ENERGY EFFICIENCY AND CONSERVATION BLOCK GRANT (EECBG) PROGRAM

Key Activities Summary

Blueprint 2C: Building Efficiency & Electrification Campaign

This Key Activities Summary provides a concise overview of the **Building Efficiency & Electrification Campaign**. DOE plans to provide technical assistance support to all entities who select this Blueprint, which may include one-on-one attention from DOE or national lab experts, webinars, and peer learning opportunities.

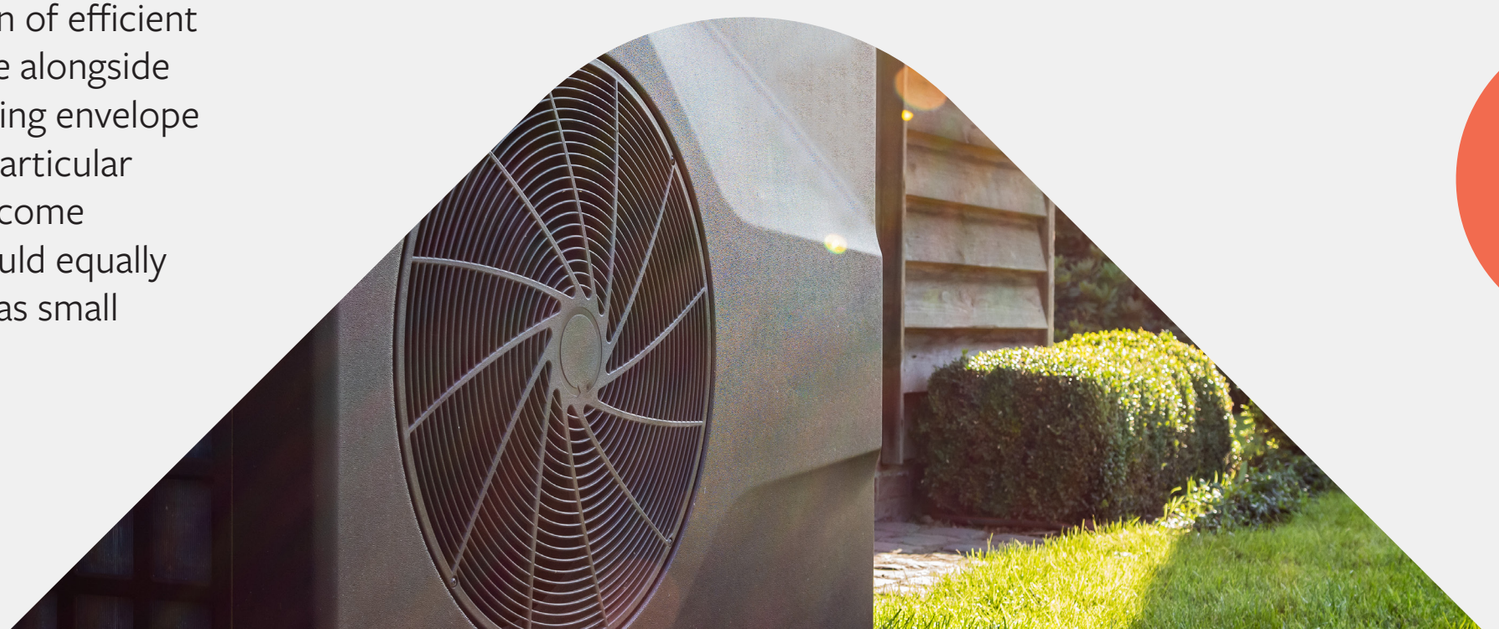
blueprints
Energy Efficiency & Conservation Block Grant Program

SCEP
STATE & COMMUNITY ENERGY PROGRAMS

What

A building electrification campaign is a coordinated effort for community members to replace fossil-fuel based appliances like furnaces, water heaters, dryers and gas stoves with highly efficient electric appliances, namely heat pumps for heating and cooling, heat pump water heaters, heat pump dryers, and electric stoves. To maximize residents' savings, installation of efficient and electric appliances should be done alongside weatherization upgrades such as building envelope improvements. This Blueprint puts a particular focus on reaching low-to-moderate income (LMI) residential households, but it could equally apply to any customer segment, such as small businesses.

