEEP)	Serves nonprofits that assist low-income populations, directly pay their energy bills, and hold a building lease with at least three years remaining
Healthy Neighborhoods, Inc. (administered by the Maryland Energy Administration)	EmPOWER Clean Energy Communities LMI Grant Program	Targets buildings that directly serve low- to moderate-income populations

* Included as a case study in this report

Program Trends

The Center for Sustainable Energy runs its Automated Demand Response Workforce Development program to provide training to apprentices from low-income communities and offers energy efficiency services to organizations in low-income communities. Through the nonprofit Elevate Energy, ComEd's Distressed Communities Outreach offering provides outreach and technical assistance to municipal and business customers that experience economic distress, as identified by the state of Illinois's Economically Distressed Communities definition. In 2019 ComEd launched a separate Public Buildings in Distressed Communities offering, which provides no-cost LED lighting kits and discounted HVAC tune-ups to qualifying public buildings.

The District of Columbia Sustainable Energy Utility (DCSEU) implements its Income Qualified Efficiency Fund, which bankrolls energy efficiency projects for shelters and clinics in low-income communities. DCSEU defines "low-income communities" as those with average annual incomes of less than 80% of the area median income or less than 60% of the state median income. Energy Outreach Colorado's Nonprofit Energy Efficiency Program (NEEP) provides management, funding, and installation of energy efficiency upgrades for nonprofit organizations. To qualify, nonprofits must serve individuals in low-income communities, directly pay their utility bills, and have at least three years remaining on their building lease. Similarly, the Maryland Energy Administration provides funding for energy efficiency upgrades for organizations that serve low-income residents, such as the nonprofit Healthy Neighborhoods, Inc.

DEFINITIONS OF TARGET COMMUNITIES

This research shows that definitions of "low-income community" are not uniform across programs, since qualifying thresholds vary among programs. While many use income as the main qualifier, some programs also use other factors to determine target communities and organizations. Table 3 lists some of the factors used to identify target communities.

Many of the programs mentioned in the previous paragraphs use a community-based definition for program targeting. They identify specific communities using predetermined criteria and then prioritize community-serving organizations in these areas or conduct additional outreach to these organizations. For example, Eversource Energy's Main Street Program targets very small businesses, often located on a town's main street (see the case study text box, next page). Eversource works with cities and towns through their community and economic development offices, local chambers of commerce, and other local businesses to reach these targets.

Energy Outreach Colorado's Nonprofit Efficiency Program: Diverse Funding for Diverse Needs

Energy Outreach Colorado (EOC), a statewide organization that provides vital resources to income-qualifying households across Colorado, noticed that local nonprofits serving vulnerable individuals were often struggling to pay their high energy bills. This burden puts them at risk of having to cut programs, support fewer people, or lose their facility. To tackle this problem, EOC created its Nonprofit Energy Efficiency Program (NEEP) in 2007. Originally supported by the city of Denver to provide energy efficiency upgrades for 12 nonprofits, today NEEP is funded by leveraging dollars and resources from a diverse group of partners and provides retrofits to 65 nonprofit organizations annually. To qualify for NEEP, nonprofits must directly pay their energy bills and serve local limited-income communities. EOC identified building non-ownership as a barrier to participation as many nonprofits do not own the building in which they operate. To ensure that program outcomes will remain a benefit to the organization for some time, EOC requires nonprofits to have a lease with at least three years remaining or provide a letter of support from the building owner in order to participate.

EOC conducted a stakeholder engagement process while designing NEEP and determined that nonprofits wanted a one-stop shop that could address all their building needs, so they could focus solely on their missions. As many nonprofits are in older buildings, the NEEP program addresses these unique needs through financial partnerships with local utilities, local governments, and Energy Outreach Colorado's own private dollars raised for this program. EOC allocates $365,000 per year to the program to help cover health and safety issues and lower the number of program deferrals. NEEP offers project management, energy audits, contractor management, and equipment replacement and relies on a trusted network of contractors to implement retrofits, which may include lighting, insulation, and heating and cooling upgrades.

EOC measures NEEP's success by how well it achieves project energy savings goals and remains within each project budget. While the funding from utilities is directly associated with energy savings and cost effectiveness, EOC can be flexible by measuring the cost effectiveness of an entire project rather than the cost impact of each individual measure. For projects using Xcel Energy funding, the utility allows EOC to customize incentives where measurements are based on factors specific to each participating building.

EOC identified the need for strong advocacy, diverse resources, and supportive local governments as keys to their program's success. It is an active advocate at the Colorado Public Utility Commission (PUC) for securing equitable program design and requirements to provide services to limited-income customers. Through its advocacy, EOC helped influence the decision to place this nonprofit program in the low-income utility program portfolio. Strong relationships with local governments and utilities have helped NEEP serve more participants and create a diverse funding pool that has kept the program successful for more than a decade while meeting EOC's financial goals.

Photo courtesy of Energy Outreach Colorado.

Table 3. Low-income community identification factors

Administrator	Program	Low-income community identification factors
Ameren Illinois	Commercial Kitchen Upgrade Program	The program targets schools based on the percentage of students eligible for free or reduced-cost lunch in service territory
Ameren Illinois	Small Business Outreach through Community-Based Partnerships	Census data and community needs assessment analysis to identify businesses within communities in need, using factors such as • Housing cost burden greater than 30% of household income • Number of households receiving SNAP benefits • Number of students eligible for free or reduced-cost lunch • Children ages 0–4 living below poverty line
BC Non-Profit Housing Association (BCNPHA)	BC Hydro/FortisBC Social Housing Retrofit Support Program (SHRSP)	Applicant must be a registered charity providing assistance to income-qualified persons, or a housing provider that is a: • Local government • Registered housing society (under the Societies Act) • Housing co-op (under the Cooperative Association Act) • Governing body of an Indigenous band Housing must be primarily for low-income households.
Center for Sustainable Energy	Automated Demand Response Workforce Development	Disadvantaged Community as designated by CalEnviroScreen 3.0, including census tracts that score in the top 25% based on indicators such as exposure, environmental effects, sensitive populations, and socioeconomic factors
ComEd*	Distressed Communities Outreach; Public Buildings in Distressed Communities	Economically Distressed Communities as defined by the State of Illinois and additional census data analysis** • Eligibility for state or federal assistance • Local government in negative financial position • Negative population change over two years • Unemployment rate
DCSEU	Income Qualified Efficiency Fund	Organizations in communities with annual incomes equal to or below 80% of the area median income or 60% of the state median income
Efficiency Vermont	K–12 Support	The program targets schools based on the percentage of students eligible for free or reduced-cost lunch in service territory
Efficiency Vermont	Vermont Foodbank Gut Rehab	Food banks in communities with annual incomes, on average, equal to or below 80% of median income for the area
Healthy Neighborhoods, Inc. (administered by Maryland Energy Administration)	EmPOWER Clean Energy Communities LMI Grant Program	Neighborhoods with annual incomes equal to or below 85% of the median county income, based on 2010 US Census data
Los Angeles Department of Water & Power	Community Partnership Outreach Grants	Disadvantaged Community as designated by CalEnviroScreen 3.0, including census tracts that score in the top 25% based on indicators such as exposure, environmental effects, sensitive populations, and socioeconomic factors
Minneapolis Health Department*	Green Cost Share Program	Located in city-designated Green Zones, measured by equity, displacement, air quality, brownfields and soil contamination, housing, green jobs, food access, and greening

* Included as a case study in this report. ** Appendix B includes a list of "distressed community" definitions as developed by states.

Eversource Energy's Main Street Program: Serving Diverse Downtown Community Centers

More than 15 years ago, Eversource Energy developed its Main Street program to address barriers to small-business participation in its commercial energy efficiency programs. In communities across the state of Massachusetts, the Main Street program provides tailored outreach materials, detailed energy audits, and direct install measures for small businesses in the downtown area of target communities. The Main Street program model is also delivered by other Massachusetts program administrators, as it is recognized as a valuable way to ensure that even the smallest of small-business customers have a path to energy efficiency savings.

Eversource found that by scaling-up outreach efforts to small businesses, it can serve these businesses cost effectively. While the program does not specifically focus on limited-income communities, Eversource has a commitment to ramp up energy efficiency efforts for limited-income customers as well as reach historically underserved communities with their programs. Communities with low historical participation in commercial programs—and therefore with more untapped energy savings potential—are often also limited-income communities, and Eversource makes efforts to reach them.

Eversource selects communities for participation based on input from its community-based partners and additional stakeholder engagement. The program first sends targeted outreach to businesses in the community, accommodating whatever languages are spoken there. Contractors then go to the community for a three- to five-day event, going door-to-door and offering to provide an energy audit and some direct install measures to interested businesses. The program typically covers the majority of expenses and has the ability to cover 100% of program costs, often with a small copayment from the participant. Once the contractors complete the energy audits, they purchase measures in bulk and plan installations in the most cost-effective way. Lighting is the most common measure installed, followed by other instant-savings measures like pipe insulation, spray valves, aerators, power strips, and programmable or smart thermostats.

The program aims to serve all small business customers and turn no one away due to barriers or needs. To address the split incentive problem between building owners and tenants, Eversource works directly with tenants, allowing them to sign up for the program without needing landlord approval. Besides the previously mentioned measures, the program addresses such things as hot water and building envelope, aiming to reach many small businesses at once to achieve economies of scale and cost effectiveness. By targeting small local businesses with energy-saving upgrades, program implementers can help preserve local wealth for these businesses, which can lead to more jobs and higher wages.

Eversource also gives its contractors leeway to make quick decisions about how to best serve customers and is flexible in its goal-setting. In this way, the utility can serve some customers who may require more resources than others, as long as the program balances out in terms of customers served, savings achieved, and dollars spent. By conducting audits first, contractors can plan installations and ensure that the community will receive cost-effective energy efficiency upgrades. For businesses that require larger energy-saving investments, such as improved heating and cooling systems, contractors can refer participants to other programs offered through Eversource.

Photo courtesy of Eversource Energy.

Program Trends

Ameren Illinois's Municipality-Owned Street Lighting Program targets specific communities that the utility identifies as "under-resourced" based on factors such as geography, population, and income. The ComEd Public Buildings in Distressed Communities and Distressed Communities Outreach programs use the state of Illinois's definition of a distressed community to target outreach efforts. Appendix B and Appendix C include statewide and national criteria for qualifying communities for state and federal programs.

PROGRAM QUALIFICATION WEIGHTING AND PROGRAM INCENTIVES

Another way to better serve organizations in LMI communities is to prioritize program applications or provide enhanced incentives for organizations in or serving these communities. The following are a few examples of programs that use increased weighting or incentives to qualify or better serve LMI communities.

Ameren Illinois's Business Staffing Grants program provides businesses, nonprofits, and public sector organizations with up to $80,000 to fund an energy efficiency project manager to help overcome resource barriers to completing energy efficiency projects. The program applies additional weight for qualifying limited-income participants. Applications are reviewed and scored according to specific criteria, and businesses with economic need are given priority.

Austin Energy's Commercial and Small Business programs are available to all commercial customers, but the program provides enhanced rebates for small businesses and nonprofits that have peak summer demand below 300 kW. All houses of worship also qualify. The program provides these enhanced rebates for lighting, heating and cooling systems, commercial kitchen upgrades, and other measures.

The city of Minneapolis's Green Cost Share program provides enhanced incentives to organizations in its Green Zones (see the case study box). These are designated zones in which communities face greater impacts due to higher levels of environmental contamination and other equity factors. The city

identified the zones with input from working groups and weighted the following factors: equity, displacement, air quality, brownfields and soil contamination, housing, green jobs, food access, and greening (Minneapolis 2019).

Pathway Lending's Tennessee Energy Efficiency Loan Program offers financing for energy efficiency and renewable energy projects in the state. Pathway finances up to 100% of project costs and they target businesses, nonprofits, and municipal government buildings. While the program is available to all communities, as a community development financial institution Pathway Lending is required to make 60% of its loans in LMI communities.

ENERGY USE AND BUILDING SIZE REQUIREMENTS

Another method program implementers use to better reach underserved organizations is to create criteria based on energy use or building size. Small buildings and buildings with low energy use or demand are often overlooked by energy efficiency programs because these programs, especially those led by utilities, must often pass cost-effectiveness tests. Therefore they target high energy users and larger buildings that have greater energy savings potential. Smaller buildings have less potential, and their owners or tenants may also have fewer financial resources and time to invest in energy efficiency upgrades. Programs targeting small buildings or low-demand energy users can help small businesses and organizations benefit from energy efficiency programs by addressing the barriers that these organization so often face due to limited capital and resources. Table 4 includes the eight programs in the survey that use energy intensity or building size requirements in their program qualifications.

