SOUTHERN ALLIANCE FOR CLEAN ENERGY

SOLAR IN THE SOUTHEAST

EIGHTH EDITION

Southern Alliance for Clean Energy

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SOLAR IN THE SOUTHEAST

EIGHTH EDITION

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ABOUT SOUTHERN ALLIANCE FOR CLEAN ENERGY

The Southern Alliance for Clean Energy is a nonprofit organization that promotes responsible and equitable energy choices to ensure clean, safe and healthy communities throughout the Southeast. As a leading voice for energy policy in our region, SACE is focused on transforming the way we produce and consume energy in the Southeast.

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INTRODUCTION

SACE's "Solar in the Southeast" report sheds light on the critical role that utilities, policymakers, and customers have in the growing solar market in the Southeast. Utilities in Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, and Tennessee operate as monopolies and are granted the responsibility and control over power supplies. Consequently, the location of a home or business is the primary determinant not only of which utility will supply the electricity but also the amount of solar within the resource portfolio that generates electricity for that home or business.

As a regional organization, SACE tracks and compiles information from electric utility integrated resource plans (IRPs) that utilities file with state-level regulators. These resource plans, along with U.S. Energy Information Administration (EIA) data on currently operating utility-scale solar and distributed solar reported by utilities are used to produce near-term forecasts for total installed capacity of solar power (in megawatts, MW) for the entire region out to 2030. We look at how each utility contributes to regional progress by seeing how much solar comes from each utility, and what portion of planned capacity additions come from solar. Additionally, **SACE looks at how each utility has increased the pace of solar additions over time to track progress for their respective portfolio, thus illustrating the amount of solar power sourced to a utility or state relative to the size of their generation fleet.**

The purpose of this report is to document current progress and trends at both utility and state levels, as well as identify policies and practices to drive continued solar growth in the Southeast.

EXECUTIVE SUMMARY

SOLAR PROGRESS ACROSS THE SOUTHEAST

The Southeast can claim nearly a cumulative **28 gigawatts (GW) of solar (27,840 megawatts, MW) in 2024, with 5 GW of capacity coming online in 2024 alone.** The vast majority of that solar is utility-scale, or large solar farms owned by or contracted to electric utilities. Notably, **Florida Power & Light (FPL)** deployed approximately 3 GW of solar capacity in 2024, and **Georgia Power** has reached a cumulative 3 GW of solar capacity on its system. The Southeast is projected to nearly double the amount of solar in the region to almost 54 GW in 2030. Utilities across the region are forecasting significant demand for the first time in over a decade. **Each utility resource plan is an opportunity to add more solar to the grid, especially if it is paired with battery storage.**

LOAD GROWTH LEADS TO INTEREST IN BATTERIES

Solar's critics are quick to point out that the sun doesn't shine all the time. However, **there is little as reliable on planet Earth as the fact that the sun is going to rise each morning and set each day**. Operating an electric grid with solar is different, but not less reliable, than operating a grid with fossil fuels that must be transported via pipelines or rail. One tool that many utilities are using to complement solar on the grid is storing excess electricity in batteries and deploying that electricity when it is needed.

SOLAR REMAINS LEAST COST GENERATION OPTION

With affordability top of mind as utilities forecast load growth, it is more important than ever for utilities to utilize the least-cost option, solar. Despite rollbacks of tax credits, solar remains cost competitive as costs associated with fossil fuel infrastructure trend upward. Since fuel costs are passed directly on to customers, solar is a low-cost way to stabilize customer utility bills by reducing their exposure to spikes in coal and gas prices.

STATE PROFILE HIGHLIGHTS

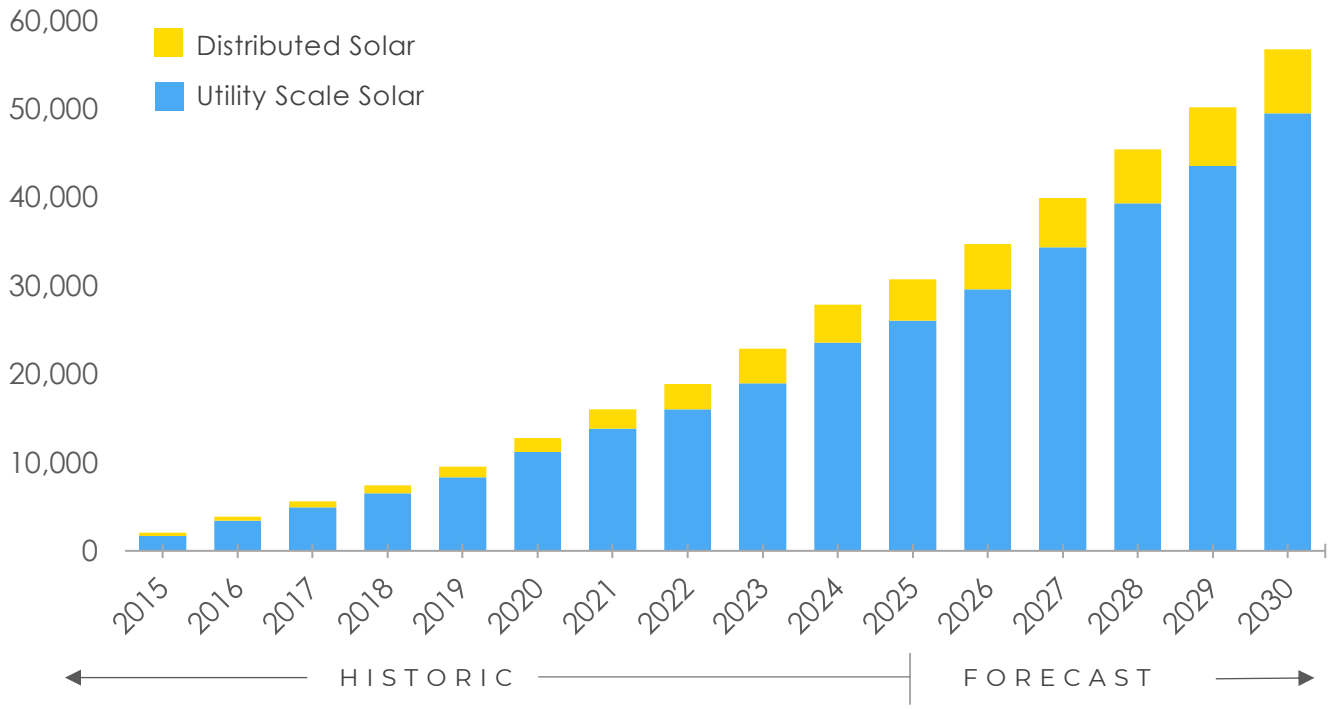
Florida remains the state with the most installed solar capacity in the Southeast, reaching 13,850 MW in 2024 and expected to more than double to nearly 30 GW (29,476 MW) by 2030. **North Carolina**, **South Carolina**, and **Georgia** follow, driven largely by utility-scale solar additions from just a few key major utilities. **Tennessee, Alabama, and Mississippi** lag compared to the rest of the region, at least in part due to the Tennessee Valley Authority (TVA)'s high hurdles for solar additions.