Focusing on low-and-moderate income households will focus investments on families that are often left behind. Energy efficiency and electrification upgrades can improve indoor air quality and lower residents' energy bills, making it easier for families to meet monthly expenses. Enabling local vendors through the contracting process can also bolster local economic development.



Why

Fossil-fuel combustion attributed to residential and commercial buildings accounts for roughly 30% of total U.S. greenhouse gas (GHG) emissions (**Sources of Greenhouse Gas Emissions | US EPA**). Our reliance on fossil fuels makes buildings one of the largest sectors accelerating climate change.[1] Fossil-fuel emissions to support buildings can also contribute to respiratory problems from smog and air pollution. Extreme weather events, sea level rise, climate pattern disruption, food supply disruption, increased wildfires and air pollution are just some of the effects of climate change caused by greenhouse gases. At the household level, installing more efficient and electric appliances and equipment can help lower energy bills and improve indoor air quality.[2] A beneficial electrification campaign focused on LMI households or DACs can help ensure these groups are not left behind in the energy transition.

[1] Source: **Building Electrification 101 (DOE)**

[2] Issue Brief: **Promising Examples of Integrated Energy Efficiency and Health Services for Low-Income Households (DOE)**

Why (cont.)

Governments can plan ahead and organize an Electrification & Efficiency Campaign to capitalize on the forthcoming $4.3 billion Home Efficiency Rebates and the $4.5 billion Home Electrification and Appliance Rebates recently created through the Inflation Reduction Act (IRA). These rebates will make electric appliances, such as heat pumps, more affordable for millions of Americans. For low-to-moderate (LMI) residents, the rebates may even cover the entire cost of the upgrade (see chart to the right for more details). Local, state and tribal governments can play a leading role in educating residents about the upcoming rebates and preparing the community to widely deploy the technology, especially to those who need it most.

Type of Home Energy Project	Maximum Allowed Rebate Amount Per Household Below 80% Area Median Income (AMI)	Maximum Allowed Rebate Amount Per Household Above 80% Area Median Income (AMI)
Home Efficiency Project with at least 20% predicted energy savings	80% of project costs up to $4,000	50% of project costs up to $2,000 (maximum of $200k for a multifamily building)
Home Efficiency Project with at least 35% predicted energy savings	80% of project costs up to $8,000	50% of project costs up to $4,000 (maximum of $400k for a multifamily building)
Home Electrification Project Qualified Technologies (only households with an income below 150% AMI are eligible)	100% of project costs up to technology cost maximums*; up to $14,000	50% of project costs up to technology cost maximums*; up to $14,000 (households with incomes above 150% AMI are not eligible)

***Maximum rebated costs for Home Electrification Project Qualified Technologies:**

- ENERGY STAR electric heat pump water heater --up to $1,750
- ENERGY STAR electric heat pump for space heating & cooling --up to $8,000
- ENERGY STAR electric heat pump clothes dryer -- up to $840
- ENERGY STAR electric stove, cooktop, range, or oven --up to $840
- Electric load service center --up to $4,000
- Electric wiring --up to $2,500
- Insulation, air sealing, and ventilation --up to $1,600

Source: **Home Energy Rebate Programs Frequently Asked Questions | Department of Energy**

Key Activities

Key Activities listed below outline important steps a state, local, or tribal government could take to begin an electrification campaign. EECBG Program awardees that utilize a blueprint will receive expedited application review from DOE. Applicants must execute at least one of the key activities listed under each selected blueprint but should avoid going beyond the recommended activities. Going beyond these key activities may trigger additional reviews of your EECBG Program project to ensure you're meeting National Environmental Policy Act (NEPA), historic preservation, and/or other federal regulations. While each step is important, awardees should use this as a guide to determine their own priority activities based on their local context.

