



INDIANA UNIVERSITY

# PUBLIC POLICY INSTITUTE

Center for Research on Inclusion & Social Policy

## ADDRESSING UNEQUAL ACCESS TO ENERGY IN INDIANA

### BACKGROUND

In 2019, state leaders formed the 21st Century Energy Policy Development Task Force to explore and make policy recommendations addressing Indiana’s energy transition from fossil fuels to renewable energy alternatives. As part of their charge, the task force is researching the affordability and reliability of energy as well as how these energy issues impact low-income and racially minoritized communities.<sup>1</sup>

The definition of energy access varies but often includes the delivery and use of a minimum level of energy a household requires for basic needs, such as heating a home or cooking meals.<sup>2</sup> As renewable energy sources become more widely available, it is important that all communities have equitable access to these resources. Addressing these concerns early and proactively deploying strategies focused on energy transition could foster more equitable access to clean energy.

This report discusses unequal access to energy in Indiana and the resulting impact on underserved communities. This brief also highlights several strategies to address these disparities.

### ENERGY ACCESS IN INDIANA

#### DISPROPORTIONATE ENERGY BURDEN

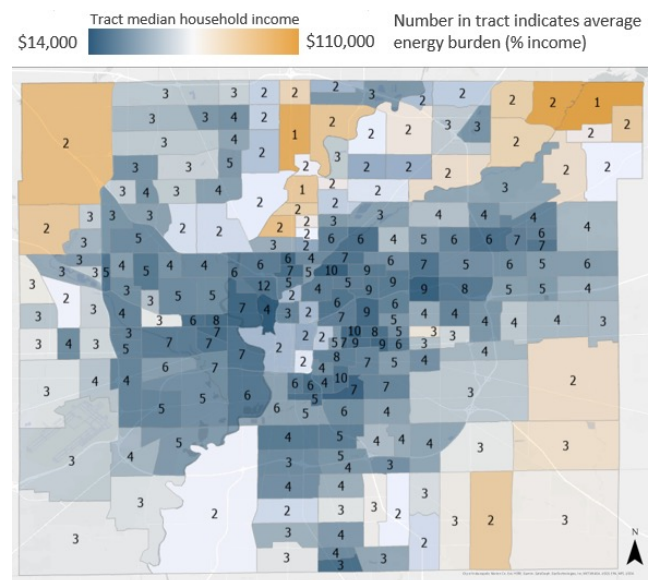
Energy insecurity is the inability to meet a household’s energy demands or pay its energy bills.<sup>3</sup> In Indiana, energy insecurity is a problem for many low-income households, who face disproportionately high levels of energy burden. Energy burden is the percentage of gross household income spent on energy costs.<sup>4</sup> An individual is considered less energy burdened if their spending on energy is a smaller percentage of their gross household income. Those with higher energy burden typically have a smaller gross household income. As a result, they spend a larger percentage of their overall income on energy needs.<sup>4</sup>

### Energy burden in Marion County

In 2019, Indianapolis’ average energy burden was nearly 6%, 1.6 times greater than the national average. The extent to which someone experiences energy burden depends upon where they live. The 20% least-burdened households in Marion County spent an average of nearly 3% of their incomes on energy costs. In contrast, the 20% most burdened households spent an average of approximately 12%.<sup>5</sup>

Figure 1 illustrates the distribution of energy burden by household median income within Marion County. As shown, the areas with lower median incomes have higher energy burdens. For instance, households in Brookside Park on the Near Eastside of Indianapolis have an average energy burden of 9%, which is more than the citywide or national average. The highest average energy burden in Marion County falls within the Near Northwest/Riverside neighborhood at 12%.

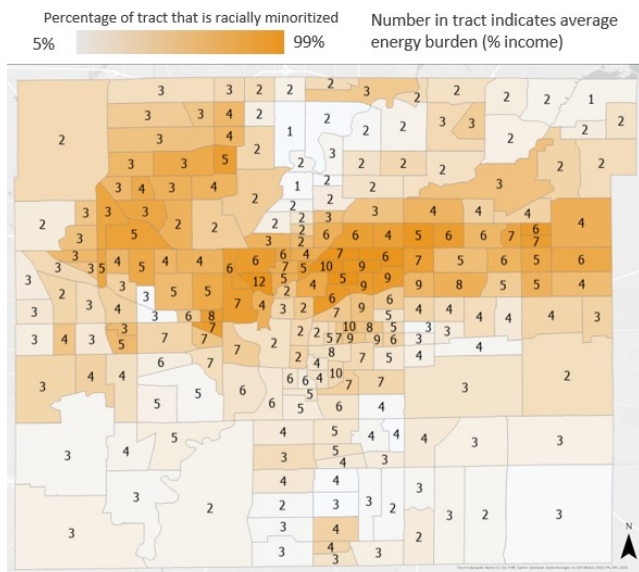
**FIGURE 1. Marion county average energy burden, by census tract\***



\* This heat map utilizes color to showcase variability in annual household income within Marion County census tracts. The corresponding average household energy burden is numerically represented inside each outlined tract.