SUNRISER UTILITIES

Several electric utilities across the Southeast have made larger capacity deployments in shorter time frames than ever. The region was adding an average of under 2,000 MW per year in the early years of utility-scale solar, but has been averaging just under 4,000 MW per year for the last three years, and under current plans that is expected to increase to almost 5,000 MW per year by 2030. FPL and TVA provide an interesting contrast: FPL has achieved and is planning continued, sustained solar additions, whereas if TVA is to meet its goal of 10,000 MW of solar by 2035 it will need to significantly accelerate solar additions above historic actions.

REGIONAL TRENDS – CAPACITY FORECAST

TOTAL SOUTHEAST SOLAR PV CAPACITY (MW) BY PROJECT TYPE



Source: Southern Alliance for Clean Energy (SACE), "Solar in the Southeast" Eighth Edition Report published October 2025.

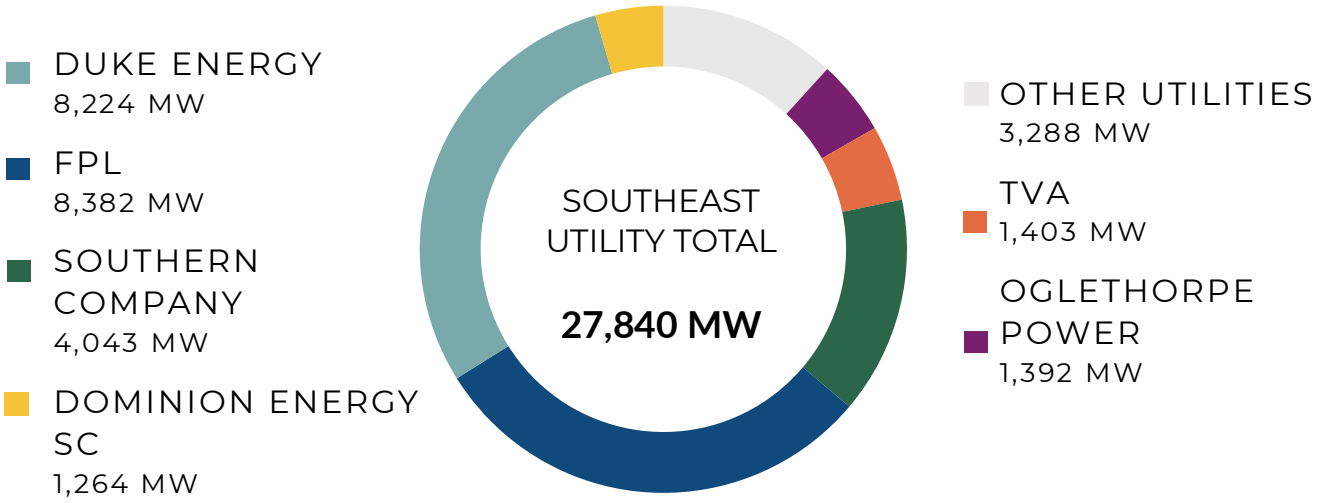
THE SOUTHEAST PICKS UP THE PACE OF SOLAR ADDITIONS

Solar can be added to the grid by electric utilities, independent power producers, and consumers. Larger solar projects are called utility-scale solar, and they are typically owned by the electric utility or a non-utility developer who sells the solar power output to utilities. Distributed solar is made up of smaller solar systems that are typically installed on the rooftops of residential or commercial customers. Altogether, the Southeast is able to claim more than 27,840 megawatts (MW) of solar as of 2024. That equates to a pace of adding 3,900 MW of solar per year since 2022, showing that utilities across the Southeast have trended towards deploying larger amounts of solar in shorter time frames than ever.

ELECTRIC UTILITY PLANS POWER THE REGION

The majority of solar in the Southeast comes from utility-scale solar projects. For utility-scale solar, the pace of additions now and in the future is driven by a planning process called an integrated resource plan (IRP), which sets (or determines) the mix of resources used to generate electricity. Each resource plan can be an opportunity to add more solar to the grid by an electric utility proposing to build its own solar projects, or by going into a procurement process to buy a solar project's output over the long-term (usually a 20–30-year period). In this report, we attribute the solar capacity to the utility whose electricity needs are being met by the solar generation.

