

LOW-INCOME ENERGY BURDEN

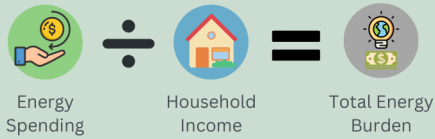
MADISON, WI

Energy affordability is a challenge for everyone in this era of supply disruptions, inflationary pressures, and extreme weather events. This is a special problem for low-income households who may spend 9% or more of their income on energy bills. Such high “energy burden” impacts housing affordability, as well as the health and well-being of families. And it is a climate justice issue as well since without programs and policies designed to assist lower-income renters and homeowners, their energy burden is likely to increase dramatically in the coming years as climate change accelerates. A just transition to a fossil-fuel free future must include the most economically vulnerable.

DEFINITIONS

Energy Burden:

The percentage of gross household income spent on energy costs.



Greater than **6%** is a high energy burden.
Greater than **10%** is a severe energy burden

AMI = Area Median Income

Midpoint of household income in a region

Low Income:

Households with less than 80% AMI (<80% AMI)

Extremely Low Income:

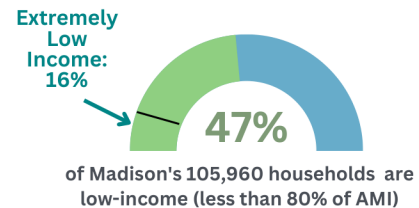
Households with less than 30% AMI (<30% AMI)



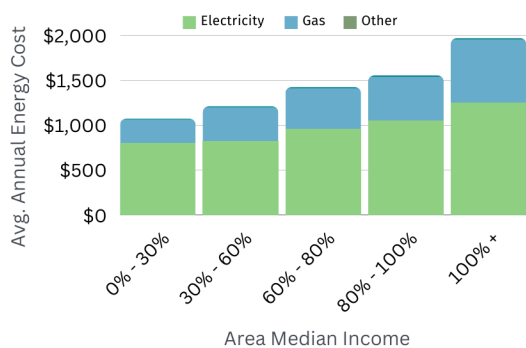
Information in this report comes from the U.S. Department of Energy's LEAD Tool. It draws data from the U.S. Census Bureau's 2020 American Community Survey to estimate energy costs for households at different income levels across the country.

KEY FINDINGS

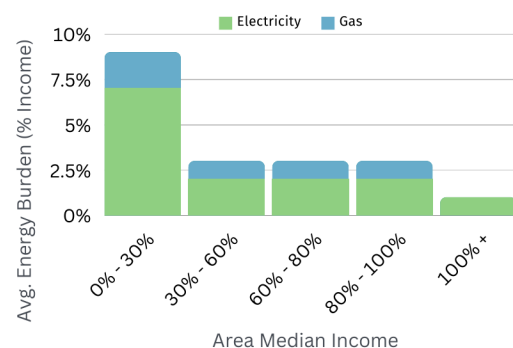
- Overall, the average energy burden for households in Madison is 2% - same as the state average.
- In Madison, the average energy burden for low-income households (<80% AMI) is 4% - twice the overall average energy burden.
- Extremely low-income households (<30% AMI) in Madison experience have a high energy burden of 9% - compared to 1% for the wealthiest.
- On average, the lowest income households' annual utility bills are only about \$880 less than those paid by high income households, despite living in smaller dwellings, which suggests that these homes are less energy efficient.



Average Annual Energy Costs by Income Level



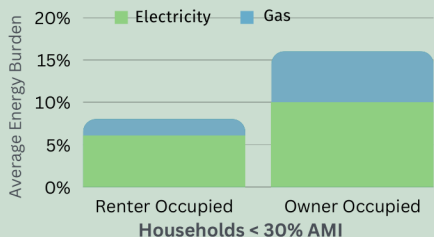
Average Energy Burden by Income Level



CHARACTERISTICS OF HOUSING WITH HIGH ENERGY BURDEN

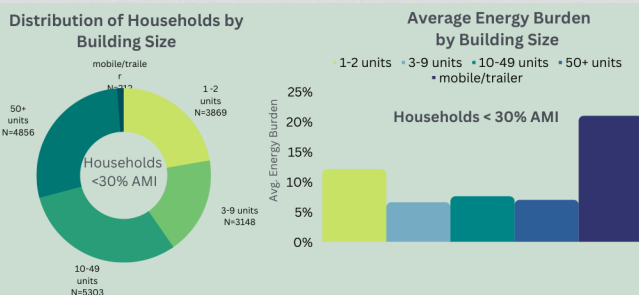
Renters vs. Owners

In general, Madison homeowners have higher energy costs than renters but this discrepancy is particularly large for extremely low-income households (<30% AMI). The approximately 2,500 homeowners at this income level have a severely high energy burden of 16% vs. 8% for renters (14,849 households total).