Organizations in smaller buildings tend to use less energy than organizations in larger buildings. This means that targeting smaller organizations or those that use less energy may lead to smaller energy savings. Of the programs in table 4 that track evaluation data, energy savings per building varies by program, with most falling

Table 4. Programs that qualify buildings based on energy use/demand or building size

Administrator	Program	Qualification criteria
Austin Energy	Commercial and Small Business Programs	Energy demand below 300 kW peak in the summer (for enhanced rebates)
Center for Sustainable Energy	Automated Demand Response Workforce Development Program	Average summer demand below 500 kW
City of Seattle	Building Tune-Up Accelerator	Commercial buildings under 100,000 square feet
ComEd	Nonprofit Organizations Offering	Peak demand below 400 kW
ComEd	Small Business and Public Small Facilities Offerings	Peak demand below 100 kW
Efficiency Vermont	Business Energy Assessments	Energy users that are not among the top 300 in the state
Eversource*	Main Street	Small businesses with energy use below 1.45 million kWh in aggregate
Hawaii Energy	Energy Advantage	1) A small business on electric utility billing rate schedule G, 2) a small business on a master-metered electric utility account with total space less than 5,000 square feet., or 3) a restaurant
LADWP	Commercial Direct Install Program	Average monthly demand below 250 kW
Pacific Power (WA)	Wattsmart Small Business Program	Small businesses with less than 100 kW maximum demand in the past 12 months (on rate schedule 24) and energy use that is either below 145,000 kWh/year OR below 160,000 kWh/year in a facility of less than 20,000 square feet
Pasadena Power and Water	Water and Energy Direct Install Program	Peak demand below 50 kW

* Included as a case study in this report

into the middle range of savings per building relative to the other programs in this study. Of the programs with building size or energy use criteria, Eversource Energy's Main Street program reported the most savings, 80 MWh and 47 therms per building served, followed by Austin Energy's Commercial and Small Business Programs, which saved 36 MWh per building. Tables 8 and 9 include all savings-per-building information from programs in this study.

Measures

The most common measures offered by programs in this study are LED lighting and heating and cooling repairs and replacements. Some programs also include initial energy audits and energy education components, as well as measures for kitchen equipment (e.g., for schools and businesses) and network/building controls for more efficient building operations. Some programs include additional weatherization measures, such as insulation and air sealing, though this is less common. Many programs provide additional support by including guidance throughout the enrollment, procurement, and program delivery processes for participating organizations.

Water measures are more often included in no-cost programs—rather than programs funded by incentives, rebates, financing, or grants—as are education and additional program support. Incentive and no-cost programs tend to have the most available measures, with about 60 different measures identified for incentive-based and no-cost programs.

Table 5 lists common measures, the number of programs in our study that include each measure, and program examples.

About 30% of the programs in this study include customer education or additional training and/or support for program participants. Columbia Gas of Ohio's Commercial Energy Efficiency Program includes four training sessions a year to educate commercial customers or their partners on ways to engage in the utility's commercial programs and rebates. Columbia Gas also offers whole-building energy audits and automated benchmarking to provide customers with more information about their building's energy use and potential for savings.

Table 5. Common measures

Type of measure	Common measures	Number of programs in study with each measure	Examples of programs with each type of measure (non-exhaustive list)
Energy efficiency	Lighting—indoor and outdoor	24	• Ameren Illinois Municipality-Owned Street Lighting Program • City of Seattle's Building Tune-Up Accelerator Program • Efficiency Vermont's K–12 Support • Healthy Neighborhoods, Inc., EmPOWER Clean Energy Communities LMI Grant Program • LADWP's Community Partnership Outreach Grants
	Heating and cooling (HVAC)	16	• City of Minneapolis's Green Cost Share Program* • City of Seattle's Building Tune-Up Accelerator Program • ComEd Energy Efficiency Program Nonprofit Organizations Offering
	Energy audits/ assessments	11	• British Columbia's Social Housing Retrofit Support Program • Columbia Gas of Ohio's Commercial EE Programs • Efficiency Vermont's Business Energy Assessments
	Education and support/behavior change	11	• ComEd Energy Efficiency Program Distressed Communities Outreach*
	Kitchen equipment	9	• Boulder County's Partners for a Clean Environment (PACE) program
	Weatherization measures	8	• British Columbia's Social Housing Retrofit Support Program
	Water heaters and pumps	6	• City of Seattle's Building Tune-Up Accelerator Program • Los Angeles County's SoCalREN Public Agency Project Delivery Program
	Appliances and office equipment	4	• Healthy Neighborhoods, Inc., Clean Energy LMI Grant program
	Occupancy sensors	4	• ComEd Energy Efficiency Program Small Business Offering
	Energy management systems	1	• ComEd Energy Efficiency Program Public Buildings in Distressed Communities Offering*
Water conservation	Direct install water conservation measures (e.g., faucet aerators, low-flow showerheads)	8	• Boulder County's Partners for a Clean Environment (PACE) program
	Spray valves	1	• Boulder County's Partners for a Clean Environment (PACE) program • Energy Efficiency Alberta's Non-Profit Energy Efficiency Transition (NEET) Program
Health and safety	Additional health and safety repairs (e.g., CO monitors, building repairs)	2	• Healthy Neighborhoods, Inc., Clean Energy LMI Grant program
	Ventilation	1	• City of Seattle's Building Tune-Up Accelerator Program
Renewables	Solar panels	2	• Boulder County's Partners for Clean Energy (PACE) program • Minneapolis's Green Cost Share Program*

* Included as a case study in this report

ComEd's Distressed Communities Outreach: Multifaceted Outreach and Relationship Building

The Upper Room Ministries in Lansing, IL, enrolled in ComEd's Nonprofit Efficiency program and also worked with to connect congregants to utility energy affordability programs. Photo courtesy of ComEd.

ComEd continually works with its communities and stakeholders to better understand the needs of its customers. Under the Future Energy Jobs Act (FEJA), ComEd provides funding for energy efficiency programs that benefit all customers and the environment. In 2019 the company is expected to provide $45 million in energy efficiency program funding. In 2018 ComEd worked with Elevate Energy as its vendor to launch Distressed Communities Outreach, aiming to foment economic growth in these areas by bolstering community-wide participation in the ComEd Energy Efficiency Program.

As a basis, ComEd uses the Illinois Department of Commerce and Economic Opportunity's Economically Distressed Communities definition, which identifies areas based on per capita equalized assessed valuations, percentage of residents below the national poverty level, lack of major universities in the community, and amount of Open Space Land Acquisition and Development Grant received. In addition to the state definition, ComEd factors in US Census data, including federal and state assistance eligibility, municipal financial position, negative population change, and unemployment rate. Using these criteria, ComEd and Elevate prioritized 40 municipalities for outreach.

To date, the program has reached 15 municipalities with outreach and offerings. The program works to address the barriers faced by customers in distressed communities, such as limited funds to initiate energy efficiency projects, budget constraints for maintenance, lack of staff expertise or knowledge about energy efficiency, and lack of awareness of the multiple benefits of energy efficiency. The program aims to address customers' competing priorities by making it easy to participate.

ComEd puts considerable effort into building relationships within communities. The ComEd Energy Efficiency Program engages with communities first at the public sector level to build trust, then continues working with the municipality to assess energy use and recommend upgrades. The utility has also worked with public officials to reach sustainability goals through municipal capital work plans. Once a relationship is established, program representatives also engage with residents at outreach events with local nonprofits and community groups, disseminating information on other energy efficiency offerings. Program implementers indicate that phone and in-person conversations with public officials are the most effective outreach tactic. The trust factor is key, and leveraging successes from one community to share with others leads to relationship and trust building.

Funding, Financing, and Program Support

Ratepayer funds are the most common funding source, with government grants, financing, and foundation support less common. Some programs combine numerous types of funding sources, often including utility ratepayer funds, local or state government funds, and foundation or nonprofit support. Table 6 lists examples of programs that use various types of funding sources. See Appendix A for more information about each program's funding sources and budgets.

Most programs do not cover the full cost of measures. Table 7 includes examples of funding and financing approaches offered by programs in this study.

Thirteen programs reported that they offer their services at no cost to participants. Eleven others offer a variety of incentives to lower the cost for participants, and eight cover up to a threshold of costs (ranging from 50% to 95–100% of the total). Four programs offer rebates, two offer financing options, and one offers grants for participating organizations. Many programs offer direct install measures, such as lighting, at no cost but do not cover the full cost of deeper savings measures. Often measures need to meet cost-effectiveness requirements in order to qualify for program support.

Table 6. Funding sources

Funding source	Program example	Funding description
Combination of multiple sources	BC Hydro/FortisBC's Social Housing Retrofit Support Program (SHRSP), implemented by the BCNPHA	Utility and government funds (BC Hydro; FortisBC; BC Housing; and the Ministry of Energy, Mines and Petroleum Resources)
	City of Minneapolis's Green Cost Share Program*	Health Department's Pollution Control Annual Registration fee; utility franchise fee; and grants from the US Department of Energy's Energy Efficiency and Conservation Block Grant, Minneapolis Foundation, and Minnesota Pollution Control Agency
	New Ecology's Market-Ready Monitoring and Optimization Services	Grants offered through Massachusetts Department of Energy Resources (DOER)
	Boulder County's Partners for a Clean Environment	Climate Action Plan tax from the city of Boulder; Sustainability Tax funding from Boulder County; and leveraging of other utility, government, and nonprofit funding sources
	Los Angeles County's SoCalREN Public Agency Project Delivery Program	Funded by California utility ratepayers through orders of the California Public Utility Commission; additional funding from nonprofits, federal government, local governments, and private loans
Third-party financing or loans	Pacific Power's Wattsmart Business Program	Partnership with National Energy Improvement Fund (licensed lender and loan servicer) to offer financing options
	Pathway Lending Energy Efficiency Loan Program	Loan capital provided by the state of Tennessee and the Tennessee Valley Authority
Foundation	Southface Institute's GoodUse Grant Program	Community philanthropic foundation

* Included as a case study in this report

An example of a program that covers all participation costs is LADWP's Unified Schools District Partnership, which offers direct install and retrofit measures. When programs cannot cover the full cost of needed upgrades, they often connect building owners or tenants with other utility-sponsored or related rebates or offerings that can provide funding to cover remaining expenses or additional measures.

Table 7. Funding approaches

Funding approach	Program example	Funding description
No cost	Energy Efficiency Alberta's Nonprofit Energy Efficiency Transition Program	Offers nonprofits no-charge direct installation of energy efficiency upgrades
	Efficiency Vermont's Business Energy Assessment	Provides free energy assessments to small and medium-size businesses; connects customers to standard and customized financial assistance for projects
	Healthy Neighborhoods, Inc., EmPOWER Clean Energy Communities LMI Grant Program	Covers full cost of program and provides project management at no additional cost to subgrantee; leverages grant from the Maryland Energy Authority (MEA) as well as utility rebates and an additional grant source (Baltimore Energy Initiative) to cover program overages, health and safety costs, and participants who do not qualify through the MEA grant requirements**
Incentive	City of Seattle's Building Tune-Up Accelerator	Covered up to 70% of total costs, or 12 cents/square foot maximum, to implement city requirements in advance of the Building Tune-Ups reporting deadlines; incentive offered in partnership with Seattle City Light
	ComEd's Public Buildings in Distressed Communities*	Provides lighting kits free of charge and subsidizes HVAC upgrades with an incentive that can cover up to 100% of project costs
	Efficiency Vermont's K–12 Support Program	Offers prescriptive and custom rebates for energy efficiency upgrades
Financing	Pathway Lending's Energy Efficiency Fund	Offers financing for up to 100% of energy efficiency and renewable energy projects
	NH Community Development Finance Authority's Clean Energy Fund	Provides low-interest financing for energy efficiency and renewable energy projects

* Included as a case study in this report ** To qualify for the Maryland Energy Authority's Clean Energy for Low-to-Moderate Income Grant Program, applicants can include projects implemented by nonprofit organizations and local governments that provide energy efficiency and weatherization measures to LMI Maryland homes, as well as commercial buildings that primarily serve LMI Marylanders. "Low-income" for this program means income at or below 175% of the federal poverty level, and "moderate income" means income above low-income but below 85% of median income by county (MEA n.d.)

Workforce, Economic Development, and Job Creation

Nine programs make extra efforts to use local vendors from the communities they serve, to engage a diversity of vendors—such as minority-owned, women-owned, LGBT-owned, and disabled veteran–owned businesses—or to undertake workforce development initiatives targeting LMI communities.

Of these nine, four programs make particular efforts to ensure they have diverse vendors. Ameren Illinois's Municipality-Owned Street Light Program and its Small Business Outreach through Community-Based Partnerships programs partner with diverse vendors for program implementation. Seattle's Building Tune-Up Accelerator includes additional outreach to women-owned and minority-owned service providers for program implementation. Lime Energy, the implementer of LADWP's Commercial Direct Install Program, collaborates with union labor and community-based organizations for program delivery. The program uses labor union contractors who operate a dedicated apprenticeship program focused on hard-to-reach job seekers, including citizens returning from incarceration. Additionally, the program works with local community groups whose outreach leads to participation from the most underserved customers, including non-English speakers.

Four programs include workforce development and local job creation goals or requirements, including programs by DCSEU, the Center for Sustainable Energy, Pathway Lending, and LADWP. DCSEU includes local green jobs as a metric in its annual performance benchmarks. In 2018 the DC utility reached its goal to create 88 full-time-equivalent living-wage jobs for District residents (DCSEU 2018). The Center for Sustainable Energy's Automated Demand Response Workforce Development program offers classroom and on-the-job training for electrical apprentices from disadvantaged communities. While not focused on energy efficiency, this program offers a model for how programs could take on energy efficiency workforce development in LMI communities. Pathway Lending's Energy Efficiency Loan Program includes

favorably impacting local jobs as a program objective beyond energy savings. Similarly, LADWP's Los Angeles Unified School District Partnership has a goal to expand job opportunities in the Los Angeles region.

The final program among the nine has an overall workforce training strategy. In 2014 the Southern California Regional Energy Network (SoCalREN) launched its Workforce Development Program, which provides training, tools, and opportunities for minority participants in disadvantaged communities across Southern California to pursue energy and water efficiency careers. The Emerald Cities Collaborative implements the program and also offers additional business development for underrepresented businesses in the energy efficiency sector (SoCalREN 2018).

Photo courtesy of Energy Outreach Colorado.