REGIONAL TRENDS – SNAPSHOT OF 2024 SOLAR CAPACITY BY UTILITY



Source: Southern Alliance for Clean Energy (SACE), "Solar in the Southeast" Eighth Edition Report published October 2025.

There are multiple ways to evaluate how utilities in the Southeast contribute to the overall solar progress of the region. For example, by looking at what portion a utility system contributes to the total solar capacity of the region, you can answer questions about who is building the most solar. As of 2024, Duke Energy's three utilities in North Carolina, South Carolina, and Florida combined, and NextEra's Florida Power & Light (FPL) contributed a roughly equal portion of solar to the regional total.

Larger utility systems include utilities like Dominion Energy South Carolina, the Tennessee Valley Authority (TVA), FPL as well as systems made up of multiple operating companies, such as Southern Company (Georgia Power, Alabama Power, and Mississippi Power) and Duke Energy (Duke Energy Carolinas (DEC), Duke Energy Progress (DEP), and Duke Energy Florida (DEF).

"Other Utilities" include both individual and regional municipal power agencies, as well as Electric Membership Cooperatives (EMCs). Because the largest utility systems in the region serve about three-quarters of all load in the Southeast, they also tend to make up around the same amount of the regional total capacity.

UTILITY TRENDS – UTILITY RESOURCE PLANS

RESOURCE PLAN NAMEPLATE CAPACITY ADDITIONS (MW) THROUGH 2030

UTILITY COMPANY	YEAR OF IRP	CAPACITY ADDITIONS		% FROM SOLAR
		TOTAL	SOLAR	
Alabama Power	2022	3,700	320	9%
Florida Power & Light*	2025	13,233	8,493	64%
Duke Energy Florida*	2025	3,503	2,022	58%
Tampa Electric*	2025	1,792	1,042	58%
Georgia Power	2025	10,098	1,690	17%
Mississippi Power	2024	-	-	-
Duke Energy Carolinas	2025	4,987	1,591	32%
Duke Energy Progress	2025	5,802	2,110	36%
Dominion SC	2025	1,008	600	60%
Santee Cooper	2025	1,823	125	7%
TVA	2024	8,949	2,836	32%
Southeast Major Utility Resource Plan Estimated % of Capacity from Solar				**38%**

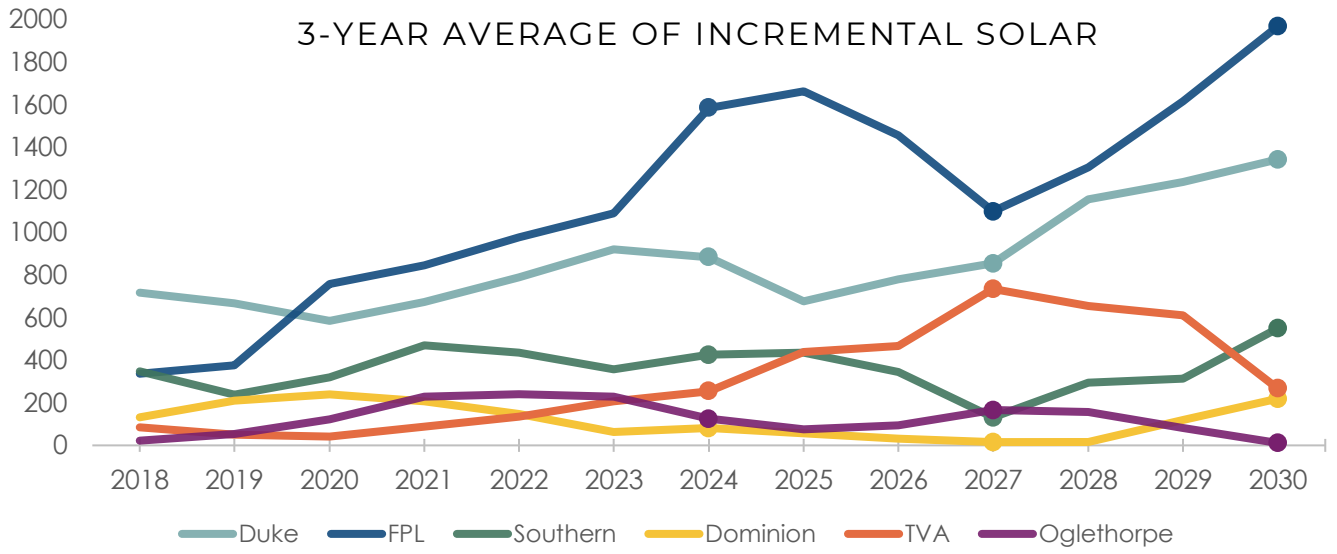
Source: Southern Alliance for Clean Energy (SACE), "Solar in the Southeast" Eighth Edition Report published October 2025.

Although utilities have been adding a lot of solar to their portfolios due to the forecasted load growth from data centers, utilities have also been building many different types of resources, and even delaying the retirements of coal plants. Generally, the mix of new resources being built has been a mix of fossil gas, storage, and some solar. Although some utilities have gotten approval for upgrades of existing nuclear to increase capacity, no new units have been approved as of writing.

