

# Advancing Energy Equity in Cleveland



## Community Profile

Ohio is the fourth largest electricity producer in the United States. Natural gas and coal are the main sources of consumption within the state.<sup>1</sup> The City of Cleveland, also known as the "City of Light" due to its innovative use of arc lamps in 1879 within Monumental Park is the second largest city in Ohio. Cleveland's leadership understands the need to change its energy practices. That's why it created a Climate Action Plan with five focus areas. One of these is clean energy, which will empower Clevelanders to start powering their own lights with solar. The LMI Solar Pilot supported this new transition for the city.



## Energy Burden

- On average, Cleveland residents have a 3% energy burden.
- In Cleveland's LMI neighborhoods residents tend to bear an even greater energy burden because of the income differences.

## Community Data

Between ¼ and ½ of the population lives in poverty. The national average poverty rate is 12.8%.

Educational attainment is also low, specifically area residents with no high school diploma varies between 12%-21.5% of the population.

## Demographics

All seven of the participants that received fully-funded solar installations live in parts of Cleveland that researchers consider to at risk or distressed.<sup>2</sup>

- Neighborhoods Represented: Edgewood Park, Woodland Hills, South Collinwood, Lee-Miles.
- The median incomes of program participants' neighborhoods range from \$16,700- \$36,800.
- Educational attainment is also low, specifically area residents with no high school diploma varies between 12%-21.5% of the population.
- 14.6% of households in the city speak another language than English at home.
- Income inequality and wealth inequality play major roles in the lack of homeownership for Black residents. Policy issues like redlining have also historically inhibited the ability for Black Clevelanders to purchase homes.<sup>3</sup>
- If Cleveland were a racially equitable city, then the average annual income of its Black residents would be \$37,303.<sup>4</sup>

LMI Solar Installs: System Size & Estimates	System Cost	System Size (kW)	Est. Annual Savings	Est. Carbon offset per year (lbs.)
<b>PROGRAM TOTALS/AVERAGES:</b>	\$85,166.50	28.37	\$3,820.63	1,696,032.00

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## Project Funding

We had funding to support seven LMI households to go solar. This program was possible through funded/direct pay micro-grants, which separate the end-customer from the program owner/client.



*Cleveland Script Sign at Edgewood Park*

## Partners

The Cleveland LMI pilot solar project launched in April 2022 with a press conference featuring Cleveland's Mayor, Justin Bibb, and then-Cuyahoga County Executive, Armond Budish.

Strong partnerships with regional organizations such as Black Environmental Leaders and Cleveland Neighborhood Progress help us capitalize on early media attention. The project also benefited from strong support by city departments including the Mayor's Office of Sustainability, Department of Aging and Community Development. These partnerships helped more than 175 individuals submit applications to participate in the program.



Cleveland  
Neighborhood  
Progress



## Lessons Learned

We strive to reflect on pilot success and areas for improvement. From overall program design to using accessible language, we identified opportunities for growth and recommendations below:

- Gain early approval from program participants to access solar monitoring and utility data to simplify the documentation process.
- Implement real-time project tracking management to monitor the progress of the project as it happens.
- Reduce or eliminate email communications that do not pertain to the participants and/or program
- Establish lines of communication with utilities and building departments to ensure efficiency in local permitting and interconnection processes

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## Next Steps: Program Plans and Strategies for Scale

- Develop partnerships with green banks and other financial institutions.
- Learn more about the impacts of battery integration and how it promotes grid reliability and resilience.
- Develop focus groups with input of frontline community members to address needs of future participants.
- Deepen partnerships with community groups.
- Continue to seek funding to expand this important work.

1. U.S. Energy Information Administration - EIA - Independent Statistics and Analysis . <https://www.eia.gov/state/?sid=OH#tabs-1>
2. The Economic Innovation Group's Distressed Communities Index. <https://eig.org/distressed-communities/2022-dci-interactive-map/?poth=zip/44128>
3. US Census Bureau. <https://www.census.gov/quickfacts/fact/table/clevelandcityohio,US/PST045222>
4. National Equity Atlas. <https://nationalequityatlas.org/indicators/Racial-equity-in-income?geo=07000000003916000&breakdown=income-gains--dollars->