



Rooftop Solar

Solar photovoltaic systems convert solar energy into electricity. Rooftop solar systems are small-scale installations that can produce electricity primarily for onsite use. When combined with storage, additional benefits can accrue.

QUICK FACTS

- As of 2019, there was about 16 MW of existing rooftop solar capacity in Georgia, with 4.3 MW on homes.
- Most of Georgia's residential rooftop solar is associated with Solarize programs, a community group that organizes crowdsourcing campaigns to bring down the costs of rooftop solar panels through bulk purchasing from selected distributors and installers.
- Nationally, the cost for solar panels has fallen in recent years. A 2019 study found the average price for a 6 kW solar system dropped from \$35,100 in 2011 to \$13,000 in 2021.

BEYOND CARBON

- Solar generation can displace fossil fuels, improving air quality and generating environmental and public health benefits.
- Construction and operation of solar systems creates local and statewide employment.
- There is an opportunity to diversify the solar workforce. The Solar Jobs Census 2019 found women comprised only 26% of the solar workforce and 73% were white.
- Energy bills are expected to decrease with expansion of rooftop solar, though upfront cost is an issue to watch, as it can hinder adoption and exacerbate inequities for under-resourced groups. Research from Tufts University and the University of California, Berkeley, highlights the need to address significant racial and ethnic disparities in solar adoption (even after controlling for income).
- An environmental issue to watch is large-scale disposability of solar panels.

ELECTRICITY

GEORGIA'S 2030 MEGATON OPPORTUNITY

We could reduce 1 Mt of CO₂e in Georgia by adding 295,000 new 5 kW home solar systems.

Lead Researcher

Dr. Marilyn A. Brown, CEM, NAE, NAS
Interim Chair, School of Public Policy
Georgia Institute of Technology
Climate and Energy Policy Lab: www.cepl.gatech.edu