Nationally, about 50% of planned generation additions to the grid are solar, and 80% are solar or storage according to the U.S. Energy Information Administration (EIA). In the Southeast, utilities like FPL and DEF are above this national average, with 64% and 58% of planned additions coming from solar, respectively. There are also utilities falling far below the national average. For both TVA and Georgia Power, solar makes up less than half of planned additions; in Georgia Power's case, this is despite the fact that they are adding substantial solar, and driven by the fact that they are adding even more new gas and storage to their system.

**In Florida, an IRP-equivalent called a Ten-Year Site Plan is filed*

UTILITY TRENDS – SUNRISER LIST



Source: Southern Alliance for Clean Energy (SACE), "Solar in the Southeast" Eighth Edition Report published October 2025.

UTILITY COMPANY	2022-2024	2025-2027	2028-2030
Florida Power & Light	1,585	1,099	1,968
Duke Energy	885	854	1,343
Southern Company	425	132	550
Tampa Electric	288	216	213
TVA	255	735	611
Oglethorpe	124	166	11
Florida Municipals	107	293	498
Dominion Energy	82	15	219
Santee Cooper	71	45	8

By measuring the pace of incremental capacity additions from solar over a three-year period, we can see which utilities are speeding up, which are slowing down, and which to watch in the coming years.

- **Florida Power & Light** has added an average of 1,585 MW of solar / year for the last 3 years, making it the leader in the region. A group of **Florida Municipal Utilities** are also expected to continue making progress, reflecting a trend of both investor-owned *and* municipal utilities leading solar in the state.
- Utilities to watch include large investor-owned utility systems like **Southern Company** and **Duke Energy**, whose most ambitious solar plans and increased deployments are further in the future.
- The **Tennessee Valley Authority** is finally showing some long overdue progress on solar. The pace of capacity additions is expected to quicken, rising from an average of 255 MW to 735 MW / per year. However, whether projects in later years will come to fruition as planned is uncertain.
- Meanwhile, **Santee Cooper** is actually slowing the pace of solar additions compared to both its historical pace and its previously filed plans.

UTILITY PROFILES

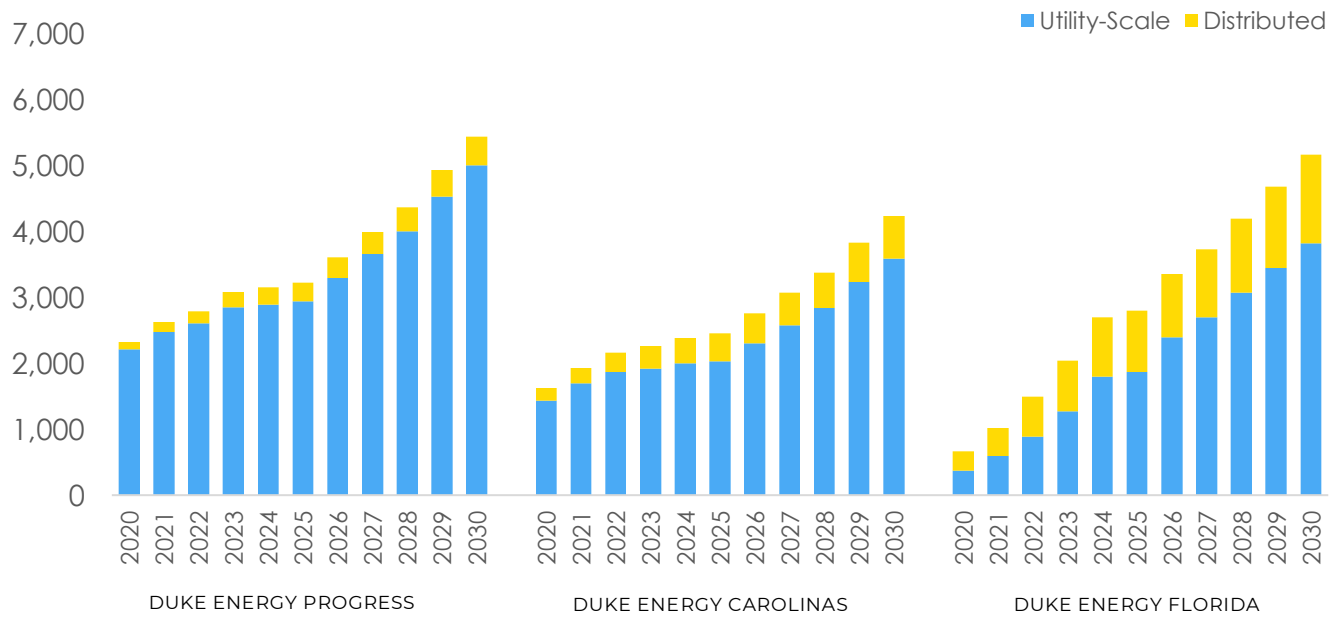
DUKE ENERGY

Duke Energy operates in three SACE states. North Carolina, South Carolina, and Florida. There are many regulatory differences in these states. Duke has filed with state regulators to fully merge its two utilities that operate in North and South Carolina. This merger in the Carolinas will help align the programs in North and South Carolina, while Florida remains a separate entity. The merger may have a minimal effect on near-term solar additions, but could potentially reduce solar curtailment across the two systems.

The solar programs offered to customers by Duke's utilities in the Carolinas and Florida are similar, but a big difference is utility-scale solar procurement. In the Carolinas, there is an annual request for proposal (RFP) process for utility-scale solar. However, in Florida, the Solar Base Rate Adjustment (SoBRA) process allows the utility to rate base solar before it is built, and the process to build is quicker. Duke Energy's two utilities in the Carolinas have an annual combined RFP process. The 2024 RFP is in process and the 2025 RFP bid window opened in August 2025. Through this process, the utility will procure utility-scale solar to meet its energy generation goals and needs.

