

## **Earmark Request**

### **Building Electrification Retrofit Pilot**

Removing fossil fuels from buildings will be part of the United States' clean energy transition. Retrofitting existing buildings with electric heating, air conditioning and appliances has the potential to reduce greenhouse gas (GHG) emissions by 30-60% compared to mixed-fuel buildings.<sup>1</sup> A growing number of jurisdictions, including Contra Costa County,<sup>2</sup> now require newly constructed buildings to be all-electric. However, few jurisdictions have adopted policies or programs to electrify existing buildings. This proposed earmark will create a program to assist property owners within Contra Costa County to electrify existing buildings, resulting in a model that can be replicated in other parts of the country.

This earmark will leverage Contra Costa County's prior experience and success reducing GHG emissions in the built environment. The County has a long track record of operating home energy retrofit programs through the federally funded Low Income Weatherization Program and through the Bay Area Regional Energy Network, funded by the California Public Utilities Commission. In addition, through partnership with the Rocky Mountain Institute (RMI) and Emerald Cities Collaborative (ECC), Contra Costa County is currently participating in a nine-month Equitable Home Electrification Program for local governments and community-based organizations in California to create equitable solutions for electrifying existing residential buildings. This work will allow the County to identify national models and best practices for electrification of existing homes, particularly in disadvantaged communities.

To leverage its experience operating home energy retrofit programs and expertise in building electrification gained through the Equitable Home Electrification Program, the County is requesting one-time funding of \$700,000 over a 2-year period to implement a two-phase project to (1) develop a local program model to cost effectively retrofit existing buildings to be all-electric, thereby eliminating GHG emissions, and (2) pilot the program model in buildings identified through the County's existing home energy retrofit programs by providing incentives such as rebates to encourage property owners to incorporate building electrification into their existing energy retrofit projects. This pilot would prioritize building electrification retrofits in communities identified as "disadvantaged" by the State of California.

#### Phase 1 - \$150,000

Phase 1 would conduct a study to identify criteria for cost-effective retrofits to convert existing mixed-fuel buildings to all-electric buildings and develop a program model to be tested in phase 2. The program model will consider use of electricity from renewal sources such as local renewably powered microgrids and battery storage.

#### Phase 2 - \$550,000

Phase 2 would coordinate with existing residential energy efficiency retrofit program administrators, such as the Bay Area Regional Energy Network, County Low Income Weatherization program, and MCE (the County's Community Choice Aggregator) to identify projects in their pipelines that meet the building criteria established in the study completed in Phase 1. Funding under this phase would provide

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<sup>1</sup> California Air Resources Board, Building Decarbonization, as of January 26, 2022, [https://ww2.arb.ca.gov/our-work/programs/building-decarbonization/existing-buildings#\\_ftn1](https://ww2.arb.ca.gov/our-work/programs/building-decarbonization/existing-buildings#_ftn1)

<sup>2</sup> On January 18, 2022, Contra Costa County adopted an ordinance that requires all new construction of residential buildings, hotels, office, and retail buildings to be all-electric, eliminating the use of natural gas.

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financial incentives such as rebates for projects meeting the criteria identified in Phase 1 to voluntarily expand their scope to include building electrification. This phase will also include a final summary report with a cost-effectiveness analysis for all projects that participated in the pilot.

This earmark would help inform policy makers within Contra Costa County, as well as others locally and nationally, on options to consider when developing existing building electrification policies or programs to reduce GHG emissions and improve health and safety.