

GEORGIA CLIMATE FACT SHEET

Overall, Georgia emitted roughly 168 million metric tons of CO₂ in 2017, while the State's forests sequestered approximately 46 million metric tons - yielding a net emissions of around 122 million metric tons, just over 12 metric tons for each Georgian.¹

Georgia ranked 10th in the nation in 2018 for total energy consumption.²

- Natural gas accounted for 41% of Georgia's net electricity generation in 2018, the state's four operating nuclear reactors accounted for 26%, coal accounted for 25%, and renewable energy, including hydroelectric power, contributed 8%.³
- Georgia has several energy-intensive industries, including: manufacturing of food, beverage, and tobacco products, chemicals, paper, agriculture, and forestry.⁴
- Major interstate highways and the world's busiest airport in Atlanta contribute to the transportation sector's role as the state's largest energy-consuming end-use sector.⁴
- With the state's warm and humid climate, air conditioning is widely used, and the residential sector's per capita energy consumption is above the national average.⁴

Georgia had 84,326 clean energy jobs⁺ in 2019⁵, representing a 5% increase over 2018.⁶

- The energy efficiency sub-sector grew to 62,924 jobs in 2019, an addition of 1,731 jobs from 2018.⁵

In 2019, solar accounted for nearly 5,000 jobs in Georgia, ranking it 15th in the nation overall and 34th per capita for solar jobs.⁷

- Georgia solar jobs increased by 30% in 2019, the highest rate of increase in the nation.
- Over 270 renewable energy companies are located in Georgia. The state is 9th in the country for solar capacity, with 2,448 MW, enough to power 280,576 homes.

CLIMATE CHANGE RISKS

Climate change poses significant risks to communities, businesses, and ecosystems in Georgia. Most notable is the triad of (1) warming temperatures and heat waves, (2) flooding, storms, and sea-level rise, and (3) droughts and forest fires. Georgia's climate is already changing, and these impacts are currently being experienced statewide.⁸

Warming Temperatures and Heat Waves

- For Georgia as a whole, 2019 was the warmest year on record since observations began in 1895. The Atlanta metro area experienced 91 days with temperatures above 90 degrees F, far above the average of 37 days in a single year and exceeding the previous record set in 1980.

⁺ Energy efficiency, solar, nuclear, wind, hydro, smart grid, microgrid, and storage.

¹ Drawdown Georgia: Identifying the Most Promising Drawdown Solutions for Georgia, working paper, April 17, 2020.

² U.S. EIA, Georgia State Profile and Energy Estimates, Data, 2018.

³ U.S. EIA, Georgia State Profile and Energy Estimates, Overview, 2018.

⁴ U.S. EIA, Georgia State Profile and Energy Estimates, Analysis, 2018.

⁵ USEER U.S. Energy Jobs Report, Georgia State Report, 2020.

⁶ USEER U.S. Energy Jobs Report, Georgia State Report, 2019.

⁷ National Solar Jobs Census, The Solar Foundation, 2019.

⁸ Drawdown Georgia: Identifying the Most Promising Drawdown Solutions for Georgia, working paper, April 17, 2020.

- Georgia currently averages about 20 dangerous heat days (defined by the NWS as a Heat Index of 104 or greater) a year. By 2050, it is projected to see more than 90 such days a year.⁹
- According to Congressional Testimony by Atlanta Mayor Keisha Lance Bottoms, "More than 310,000 Georgia residents are vulnerable to extreme heat, which is deadlier than any other weather-related hazard.... By 2050, the average summer high temperature in Atlanta is projected to jump 4.1 degrees to 92.6 degrees F."
- In 2017, Georgia lost roughly 80% of its peach crop because winter temperatures were too warm, and the peaches had too few "chill hours."

Flooding, Storms, and Sea-Level Rise

- On Georgia's coast, sea levels are 8-10" higher now than they were 80 years ago.
- Georgia currently has 650 mi² that fall within the 100-year coastal floodplain. By 2050, this area is projected to increase to more than 900 mi² due to sea level rise.¹⁰
- "Sunny day flooding" on the coast is now a regular occurrence. In recent years, this flooding has often cut off Highway 80, the only road that connects Tybee Island to the rest of Georgia. As a result, the Georgia DOT is planning to raise portions of the road by up to 8 inches, for a total estimated cost of \$100 million.
- Increasingly severe storms have had a devastating impact on Georgia's farms. Hurricane Michael is estimated to have caused \$2.5 billion in losses for the state's agriculture industry, including major damage to cotton, pecans, and timber.
- Nearly 17% of pecans - roughly 27,000 acres or 750,000 trees - were lost to Hurricane Michael, resulting in an estimated total loss of \$100 million to the Georgia pecan industry alone in 2018. It will take years for growers to rebound.¹¹
- The NWS reported that the Atlanta flood of 2009, likely a 500-year scale event, resulted in \$500 million in damages and the loss of 10 lives.

Droughts and Forest Fires

- A 2007 drought in Georgia caused an estimated \$787 million in agricultural production losses. The 2007 drought contributed to historic wildfires in the state that year. Wildfires burned for more than two months and destroyed \$65 million in timber.
- Drought conditions in Georgia are expected to continue to have disproportionate effects on society because of increased population and water usage.
- More than 4.6 million people living in Georgia, or 48% of the state's population, are living in areas at elevated risk of wildfire.¹²

⁹ [Georgia's Climate Threats, States at Risk.](#)

¹⁰ [Georgia's Climate Threats, States at Risk.](#)

¹¹ Haire, Brad, [Hurricane Michael Changed Georgia's Farm Industry](#), *Southern Farm Press*, October 17, 2018.

¹² [Georgia's Climate Threats, State at Risk.](#)