For the first time in recent memory, a major Southeast utility has filed a resource plan that shows a pullback on the amount of solar it plans to add to the grid. In October 2025, Duke filed its Carbon Plan/Integrated Resource Plan (CPIRP) for its two utilities in North and South Carolina. Despite showing significant load growth, the plan includes a near-term action plan (NTAP) that recommends the utilities procure 4,000 MW of solar from 2025-2028, less than the plan the North Carolina Utilities Commission (NCUC) approved in 2024 to procure 6,460 MW of solar from 2023-2026 (note the figures in the NTAP are for the year the resources will be procured, not the year they go online). Although the most recent NTAP shows a decrease in solar, it shows an increase in most other resource types, with battery storage plans doubling to 5,600 MW, with most projected to come online by the end of 2034.

DUKE SOLAR CAPACITY (MW) BY UTILITY AND PROJECT TYPE



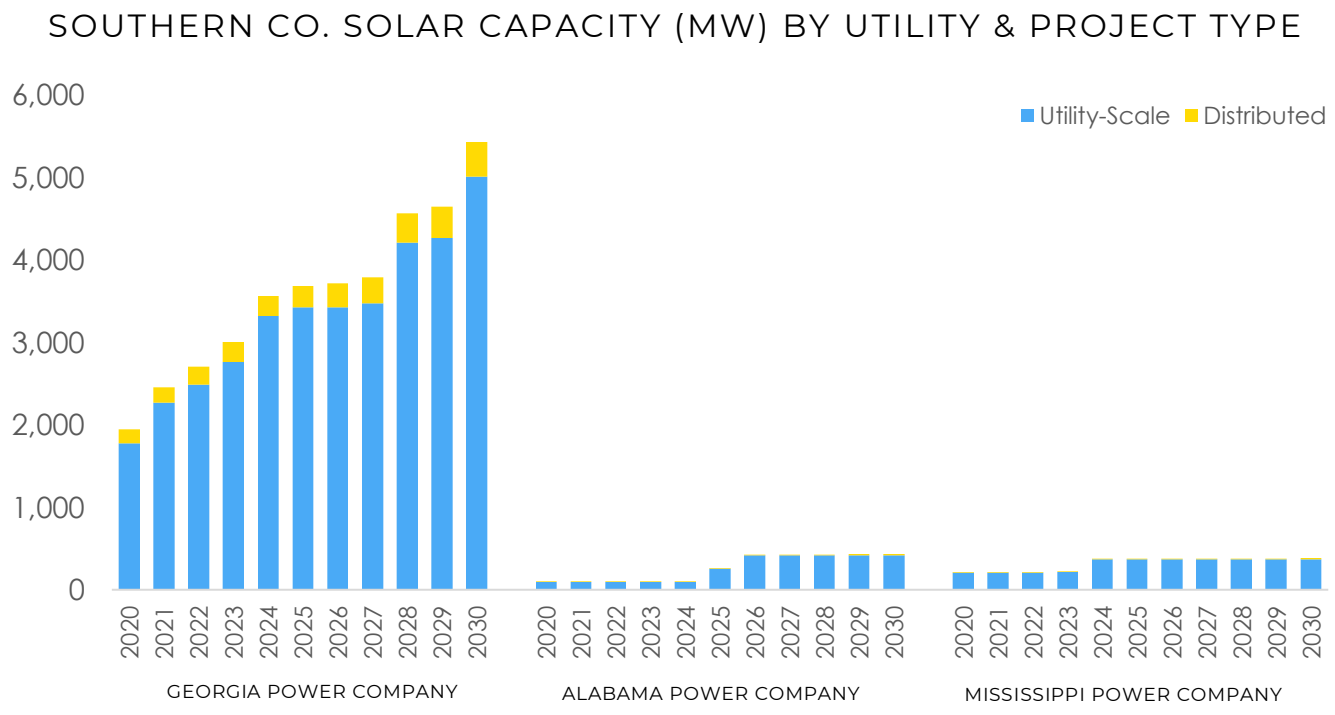
Source: Southern Alliance for Clean Energy (SACE), "Solar in the Southeast" Eighth Edition Report published October 2025.

SOUTHERN COMPANY

Southern Company has three operating companies in the Southeast in Alabama, Mississippi, and Georgia. Georgia Power, the largest of its operating companies, recently completed an IRP and has filed for certification from the Georgia Commission for over 10,000 MW of new generating capacity and contracts with existing capacity as a part of Georgia Power's most recent All-Source Procurement Request for Proposals (RFP). Through the IRP and the results of the RFP, Georgia Power is accelerating its battery storage deployment. In the rush to meet expanding load growth from large loads, the fastest resources Georgia Power can get online as a part of its latest RFP include adding storage to five existing solar locations. Although storage will generally charge from a mix of grid resources, it does pave the way for the utility to integrate an increasing amount of solar.

Alabama Power doesn't shine quite as bright as its sister operating companies. Although it has taken steps to build solar by getting approval from its regulators through a certificate, there have been setbacks in recent projects. The Commission initially approved 400 MW of renewable energy generation, which Alabama Power is on track to build despite some setbacks. Several 80 MW projects that have been reflected in past reports have been terminated, namely HEP Greenville in early 2024 and Notch 4 & 5 in July 2025. The certificate was even expanded to authorize up to 2,400 MW by 2029, but it is unclear how much of that upper limit the utility plans to pursue.

Mississippi Power is the smallest of Southern's operating companies in the region, and generally hasn't required much in the way of capacity additions. Its latest IRP stated that it does not anticipate new capacity needs until 2041. Mississippi Power has undergone just two IRPs under commission review since enacting its IRP rules, one in 2021 and another in 2024.



