

LOW-INCOME ENERGY BURDEN

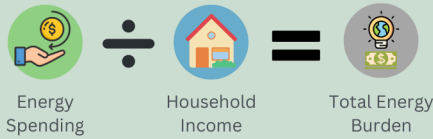
BELOIT, WI

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 16% 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 home-owners, 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 an 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:

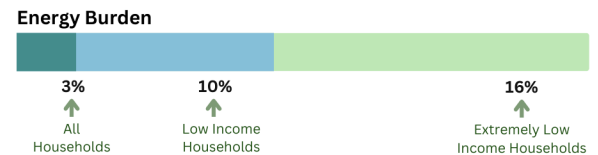
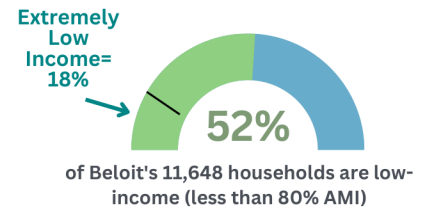
Households with less than 30% AMI (<30% AMI)



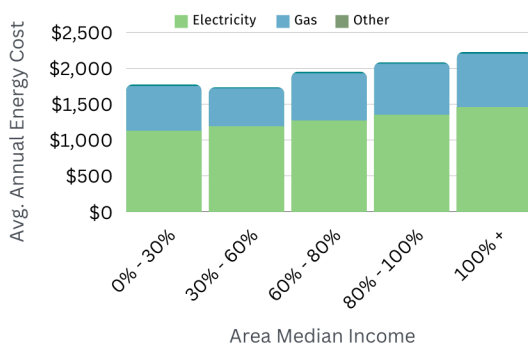
Information in this report comes from the U.S. Department of Energy's LEAD Tool. It draws data from the U.S. Census Bureau's 2020 American Community Survey to **estimate** energy costs for households at different income levels across the country.

KEY FINDINGS

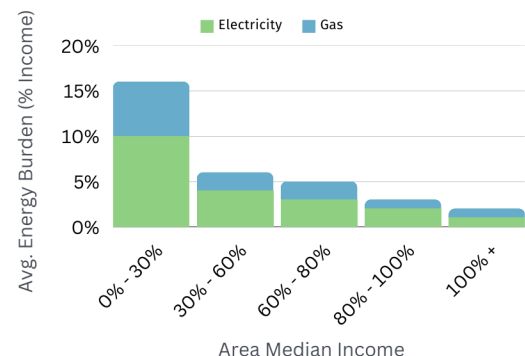
- Overall, the average energy burden for households in Beloit is **3%** - slightly higher than Wisconsin's 2% average.
- In Beloit, the average energy burden for low-income households (<80% AMI) is **10%** - three times the overall average.
- Extremely low-income households (<30% AMI) average a very severe energy burden of **16%**.
- The lowest income households are particularly burdened with high gas bills - likely due to the age and condition of the affordable housing stock.



Average Annual Energy Costs by Income Level



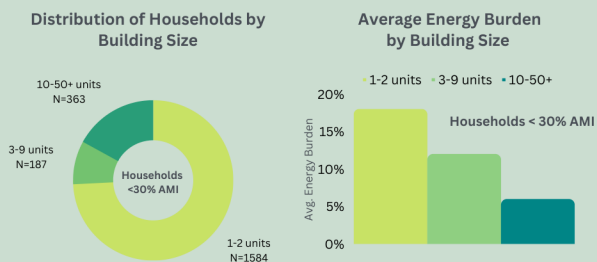
Average Energy Burden by Income Level



CHARACTERISTICS OF HOUSING WITH HIGH ENERGY BURDEN

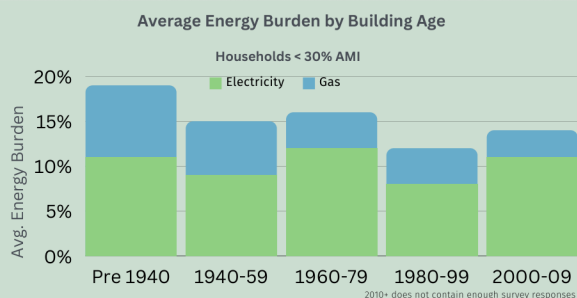
Size and Type of Building

About 75% of extremely low-income households in Beloit (<30% AMI) live in single-family or two-unit dwellings and have a severe energy burden of 18%. In comparison, the 9% of households at this income level who live in buildings with 3-9 units have an energy burden of 12%. And the remaining 14% of households living in larger buildings with 10-50+ units have a more affordable energy burden of 6%.



Building Age

Building age significantly impacts the overall energy burden for extremely low-income households due to the high cost of heating with natural gas. The severe energy burden of 15-19% for associated with housing built before 1980 (87% of the total housing at this income level) may be due to poor insulation and air sealing, inefficient appliances, and building deterioration. These older buildings are also likely to have other health and safety problems, such as lead paint.



Location

While energy burdened households can be found across Beloit, people living in disadvantaged areas (as defined by the federal government's Justice40 initiative) are disproportionately impacted by high energy burdens and other risks. Specifically, census tracts 16 and 18 contain older neighborhoods with high proportions of low income, people of color (62-65% BIPOC vs 42% citywide). These residents are also more likely to face high housing burdens and health risks from asthma and lead paint than in other areas of the city.

RACIAL AND ETHNIC DISPARITIES

While the LEAD tool lacks in-depth information about the racial and ethnic dimensions of high energy burden in Beloit, the data do indicate that people of color, especially African-Americans, 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., J. 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

Make reduction of energy burden part of city policies

- Conduct research on energy burden in Beloit and share the results with the public.
- Consider energy burden as integral to affordable housing and community health programs.
- Develop a city climate plan with equity as a central focus.
- Develop evidence-based goals to reduce community energy burden with specific reduction targets.

Help energy-burdened communities meet their needs

- Include these communities in the planning process.
- Make information available in multiple languages and formats.
- Establish energy efficiency programs to assist recipients of city housing funds.

Help city residents find financial support to reduce their energy costs

- Promote energy bill payment assistance available through www.energyandhousing.wi.gov, local utilities, etc.
- Connect residents to state energy efficiency programs such as [Focus on Energy](#) and weatherization assistance programs for low-income housing.
- Publicize the Inflation Reduction Act (IRA) funding - see the DOE's [Energy Savings Hub](#) and [RewiringAmerica.org](#) for resources.
- Collaborate with other organizations to assist property owners navigate the process of implementing energy efficiency projects (from funding to hiring contractors).

Pursue federal and state funding to develop new programs

- New grants are available through the IRA and the Bipartisan Infrastructure Law.
- See the [Wisconsin Office of Energy Innovation webpage](#) for current grant opportunities.

RECOMMENDATIONS FOR PROPERTY OWNERS

- Inflation Reduction Act (IRA) tax credits for energy efficiency, electrification, and renewable energy projects are now available. See the [IRA Savings Calculator](#) at [RewiringAmerica.org](#) and the DOE's [Energy Savings Hub](#).
- 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 through [Community Action Inc.](#) 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](#) 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 assistance from your utility, the [Keep Wisconsin Warm Fund](#), and the programs listed at www.energyandhousing.wi.gov.