



OFFICE OF RACIAL EQUITY AND SOCIAL JUSTICE


Marc Elrich
County Executive

Tiffany Ward
Director and Chief Equity Officer

MEMORANDUM

October 2, 2024

To: Jennifer Bryant, Director
Office of Management and Budget

From: Tiffany Ward, Director
Office of Racial Equity and Social Justice 

Re: Racial Equity Impact Assessment (REIA) Supplemental Appropriation (SA) #25-12
Low and Moderate-Income Housing Electrification and Indoor Air Quality
Improvements Pilot Project

- I. **FINDING:** The Office of Racial Equity and Social Justice (ORESJ) finds that Supplemental Appropriation #25-12 *Low and Moderate-Income Housing Electrification and Indoor Air Quality Improvements Pilot Project* is likely to advance racial equity and social justice in Montgomery County, however, the true extent of that impact will be affected by site and non-profit partner selection, community education, and engagement approaches, and housing affordability protections for affected residents. Given racial disparities in income, poverty, and housing cost burden in the County and how these disparities affect inequities in energy burden, the pilot project's focus on low- and moderate-income communities is likely to disproportionately benefit BIPOC residents, though the full extent of that impact will depend on implementation.
- II. **BACKGROUND:** The purpose of Supplemental Appropriation #25-12 is to allocate \$1,000,000 in funding from the U.S. Department of Energy to the Montgomery County Department of Environmental Protection (DEP) for the implementation of a Low- and Moderate-Income Housing Electrification and Indoor Air Quality Improvements Pilot Project in Montgomery County, Maryland. This project will support a pilot electrification retrofit program for low- and moderate-income housing to support conversion from fossil fuel systems to efficient electric systems that reduce energy use. According to the National Environmental Policy Act Determination Memoranda, the pilot project would

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include replacing fossil-fuel appliances and HVAC systems with more cost-effective, energy-efficient, and comfortable technologies that will upgrade existing equipment in affordable housing¹. The anticipated benefits are reducing energy burden and improving indoor air quality for low- to moderate-income tenants and building owners².

According to The American Council for an Energy-Efficient Economy (ACEEE), energy affordability is a persistent national challenge. The term “energy burden,” defined as the percentage of household income that goes toward utility bills, helps decision-makers and practitioners measure affordability. As with other housing-related inequities, energy burden varies across income, housing type, age, tenure, race, ethnicity, and occupant age³. Low-income households, Black, Hispanic, Native American, renters, and older adult households all have disproportionately higher energy burdens than the national median household⁴. This disproportionality is the result of historic and current systemic inequities in education, employment, and financial services which have “created long-standing patterns of disenfranchisement from income and wealth-building opportunities for BIPOC communities as compared to white communities (Rothstein 2017)”⁵. Further exacerbating disparities in income and wealth, are the consequences of redlining, housing discrimination, and predatory lending practices which have not only created residential segregation and disparities in homeownership but also differences in housing-cost burden and access to healthy and efficient housing⁶. In Montgomery County, the older age of affordable housing and local data on rent burden suggests that Black and Latinx households in Montgomery County experience higher risks for substandard housing⁷. Further, research suggests that compared to high-income households, low-income households tend to use fewer, less-efficient devices that use large amounts of energy due to the inefficiency of the dwelling or appliance⁸. This is often due to the high cost of energy-efficient upgrades and the lack of financial incentives or assistance programs. The consequences for BIPOC communities are increased vulnerability to and limited protection from the key drivers of high household energy burdens.

In Montgomery County, 17% of households experience a high energy burden (i.e., energy bills exceed 6% of their annual income), while 9% of households live in energy poverty

¹ U.S. Department of Energy Office of Energy Efficiency and Renewable Energy. NEPA Determination. NEPA Control Number GFO-0010702-001. Available at: <https://www.energy.gov/sites/default/files/2024-04/CX-030289.pdf>

² NEPA Determination. NEPA Control Number GFO-0010702-001.

³ Drehobl, A., L. Ross, and R. Ayala. 2020. How High Are Household Energy Burdens? Washington, DC: American Council for an Energy-Efficient Economy. Available at: <https://www.aceee.org/sites/default/files/pdfs/u2006.pdf>

⁴ Drehobl, A., et al.

⁵ Drehobl, A., et al.

⁶ Drehobl, A., et al.

⁷ Racial Equity and Social Justice Impact Statement. Office of Legislative Oversight. Expedited Bill 31-21: Property Tax Credits – Energy Conservation Devices and Energy Efficient Buildings – Amendments. Available at: <https://www.montgomerycountymd.gov/OLO/Resources/Files/resjis/2021/Bill31-21RESJ.pdf>

⁸ Drehobl, A., et al.

