Large-Scale Solar

Solar photovoltaic (PV) systems convert solar energy into electricity. Utility-scale solar is defined as any ground mounted solar panel facility that has a capacity rating larger than 5 MW. Community-scale solar generally has a capacity of 0.5-5MW. This solution can be coupled with on-site storage (batteries) to improve reliability.

QUICK FACTS

- In mid-2019, Georgia had more than 1,570 MW of solar PV capacity, with more than 1,500 MW of that at utility-scale facilities.
- As of 2019, there were no large-scale solar + storage projects in the state.
- According to the U.S. Energy Information Administration, utility-scale facilities produced 98% of the state's solar PV generation in 2018.
- Georgia Power's 2019 Integrated Resource Plan calls for 2,000 MW of new utility-scale solar by 2022.

BEYOND CARBON

- Solar generation can displace fossil fuels. This can lead to better air quality, which has both environmental and public health benefits.
- Construction and operation of new solar facilities can create new jobs. According to the Georgia Solar Job Census 2019, there are 270 solar companies operating in the state.
- 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.
- Issues to watch include water usage associated with cleaning the panels, end-of-life disposability of solar panels, and land use for installations.
 Thoughtful and creative siting of facilities can help mitigate some of the land-use concerns.

ELECTRICITY

GEORGIA'S 2030 MEGATON OPPORTUNITY

We could reduce 1 Mt of CO2e in Georgia by adding 10 new 100 MW utility-scale solar installations as well as 36 new 5 MW community solar projects.

Lead Researcher

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