Program Evaluations

The most common goal of many programs in this study is to bring energy efficiency offerings to historically underserved markets, such as low-income communities and small businesses. Some programs have subgoals, such as reaching local emissions reduction targets, achieving energy affordability for small businesses or nonprofits, and increasing program uptake by underserved organizations. Some programs aim to reach as many organizations as possible with program offerings, while others aim to target outreach and provide deep savings for a smaller set of organizations. By tracking program results, program implementers can determine how effectively their programs meet their goals. Because program goals may vary, metrics of program success may vary as well.

Of the 39 programs in the study, 22 provided evaluation data, such as spending, savings, number of buildings served, and cost-effectiveness requirements. Of those, 18 provided self-reported data, three provided annual report citations, and one provided a third-party evaluation report (ComEd's *Small Business Offering Impact Evaluation Report* by Navigant Consulting). While many implementers in this study do regularly conduct third-party evaluations, most did not conduct or make public a third-party evaluation specifically for their nonresidential program.

Tables 8 and 9 list programs that reported electric and gas savings, respectively, the average savings they achieved per building, and the number of buildings served during the program's evaluation period. They are listed in order from greatest to least savings. The tables also indicate which sectors the program serves, the time period for the evaluation, and the program budget. For more information about the evaluations, see table A4 in Appendix A.[3]

Fewer programs reported natural gas savings than reported electric savings. Of those reporting, programs achieved average savings of 20,600 MWh (ranging from 422 MWh to 193,963 MWh) and 214,970 therms (ranging from 2,762 therms to 2,077,797 therms). The average budget was $7.3 million.

The Colorado Energy Office Energy Performance Contracting program achieved the highest savings per building, with 313,255 kWh and 12,481 therms saved per building across 47 buildings from 2017 to 2018. Los Angeles County's SoCalREN Public Agency Project Delivery Program achieved the second-highest electric savings per building, with 199,000 kWh saved per building across 13 buildings in 2018. The program with the second-highest gas savings per building was the Columbia Gas of Ohio Commercial Energy Efficiency Program, which saved 10,994 therms per building, on average, across 189 buildings in 2018.

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3   We acknowledge that most of the programs in the study were unable to provide savings data for their programs, and that the programs with evaluation data vary greatly by sectors served, measures offered, available budgets, and program goals. Therefore, while the following data provide a glimpse into program outcomes, they are not detailed enough to allow a determination of the most effective programs.

Table 8. Programs that reported electric savings

Administrator	Program	Sectors served	Evaluation period*	Budget	Average annual kWh/ building	Annual MWh saved	Buildings served
Colorado Energy Office	Energy Performance Contracting	Clinics, hospitals, educational facilities, municipal buildings	2017–18	Not available	313,255	14,723	47
Los Angeles County	SoCalREN Public Agency Project Delivery Program	Municipal buildings, educational facilities	2018	Not available	199,000	2,600	13
Minneapolis Health Department	Minneapolis Green Cost Share Program	All nonresidential sectors	2018	$3,877,636	110,067	8,255	75
Healthy Neighborhoods, Inc. (administered by the Maryland Energy Administration)	EmPOWER Clean Energy Communities LMI Grant Program	Nonprofits, small businesses, shelters, municipal buildings, educational facilities, religious centers	2017–18	$1,120,527	96,434	1,736	18
CenterPoint Energy	SCORE/CitySmart Commercial Market Transformation Program	Nonprofits, educational facilities, municipal buildings, religious centers	2018	$3,059,191	94,133	23,439	249
ComEd	Distressed Communities Outreach	All nonresidential sectors	2018	Not available	84,383	422	5
Eversource	Main Street	Nonprofits, small businesses	2017–18	Not available	79,694	29,746	372
Austin Energy	Commercial and Small Business Programs	All nonresidential sectors	2018	$1,938,573	36,090	11,982	332
Energy Outreach Colorado	Nonprofit Energy Efficiency Program	Nonprofits	2018	$2,190,000	26,872	1,800	67
ComEd	Small Business Offering	Nonprofits, small businesses, educational facilities, religious centers	2018	Not available	25,141	193,963	7,715
Pacific Power (CA/WA)	Wattsmart Small Business Program	All nonresidential sectors	2018	Not available	17,013	647	38
Boulder County Public Health	Partners for a Clean Environment (PACE)	Nonprofits, small businesses, shelters, clinics, hospitals, religious centers	2018	$1,253,296	15,787	1,942	123
Hawaii Energy	Hawaii Energy HTR Programs	Nonprofits, small businesses	2017–18	$2,338,000	11,433	8,792	769
Efficiency Vermont	K–12 Support	Schools	2017	Not available	10,833	1,300	120
Efficiency Vermont	Business Energy Assessments	Nonprofits, small businesses, shelters, clinics, hospitals, municipal buildings, religious centers	2017	Not available	10,790	2,374	220
Pasadena Water and Power	Water and Energy Direct Install Program	Small businesses	2018	$5,000,000	10,515	2,734	260
LADWP	Commercial Direct Install Program	All nonresidential sectors	FY2018–19	$30,000,000	10,245	100,306	9,791

* Sources of evaluation data include data directly from the utility, reports cited in the references, and additional program documentation provided by the program administrator. See table A4 in Appendix A for details.

Table 9. Programs that reported gas savings

Administrator	Program	Sectors served	Evaluation period*	Budget	Therms/ building	Therms saved	Buildings served
Colorado Energy Office	Energy Performance Contracting	Clinics, hospitals, educational facilities, municipal buildings	2017–18	Not available	12,481	586,603	47
Columbia Gas of Ohio	Commercial EE Programs	All nonresidential sectors	2018	$1,889,521	10,994	2,077,797	189
Los Angeles County	SoCalREN Public Agency Project Delivery Program	Municipal buildings, educational facilities	2018	$3,300,000	2,762	2,762	1
Healthy Neighborhoods, Inc. (administered by the Maryland Energy Administration)	EmPOWER Clean Energy Communities LMI Grant Program	Nonprofits, small businesses, shelters, municipal buildings, educational facilities, religious centers	2017–18	$1,120,527	1,629	29,321	18
Minneapolis Health Department	Minneapolis Green Cost Share Program	All nonresidential sectors	2018	Not available	896	67,210	75
Efficiency Vermont	K–12 Support	Schools	2017	Not available	833	100,000	120
Energy Outreach Colorado	Nonprofit Energy Efficiency Program	Nonprofits	2018	$2,190,000	613	41,062	67
Eversource	Main Street	Nonprofits, small businesses	2017–18	Not available	47	17,395	372
Pasadena Water and Power	Water and Energy Direct Install Program	Small businesses	2018–19	$5,000,000	16	4,265	260
LADWP	Commercial Direct Install Program	All nonresidential sectors	2018	$30,000,000	4	38,927	9,791

* Sources of evaluation data include data directly from the utility, reports cited in the references, and additional program documentation provided by the program administrator. See table A4 in Appendix A for details.

Program Cost Effectiveness

Many program administrators acknowledge that programs serving under-resourced communities will likely have higher costs to overcome program barriers. Still, most programs are not exempt from cost-effectiveness rules. Of the programs that provided data, only three indicated that they have cost-effectiveness exceptions; these were Los Angeles County's SoCalREN Program, Boulder County Public Health's PACE program, and Energy Outreach Colorado's Nonprofit Energy Efficiency Program. Even so, these programs are still annually evaluated and adjusted to maximize their cost effectiveness.

Boulder County's PACE program does not have fixed cost-effectiveness rules but is still evaluated annually. Energy Outreach Colorado's Nonprofit Energy Efficiency Program can be flexible by measuring the cost effectiveness of an entire project rather than the cost impact of each individual project measure. Los Angeles County's Public Agency Project Delivery Program is not required to meet specific cost-effectiveness requirements but is encouraged to see improvements in resource costs over time.

All of the utility-run programs indicated that they are subject to standard cost-effectiveness requirements for their programs serving nonresidential organizations in LMI communities. Even so, a few of the utility programs allow cost effectiveness to be determined at the program or portfolio level rather than at the project or measure level. By doing so, programs can include some organizations that would not prove cost effective on their own. Some programs evaluate cost effectiveness in terms of customer payback, with 10- or 15-year payback period goals.

In addition, Hawaii Energy claims that although its Energy Advantage program is the least cost-effective program in its portfolio, it also is the most successful program in terms of customer and contractor engagement, participation, and community impact. Hawaii Energy tracks savings from business and residential programs across each island to determine if the islands are equitably served by its programs. Hawaii Energy also includes a detailed breakdown of program costs and benefits in its annual report for its business program (Hawaii Energy 2018). Program administrators may want to consider their program goals and regulatory requirements when conducting program evaluations and calculating cost effectiveness.

Strategies for Reaching Community-Serving Institutions

Through research and our program survey, we have identified promising practices and lessons learned regarding stakeholder engagement, partnerships, program marketing, program targeting, and serving diverse organizations.

Some key strategies for success include engaging stakeholders early and often, building community trust, leveraging existing channels for program delivery, having flexibility in measures, targeting, tracking progress, and providing robust funding sources.

Stakeholder Engagement

To create programs that meet the needs of participants, program designers and implementers should conduct stakeholder engagement during project planning stages as well as in post-program evaluation. Implementers can use stakeholder expertise to gain a more holistic understanding of community demographics, goals, needs, barriers, and resources. By connecting with community-serving organizations and the communities they serve, program administrators can identify the measures, financing options, and delivery methods that will have the greatest impact and success.

The following are some of the most important stakeholders to engage across different nonresidential organization types:

- **Small businesses.** Distributors, building owners and tenants, minority-owned businesses, local independent trade associations, local chambers of commerce, Latino chambers of commerce, small business development centers
- **Nonprofit organizations.** Building owners, nonprofit managers, funders, individuals served by the nonprofit's mission
- **K–12 schools.** School administrators and staff, government organizations, school board, teachers and staff, students and parents (EPA 2011)
- **Religious centers.** Religious leaders, congregants, and organization staff
- **Transitional centers/shelters.** Center and shelter staff, residents, building owners, social service providers, advocacy groups
- **Clinics and hospitals.** Doctors, nurses, administrators and staff, building owners
- **Municipal buildings and community centers.** Municipal staff, community members

If programs aim to reach organizations in under-resourced communities, they should make additional stakeholder engagement efforts. Stakeholder networks can raise awareness of programs, make sure participants are reached, and increase the impact of the provided services (DOE 2019a). Engagement should happen early and often, beginning at the start of the project

design process and continuing through program evaluation. Engagement should include listening to and understanding the needs of the community-serving organizations and the people they serve; it should also include targeted partnership and outreach with trusted community organizations.

Minimizing participation burdens by addressing barriers to entry can allow additional engagement of organizations and individuals. This support can come in many forms, such as stipends, realistic time expectations, accessible logistics, and additional incentives (Curti, Andersen, and Wright 2018). These incentives can include offering child care, meals, and transit passes, or paying organization representatives for their time and input. Other important practices to ensure participation include offering translation and hosting meetings outside of work hours and in accessible locations (Bergstrom et al. 2012).

Partnerships

Many programs engage with partner organizations on design, delivery, and outreach. The most common types of partners identified through our survey are

- Community-based organizations
- Program vendors/implementers
- Local chambers of commerce
- Local governments
- Utilities (for nonutility-run programs)
- Federal agencies (e.g., national laboratories)
- Housing authorities
- Nonprofit affordable-housing organizations
- Local school districts and universities
- Third-party administrators
- Finance agencies
- Foundations and trusts

Most programs engage with partners on program implementation or outreach. By partnering with local organizations that work directly with community-serving institutions, program implementers are better able to market to and reach these organizations. By engaging partners throughout the program design and delivery process, especially around developing goals and metrics, administrators can receive input and feedback to ensure that their program meets the needs of the community-based organizations that they intend to serve. True partnerships begin at program inception, with the implementer and community working to develop a strategy to achieve their shared goals.

Working with trusted messengers—such as churches, community centers, and local nonprofits—can also help gain support from community members (C2ES 2017). Partnerships with chambers of commerce, small-business advocacy organizations, and community groups can help increase trust, awareness, and engagement with energy efficiency programs (Nowak 2016). For example, the Small Business Energy Initiative, launched by the Institute for Market Transformation and the Council of Small Enterprises, works with chambers of commerce and other organizations to develop best practices for small-

business energy efficiency programs. The group found that working with local chambers of commerce can provide more trust and legitimacy to energy efficiency program implementers as well as provide more tailored understanding of the needs of the local businesses. Chambers of commerce can also help businesses understand the benefits and impact of long-term energy efficiency investments through utility programs (Kanojia 2018).

Another example of a program partnering with community organizations is provided by SoCalREN, which partners with the Los Angeles Cleantech Incubator (LACI) to provide enhanced support and services to underserved communities. Through SoCalREN's Pathway to Zero Program, SoCalREN and LACI can offer resources to support implementation of innovative clean technologies.

Many programs in this study use partnerships to market their programs. For example, ComEd contracted with Elevate Energy to implement its Nonprofit Organization offering. Elevate works with several industry partners, such as the Illinois Green Alliance, Faith in Place, Illinois Action for Children, and the League of Chicago Theaters, to reach nonprofit organizations within their networks. Elevate provides free facility energy assessments and works with a closed pool of energy efficiency service providers to offer no-cost and low-cost solutions as well as incentives. Elsewhere, to conduct outreach and connect with nonprofits, New Ecology's Monitoring and Optimization Services partners with several organizations, including the Nonprofit Finance Fund, the Children's Investment Fund, Massachusetts Interfaith Power & Light, Massachusetts Cultural Council, and Action for Boston Community Development (ABCD). Many of these partners also provide additional benefits that align with their core work and missions, including financial analysis of operations, physical needs assessments and systems replacement plans to guide capital decision making, consulting support to improve operations and financing, and additional financing where needed.