Type and Size of Building

About 20% of extremely low-income households in Madison (<30% AMI) live in single-family or two-unit dwellings and have a severe energy burden of ~12%. By comparison, the 80% of households at this income level that living in medium and large size apartment buildings have a smaller energy burden of ~7%. The highest energy burdens, 22%, are experienced by the small number of families (~200) living in mobile homes.



Location

While energy-burdened households can be found in all census tracts across Madison, those living in disadvantaged areas (as defined by the federal government's Justice40 initiative) are disproportionately impacted. For example, census tracts 25 (near the airport - 43% BIPOC), 6 (Allied Drive neighborhood - 68% BIPOC), and 14.01 (South Park Street area - 62% BIPOC) have some of the highest average energy and housing burdens in the city and residents are also likely to face other environmental injustices due to proximity to traffic pollution, legacy pollution sites, etc. The campus area also has a concentration of high energy burdened households, a reflection of both the aging housing stock and prevalence of lower income student residents.

RACIAL AND ETHNIC DISPARITIES

Although the LEAD tool does not provide in-depth information about the racial and ethnic dimensions of high energy burden in Madison, the data do indicate that African-Americans, Hispanics/Latinos, American Indians, and people identifying as multi-racial are disproportionately impacted. This aligns with the findings of a recent study of major urban centers across the U.S., which found that Black and Hispanic households experience significantly higher energy burdens on average than their White (non-Hispanic) counterparts.



Drehobl, A. L. Ross, and R. Ayala. 2020. How High Are Household Energy Burdens? Washington, DC: American Council for an Energy-Efficient Economy.

LOCAL SOLUTIONS TO HIGH ENERGY BURDEN

RECOMMENDATIONS FOR LOCAL GOVERNMENT AND POLICYMAKERS

Center energy burden reduction in city policies

- Conduct further research on energy burden in Madison and share the results with the public.
- Make energy burden reduction an integral part of affordable housing and community health programs.
- Set specific energy burden reduction targets for all city residents and develop evidence-based plans to achieve these goals. See St. Paul's [climate plan](#) for an example.

Help energy-burdened communities meet their needs

- Include these communities in the climate planning process.
- Make information available in multiple languages and formats.
- Increase energy efficiency requirements for city-subsidized affordable housing developments.
- Collaborate with non-profits and businesses to scale up successful pilot projects to enable landlords with low-income tenants to make energy improvements (e.g., the [Efficiency Navigator](#) program with partners Elevate and Sustain Dane).

Help city residents get state and federal money to reduce their energy costs

- Promote energy bill payment assistance available through www.homeenergyplus.wi.gov.
 - Connect residents to state energy efficiency programs such as [Focus on Energy](#) and weatherization assistance for low-income housing.
 - Publicize the funding available through the Inflation Reduction Act (IRA) - see RewiringAmerica.org and the DOE's [Energy Savings Hub](#) for resources.
 - Collaborate with local stakeholders to develop a "navigator program" to support property owners through the challenging process of implementing energy efficiency projects.
- #### Pursue federal and state funding to develop new programs
- Utilize new funding opportunities available through the IRA and the Bipartisan Infrastructure Law (see the [Wisconsin Office of Energy Innovation webpage](#) for further details).
 - Examples of innovative programs in other Midwestern cities:
 - Milwaukee's [Energy Efficiency Program](#) provides low-interest loans and a bonus incentive to finance energy efficiency improvements.
 - Minneapolis's [rental energy transparency ordinance](#) requires landlords to disclose energy costs to prospective tenants.

RECOMMENDATIONS FOR PROPERTY OWNERS

- Inflation Reduction Act (IRA) tax credits for energy efficiency, electrification, and renewable energy projects are now available. See the [Energy Savings Hub](#) and RewiringAmerica.org for details.
- Low and middle-income homeowners and landlords:
 - The IRA rebate program will provide discounts of 50%-100% for heat pumps, electrical upgrades, and other energy efficiency purchases beginning in 2024.
 - Apply now for home weatherization programs provided through [Project Home](#) and [Focus on Energy](#), and energy bill assistance from your utility, the [Keep Wisconsin Warm Fund](#), and the programs listed at www.energyandhousing.wi.gov.

RECOMMENDATIONS FOR LOW AND MIDDLE-INCOME RENTERS

- The Inflation Reduction Act (IRA) rebate program will offer discounts of 50%-100% for purchases of personal window heat pumps, induction cook-tops, and other appliances starting in 2024. See the [IRA Savings Calculator](#) at RewiringAmerica.org and the [Energy Savings Hub](#) for details.
- Talk to your landlord or property manager about their plans for using the IRA incentives to improve energy efficiency, add renewable energy, and do other building upgrades that will lower your energy bills.
- Apply for energy bill payment assistance from your utility, the [Keep Wisconsin Warm Fund](#), and the programs listed at www.energyandhousing.wi.gov.