

Corporate Renewable Energy Procurement Pathways in the Southeast: **SOUTH CAROLINA**

Many corporations, higher education institutions, and municipalities use off-site renewable energy purchasing to meet ambitious renewable energy goals. Limited off-site renewable projects in the Southeast United States may not be a function of limited corporate interest, but rather may reflect regulatory and market barriers. This report summarizes the status of off-site renewable procurement in South Carolina, highlighting potential for market expansion.

To understand the potential for renewable procurement in the Southeast, NREL gathered and estimated data from corporations, cities, and higher education institutions with renewable energy commitments. We pair this with data on existing renewable energy supply options (Figure 1). A summary of purchasing pathways in the state and their contracted capacity is found in Table 1.

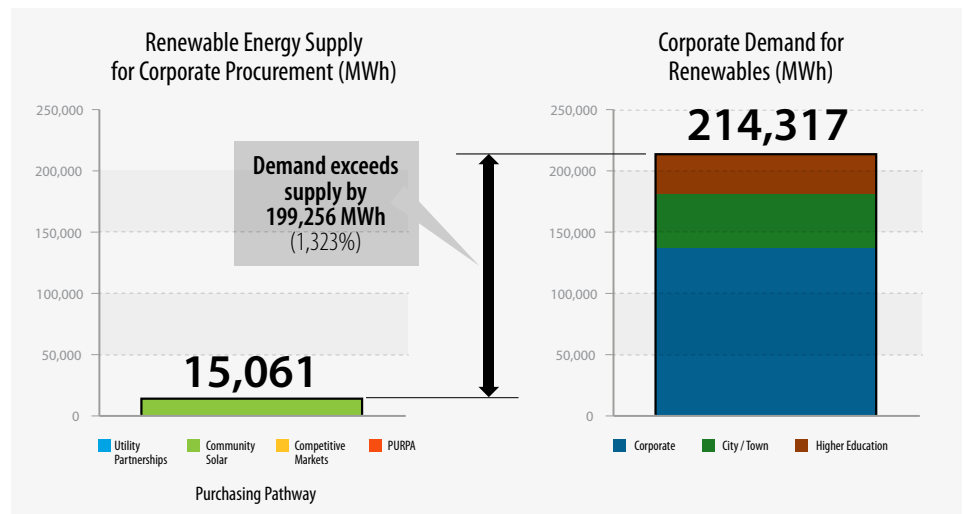


Figure 1. Corporate renewable energy supply and demand

In South Carolina, our sample of demand for renewables exceeds supply by 0.2 million megawatt hours (MWh), or 1,323%. The demand comes from a mix of corporates, cities, and higher education institutions.

Utility Partnerships

South Carolina Electric & Gas (SCE&G) does not offer green tariff programs and has not formed any bilateral agreements with corporate customers for renewable power. Duke Energy, while experienced with green tariffs and bilateral agreements in North Carolina, does not offer green power options for corporate customers in South Carolina.

In 2018, Google initiated a partnership with Tennessee Valley Authority (TVA) to procure renewables-based power for a new data center at the shuttered Widows Creek Fossil Plant in Jackson County; Facebook is also partnering with TVA to supply a new data center in Huntsville with renewable energy. Total renewable energy capacity for these projects has not been announced.

Community Solar

While SCE&G and several cooperative utilities offer community solar options, most of these programs either exclude corporate customers or do not provide ownership of Renewable Energy Certificates (RECs). For example, SCE&G's community solar program is available for residential customers, churches, schools, and municipalities, but the utility retains ownership of RECs. Electric cooperatives, which have installed 25% of community solar capacity to date in South Carolina, may offer more favorable conditions for corporate customers.

Competitive Market Access

Retail choice programs and wholesale market access are not available in South Carolina. While corporations with South Carolina sites have the option to pursue off-site PPAs in states with competitive wholesale markets, potential for energy price hedging is limited due to distance between load and generation.

PURPA

Qualifying facilities (QFs) under the federal Public Utility Regulatory Policies Act (PURPA) may be a viable pathway for corporate renewable energy procurement in South Carolina due to favorable avoided cost contract conditions set by SCE&G. QFs between 100 kW to 80 MW are eligible for fixed-rate energy payments for the life of negotiated contracts, which may extend up to 15 years. QFs are also eligible for capacity payments in years when a capacity need is identified. Developer demand for PURPA projects is ongoing in South Carolina, giving this state the largest PURPA pipeline outside of North Carolina.

Market Outlook

Procuring renewable energy from a PURPA qualifying facility may be more attractive in South Carolina compared to other Southeast states because of SCE&G's fixed rates and long-term contracts to qualifying facilities. Under this structure, Dominion Energy recently constructed Solvay Solar Energy Facility that sells electricity output to SCE&G and RECs to Belgian corporation Solvay. Aside from PURPA, corporations may be eligible to subscribe to cooperative utility community solar programs, although not all programs may offer favorable REC or cost options.

Pathway	Deployed Capacity (MW)	Key Considerations
Utility Partnerships	0	<ul style="list-style-type: none"> No utility green tariffs or bilateral deals to date
Community Solar	8	<ul style="list-style-type: none"> REC treatment varies SEC&G program is open to higher education and municipalities, but not businesses
Competitive Markets	0	<ul style="list-style-type: none"> No retail choice Long distance to competitive market regions, limiting energy price hedging potential of off-site PPAs
PURPA	0	<ul style="list-style-type: none"> Fixed-rate energy payments for contracts up to 15 years Ongoing developer demand for new PURPA projects

Table 1. Deployed capacity and key considerations for corporate procurement

Heeter, Jenny; Cook, Jeffrey J.; and Jenny Sauer. 2018. *Existing and Potential Corporate Off-site Renewable Procurement in the Southeast*. Golden, CO: National Renewable Energy Laboratory, NREL/TP-6A20-72003. <https://www.nrel.gov/docs/fy18osti/72003.pdf>.