The Maryland Energy Administration administers the Clean Energy Communities Low-to-Moderate Income Grant program, of which Healthy Neighborhoods, Inc. (HNI) is a grantee and program implementer. Clean Energy Communities LMI Grants are competitively awarded each year for energy efficiency projects that generate significant reductions in energy use and pass on the savings to Maryland's LMI residents. Grants have served interfaith shelters and commercial retrofits and new construction in Baltimore City. HNI harnessed the Maryland Energy Administration's grant program to extend its reach in some of the city's most underserved communities. The group worked with the Baltimore Office of Sustainability and 11 city nonprofits to make 27 facilities more energy efficient. These upgrades helped lower operating costs for organizations serving vulnerable residents such as the homeless; those with mental, physical, or developmental disabilities; and people with substance abuse disorders, among others. In 2017 HNI served the Center for Urban Families, a nonprofit in Baltimore City aimed at strengthening city communities by helping fathers and families achieve economic success. HNI was able to provide an HVAC control tune-up, air sealing and insulation, and a lighting retrofit, with anticipated annual savings of $34,158 and 293 MWh.

Minneapolis's Green Cost Share Program: Effective Partnerships and Outreach

Launched in 2012, the city of Minneapolis's Green Cost Share program offers matching funds for energy efficiency, solar, and other pollution-reduction projects in commercial, industrial, and multifamily buildings. This helps the city move closer to achieving its energy and climate goals by reducing community-wide fossil fuel use and associated emissions, with a focus on environmental justice.

Housed within the Minneapolis Health Department, the program grew out of a coalition of public, private, and nonprofit stakeholders to find ways to leverage public–private partnerships and offer solutions to issues of air quality and worker health. As a proof of concept, the program originally focused on working with local dry cleaners to address worker and neighborhood exposure to harmful chemicals and air pollution. In 2016 the program expanded to address the health impacts of energy use and contribute to meeting citywide climate change goals. Now the program works to help businesses meet their climate and energy requirements by providing efficiency audits and matching funds for upgrades. It has grown from three pollution-reduction projects annually to almost 250 through intentional outreach and by demonstrating success and impact.

Program funding comes from both the utility franchise fee paid by ratepayers and the Health Department's annual Pollution Control registration fee. It has also received federal and foundation funding. The program requires that participants also qualify for rebates from the local energy utilities, Xcel and CenterPoint Energy, in order to leverage as many funding sources as possible. The city also relies on utility expertise to identify cost-effective projects with high savings potential.

Minneapolis aims to make the program as easy to access and understand as possible and works to lower barriers to participation. The program employs several strategies to ensure that a significant portion of program resources flows to low- to moderate-income areas and properties. The most prominent strategy is leveraging work done in 2015 to establish two environmental justice areas of the city known as Green Zones. The aim is to prioritize investment in areas that face high environmental,

energy, and socioeconomic burdens. Designating the Green Zones came about through extensive stakeholder engagement meetings combined with analysis of data on equity, displacement, air quality, brownfields, housing, green jobs, food access, and greening. Even though the Green Cost Share program is available to businesses and organizations across the city, the program targets nonresidential properties in under-resourced communities by offering 10% greater incentives and priority when scoring program applications. Thanks to these efforts, more than a third of project applications received are from organizations in a Green Zone.

The city engages with community-based organizations, utilities, businesses, and other stakeholders throughout all stages of Green Cost Share program design and delivery. Among the city's partners is the Clean Energy Partnership's Energy Visions Advisory Committee, which brings together the city, utilities, and numerous community members to discuss issues related to energy use and equity. The group advises the program and assists with outreach efforts and funding coordination. The city also partners with community-based and other organizations such as the Minnesota Clean Energy Resource Team, the Center for Energy and the Environment, and the Minnesota Chamber of Commerce to market the program and extend outreach measures. The Energy Technical Assistance Program provides outreach services in Green Zones to connect businesses with program opportunities. Minneapolis also works closely with the Lake Street Council, a business advocacy organization within one of the city's Green Zones, to build trust and reach more customers.

The Minneapolis Green Cost Share team notes that partnerships are key to their program's success. By building trust through local chambers of commerce, community-based partners, and local businesses, the program has been able to grow and reach many businesses and buildings. The city ensures that its outreach is intentional, targeted, and impactful by building relationships over years of continuous engagement to improve trust and expand its reach and impact.

Program Outreach and Marketing

Programs that provide a clear picture of their benefits can lower information barriers and other impediments to participation, thereby increasing enrollment. Communicating program benefits to potential participants is most effective when tailored to the needs of each. For example, many small businesses do not own their facilities and therefore may not be motivated to pay to upgrade energy efficiency in their buildings. For this group, benefits such as thermal comfort and air quality may prove to be better motivators for participation than energy savings or building investment. Some programs will target building owners rather than occupants/tenants, while others will lower barriers for tenants to participate through specific program design choices, as in Eversource's Main Street Program, which does not require landlord approval for efficiency upgrades. These programs can use different outreach strategies and emphasize other benefits, such as lowering building maintenance costs and increasing tenant satisfaction.

Some programs enroll and qualify organizations and businesses across the target community during an outreach campaign—such as Eversource's Main Street program, Ameren Illinois's Streetlight Initiative, and ComEd's LED Streetlights offering. Some programs offer support to non-English speakers; examples include LADWP's Commercial Direct Install program, Eversource's Main Street program, Boulder County's Partners for a Clean Environment Program, and Hawaii Energy's Energy Advantage program. Partnerships with local community-based organizations, governments, chambers of commerce, or other nonprofits prove beneficial for reaching community-serving facilities and other nonresidential buildings in LMI communities. For example, ComEd engages with local chambers of commerce, news outlets, and small-business associations to market its Small Business offering.

Many of the programs in the study use traditional marketing methods such as direct mailers, web campaigns, print advertisements, community events, and partnerships with community entities. Eleven programs in this report stated that they also offer education and/or program support for participants. Some programs, such as Efficiency Vermont's Business Energy Assessments program, use one-on-one engagement with small businesses to help overcome barriers to entry, providing extra guidance and support throughout the application and program process. Similarly, Boulder County Public Health's Partners for a Clean Environment program uses one-on-one, in-person outreach to address participation barriers. It also builds on trusted relationships and uses Spanish-language materials when needed.

Energy Outreach Colorado uses a diverse variety of methods to market its Nonprofit Energy Efficiency Program (NEEP) to potential nonprofit participants. It relies on referrals from trusted entities throughout the state, such as peer nonprofits, nonprofit associations, foundations, and contractors. It also reaches potential participants by hosting workshops that target nonprofits. Energy Outreach Colorado has found that tabling at events rarely results in good leads and program uptake. This is largely due to the rare match between event attendees and the program's specific eligibility criteria. This is in part why NEEP has started hosting workshops, whose attendees are more likely to qualify for grant funding. NEEP also uses customizable communication and enrollment materials for the behavior-change component of the program, meeting participants where they are by setting goals and creating plans that achieve a small, medium, or large impact, depending on the motivation level of each participant.

The ComEd Energy Efficiency Program offers another example of a multifaceted outreach effort. The Distressed Communities Outreach team works directly with local governments, both in person and over the phone. Elevate Energy, the nonprofit implementing this program on behalf of ComEd, conducts outreach and marketing by attending city council meetings, presenting at sustainability or climate planning meetings, sending targeted emails, hosting workshops and on-demand webinars, and working with local governments. The program takes a community-focused approach to market itself and reach many organizations in the target communities.

Program Targeting

Some utilities and other program administrators segment building types to better understand customer needs and provide tailored programs to meet those needs. To better reach organizations in LMI communities, program implementers could segment community-serving institutions as a subset of nonresidential organization types and create targeted marketing, outreach, and measures to meet the needs of this segment.

This report includes numerous programs that target a specific segment of buildings. For example, Hawaii Energy's Energy Advantage program makes it easy for restaurants to enroll. Ameren Illinois's Commercial Kitchen Incentives program provides kitchen upgrades to schools in LMI communities, and Efficiency Vermont's Vermont Foodbank Gut Rehab program targets food banks in need of upgrades. Energy Efficiency Alberta's Nonprofit Energy Efficiency Transition (NEET) program provides energy efficiency services to nonprofit organizations that serve low-income communities. It conducts program marketing through a number of channels, including working with trade allies, program outreach staff, program implementers, and additional, online channels. By focusing on a particular type of organization, programs can have more specific and targeted measures and outreach.

For small businesses, some programs use customer sub-segments to determine market-specific barriers to program participation and measures that will be most effective (Avseikova et al. 2016). The Massachusetts Energy Efficiency Advisory Council identified specific market segments to target for its Small Business Direct Install program, with a focus on businesses owned or operated by nonnative English speakers (Massachusetts EEAC 2015). It recommends better electric and gas program integration, increasing recruitment by targeting very small businesses, providing comprehensive measures beyond direct install, and addressing language barriers to participation. Programs can segment their potential participants and conduct surveys to better understand their community's needs.

ComEd's Nonprofit Organization Offering is available to nonprofits and houses of worship that have a maximum peak demand of 400 kW, and whose mission involves providing direct services such as transitional housing, food pantries, youth programming, clinics, or other social services to at-risk populations. ComEd analyzes its commercial customer base to identify customers that likely meet the nonprofit qualification. It then conducts direct marketing to these organizations and targeted nonprofit portfolios such as the Salvation Army and YM/YWCA, as well as nonprofit organizations or houses of worship that provide community programs such as food pantries or child care.

Comprehensive Community-Focused Qualifications

Most utility programs use a community's median or average income as the qualification factor for identifying LMI customers and organizations. But income is not the only metric they can use. By incorporating other metrics—such as those related to education, health, energy affordability, and other socioeconomic factors—policymakers can ensure that program resources target organizations in communities most in need of support (Azulay and Giancatarino 2015).

Some states have adopted statewide definitions of "distressed communities." [4] These are often based on the

percentage of limited-income residents as well as other factors including unemployment rate, income, population, poverty rate, educational attainment, equalized assessed valuation, equalized effective property tax rate, housing stock, race, social distinction levels, school lunch access, and languages spoken.

The federal government has also developed qualifications to identify under-resourced communities, as shown in table 10. Program administrators can use one of these to identify organizations for participation in their nonresidential LMI programs, especially if they aim to serve community-based institutions. For more information about these qualification criteria, see Appendix C.

Table 10. Federal qualification definitions for under-resourced communities

Qualification	Organization	Definition/purpose
Area Deprivation Index	US Health Resources & Services Administration	Socioeconomic status indicators are used to present a geographically based measure of deprivation.
Distressed Communities Index	Economic Innovation Group	Index measures vitality of communities using seven metrics: high school graduation rates, housing vacancy rates, percentage of unemployed adults, poverty rates, median income, change in employment, and change in business establishments.
Opportunity Zones	Created by an act of Congress, certified by the US Department of the Treasury	Governors nominate low-income census tracts that are then certified by the Treasury Department as Opportunity Zones. These zones receive long-term investment through public and private channels.
New Markets Tax Credit Benefits	US Department of the Treasury	Government incentivizes private investment in distressed areas by providing tax credits. Organizations can invest in low-income communities by obtaining Community Development Entity certification.
8(A) Business Development	Small Business Administration	SBA assists small disadvantaged businesses with business support and development. Small businesses qualify for the program if owned and operated by socially or economically disadvantaged individuals, as defined in the Code of Federal Regulations.

4   "Distressed communities" go by different names in different states. Examples of these designations and the states that use them include the following: Community Vitality Indicator (Indiana); Distressed Areas (Michigan, Oregon, Washington); Distressed Communities (Illinois, Missouri); Distressed Counties (southeastern states); Distressed Municipalities (Connecticut, New Jersey); Economically Distressed Areas (California, Iowa, New York); Environmental Justice Communities (Massachusetts); and Surrogate Standard (Alaska).

Meeting the Needs of Small Nonresidential Organizations

Energy efficiency programs that target small businesses and other small nonresidential customers often face challenges due to the small size of these customers and the diversity of their energy needs. Nonresidential organizations tend to vary greatly in terms of how they use energy, including the kinds of appliances and equipment they use and the design of their buildings. Commercial businesses offer an example of this diversity, as they can vary greatly in terms of energy needs (e.g., restaurants versus retail stores).

While many community-serving organizations are not small businesses, strategies identified in previous ACEEE research on small business program best practices can provide helpful guidelines to better serve these organizations as well (Nowak 2016). Many successful small business programs use a one-stop-shop model to provide participating businesses with all available resources in one place. This also allows programs to create economies of scale to better serve many small businesses at a lower price. Best practices in serving small nonresidential organizations include the following:

- Provide free or low-cost on-site assessment (energy audit) to identify potential energy efficiency opportunities
- Offer a wide set of eligible measures in order to meet diverse building needs
- Provide attractive financial incentives (e.g., rebates) for energy efficiency measures
- Offer financing to encourage comprehensive retrofits and deeper savings
- Offer customized approaches by segmenting program participants by common characteristics and energy needs
- Establish partnerships with local organizations
- Provide dedicated project process managers in collaboration with local organizations
- Provide streamlined installation of lighting measures
- Tailor and target marketing and communications to customer needs

While many programs have historically focused on lighting measures, community-based organizations have a variety of other energy end uses beyond lighting that can achieve substantial savings. For example, some programs focus on refrigeration, which uses high amounts of energy in restaurants, grocery stores, convenience stores, warehouses, schools, and food banks. Programs can explore different combinations of low-cost and high-cost measures. Measures that address heating and cooling end uses tend to achieve high energy savings and provide benefit to the majority of participants. Programs that also incorporate energy efficiency education and behavior change can often achieve additional and longer-lasting savings.

