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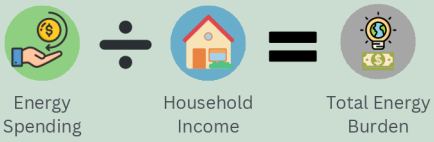
# LOW-INCOME ENERGY BURDEN

## 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)

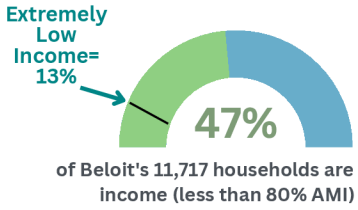
**Extremely Low Income:**
Households with less than 30% AMI (<30% AMI)

LEAD TOOL
LOW-INCOME ENERGY AFFORDABILITY DATA
U.S. DEPARTMENT OF ENERGY

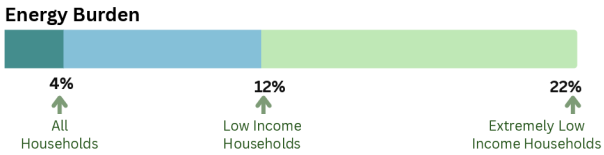
Information in this report comes from the U.S. Department of Energy's LEAD Tool. It draws data from the U.S. Census Bureau's 2022 American Community Survey to **estimate** energy costs for households at different income levels across the country.

## KEY FINDINGS

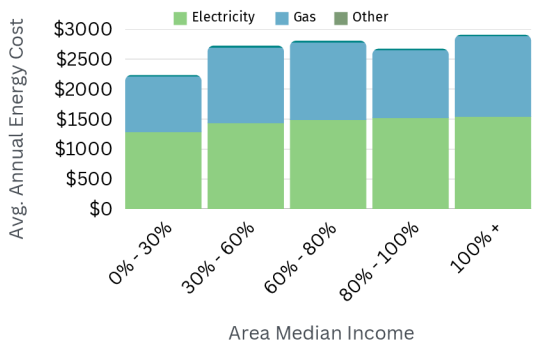
- Overall, the average energy burden for households in Beloit is **4%** -- slightly higher than Wisconsin's 3% average.
- In Beloit, the average energy burden for low-income households (<80% AMI) is **12%** - three times the overall average.
- Extremely low-income households (<30% AMI) average a very severe energy burden of **22%**.
- The lowest income households are particularly burdened with high gas bills - likely due to the age and condition of the affordable housing stock.



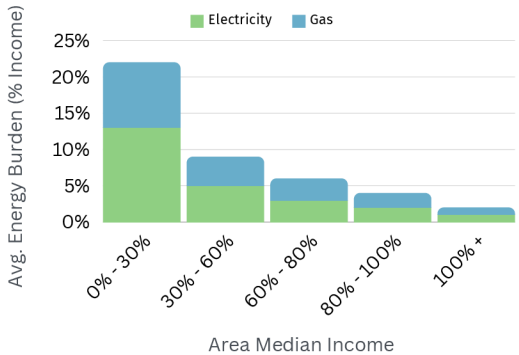

**of Beloit's 11,717 households are low-income (less than 80% AMI)**




### Average Annual Energy Costs by Income Level



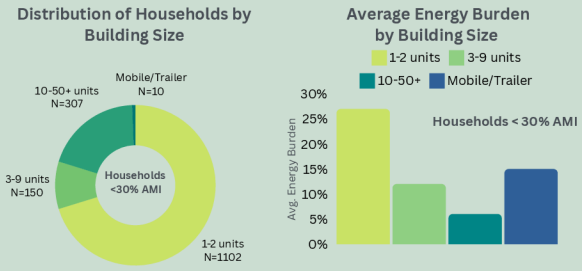

### Average Energy Burden by Income Level



# CHARACTERISTICS OF HOUSING WITH HIGH ENERGY BURDEN

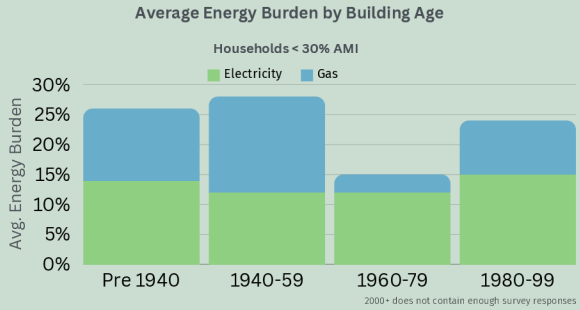
## Size and Type of Building

**About 71% of extremely low-income households in Beloit (<30% AMI) live in single-family or two-unit dwellings and have a severe energy burden of 27%. In comparison, the 10% of households at this income level who live in buildings with 3-9 units have an energy burden of 12% and the remaining 19% of households living in larger buildings with 10-50+ units have an 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 15-28% associated with housing built before 1980 (89% 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.**

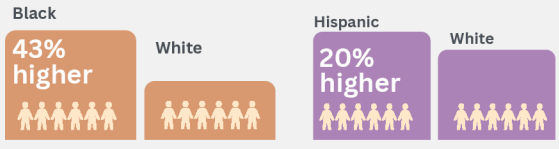



## Location

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., 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 Beloit 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 the city and develop evidence-based plans to achieve these goals. See St. Paul's climate plan for an example.
- Increase energy efficiency requirements for city-subsidized affordable housing developments.

Reach out to energy-burdened communities

- Include these communities in energy and climate planning processes.
- Make information available in multiple languages and formats.

Help city residents reduce their energy costs

- Advocate with local utilities to energy bill payment assistance and efficiency programs.
- Promote existing energy bill payment assistance and energy efficiency programs currently available through local utilities, non-profits, and state and federal sources.
- Publicize the new tax credits and discounts available through the Inflation Reduction Act (IRA).
- 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).

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 current grant opportunities).
- 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

- New tax credits for energy efficiency, electrification, and renewable energy projects are now available through the Inflation Reduction Act (IRA). See details at daneclimateaction.org/what-you-can-do/federal-funding.
- Low and middle-income homeowners and landlords:
  - Two new Inflation Reduction Act (IRA) rebate programs will provide discounts of 50%-100% for energy efficiency and electrification projects. The first program, the Home Efficiency Rebate, is now available through focusonenergy.com/ira-homes.
  - Apply now for low-income energy bill payment assistance and home weatherization programs offered by the state (energyandhousing.wi.gov/Pages/Energy.aspx), Focus on Energy, the Keep Wisconsin Warm/Cool Fund, and local utilities.

## RECOMMENDATIONS FOR LOW AND MIDDLE-INCOME RENTERS

- Talk to your landlord or property manager about their plans for using IRA incentives to improve energy efficiency, add renewable energy, and implement other building upgrades that will lower your energy bills.
- Apply now for energy bill payment assistance available through the government programs listed at energyandhousing.wi.gov, your utility, and other groups. See resources listed at daneclimateaction.org/documents/Admin-PDFs/RenterHandout.pdf.

*Updated 9 / 2024*