Source: Southern Alliance for Clean Energy (SACE), "Solar in the Southeast" Eighth Edition Report published October 2025.

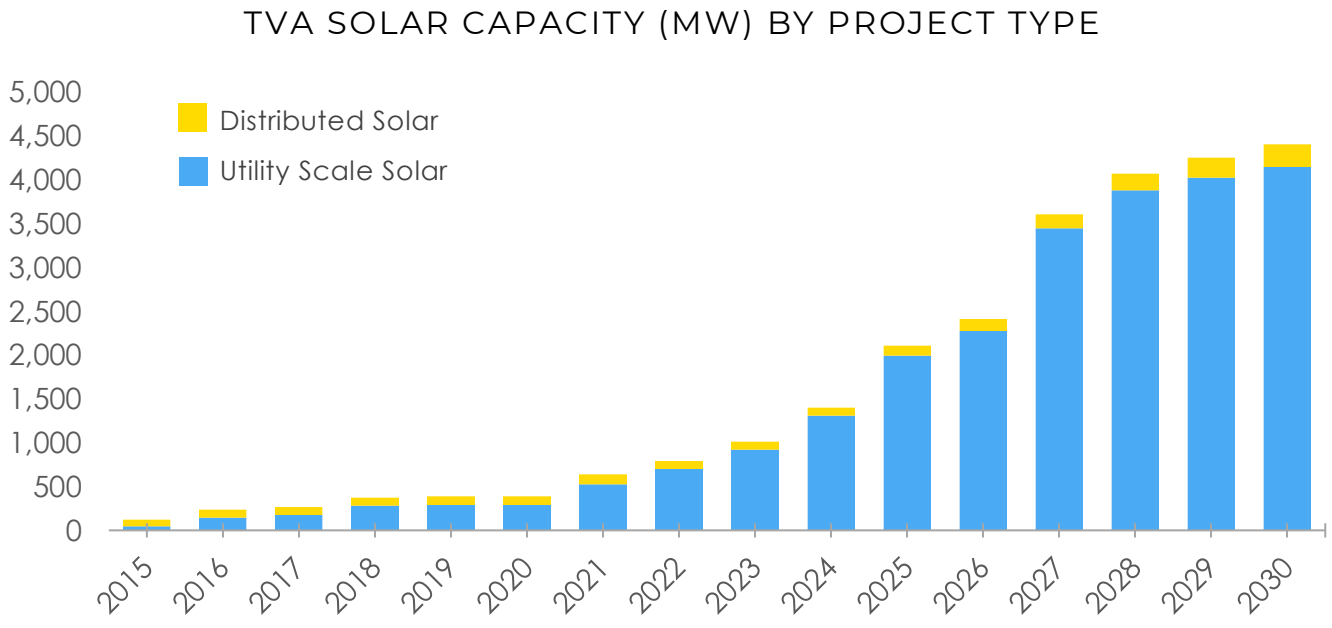
TENNESSEE VALLEY AUTHORITY (TVA)

Although TVA issued its draft IRP in September 2024, leadership changes and turmoil at the TVA Board of Directors during 2025 mean that key decisions regarding the IRP and TVA's resource additions are currently in limbo. Since the Board is responsible for setting policy directions, such as approving a new IRP, and approving other changes, TVA is still operating under its 2019 IRP and policies set by the previous Board.

Unlike other utilities, TVA's resource plan is overseen and ultimately approved by its Board of Directors rather than regulators. Where the utility goes on issues like solar, new gas, coal retirements, and nuclear will be determined by TVA staff leadership and the TVA Board. The TVA Board is appointed by the President and approved by the Senate.

In 2024, President Biden nominated one new member to the Board and two current Directors who had been nominated by President Trump in his first term. When those three nominees failed to be confirmed by the Senate, the TVA Board started 2025 with six members on a Board that requires five for quorum. In a break from historical practice, in the first six months of his term, President Trump fired three members of the TVA Board without providing a reason, leaving the Board without quorum. After the firings, Trump nominated five individuals from Tennessee, Alabama, and Florida to serve on the Board. As of the publication of this report, those nominees have not been confirmed by the Senate.

In the event of a lack of Board quorum, the Board delegated day-to-day operations to the CEO, including continuing work on major construction projects the Board had already approved. TVA's draft 2024 IRP projected more solar for the federal utility than the 2019 IRP. Under a new Board, it is not clear whether TVA will move forward with finalizing an IRP that aligns with the 2024 draft or will begin a new long-term planning process.