Mayor Domenic Sarno helps Eversource and Columbia Gas kick off Main Streets Springfield on Energy Efficiency Day, Oct 2, 2019 at Springfield City Hall. Photo courtesy of Eversource Energy.

Role of Policy

Policymakers at the state and local levels, as well as utility decision makers, can work to ensure that the benefits of energy efficiency programs are accessible to all, including community-serving institutions.

To date, reaching nonresidential buildings in LMI communities with energy efficiency investments remains a mostly untapped area for further policy and program exploration. While this area is new, much can be done now.

Decision makers can pass legislation, set policies and targets, or change cost-effectiveness requirements for programs that serve nonresidential organizations in LMI communities. Program administrators (utilities or other implementers) can also create their own internal targets within broad program areas, such as commercial and industrial portfolios, to prioritize reaching organizations. Implementers can also reduce barriers to serving this sector by, for example, ensuring that certain financing options are enabled for participants and by investing in targeted marketing and outreach. Policymakers and program implementers can pursue the following strategies to help increase energy efficiency investments for community-serving institutions:

- Assess need and set targets for nonresidential programs in LMI communities
- Ensure robust funding to cover program costs and include incentives and financing to facilitate customer action
- Address split incentives
- Set targets for diversity in job training, contracting, hiring, and accessibility

Need Assessment and Target Setting

If improving energy affordability and building efficiency in LMI communities is a statewide goal, the utility regulatory body in each state (such as the state Public Utility Commission) can often develop guidelines or targets that require or encourage nonresidential programs to directly benefit or better target community-serving institutions. The regulatory body (or legislature) can identify goals and sometimes establish carve-outs for programs aimed at community-serving institutions. To determine the proper scale of a target or carve-out and to establish baselines and identify savings potential, the regulatory or government body can work with an evaluator or consulting firm to research the community-serving institution and nonresidential building sector in the state. It can also set requirements for programs to be equitable and accessible to all customers, can set cost-effectiveness requirements, and can quantify and track program impacts.

Program implementers can often also voluntarily establish baselines and set targets for reaching community-serving institutions in LMI communities. For more formal action, stakeholders who want to advocate for targeted energy efficiency programs for community-serving institutions can advocate to their state legislature or utility regulatory body for policies or guidelines to advance services in this area. They can also work directly with utilities or other program implementers to encourage internal tracking, establish baselines, and include additional outreach and support for reaching this underserved sector.

STEP 1. ESTABLISH BASELINE AND IDENTIFY SAVINGS POTENTIAL FOR COMMUNITY-SERVING ORGANIZATIONS

The first step before creating a policy requirement or specific target should be to define the communities and institutions that will be served. This requires establishing a definition for low-income and/or under-resourced communities (see Appendices B and C) and identifying which community-serving organization types will be included (e.g., nonprofits, schools, religious organizations, hospitals, municipal buildings).

Next, for a regulator to determine targets or carve-outs for this sector, it must establish baselines and identify sector-wide energy savings potential. This can be done by hiring an outside firm or by internally analyzing census and other data to estimate the number of nonresidential organizations in target communities, as well as the energy savings potential among these organizations. Baseline data can help inform program design, targeting, and outreach, and it can also provide needed information for internal program process and design evaluations.

These data can also help determine appropriate regulatory action to better serve this sector through additional carve-outs or requirements, if needed.

STEP 2. ANALYZE PROGRAM DESIGN AND DELIVERY MECHANISMS

Another helpful step is for program implementers to conduct program design and process evaluations to determine if their current programs meet the needs of this sector. If this analysis finds that their current commercial and industrial programs (or other programs for which this sector is eligible) are not reaching these organizations, then additional programs or targeted efforts may be needed.

Program implementers can consider a number of key design and delivery features to determine changes they should make to their programs to better reach community-serving institutions in LMI communities. Table 11 lists some of these considerations as well as pros and cons of each.

Table 11. Considerations for programs that aim to reach community-serving institutions in LMI communities

Program considerations	Pros	Cons
Create a separate program to exclusively serve nonresidential organizations in LMI communities	Separate programs can specifically target and meet the needs of these organizations through design choices	New program requires significant resources and may face data, regulatory, or other barriers
Adjust existing programs for nonresidential organizations to include increased outreach or incentives for organizations in LMI communities	This avoids need to create a new program and can build on already successful programs to reach more organizations	Program may not be designed to meet the specific needs of these organizations
Use geotargeting to identify communities and community-serving institutions	Publicly available data can be used to identify target LMI communities	It can be challenging to identify community-serving institutions within targeted areas
Adopt a neighborhood/community approach, targeting many organizations in one community for participation	This creates economies of scale and streamlines outreach efforts and relationship building	Program becomes limited to organizations only in select communities
Offer robust incentive levels	High incentive levels can lower participation barriers and may lead to deeper energy savings	High incentives limit the number of organizations that can be served within an available budget
Target specific organizations based on size, energy use, or owner/customer demographics	Program can target small organizations as an underserved sector, high energy users for high savings potential, or minority-owned businesses	It may prove challenging to reach the smallest nonresidential organizations in LMI communities or identify minority-owned businesses

STEP 3. SET REGULATORY TARGETS OR CARVE-OUTS FOR NONRESIDENTIAL ENERGY EFFICIENCY DOLLARS OR SAVINGS IN LMI COMMUNITIES

The appropriate decision makers (e.g., legislators or regulators) can evaluate the findings of baseline/potential studies as well as existing program design and implementation analyses to determine if community-serving organizations in LMI areas have a high potential for energy savings or are underserved by current programs. This sector may prove more costly to serve than other commercial and industrial buildings. One option is to allow the cost of commercial and industrial portfolios to increase, similar to how exceptions are made for low-income programs in residential portfolios.

Regulators may choose to pass requirements for utility ratepayer-funded programs to allocate funds to programs serving these communities. Currently, 18 states have low-income *residential* program requirements. These include low-income program savings targets, spending thresholds, spending proportions, and additional state-sponsored funding.[5] To date, none of these requirements consider potential savings from the nonresidential sector in LMI communities.

If policymakers wanted to include nonresidential programs in these targets, regulators would need to assess savings potential from nonresidential building stock and adjust their spending and savings targets accordingly. This would lead to an increase in targets in LMI communities. If regulators factored in nonresidential building potential, statewide low-income targets and requirements could then apply to both residential and nonresidential buildings based on savings potential and cost-effectiveness calculations for each sector.

Alternatively, regulators could create separate carve-outs for programs serving nonresidential organizations in limited-income communities. At least a quarter of states currently have defined what constitutes a distressed community, and program implementers could use these definitions to identify and streamline enrollment in target areas.[6]

STEP 4. SET GOALS AND REQUIREMENTS FOR EQUITABLE PROGRAM ACCESS

State and local policymakers can also work to ensure that programs serving limited-income communities are accessible to all organizations. Some states, such as Massachusetts, New Jersey, and Washington, have uniform statewide programs that combine utility and federal dollars to serve limited-income residential households. Administrators of these statewide programs provide a single point of contact, which helps ensure that participants can access all available resources. If they do not already include nonresidential customers in LMI communities in their portfolios, statewide low-income implementers could create programs to reach them, or states could create similar networks to serve this sector.

At either the state or local level, policymakers and regulators can require equitable outreach methods, such as language access and research into the best channels to reach target organizations. State-level requirements can also focus on tracking program success beyond energy savings with metrics that indicate how equitably the program reaches and serves target organizations. Such metrics could include spending or savings per eligible organization, percentage of eligible organizations reached, number of local jobs created, improvement in air quality or building comfort, reductions in energy burdens, or demographics of organizations served.

STEP 5. EXPAND COST-EFFECTIVENESS CRITERIA AND QUANTIFY IMPACTS

Energy efficiency programs serving under-resourced and limited-income communities can often incur higher costs to achieve savings due to factors such as capital constraints, health and safety issues, and targeted outreach needs. Policymakers have used a few methods

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5   For up-to-date information on state-level low-income program requirements, see database.aceee.org/state/guidelines-low-income-programs.

6   See Appendix B for details about the state distressed community definitions and Appendix C for federal community-targeting definitions and programs.

to adjust cost-effectiveness requirements for residential low-income programs, including (1) explicitly (or in some cases implicitly) exempting them from cost-effectiveness requirements, (2) applying a generic percentage "adder" to approximate the additional health and safety benefits they provide, or (3) attempting to more specifically calculate and quantify associated nonenergy benefits into the cost-effectiveness calculation (Berg and Drehobl 2018).

Utility regulators in 23 states have established special cost-effectiveness provisions for low-income residential programs (Berg and Drehobl 2018). These provisions recognize the additional costs to serve this sector as well as the additional benefits. However special provisions are typically not available to nonresidential programs serving organizations in these same communities. Nonresidential programs are, in most cases, housed within commercial and industrial program portfolios, and these are rarely excluded from cost-effectiveness testing requirements. Regulators can consider making exceptions, similar to those made for residential low-income programs, for nonresidential programs that serve under-resourced communities. They could use the strategies listed above, or they could move cost-effectiveness requirements to the portfolio level rather than the individual project level. This would allow some organizations whose participation would not be cost effective to still take part, as long as overall projects averaged out to be cost-effective.

One approach might be for regulators to explore additional ways to make it easier for program administrators to track demographic data on program participation while protecting participant privacy. Program managers with demographic data about participating organizations can use this information to track progress toward program goals, such as serving minority-owned or women-owned businesses, reaching organizations in LMI communities, or serving organizations with high energy burdens. If it is easier for utilities and other program administrators to collect certain demographic data, they may be able to better target and evaluate the impact of their programs.

Funding, Financing, and Incentives

Due to financial and resource constraints, many community-serving organizations need access to capital in order to invest in energy efficiency upgrades. Policymakers can ensure that programs are able to access sufficient funding and financing opportunities by enabling ratepayer and other funds, loan options, and other financial mechanisms. Through legislation, state and local policymakers can enable certain financing mechanisms such as on-bill financing, lead-by-example green leasing, Commercial Property Assessed Clean Energy (C-PACE) financing, green banks, and Community Development Block Grants (CDBG). For each of these financing options, policymakers can ensure strong safeguards are in place to protect small businesses and organizations from adverse financial terms. The following is a more detailed look at some of these options.

ON-BILL PROGRAMS

An on-bill program provides participants with the up-front capital they need to make energy efficiency improvements, and it uses the utility bill as a repayment mechanism. On-bill lending takes two forms: on-bill tariffs and on-bill loans. Tariffed programs are tied to the building meter so that, in theory, the loan can be transferred to another building owner or tenant when the original borrower sells the property or moves. On-bill loan programs create consumer debt tied to the borrower. Tariffed programs make it easier for renters or building tenants to participate because when they move, the payment mechanism remains with the meter.

Depending on state-level regulation, on-bill programs can use a range of funding sources, including internal utility reserves, ratepayer funds, private lending institutions, community development finance institutions, foundations and charitable organizations, bond issuances, and property taxes (Michigan Saves et al. 2017).

To support consumers, on-bill programs can be designed to be bill-neutral or bill-positive. Bill-neutral programs ensure that the cost of the tariff or loan does not exceed the estimated savings over the estimated repayment life

of the upgrades, which should be equal to or less than the expected life of the upgrades. Bill-positive programs ensure that energy savings are greater than the cost of the tariff or loan, leading to lower monthly bills for program participants.

GREEN LEASING

Green leasing—also referred to as energy-aligned, energy-efficient, or high-performance leasing—is the practice of realigning financial incentives relating to sustainability or energy in lease documents. This creates win-win situations for both landlords and tenants in terms of energy and other conservation savings. For many commercial landlords and tenants, cost structures in their leases lead to split incentive issues that discourage both parties from investing in energy efficiency. Green leases work to eliminate the split incentives by including agreements whereby tenants commit to or gain incentives for energy, water, and/or waste reductions or other improvements. The Institute for Market Transformation estimates that green leases can achieve $3 billion in annual cost savings for the office building sector alone (Feierman 2015).

State and local governments can lead by example by passing legislation to require green leases in certain circumstances for their buildings or others in their jurisdiction. In 2010 the state of Washington passed a bill that restricted the state from entering into a new lease or renewing a lease for a building with an ENERGY STAR® score below 75, unless energy-efficient measures were implemented within two years of the lease. In 2011 the state of New York adopted Model Energy-Aligned Lease Language (as part of its Greener, Greater Buildings Plan), which provides model language for commercial buildings to use to address the split incentive problem (SEE Action 2012). (For more, see "Split Incentives," below.)

COMMERCIAL PROPERTY ASSESSED CLEAN ENERGY

Commercial Property Assessed Clean Energy (C-PACE) is a financing instrument for energy efficiency and renewable energy projects for commercial property owners. C-PACE programs enable property owners to finance the up-front cost of energy improvements and repay the costs over time through a voluntary assessment on their property tax bill (Leventis et al. 2018). This financing model is tied to the property, rather than the individual, and can transfer to future owners of the property.

C-PACE must be authorized by state legislation and requires further authorization from local governments. Funding for C-PACE can come from the local or state government or a third-party financier. Currently C-PACE programs exist in multiple states, regions, and localities, with programs varying in terms of financing structures and eligible measures. More than 35 states and the District of Columbia currently have C-PACE enabled through legislation, with more than $800 million in projects financed to date (DOE 2019b).

