

U.S. Department of Energy (DOE) Energy Efficiency and Conservation Block Grant (EECBG)
Voucher Technical Assistance Program
Scope of Technical Assistance to the City of Hayward, CA
November 19, 2024

Objective

This scope outlines specific areas of technical assistance (TA) support to be provided to the City of Hayward (“The City” or “Hayward”) under the U.S. Department of Energy (DOE) Energy Efficiency and Conservation Block Grant (EECBG) Voucher Technical Assistance (TA) Program by the National Renewable Energy Lab (NREL).

Background

The City of Hayward applied for both an equipment and technical assistance voucher for their available EECBG formula funds. With their equipment voucher, Hayward will be using roughly half of their allocated funds to upgrade city streetlights to LEDs. With the other half of their funding under the technical assistance voucher, Hayward has requested assistance in developing an equitable existing building roadmap.

The City has a draft Existing Building Electrification Roadmap which outlines a phased approach for equitably implementing programs, policies, and engagement identified to electrify existing buildings within the city. The draft also identifies city goals, previous city efforts, plans to achieve equitable building electrification, cost and technical analysis, and a building electrification framework. Hayward has requested that NREL review this draft and make suggestions on edits based on the Subject Matter Experts’ (SME) expertise and best practices. They city does have previous existing building stock data. Stakeholder review was briefly discussed, and the Alameda County Energy Council, a peer sharing group, was identified by Hayward to possibly help to review their plan.

Along with the roadmap document, the City requested NREL’s assistance with equitable community engagement surrounding the content of the electrification roadmap. Hayward has a large Spanish speaking and Asian population. Hayward has previously worked with a local energy alliance and plans to find a way to partner with them during this effort.

DOE EECBG Voucher TA Program

The EECBG Voucher program is a DOE formula funded technical assistance program designed to assist eligible state, local, and tribal governments in implementing strategies to reduce fossil fuel emissions, reduce entity energy use, improve energy efficiency, and/or building an equitable energy economy. Technical assistance (TA) vouchers are offered to eligible entities to access support from experts across a wide array of energy efficiency, renewable energy, transportation, and related areas.

The City of Hayward has been awarded as a recipient of EECBG formula funds in the form of Voucher TA. The period of performance is tentatively planned from time of DOE approval of this document to END DATE but may be extended if needed.

Proposed Work

The EECBG Voucher team held a call with representatives of they City on October 22, 2024 to discuss their progress on their goals since submitting their EECBG Voucher application. The discussion

highlighted two areas where the National Renewable Energy Lab (NREL) can provide immediate technical assistance in support of Hayward's current clean energy priorities and needs.

Work Area Options. [Electrification of cookstoves and clothes dryers]

NREL will provide technical input towards the review and community engagement of Hayward's *Existing Building Electrification Roadmap*. Activities in this work may include:

- **[Review of Draft Electrification Roadmap]:** NREL will provide a comprehensive review of Hayward's *Existing Building Electrification Roadmap Draft* that the City has provided. NREL will provide actionable feedback and suggested edits to improve clarity, accuracy, and effectiveness of the roadmap document.
Deliverable: Suggested edits and best practices on existing roadmap draft
- **[Replacement Cost Differences]:** NREL and local partners (possibly Clean Energy Alliance) will validate the average upfront cost difference of installing a natural gas stove and an induction stove and those for installing a natural gas clothes dryer and an electric or heat pump clothes dryer for various scenarios including simple replacement, replacement including electric panel upgrade, replacement including removal of natural gas infrastructure, replacement including having to add natural gas infrastructure.
Deliverable: Fact sheet on upfront and operating cost differences (combined with below)
- **[Operating Cost Differences]:** NREL and local partners (possibly Clean Energy Alliance) will validate the average operating cost difference of installing a natural gas stove and an induction stove and those for installing a natural gas clothes dryer and an electric or heat pump clothes dryer for various scenarios including such as daily use, weekly use, or different occupancies.
Deliverable: Fact sheet on upfront and operating cost differences (combined with above)
- **[Case Study Flyer or Video]:** To create a more tangible example than just costs on a paper, NREL could help work on case studies of homes that have already installed electric appliances. We could look at pre- and post- energy bills and interview the residents on the reasons they made the change and what they think of it (or help a local partner do this). It is great to ask them the question, "What would you tell your neighbor if they asked if you if they should also switch appliances?" and have them say pros and cons in their own words for others to consider. It is great to do this for a few different home types / sizes / occupancy / demographics so people reading it can find a case study that is similar to their own situation.
Deliverable: Flyer with case studies or short video
- **[Community or Neighborhood Workshop / Health Fair]:** NREL and local partners could assist with organization of a community or neighborhood workshop or fair. A fair could include information on electrification, presentations or panels, Q&A, games, and/or example appliances for residents to try.
Deliverable: Flyer to advertise the event, educational flyers, agenda
- **[Bulk Discount Organization]:** NREL and local partners could attempt to organize a bulk purchase from a local contractor or store with a tiered rebate system or other type of discount. The effort could include upfront education and recruitment, an RFP to recruit a contractor or

contractors, and scheduling homes for retrofits. This would be modeled after the Solarize campaigns that have happened around the United States.

Deliverable: Recruitment materials, workflow, RFP

- [Targeted Recruitment Materials]:** NREL can work with the local renovation contractors, organizations including public health or medical providers, or local hardware stores to provide flyers of information targeted to specific groups (those renovating a kitchen, people with respiratory problems, etc)

Deliverable: Various fact sheets
- [Train the Teachers]:** NREL and local partners can hold local training workshops for individuals that might encounter groups of people that can immediately benefit from electrification such as those with existing health issues and/or those already starting a renovation project.

Deliverable: Training workshops, combined with CEUs where possible
- [Community Installation]:** NREL and local partners could identify a local community center(s) or nonprofit that could use a retrofit to these appliances, do the installation, and make educational materials about it. For instance, this would be like a community center with a kitchen getting a new induction stove, and there being a poster about it for visitors to see. That helps people to see a working appliance somewhere else and start to picture it in their homes.

Deliverable: Educational poster

The project team will hold bi-weekly check-in calls during the period of performance to discuss project progress and obtain continuous feedback on areas of improvement, with a final debrief on lessons learned once technical assistance has concluded.

Budget for work: \$97,040. Hayward was allocated \$197,040 from EECBG, \$100,000 will be used via equipment voucher for streetlight upgrades and the remaining \$97,040 will be used for this TA effort.

Table 1. Summary of proposed work areas and deliverables

Work Area	Description	Deliverables	Task Members	% of Effort and \$ est.	Duration
Area 1. [Area]	[Description]	[Deliverables]	[names]	[15%]	[1-3 Months]
Area 2. [Area]	[Description]	[Deliverables]	[names]		
Meetings				10%	
Peer Review	Internal review of work by peers				3-4 weeks
Final Debrief	[organization] team and NREL Voucher TA team will have a final debrief on lessons learned after the conclusion of technical assistance.	30 minute to 1 hour virtual meeting of all relevant participants.	All team members, TBD to organize meeting		

Points of Contact

City of Hayward, CA

- Erik Pearson, City of Hayward, Environmental Services Manager
- Stephanie Lau, City of Hayward, Sustainability Specialist

NREL Primary Subject Matter Expert Team

- Vanessa Stevens, NREL, Project Manager/Research IV, Extensive community engagement and electrification campaign experience
- Rachel Dodd, NREL, Researcher I, Community engagement and electrification campaign experience

NREL Admin Team:

- Vanessa Mathews – Scoping lead
- Emmalee Benson, NREL – Project Manager
- Nathan Wiltse, NREL – Group Manager