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(i.e., energy bills exceed 10% of their annual income).⁹ As analysis from the Office of Legislative Oversight points out, inequities in poverty rates and housing cost burden by race and ethnicity suggest that Black and Latinx households face greater energy burdens than White and Asian households locally¹⁰. This is especially significant given how the energy burden affects the persistence of poverty. According to ACEEE, high-energy burdens make moving out of poverty more difficult, with one study finding that “on average, energy-burdened households have a 175–200% chance of remaining in poverty for a longer period of time compared to nonenergy-burdened households.”¹¹ According to available information about the project, funding will help address the energy burden and reduce utility bills by providing efficient electric upgrades. The ultimate beneficiary of energy burden reduction will depend on the utility payor and whether agreements are in place to ensure cost savings are passed on to residents. ACEEE noted that including tenant protections is an important consideration for electrification projects because transitions “could shift utility costs to those renters that live in multifamily buildings with central heating and hot water systems”¹².

High energy burdens are also correlated with a range of health impacts, including greater risk for respiratory diseases and increased stress associated with economic hardship¹³. ACEEE’s report “How High are Household Energy Burdens?” lays out a range of health impacts. Inefficient housing, as a driver of high energy burdens, is associated with negative health effects such as carbon monoxide poisoning, lead exposure, thermal discomfort, asthma, and chronic obstructive pulmonary diseases (COPD). The economic instability created by high energy burdens also impacts mental health. One study cited by ACEEE found that “low-income residents who were experiencing energy insecurity worried about losing their parental rights as they struggled to maintain essential energy services, such as lighting, in their homes.”¹⁴ The Montgomery County Climate Action Plan describes the disproportionate impact on BIPOC and low-income communities and describes the public health benefits of residential electrification, explaining that it “leads to reduced on-site fossil fuel combustion, which in turn decreases local pollutants and improves indoor air quality, thus improving public health.” ACEEE also concluded that

⁹ The Greenlink Group. 2020 (May 27). Montgomery County’s Energy Burden.

Available: https://public.tableau.com/profile/the.greenlink.group#!/vizhome/Montgomery_Map_Final/Dashboard1. Referenced in OLO RESJIS for Bill 31-21.

¹⁰ OLO. RESJIS for Bill 31-21

¹¹ Drehobl, A., et al. (pg. 6)

¹² Fadali, Lyla. Michael Waite. Mooney, Paul. ACEEE. May 2004. The Value of Prioritizing Equitable, Efficient Building Electrification. Available at: <https://www.aceee.org/sites/default/files/pdfs/b2405.pdf> (pg. 38)

¹³ Montgomery County Climate Action Plan: Building a Healthy, Equitable, Resilient Community. June 2021. Available at: <https://www.montgomerycountymd.gov/climate/Resources/Files/climate/climate-action-plan.pdf>

¹⁴ Drehobl, A., et al. (pg. 5)

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there are economic benefits related to reduced health costs associated with indoor air pollution¹⁵.

III. **ANALYSIS:** Overall, prioritizing LMI communities for building electrification will be key to ensuring that historically disinvested communities are not left behind in the energy transition¹⁶. ACEEE has quantified an equitable electrification transition, stating that the benefits of the energy transition can be maximized by centering LMI households¹⁷. The Low- and Moderate-Income Housing Electrification and Indoor Air Quality Improvements Pilot Project will support the county in creating an equitable electrification transition.

According to available information, the pilot project will take place in a competitively selected low-income community. At the time of this analysis, the criteria for selecting this community were not available, though the project team anticipates partnering with a non-profit housing partner (details about partner selection were not available). Because these details were not included in the information that accompanied this request, it's unclear to what extent the racial inequities previously described will be factored into the selection criteria. Overlaying Figure 5.¹⁸ from the Montgomery County Climate Action Plan with demographic data could help to point out households experiencing the greatest vulnerability to the drivers and impacts of high energy cost burden. Additional considerations that will impact racial equity and social justice are the extent to which the pilot project (and site selection process) engages with community members most impacted by the energy burden and the steps that will be taken to implement inclusive procurement practices in vendor selection.

cc: Jon Monger, Director, Department of Environmental Protection
Scott Bruton, Director, Department of Housing and Community Affairs
Tricia Swanson, Director, Strategic Partnerships, Office of the County Executive

¹⁵ Fadali, Lyla et al.

¹⁶ Fadali, Lyla et al.

¹⁷ Fadali, Lyla et al.

¹⁸ Montgomery County Climate Action Plan. Figure 5. "Montgomery County census tracts with median energy burden of 3% or greater as a percentage of income"