COMMUNITY DEVELOPMENT FINANCIAL INSTITUTIONS AND NEW MARKETS TAX CREDITS

Community Development Financial Institutions (CDFIs) provide economic opportunities to nonprofits, small businesses, and residents in limited-income communities. These institutions can take the form of banks, credit unions, loan funds, microloan funds, or venture capital providers (CDFI Fund 2017). As part of the CDFI Fund, the federal government provides New Markets Tax Credits (NMTC) to certified Community Development Entities in order to attract private investment to distressed communities (CDFI Fund 2017). Investments, such as business loans, made in limited-income communities receive a credit against federal income taxes for investors. NMTC projects must have a demonstrable community impact, such as achieving a higher level of LEED certification or demonstrated energy savings.

GREEN BANKS

Green banks are an additional financing source for nonresidential energy efficiency programs. These are entities typically created by state or local governments to address barriers faced by building owners/tenants and lenders in financing clean energy projects. Most green banks are publicly chartered financing institutions with a mandate to invest in clean energy. They often leverage public funds to stimulate private capital and focus on bridging market gaps (Gilleo, Stickles, and Kramer 2016). As of 2017, local and state legislation had established several green banks, including the Connecticut Green Bank, NY Green Bank, California Lending for Energy and Environmental Needs, Rhode Island Infrastructure Bank, Montgomery County Green Bank (Maryland), and the Hawaii Green Energy Market Securitization (NREL 2019).

COMMUNITY DEVELOPMENT BLOCK GRANTS

Community Development Block Grants (CDBG) are another funding mechanism that local governments can use to help drive energy efficiency investments in their communities. CDBGs are funded through the Department of Housing and Urban Development and provide communities with resources to address a wide range of community needs, including energy efficiency investments. The CDBG Entitlement Program provides annual grants to qualified cities and counties to invest in low- and moderate-income communities. The CDBG State Program provides funds to states to distribute to smaller local governments to preserve affordable housing, provide services to vulnerable communities, and create and maintain jobs (HUD 2019). Grantees must use at least 70% of allocated funds over three years toward activities that benefit low- and moderate-income people in their communities. These activities may include the funding of nonresidential energy efficiency programs targeting under-resourced communities.

Split Incentives

Commercial buildings account for 20% of all US energy use, and 50% of commercial buildings are leased (DOE 2016). State and local governments can focus on commercial buildings to help achieve energy savings and climate targets. Many community-serving institutions—such as nonprofits and small businesses—lease their buildings and therefore may face split incentives with landlords over energy efficiency investments. Split incentives arise when capital improvements are paid for by one party while the other party receives the benefits. The most common split incentive results from commercial lease structures where the building owner is responsible for capital upgrades while the energy costs and operating expenses are paid for by the tenants. Therefore, if the building owner pays for energy efficiency retrofits, the tenant benefits from them through lower bills.

In fact, the split incentive is one of the biggest barriers to nonresidential energy efficiency program participation. To address this, policymakers can enable financing options such as on-bill tariff programs to tie upgrades to the building meter. Policymakers can also make energy use and costs more transparent through building benchmarking requirements, and local and state governments can lead by example to create lease structures, like green leasing, that address split incentive issues (Torbert 2012).

To date, no research has calculated the number of community-serving institutions in the US in general or in LMI communities in particular. Localized baseline assessments can help determine the potential for savings from these buildings as well as how many are leased rather than owned. By calculating the magnitude of leased buildings, program implementers can decide how to address split incentive barriers to enable leased buildings to participate in targeted programs.

As discussed above, green leases are one mechanism to address split incentives. States can create green lease language that landlords and tenants can use to overcome these barriers. In 2010, the New York City Mayor's Office assembled a working group to develop lease language and a financial model to address the split incentive problem for commercial businesses. The Energy Aligned Clause allows landlords to recoup 80% of projected energy savings from a retrofit project each year, with the remaining 20% of cost savings accruing to the tenants, providing a buffer in case of underperformance. The landlord's cost recovery period is therefore extended by 25% (New York City 2019).

Diversity Targets

The transition to a clean energy economy brings with it new jobs and the opportunity to create a diverse and equitable workforce. According to a Brookings Institution report, clean energy workers earn higher and more equitable wages compared with workers nationally, but this workforce currently lacks racial and gender diversity (Muro et al. 2019). Low- to moderate-income communities can benefit not only when energy efficiency services reach their community-serving buildings and organizations, but also when local workers are tapped to provide these services.

Local and state governments can set diversity requirements or targets for the clean energy or energy efficiency workforce. Program implementers can also set internal goals for diversity in workforce development outcomes. Policymakers can set explicit goals for hiring, training, or contracting people from historically excluded populations in utility- or government-funded projects. They can also set goals for energy efficiency implementers to contract with minority-owned or women-owned businesses (Sen, Bird, and Bottger 2018). Where applicable, policymakers can better coordinate their energy efficiency and workforce development policies and targets to ensure a diverse energy efficiency workforce while also achieving energy efficiency program goals.

The Future Energy Jobs Act (FEJA) in Illinois, among other goals, created thousands of clean energy jobs and provides job training for the future workforce. FEJA prioritizes supplier diversity and community workforce development to address inadequacies in past approaches to serving marginalized communities and aims to create a more inclusive energy sector in the state (Markowska and Scull 2018). Local governments can develop workforce development goals, training programs, and job access strategies while also supporting clean energy accelerators and hubs and forming community partnerships to help diversify the energy efficiency workforce (Shoemaker and Ribeiro 2018).

Conclusion

Due to a number of barriers, community-serving institutions in historically under-resourced communities are typically underserved by energy efficiency programs. Despite the potential for these organizations to benefit from efficiency investments, few programs exclusively serve this sector.

An alternative is for utilities, statewide implementers, state and local governments, and other nonprofits and financing institutions to make extra efforts and include additional incentives to serve these institutions.

They can begin by researching the sector's energy savings potential and analyzing their current gap in reaching community-serving institutions. They can then develop solid program designs with strong value propositions to achieve cost-effective energy savings. They can either expand the state/utility definition of "low-income programs" to include community-serving institutions, or design special offerings within the broader category of nonresidential programs.

Energy efficiency programs that target community-serving institutions can achieve benefits beyond energy savings, and this sector has potential to grow in coming years. To best reach these institutions, implementers can tailor program designs, marketing strategies, eligibility criteria, and local partnerships to align with their needs. Policymakers can help ensure that energy efficiency programs reach community-based organizations by establishing baselines, conducting program analyses to assess how well they currently serve this sector, and potentially setting program targets to better reach these organizations. Policymakers can also enable diverse funding sources, address split incentives for building tenants, and encourage diversity in the energy efficiency workforce.

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Appendix A.
List of Programs

TABLE A1. PROGRAMS FROM ACEEE SURVEY

Administrator	Program	State	Years of operation	Program description
Ameren Illinois	The Staffing Grant	IL	2012 to present	Offers staffing grants to create energy efficiency opportunities for businesses and organizations in under-resourced communities
Ameren Illinois	Municipality-Owned Street Lighting Program	IL	2018 to present	Upgrades utility- and municipality-owned streetlights to LEDs in under-resourced areas
Ameren Illinois	Commercial Kitchen Incentives	IL	2018	Provides increased incentives for commercial kitchen upgrades in schools, specifically targeting under-resourced communities
Ameren Illinois	Small Business Outreach through Community-Based Partnerships	IL	2018 to present	Supports community-based organizations with resources necessary to promote energy efficiency incentive opportunities to their clients
Austin Energy	Commercial and Small Business Programs	TX	2007 to present	Provides lighting upgrades and other rebates to small businesses, religious centers, and nonprofits
Boulder County Public Health	Partners for a Clean Environment	CO	2010 to present	Provides energy efficiency advising, financial incentives, and certification for businesses, targeting small businesses
British Columbia Non-Profit Housing Association (BCNPHA)	BC Hydro/FortisBC's Social Housing Retrofit Support Program (SHRSP), implemented by BCNPHA	BC (Canada)	2018 to present	Offers financial support for energy studies, project implementation and utility incentives/rebates for organizations providing housing/ assistance to income-qualified persons or housing providers
Center for Sustainable Energy	Automated Demand Response Workforce Development	CA	2016 to present	Provides classroom and on-the-job training for apprentices from under-resourced communities working on automated demand response community equipment
CenterPoint Energy	SCORE/CitySmart Commercial Market Transformation	TX	2015 to present	Provides technical assistance, engineering analysis, performance benchmarking, and incentives for energy efficiency upgrades to schools, municipalities, religious organizations, and nonprofits
City of Seattle	Building Tune-Up Accelerator	WA	2017 to 2019	Offered technical assistance and financial incentives for early compliance with Seattle's Building Tune-Up requirements, targeting buildings of less than 100,000 square feet with owners who were more likely to be under-resourced

Appendix A. List of Programs

TABLE A1. PROGRAMS FROM ACEEE SURVEY / CONTINUED

Administrator	Program	State	Years of operation	Program description
Colorado Energy Office	Energy Performance Contracting	CO	2000 to present	Offers free technical support and tools for energy efficiency projects, targets state agencies, schools, and municipalities
Columbia Gas of Ohio	Commercial Energy Efficiency Program	OH	2009 to present	Offers custom and prescriptive rebates to commercial customers for energy efficiency measures, targeting schools, municipal buildings, and nonprofit facilities
ComEd	Nonprofit Organization Offering	IL	2019 to present	Provides free direct install products, facility assessments, contractor assistance, and construction management for nonprofits whose missions provide services to at-risk populations
ComEd	Small Business Offering	IL	2011 to present	Offers energy assessments and measure identification for small businesses, targeting those in under-resourced and under-represented communities
ComEd	LED Streetlights Offering	IL	2017 to present	Offers incentives to assist municipal customers in upgrading streetlights to LED, targeting under-resourced communities
ComEd	Distressed Communities Outreach	IL	2018 to present	Partners with Elevate Energy to provide outreach to under-resourced communities to ensure awareness of energy efficiency programs and incentives
ComEd	Public Buildings in Distressed Communities Offering	IL	2019 to present	Provides free LED lighting kits and highly incentivized HVAC upgrades to public sector facilities in distressed communities
DC Sustainable Energy Utility	Low-Income Direct Install Program	DC	2013 to present	Provides funding to energy efficiency projects in shelters and clinics serving vulnerable residents
Efficiency Vermont	Business Energy Assessments	VT	2014 to present	Identifies energy efficiency opportunities for small and medium businesses, targeting limited-income communities
Efficiency Vermont	K–12 Support	VT	2008 to present	Offers energy efficiency rebates for schools, targeting specific communities
Efficiency Vermont	Vermont Food Bank Gut Rehab	VT	2018 to present	Provides nonprofit statewide food bank with energy efficiency upgrades

Administrator	Program	State	Years of operation	Program description
Energy Efficiency Alberta	Non-Profit Energy Efficiency Transition Program	AB (Canada)	2018 to present	Offers installations of energy efficiency measures for nonprofit organizations
Energy Outreach Colorado	Nonprofit Energy Efficiency Program	CO	2007 to present	Provides project funding and management for nonprofit organizations that serve low-income communities
Eversource	Main Street	MA	2017 to 2018	Provides energy assessments and installation to small businesses, targeting outreach toward under-resourced communities
Hawaii Energy	Energy Advantage	HI	2011 to present	Targets small businesses to provide direct installation with significantly reduced pricing
Healthy Neighborhoods, Inc. (administered by the Maryland Energy Administration)	EmPOWER Clean Energy Communities LMI Grant Program	MD	2014 to present	Provides funding for energy efficiency upgrades implemented by nonprofits and local governments to benefit low-income communities
LADWP	Los Angeles Unified School District Partnership	CA	2012 to present	Provides energy efficiency upgrades to schools in Los Angeles, which often serve under-resourced communities; programs also include educational components
LADWP	Commercial Direct Install Program	CA	2013 to present	Provides lighting efficiency upgrades to small and medium-sized businesses, targeting those in limited income communities
LADWP	Community Partnership Outreach Grants	CA	2011 to present	Funds outreach programs for nonprofits to encourage energy efficiency program enrollment and energy conservation practices
Los Angeles County	SoCalREN Public Agency Project Delivery Program	CA	2013 to present	Offers energy efficiency project delivery services to public agencies, targeting those that serve under-resourced communities
Minneapolis Health Department	Green Cost Share Program	MN	2013 to present	Offers funding for energy efficiency, solar, or innovative pollution reduction projects in commercial, industrial, and multifamily buildings. Provides additional funding for projects in a city-designated Green Zone and environmental justice areas
New Ecology	Monitoring and Optimization Services	MA	2019 to present	Funds energy efficiency upgrades in multifamily and nonprofit buildings

Appendix A. List of Programs

TABLE A1. PROGRAMS FROM ACEEE SURVEY / CONTINUED

Administrator	Program	State	Years of operation	Program description
NH Community Development Finance Authority	Clean Energy Fund	NH	2015 to present	Provides technical assistance and low-interest financing to nonprofits, businesses, and municipalities for energy efficiency and renewable energy projects
NYSERDA	Community Energy Engagement Program	NY	2017 to present	Offers energy awareness education and outreach to residential, small businesses/ nonprofits and multifamily building owners with a focus on low-to-moderate income communities. Offers assistance with clean energy applications and implementation of clean energy projects.
Pacific Power	Wattsmart Small Business Program	CA, WA	2015 to present 2014 to present	Offers lighting and other incentives for energy efficiency programs, targeting under-resourced small businesses
Pasadena Power and Water	Water and Energy Direct Install Program	CA	2013 to present	Provides energy efficiency upgrades to small business customers
Pathway Lending	Energy Efficiency Loan Program	TN	2010 to present	Finances energy efficiency and renewable energy upgrades for businesses, nonprofits, and local governments required to make 60% of investments in low-income communities
Philadelphia Energy Authority	Small Business Energy Program	PA	2016 to 2018	Offers direct install services to small businesses, targeting low-income communities
Southface Institute	GoodUse (Grants to Green)	Multiple	2008 to present	Offers technical assistance and project implementation to provide energy efficiency upgrades to nonprofits