1. **Design the Electrification Campaign**
2. **Design Incentives**
3. **Find a Campaign Partner**
4. **Develop a Communications Plan and Materials**
5. **Program Outreach**

KEY ACTIVITIES

Design the Electrification Campaign

Successful energy programs address the specific needs, opportunities, and challenges of their local markets. To make sure that your Electrification Campaign is tailored to your local market, the program design should be based on:

1. A market assessment, which identifies needs and opportunities in the market. Design your program to seize these opportunities and overcome customers' barriers to adopting energy efficiency and electrification measures you've identified.
2. Campaign goals which define near and medium-term success.
3. Stakeholder engagement with members of target community and partner organizations that will help you deliver the program. Connect too with local contractors and utilities.

Step 1. Assessing the market will help to determine the right approach for your community. The following data analysis tools will help answer some foundational questions.

» The **Low-Income Energy Affordability Data (LEAD) Tool (DOE)** provides an easy snapshot of the average energy burdens faced by people in each state, county, city, and census tract. The tool allows users to create maps with housing and energy characteristics by income level. Investigate data for households in your area ≤ 80% area median income (AMI) to align with the HOME Rebates requirements. Are there housing types that face higher energy burdens than others? Which neighborhoods are struggling the most?

» The National Renewable Energy Lab (NREL) **State and Local Planning for Energy (SLOPE) Tool** allows users to see the impact electrification can have on the county or state through 2050. Its Scenario Planner illustrates estimated impacts on CO_2 emissions by sector when comparing reference, medium, and high electrification scenarios.

» The **ResStock tool and factsheets (NREL)** and factsheets describe the types of energy technology upgrades that are most cost effective for residential buildings in each state. Users can see the estimated annual savings per household of upgrading various options including HVAC equipment, lighting, insulation, and water heating. For instance, in Texas, replacing an electric furnace with a high-efficiency heat pump can save the average household $670 per year, with state-wide potential to save $957 million annually.

If you need extra support on this step, ask NREL for technical assistance by emailing them at **EECS_TA@nrel.gov**.

Step 2. Defining program goals will help to 1) form the basis of your program's design, 2) guide decisions as you refine your program over time, and 3) help communicate what you are seeking to accomplish.

Some campaigns may have goals that focus on specific building types, such as multi-family affordable housing, or specific neighborhoods such as disadvantaged communities. Campaigns may also target buildings with specific heating fuels, such as propane or fuel oil, where electrification may offer the biggest opportunities for reducing costs and emissions. Campaigns could narrow in on one technology solution, e.g. HVAC upgrades only, or could have a "whole home" approach. Whatever the approach, the campaign goals should be specific, measurable, and include targets and timelines.

Example: Campaign Goals:

» Electrify 10,000 low-income households in my city by 2026, saving participants at least 30% on their energy bills.

» Update 1,000 HVACs in multi-family affordable housing buildings in my county by Dec. 2025.

» Facilitate free appliance upgrades for 20% of households ≤80% area median income by 2024.

Step 3. Stakeholder Engagement. Seek input on your program design before moving forward with implementation, identify and develop relationships with partners who can help you reach your target audience and whose experience and expertise can help you succeed. These partners are utilities, contractors and trade groups, community-based organizations, or people who participate in the delivery of program products and services. Additionally, a market assessment that identifies needs and opportunities in the market will help your program seize opportunities and overcome customers' barriers to adopting energy efficiency and electrification measures you've identified.

Key Resource

Clean Energy for Low Income Communities (DOE) provides a community assessment and barriers analysis tool.

Key Resource

Better Buildings Residential Program Guide (DOE) contains a repository for lessons learned, resources, and knowledge from program administrators and industry experts across the country.

Key Resource

Contractor Engagement (DOE) this handbook provides an overview of the contractor engagement and workforce development for energy programs.

Key Resource

Residential Retrofit Program Design Guide (DOE) focuses on key elements of designing and maintaining a successful residential retrofit program.

NOTE:
It is important to understand the Buy American requirements and provisions related to procurement using Federal government funding.

Design Incentives

Financial incentives make it easier for consumers to electrify their appliances. The HOMES Rebates are the key incentives for households. Local governments, Tribes, and states can also consider providing supplemental incentives to their local installers or contractors.

» **Financing:** The most common form of assistance provided to contractors in acquiring equipment is financing, a simple lease/purchase agreement that is not tied to production.