Figure 2 illustrates Marion County's distribution of energy burden by racial composition. As shown, areas such as Brookside Park and Riverside Park with higher concentrations of Black and Latinx residents have higher average energy burdens. Similarly, areas like Geist and Meridian Hills—which are predominantly white—have a lower average energy burden. This suggests that lower-income neighborhoods with Black and Latinx residents in Indianapolis are more likely to experience a higher energy burden.

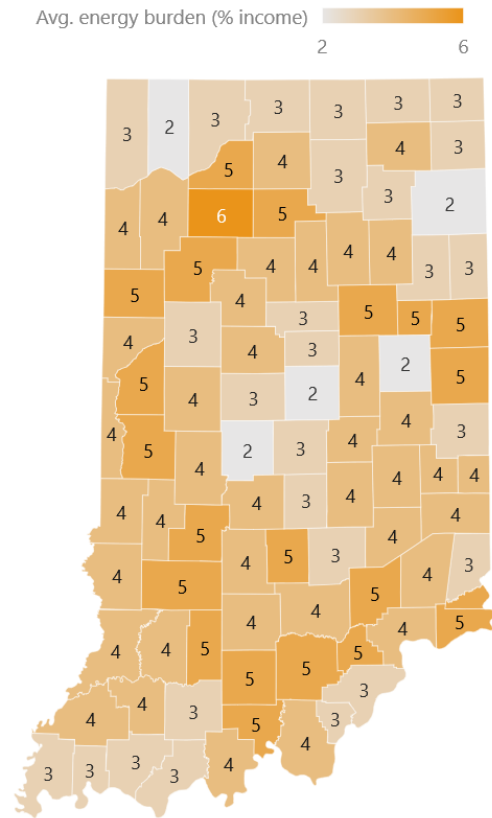
**FIGURE 2. Distribution of racially minoritized households in Marion County, by census tract\*\***



### Energy burden across the state

Energy burden is not a problem unique to Indiana's urban counties. The highest average energy burdens often happen in rural counties. Figure 3 displays the average energy burden within each county and utilizes color to show variance between high and low energy burdens. Pulaski County—a rural and predominantly white county in northern Indiana—provides a prime example. Even though Pulaski County's poverty rate is similar to the state average of 11%,<sup>9</sup> its energy burden rate is double the statewide average and is the highest in Indiana at 6%.<sup>8</sup>

**FIGURE 3. Indiana average energy burden, by county**



Issues of energy insecurity and burden only compound during times of household or societal crisis. In 2020, the Energy Justice Lab conducted a survey of household energy insecurity in Indiana during COVID-19. Findings showed that 15% of Hoosier households could not pay their energy bills.<sup>3</sup> Thirty percent of households had to choose between energy costs or buying food and medicine.<sup>3</sup> About 30% of surveyed households were unable to pay at least one energy bill in 2021.<sup>3</sup> These households were most likely to be low-income; Black and/or Latinx; or have at least one person who was younger than 5, older than 65, living with a disability, or had lost their job or had hours reduced since COVID-19.<sup>3</sup>

### ACCESS TO RENEWABLE ENERGY

As the nation begins transitioning to cleaner energy sources, consumer accessibility to these technologies remains important. The Inflation Reduction Act of 2022 creates incentives and tax exemptions for solar and

\*\* This heat map utilizes color to showcase distribution of racially minoritized households within Marion County census tracts. The corresponding average household energy burden is numerically represented inside each outlined tract.

electric vehicles (EV) to increase the use of cleaner energy options.<sup>10</sup>

The average cost for solar panels in Indiana ranges from \$14,875 to \$20,125. Out-of-pocket installations costing more than \$15,000 qualify for a \$4,500 federal income tax deduction.<sup>11</sup> Nationwide, middle-income households currently make up 48% of solar energy use while low-income households account for 15%.<sup>4</sup> Households with low-income face multiple barriers to accessing renewable energy due to a lack of qualifying credit and the inability to finance the upfront costs.<sup>5</sup>

The Indiana Department of Transportation drafted its State EV Implementation Plan to build an electric vehicle charging network across Indiana. This is a commendable effort to increase statewide access to renewable energy. However, the most energy-burdened communities will not have access to these resources. Charging stations will be within 35 miles from most Hoosiers and 50 miles from most rural residents. In addition, none of these planned EV stations would be located in racial or ethnic diverse communities.<sup>12</sup>