TABLE A2. PROGRAMS BY BUILDING TYPE

Administrator	Program	State	Nonprofit	Small business	Shelter	Clinic/ hospital	Educational institutions	Municipal building/ community center	Religious center
Ameren Illinois	The Staffing Grant	IL		●					
Ameren Illinois	Municipality-Owned Street Lighting Program	IL						●	
Ameren Illinois	Commercial Kitchen Incentives	IL					●		
Ameren Illinois	Small Business Outreach through Community-Based Partnerships	IL	●	●	●	●	●	●	●
Austin Energy	Commercial and Small Business Programs	TX	●	●	●	●	●	●	●
Boulder County Public Health	Partners for a Clean Environment	CO	●	●	●	●			●
British Columbia Non-Profit Housing Association (BCNPHA)	BC Hydro/FortisBC's Social Housing Retrofit Support Program (SHRSP), implemented by BCNPHA	BC (Canada)	●		●	●			
Center for Sustainable Energy	Automated Demand Response Workforce Development	CA	●	●			●	●	●
CenterPoint Energy	SCORE/CitySmart Commercial Market Transformation	TX	●				●	●	●
City of Seattle	Building Tune-Up Accelerator	WA	●	●		●	●	●	●
Colorado Energy Office	Energy Performance Contracting	CO				●	●	●	
Columbia Gas of Ohio	Commercial Energy Efficiency Program	OH	●	●	●	●	●	●	●
ComEd	Nonprofit Organization Offering	IL	●		●	●			●
ComEd	Small Business Offering	IL	●	●			●		●
ComEd	LED Streetlights Offering	IL						●	
ComEd	Distressed Communities Outreach	IL	●	●	●	●	●	●	●

Appendix A. List of Programs

TABLE A2. PROGRAMS BY BUILDING TYPE / CONTINUED

Administrator	Program	State	Nonprofit	Small business	Shelter	Clinic/ hospital	Educational institutions	Municipal building/ community center	Religious center
ComEd	Public Buildings in Distressed Communities Offering	IL				●	●	●	
DC Sustainable Energy Utility	Low-Income Direct Install Program	DC			●				
Efficiency Vermont	Business Energy Assessments	VT	●	●	●	●		●	●
Efficiency Vermont	K–12 Support	VT	●						
Efficiency Vermont	Vermont Food Bank Gut Rehab	VT	●						
Energy Efficiency Alberta	Non-Profit Energy Efficiency Transition Program	AB (Canada)	●						
Energy Outreach Colorado	Nonprofit Energy Efficiency Program	CO	●						
Eversource	Main Street	MA	●	●					
Hawaii Energy	Energy Advantage	HI	●	●					
Healthy Neighborhoods, Inc. (administered by the Maryland Energy Administration)	EmPOWER Clean Energy Communities LMI Grant Program	MD	●	●	●		●	●	●
LADWP	Los Angeles Unified School District Partnership	CA					●		
LADWP	Commercial Direct Install Program	CA	●	●	●	●	●	●	●
LADWP	Community Partnership Outreach Grants	CA	●	●					
Los Angeles County	SoCalREN Public Agency Project Delivery Program	CA					●	●	
Minneapolis Health Department	Green Cost Share Program	MN	●	●	●	●	●	●	●
New Ecology	Monitoring and Optimization Services	MA	●						●

Administrator	Program	State	Nonprofit	Small business	Shelter	Clinic/ hospital	Educational institutions	Municipal building/ community center	Religious center
NH Community Development Finance Authority	Clean Energy Fund	NH	●	●	●	●	●	●	●
NYSERDA	Community Energy Engagement Program	NY	●	●					
Pacific Power	Wattsmart Small Business Program	CA, WA	●	●	●	●	●	●	●
Pasadena Power and Water	Water and Energy Direct Install Program	CA		●					
Pathway Lending	Energy Efficiency Loan Program	TN	●	●				●	
Philadelphia Energy Authority	Small Business Energy Program	PA		●					
Southface Institute	GoodUse (Grants to Green)	Multiple	●						

Appendix A. List of Programs

TABLE A3. PROGRAMS BY FUNDING SOURCE AND BUDGET

Administrator	Program	State	Budget year	Funding source	Budget
Ameren Illinois	The Staffing Grant	IL	Not available	Ratepayer	Not available
Ameren Illinois	Municipality-Owned Street Lighting Program	IL	Not available	Ratepayer	Not available
Ameren Illinois	Commercial Kitchen Incentives	IL	Not available	Ratepayer	Not available
Ameren Illinois	Small Business Outreach through Community-Based Partnerships	IL	Not available	Ratepayer	Not available
Austin Energy	Commercial and Small Business Programs	TX	2018	Ratepayer	$1,938,573
Boulder County Public Health	Partners for a Clean Environment	CO	2018	County, municipal	$1,253,296
British Columbia Non-Profit Housing Association (BCNPHA)	BC Hydro/FortisBC's Social Housing Retrofit Support Program (SHRSP), implemented by the BCNPHA	BC (Canada)	Not available	Ratepayer, provincial, municipal, foundation	Not available
Center for Sustainable Energy	Automated Demand Response Workforce Development	CA	2016–18	Ratepayer, municipal, foundation	$4,476,189
CenterPoint Energy	SCORE/CitySmart Commercial Market Transformation	TX	2018	Ratepayer	$3,100,000
Colorado Energy Office	Energy Performance Contracting	CO	Not available	Ratepayer, state, private, foundation	Not available
Columbia Gas of Ohio	Commercial Energy Efficiency Program	OH	2018	Not available	$1,889,521
ComEd	Nonprofit Organization Offering	IL	Not available	Ratepayer	Not available
ComEd	Small Business Offering	IL	Not available	Ratepayer	Not available
ComEd	LED Streetlights Offering	IL	Not available	Ratepayer	Not available
ComEd	Distressed Communities Outreach	IL	Not available	Ratepayer	Not available
ComEd	Public Buildings in Distressed Communities Offering	IL	Not available	Ratepayer	Not available
DC Sustainable Energy Utility	Low Income Direct Install Program	DC	2018	Not available	$3,898,925

Administrator	Program	State	Budget year	Funding source	Budget
Efficiency Vermont	Business Energy Assessments	VT	Not available	Ratepayer	Not available
Efficiency Vermont	K–12 Support	VT	Not available	Ratepayer	Not available
Energy Efficiency Alberta	Non-Profit Energy Efficiency Transition Program	AB (Canada)	2018–19	Not available	$3,000,000
Energy Outreach Colorado	Nonprofit Energy Efficiency Program	CO	2018	Ratepayer, municipal, organizational	$2,190,000
Eversource	Main Street	MA	Not available	Ratepayer	Not available
Hawaii Energy	Energy Advantage	HI	2017–18	Ratepayer	$2,338,000
Healthy Neighborhoods, Inc. (administered by the Maryland Energy Administration)	EmPOWER Clean Energy Communities LMI Grant Program	MD	2017–18	State, ratepayer	$1,120,527
LADWP	Los Angeles Unified School District Partnership	CA	2017–18	Ratepayer	$15,000,000
LADWP	Commercial Direct Install Program	CA	2018	Ratepayer	$30,000,000
LADWP	Community Partnership Outreach Grants	CA	2018–19	Ratepayer	$1,400,000
Los Angeles County	SoCalREN Public Agency Project Delivery Program	CA	Not available	Ratepayer, nonprofit, federal government, local government, private	Not available
Minneapolis Health Department	Green Cost Share Program	MN	Not available	Federal, foundation, ratepayer	Not available
New Ecology	Monitoring and Optimization Services	MA	Not available	State, ratepayer	$1,400,000
NH Community Development Finance Authority	Clean Energy Fund	NH	Not available	Federal, state, organizational	$10,000,000 (revolving loan fund)
Pacific Power	Wattsmart Small Business Program	CA, WA	Not available	Ratepayer, private	Not available

Appendix A. List of Programs

TABLE A3. PROGRAMS BY FUNDING SOURCE AND BUDGET / CONTINUED

Administrator	Program	State	Budget year	Funding source	Budget
Pasadena Power and Water	Water and Energy Direct Install Program	CA	2018–19	Ratepayer	$5,000,000
Pathway Lending	Energy Efficiency Loan Program	TN	Not available	State, regional	Not available
Philadelphia Energy Authority	Small Business Energy Program	PA	Not available	Ratepayer, municipal, state, foundation, private	Not available
Southface Institute	GoodUse (Grants to Green)	Multiple	Not available	Foundation	Not available

TABLE A4. PROGRAM EVALUATION DATA

Administrator	Program	State	Evaluation source*	Years of evaluation data	Budget	Spending	Electric savings (MWh)	Gas savings (therms)	Buildings served	Cost-effectiveness exemption**
Austin Energy	Commercial and Small Business Programs	TX	Report[1]	2018	$1,938,573	$2,498,741	11,982	N/A	332	No info
Boulder County Public Health	Partners for a Clean Environment	CO	Survey and documentation	2018	$1,253,296	$1,253,296	1,942	245	123	Yes
CenterPoint Energy	CitySmart Commercial Market Transformation	TX	Documentation	2018	$3,100,000	$3,059,191	23,439	N/A	249	No info
Colorado Energy Office	Energy Performance Contracting	CO	Survey and documentation	2017–18	N/A	N/A	14,723	586,603	47	No info
Columbia Gas of Ohio	Commercial Energy Efficiency Program	OH	Survey and documentation	2018	$1,889,521	$1,948,762	N/A	2,077,797	189	No info
ComEd	Distressed Communities Outreach	IL	Survey	2018	N/A	N/A	422	N/A	5	No info
ComEd	Small Business Offering	IL	Report[2]	2018	N/A	N/A	196,963	N/A	7,715	No info
DCSEU	Income Qualified Efficiency Fund	DC	Survey	2017	$3,898,925	20% of DCSEU budget	8,712	N/A	750 beds	No
Efficiency Vermont	Business Energy Assessments	VT	Survey	2017	N/A	N/A	2,037	2,374	220	No info
Efficiency Vermont	K–12 Support	VT	Survey	2017	N/A	N/A	1,300	100,000	12	No info
Energy Efficiency Alberta	Non-Profit Energy Efficiency Transition Program	BC (Canada)	Survey	2018–19	$3,000,000	$3,000,000	N/A	N/A	191	No

TABLE A4. PROGRAM EVALUATION DATA

Administrator	Program	State	Evaluation source*	Years of evaluation data	Budget	Spending	Electric savings (MWh)	Gas savings (therms)	Buildings served	Cost-effectiveness exemption**
Energy Outreach Colorado	Nonprofit Energy Efficiency Program	CO	Survey and documentation	2018	$2,190,000	$4,080,000	1,800	41,062	67	Yes
Eversource	Main Street	MA	Survey	2017–18	N/A	$1,788,716	29,746	17,395	372	No
Hawaii Energy	Energy Advantage	HI	Report[3]	2017–18	$2,338,000	$2,479,694	8,792	N/A	769	No info
Healthy Neighborhoods, Inc. (administered by the Maryland Energy Administration)	EmPOWER Clean Energy Communities LMI Grant Program	MD	Survey and documentation	2017–18	$1,120,527	$1,120,527	1,736	29,321	18	No
Los Angeles County	Public Agency Project Delivery Program	CA	Report[4]	2017	$3,300,000	N/A	42,500	80,417	Not available	Yes
Los Angeles County	SoCalREN Public Agency Project Delivery Program	CA	Survey	2018	N/A	N/A	2,600	2,762	13 electric, 1 gas	No info
LADWP	Commercial Direct Install Program	CA	Survey	7/2018–6/2019	$30,000,000	$70,000,000	100,306	38,927	9,791	No info
LADWP	LA Unified School District Partnership	CA	Survey	2017–19	$45,000,000	$11,287,997	27,580,868	N/A	Not available	No info
LADWP	Community Partnership Outreach Grant	CA	Survey	9/2018–8/2019	$1,400,000	$1,400,000	N/A	N/A	Not available	No info
Minneapolis Health Department	Green Cost Share Program	MN	Documentation	2019	N/A	$3,877,636 [a] $1,014,471 [b]	8,255 [a] 1,159 [b]	6,721 [a] 1,806 [b]	75 [a] 23 [b]	No info
Pacific Power	Wattsmart Small Business Program	CA, WA	Survey	2018	N/A	N/A	647	N/A	38	No info
Pasadena Power and Water	Water and Energy Direct Install Program	CA	Survey and documentation	2018–19	$5,000,000	$1,114,957	2,734	4,265	260	No info

* Sources for the evaluation data in the table include information provided directly by utilities through our initial outreach (Survey), from annual or other reports included in the report references list (Report), and from additional evaluation documentation provided by the program administrator (Documentation). **Cost-effectiveness exceptions include any alternative methods for evaluating program effectiveness beyond normal methods, such as including an adder or determining cost-effectiveness at the program level rather than building level. [1] Austin Energy 2018. [2] Navigant 2018. [3] Hawaii Energy 2018. [4] SoCalREN 2017. Note: Minneapolis Green Cost Share included program-wide data and projects within the city's Green Zones. [a] Total program data. [b] Green Zone data.