» **Cash Incentives:** Other common forms of assistance include cash incentives towards the contractor's purchase of necessary equipment. Incentives could be tied to a specific number of successful job completions, to purchasing energy efficient products, or other requirements. EECBG Program awardees could also help make connections to financing resource or could explore developing a revolving loan fund (See **Blueprint 5: Unlocking Sustainable Financing Solutions for Energy Projects and Programs with Revolving Loan Funds**).

Key Resource

ENERGY STAR Energy Efficient Products (EPA) allows you to find all the information you need to choose ENERGY STAR certified products, including rebates, and retailers near you.

Purchasing efficient products reduces energy costs without compromising quality. Taking steps to specify ENERGY STAR products in your program's purchasing policies and contracts can ensure products perform. The following clause can be added in a contract:

"The vendor must provide products that earn the ENERGY STAR and meet the ENERGY STAR specifications for energy efficiency. The vendor is encouraged to visit energystar.gov for complete product specifications and updated lists of qualifying products."

Key Resource

ENERGY STAR® Distributor-Focused programs (EPA) provides insights into how to maximize participation and leverage limited funds in residential HVAC and water heating programs with distributor-focused incentives.

Find a Campaign Partner

For an electrification campaign, the EECBG Program participant may choose to run the campaign or to partner with a third party to execute the campaign. Funding a third party may require going through a formal procurement process. If your procurement will be done via Request for Proposals (RFP), it is essential to plan for sufficient time for each task in the RFP process. For instance, making sure that your RFP is well written and clearly articulates the job(s) you expect bidders to perform will save a significant amount of time and energy in later stages of reviewing proposals, selecting winners, and negotiating contracts. It also may help you secure a better price, as responses to ambiguous RFPs may have higher bid prices to accommodate the unclear work expectations.

It may take at least several months to complete an RFP process. Consult your procurement office about the average turn-around time on RFPs and steps of the contracting process. Consider utilizing any available RFP templates and be aware that there may be standard language that you will be required to include.

Key Resource

National Association of State Energy Offices NASEO provides sample policy, program documents, and an RFP library.

Develop a Communications Plan and Materials

Communicating the importance of upgrading home appliances and the low cost of doing due to the federal rebates is the crux of an Electrification Campaign. Good communication raises awareness of the campaign and is crucial for building community support and garnering participation.

» **Build a communications plan.** Begin by outlining a communication plan, considering your goals and objectives. Who is target audience? Single-family homeowners in a certain neighborhood? Multi-family building managers? Contractors who will find the customers and pitch the ideas? Think about various ways to reach your audience such as through community events, social media, mail, phone, or canvassing. Consider the messenger. Who will be a welcomed voice in the community you're trying to reach? How can those leaders or influencers become engaged in the campaign? Finally, consider and determine how to allocate your communications budget. Billboards, advertisements on buses, radio spots, and social media ads all have different costs and reach different audiences.

» **Tailor your messages to your target audience.** List the key messages you need to communicate and tailor them to your target audience. Tailoring your message includes both the words you use to communicate as well as how you develop your outreach materials and select your outreach medium. For example, fact sheets, webpages, pop-up events, and social media platforms offer different advantages, communication styles, and audience reach. If you're not sure how to best communicate to a specific audience, work with your communication staff.

» **Website development.** To support your outreach and establish a centralized place for information, create a website that explains the importance of electrification and describe any available incentives or support activities. The website could potentially provide a place for residents to sign up for a newsletter and/or request to be contacted by the campaign's contractors. Alternatively, if the campaign is being led by a third party partner, this website could be set up and maintained by them.

Key Resource

Planning a communication strategy (ENERGY STAR) this six-page worksheet will take you through the process of developing a strategic communications plan.

KEY ACTIVITIES

Program Outreach

To communicate effectively, determine the best way to deliver your message. Ask your HR and communications departments what they find to be the most effective methods for communicating to different audiences. With external communications, your organization may also have specific requirements and procedures that you must follow.

Determine how often you will need to communicate, what resources are needed, and who will be responsible. Lastly, consider how you will measure the impact of your communication efforts.