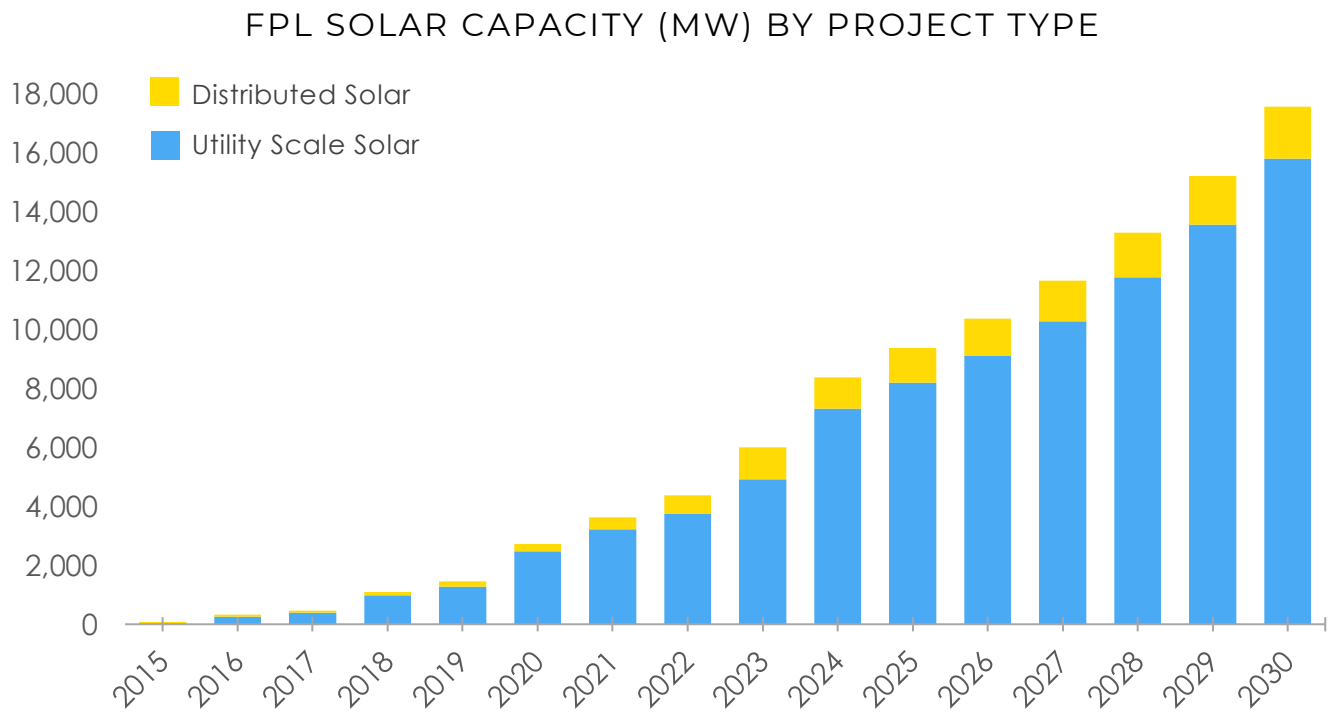


Source: Southern Alliance for Clean Energy (SACE), "Solar in the Southeast" Eighth Edition Report published October 2025.

FLORIDA POWER & LIGHT

According to Florida Power & Light's latest resource plan filed in April 2025, the utility is planning to build an astonishing 17,433 MW of incremental solar capacity by 2035. This is a tall goal, but FPL has demonstrated that it is capable of adding a lot of solar to the grid at a steady pace, with 2,250 MW coming online in 2024. This is an interesting contrast to similarly sized utilities like TVA that have also announced plans to build a large amount of solar, but have demonstrated a slower pace of solar capacity deployment than FPL.

Many of these solar deployments are timed with a delay in the retirement of FPL's remaining coal asset, Plant Scherer unit 3. Georgia Power is the primary owner of Plant Scherer, and ultimately decides when the plant will retire. FPL's plans for solar over the next few years are lower than in previous years as the utility focuses on building out significant storage on its system. FPL's 400 MW Manatee battery storage project is currently the largest operating in the region. FPL's existing and planned solar and storage will allow the utility to reduce its reliance on gas; in its latest Ten-Year Site Plan, FPL's generation from gas is expected to drop from approximately 70% in 2024 to 60% in 2029. That in turn reduces the fuel cost that is passed on directly to customers.



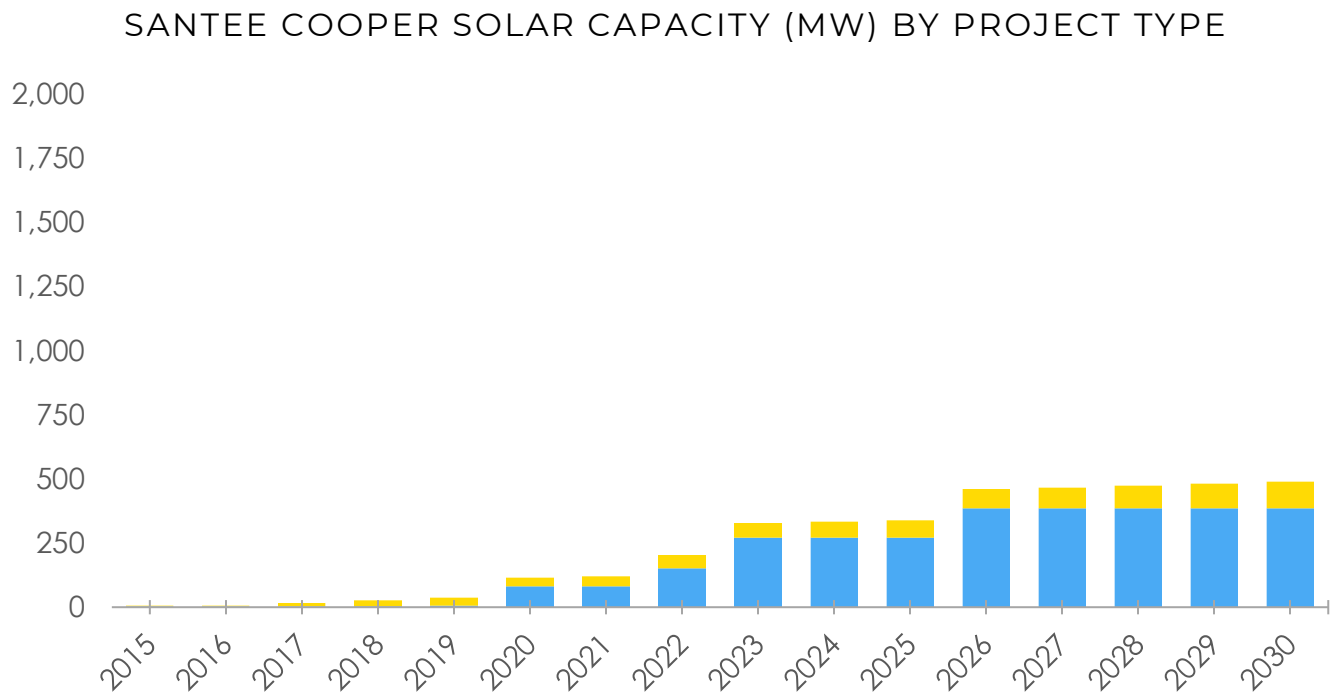
Source: Southern Alliance for Clean Energy (SACE), "Solar in the Southeast" Eighth Edition Report published October 2025.