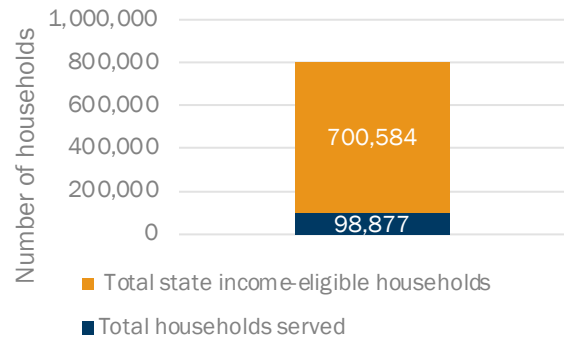
## IMPLICATIONS

New household energy opportunities, such as installation of rooftop solar panels, could further exacerbate energy inequities as higher income homeowners are more likely to be early adopters of rooftop solar.<sup>13</sup> Renters often occupy older, less energy-efficient dwellings, and do not have the same level of flexibility as homeowners to install alternative energy sources like rooftop solar. As a result, Hoosier renters have a higher energy burden (4%) on average than owner-occupied homes (3%).<sup>8</sup>

During extreme weather events, which are becoming more common, households with low-income who cannot afford to pay energy bills may engage in unsafe behaviors such as sleeping near an active fireplace for warmth or foregoing food to save money for energy payments.<sup>14</sup> The Low-Income Energy Assistance Program (LIHEAP) is a federally funded program allowing states to provide funds to low-income households that cannot afford their household energy costs. Federal energy assistance programs have seen an increase in the number of eligible households but a reduction in the number of recipients since LIHEAP began.<sup>15</sup>

Indiana follows this trend. According to state eligibility guidelines, 700,584 households were eligible for the program in 2021 (Figure 4). Despite such a large pool of eligible households, only 98,877 received assistance through the program. This equates to only 14% of eligible households receiving services through LIHEAP.<sup>16</sup>

**FIGURE 4. Indiana households served by LIHEAP, 2021**



A push for renewable energy sources is necessary as energy insecurity and burden continue to rise. As energy policy recommendations are explored and enacted, equitable applications to these communities must be ensured.

## CONSIDERATIONS

With the establishment and reintroduction of the 21st Century Energy Policy Task Force, the Indiana legislature has already shown a commitment to addressing this issue. The following section summarizes additional ways to positively impact communities experiencing high energy burdens.

### ESTABLISHING ENVIRONMENTAL JUSTICE COMMUNITIES

Environmental justice communities (EJCs) are areas identified as socially and environmentally vulnerable.<sup>17</sup> The designation of EJCs allows for targeted renewable energy programming or incentives for these communities.<sup>18</sup> While Indiana does not currently have any officially designated EJCs, it could follow other Midwest states' processes. Illinois, for example, established EJCs by using EPA-created environmental justice screening tools and working through the Illinois Power Agency. Research efforts focused

on creating EJs may help to identify and engage with historically marginalized communities.

## **EXPANDING THE LIHEAP PROGRAM**

States can use LIHEAP to increase accessibility of renewable energy sources for low-income households. As such, it is helpful to many households across the state. Yet it could be better leveraged to serve those who are currently eligible but not receiving services.<sup>16</sup> The high need for this program requires more federal funding, which state leaders can urge Congress to expand during annual budget appropriations.

States have discretion over how to use some of the funds from their LIHEAP and Weatherization Assistance Programs. For example, California and Colorado were approved to utilize some of the funding to increase access to rooftop solar panels for low-income households.<sup>19</sup> Indiana could follow suit and expand the types of services LIHEAP provides to include solar installation for low-income households. Doing so would be a step toward ensuring more equitable access to renewable energy sources.

## **INCENTIVIZE SOLAR ADOPTION**

Incentivizing programs for solar adoption among groups with low income is an effective way to increase solar access and use.<sup>20</sup> This type of program would be especially helpful if EJs were established, as there would be clearly defined target areas for the program.

Public support for a solar incentive program already exists within the state. A survey conducted by the IU Environmental Resilience Institute reports that 74% of 2,739 Hoosiers surveyed would support the use of tax dollars to help residents install solar panels on their home.

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The Center for Research on Inclusion & Social Policy (CRISP) was created to address complex social issues and the effects of social policy through applied, data-driven, and translational research. CRISP analyzes and disseminates community-relevant research about social disparities and policy issues. The Center is housed within the IU Public Policy Institute (PPI), which also supports the Center for Health & Justice Research (CHJR), and the Manufacturing Policy Initiative (MPI).

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