Appendix B.
State Qualification Criteria for Under-Resourced Communities

TABLE B1. STATE QUALIFICATION CRITERIA

State	Qualification	Definition
Alaska	Surrogate standard[1]	Location is distressed if it meets two of the following three criteria: 1) Average market income less than $20,384 in 2017 2) 70% or more of residents earning less than $20,384 in 2017 3) 30% or less of residents employed in all four quarters of 2017
California	Economically distressed area[2]	Areas are defined as distressed using the following criteria: 1) Municipality with a population of 20,000 or less OR a rural county OR a reasonably isolated segment of a larger municipality with 20,000 people or less 2) Annual median income less than 85% of state median income 3) One or more of the following conditions: financial hardship, unemployment rate at least 2% higher than statewide average, low-population density
Connecticut	Distressed municipalities[3]	State requirements for spending on distressed municipalities uses the following factors as weight: 1) Per capita income for 2015 2) Percentage of population in poverty for 2015 3) Unemployment rate for 2016 4) Percentage change in population from 2000 to 2010 5) Percentage change in employment from 2006 to 2016 6) Percentage change in per capita income from 2000 to 2015 7) Percentage of building stock built before 1939 in 2015 8) Percentage of population with high school diploma and higher in 2015 9) Per capita adjusted equalized net grant list in 2017–18

State	Qualification	Definition
Illinois	Distressed communities[4]	Definition based on whether area is within or outside of a metropolitan statistical area (MSA). Requirements include the following: 1) Per capita equalized assessed valuation (equalized property tax assessments so that median level of assessment is 33% of fair market value) must be less than 60% of state average for MSAs or 50% of state average for non-MSA areas 2) More than 15% of population below national poverty level 3) No major university in the community 4) Has received less than fair share of OSLAD assistance
Indiana	Community vitality indicators[5]	Determines distressed communities based on the following factors: 1) Assessed value 2) Per capita income 3) Population growth 4) Educational attainment rate 5) Public school enrollment
Iowa	Economically distressed areas[6]	Counties that rank among the bottom 25 of all Iowa counties, as measured by the following: 1) Average monthly unemployment level for the most recent 12-month period OR 2) Average annualized unemployment level for the most recent five-year period
Massachusetts	Environmental justice communities[7]	Community identified if any of the following are true: 1) Block group whose annual median household income is equal to or less than 65% of the statewide median ($62,072 in 2010) 2) 25% or more of the residents identify as a race other than white 3) 25% or more of the households have no one over the age of 14 who speaks English only or very well (i.e. English isolation)
Michigan	Distressed areas[8]	Three types of definitions: community-wide, blighted areas within a community, and neighborhood enterprise zone qualified communities. **Community-wide** areas are defined by the following criteria: 1) Municipality shows a negative population change from 1970 to the date of the most recent federal decennial census 2) Municipality shows an overall increase in the state equalized value of real and personal property of less than the statewide average increase since 1972 3) Municipality has a poverty rate—as defined by the most recent decennial census—greater than the statewide average 4) Municipality has had an unemployment rate higher than the statewide average unemployment rate for three of the preceding five years **Blighted areas** within a community are areas located in a city with a population of at least 10,000 which is either designated as a "blighted area" by a local legislative body or which is determined by the Michigan Enterprise Zone Authority to be blighted or largely vacant by reason of clearance or blight. If the Authority designates the area as blighted, it must determine that private enterprise has failed to provide a supply of adequate, safe, and sanitary dwellings sufficient to meet market demand. In addition, the city must approve the changes in income limits that are associated with this designation by either a resolution or written communication from the higher legislative body of the city or the mayor. **Neighborhood enterprise zone qualified communities** are defined as areas located in a local unit of government certified by the Michigan Enterprise Zone Authority as meeting the criteria prescribed in Section 2(d) of the Neighborhood Enterprise Zone Act of 1992. These criteria include all county seats.

Appendix B. State Qualification Criteria for Under-Resourced Communities

TABLE B1. STATE QUALIFICATION CRITERIA / CONTINUED

State	Qualification	Definition
Missouri	Distressed communities[9]	Distressed communities are identified by the following criteria: 1) A municipality within an MSA with median household income under 70% of median household income of MSA 2) A US census block group or contiguous group of block groups within a MSA that has a population of at least 2,500; each block group having a median income of under 70% of the median household income for metropolitan areas in Missouri OR 3) A municipality not in an MSA with a median household income of under 70% of the median household income for nonmetropolitan areas in Missouri
New Jersey	Distressed municipalities[10]	Determines distressed municipalities based on the following factors: 1) Number of children on TANF per 1,000 persons 2) Unemployment rate 3) Poverty rate 4) High school diploma or higher 5) Median household income 6) Percentage of households receiving SNAP assistance 7) Percentage of population change over 10 years 8) Non-seasonal housing vacancy rate 9) Equalized three-year effective property tax rate 10) Equalized property valuation per capita
North Carolina	Development tier designations[11]	The state uses the following factors to determine distress level: 1) Average unemployment rate for the most recent 12 months 2) Median household income for the most recent 12 months 3) Percentage growth in population in most recent 36 months 4) Adjusted property tax base per capita
New York	Economically distressed areas[12]	Criteria for economically distressed areas include one of the following: 1) Unemployment rate over the 24-month period is 1% or more above the national average OR 2) Per capita or personal income is 80% or less than the national average

Oregon	Distressed areas[13]	Distressed areas are identified using one of three methods.
		1) County Index is calculated based on the following factors:
		  a) State's unemployment rate divided by the county's unemployment rate
		  b) County's per capita personal income divided by the state's per capita personal income
		  c) Change in the county's average covered payroll per worker over a two-year period
		  d) Sum of the change in the county's employment over a two-year period
		2) A city outside of a county is identified as a distressed area when its variable values are below the designated threshold value as determined by at least three of the four indicators listed below:
		  a) Percentage of city population aged 25 years and older with a bachelor's degree or higher
		  b) City's unemployment rate
		  c) Percentage of the city population three years of age and older below the poverty level, excluding those enrolled in college undergraduate and graduate or professional school
		  d) The city's per capita personal income
		3) A county, city, or other geographic area may demonstrate distressed status in writing through a Temporary Distressed Petition.

TABLE B1. STATE QUALIFICATION CRITERIA / CONTINUED

State	Qualification	Definition
Tennessee	Distressed counties[14]	Rank among the 10% most economically distressed counties in the nation, as determined by the Appalachian Regional Commission index of county economic status for every US county. Economic designations are identified through the following factors: 1) County three-year average unemployment rate 2) Per capita market income 3) Poverty rate Based on these factors, counties are categorized as distressed, at-risk, transitional, competitive, or attainment
Virginia	Distressed localities[15]	Unemployment rate higher than stage average of 4% (calendar year 2008)
Washington	Distressed areas[16]	Counties where the three-year unemployment rate is at least 20% higher than the statewide average

Sources: [1] Denali Commission 2018. [2] California DWR 2015. [3] Connecticut DECD 2019. [4] Illinois Administrative Code 2019. [5] Indiana OCRA 2019. [6] Iowa Legislature 2014. [7] MassDEP 2019. [8] MSHDA 2019. [9] Missouri DED 2019. [10] New Jersey DCA 2018. [11] North Carolina Department of Commerce 2018. [12] New York DOT 2010. [13] Oregon Administrative Rules 2019. [14] TNECD 2019. [15] VEDP 2009. [16] Washington ESD 2019.

Appendix C.
Other Qualification Criteria for Under-Resourced Communities

AREA DEPRIVATION INDEX

The Area Deprivation Index, originally developed by the US Health Resources and Services Administration, uses socioeconomic status indicators to present a geographically based measure of deprivation (University of Wisconsin School of Medicine and Public Health 2019). The index was initially intended to evaluate the relationship between increased health risks and socioeconomic deprivation experienced by neighborhoods. Redeveloped by the Health Innovation Program at the University of Wisconsin-Madison, the Area Deprivation Index uses census data and variables relating to income, education, housing, poverty, and vehicle access. The index presents levels of disadvantage at the block group and neighborhood level.

DISTRESSED COMMUNITIES INDEX

The Economic Innovation Group developed the Distressed Communities Index to measure the vitality of communities across the nation (EIG 2019). The tool analyzes seven metrics: high school graduation rates, housing vacancy rates, unemployed adults, poverty rates, median incomes, change in employment, and change in business establishments. Using the analysis, the index measures distress at the zip code, city, county, and congressional district levels. The index offers place-based evaluation of economic well-being by categorizing regions by level of distress: prosperous, comfortable, mid-tier, at risk, and distressed.

OPPORTUNITY ZONES

Congress established Opportunity Zones to increase economic development and create jobs in distressed communities (IRS). Opportunity Zones are low-income census tracts that are nominated by governors, then certified by the US Department of the Treasury. Opportunity Zones receive long-term investments through Opportunity Funds, private sector investment vehicles. Opportunity Funds increase the scale of investments to under-resourced communities. The program encourages investments in distressed communities across the country by providing tax incentives, including temporary tax deferral exclusion from taxable income of capital gains.

NEW MARKETS TAX CREDIT BENEFITS

The Community Development Financial Institutions (CDFI) Fund through the US Department of the Treasury offers the New Markets Tax Credit Benefits (NMTC) Program. The program provides tax credits for community development and economic growth in distressed communities. By incentivizing private investment in distressed areas, the program brings capital into low-income communities. Organizations can invest in low-income communities by obtaining Community Development Entity certification.

8(a) BUSINESS DEVELOPMENT PROGRAM

The 8(a) Business Development Program assists small disadvantaged businesses with business development support, including mentoring, procurement assistance, financial assistance, training, and more (MBDA 2019). Small businesses qualify for the program if they are owned and controlled by a socially or economically disadvantaged individual. Individuals may qualify based on race, ethnic origin, gender, physical disability, or other cause. The program awards a percentage of all federal contracting funds to small disadvantaged businesses each year and provides contracts for goods, services, and manufacturing. To graduate from the program, businesses must meet requirements of the program and measure progress through annual reviews.
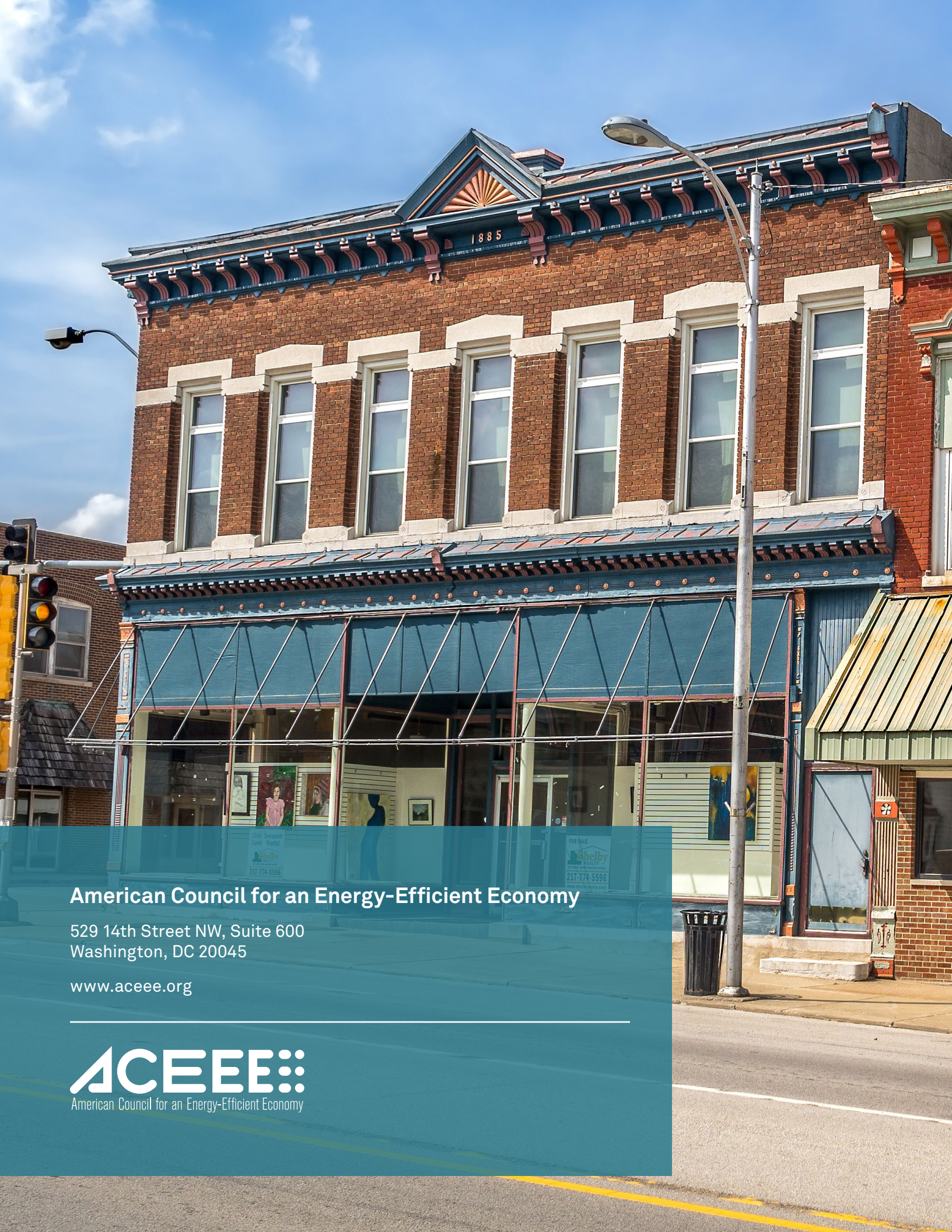
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