SOLAR (MW)	2024	2030
Distributed (MW)	1,069	1,777
Utility-Scale (MW)	7,312	15,805
Total Solar (MW)	**8,382**	**17,582**

SANTEE COOPER

On September 16, 2025, Santee Cooper filed its 2025 IRP Update. The 2025 Update adjusts base planning assumptions from the 2023 IRP and 2024 IRP Update, while also providing status updates on items from the short-term action plans. Santee Cooper notes that the differences between the 2023 Preferred Portfolio and the new 2025 Portfolio Update are primarily driven by higher load projections and a significant increase in solar costs, due to the accelerated termination of federal tax credits.

Although the update states that it plans to build 2,000 MW of solar by 2052, there appears to be very little in the way of incremental solar in the timeframe of this report (through 2030). This is in direct contrast to the plan released in 2024 that included 1,800 MW of solar through 2031.



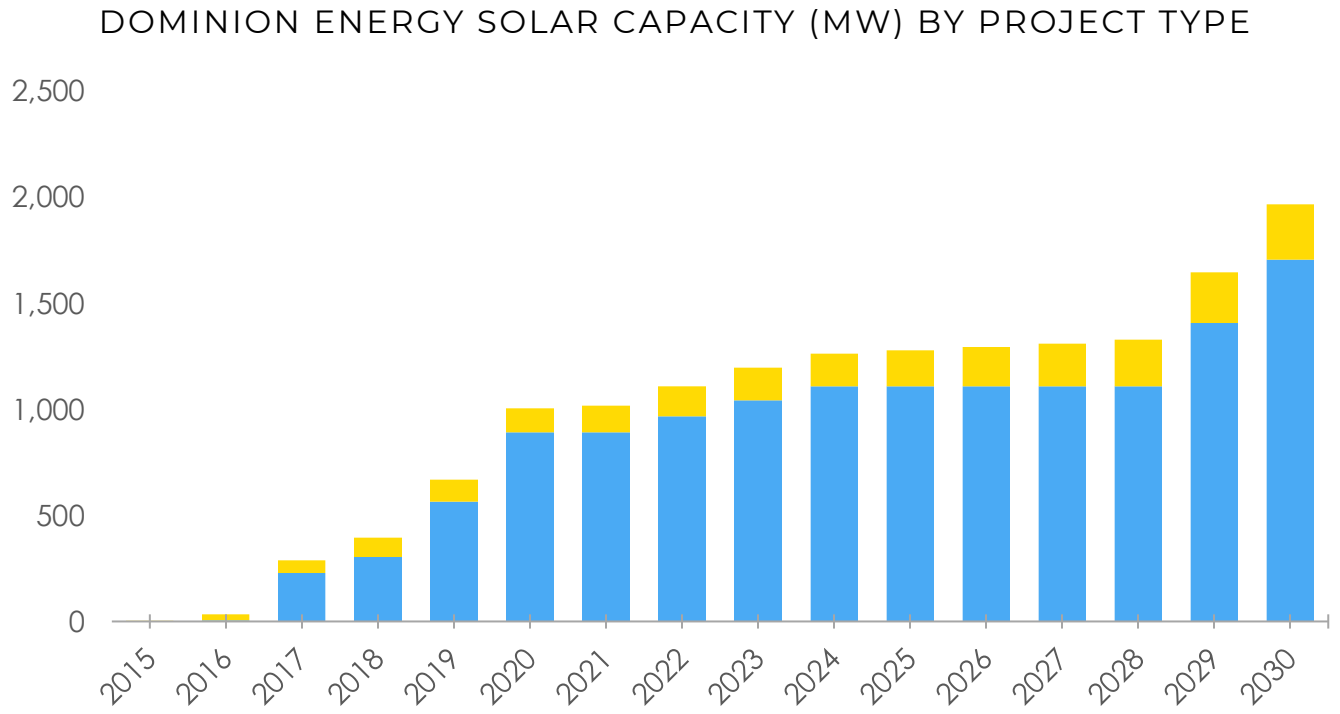
Source: Southern Alliance for Clean Energy (SACE), "Solar in the Southeast" Eighth Edition Report published October 2025.

SOLAR (MW)	2024	2030
Distributed (MW)	64	106
Utility-Scale (MW)	270	384
Total Solar (MW)	**333**	**490**

DOMINION ENERGY SOUTH CAROLINA

Dominion Energy South Carolina submitted an IRP update in 2025. This update showed a 1,125 MW reduction in planned solar between the 2023 reference build plan and the 2025 reference build plan. Storage is also reduced by 1,800 MW; however, 800 MW of hybrid solar/storage is included in the 2025 reference build plan.

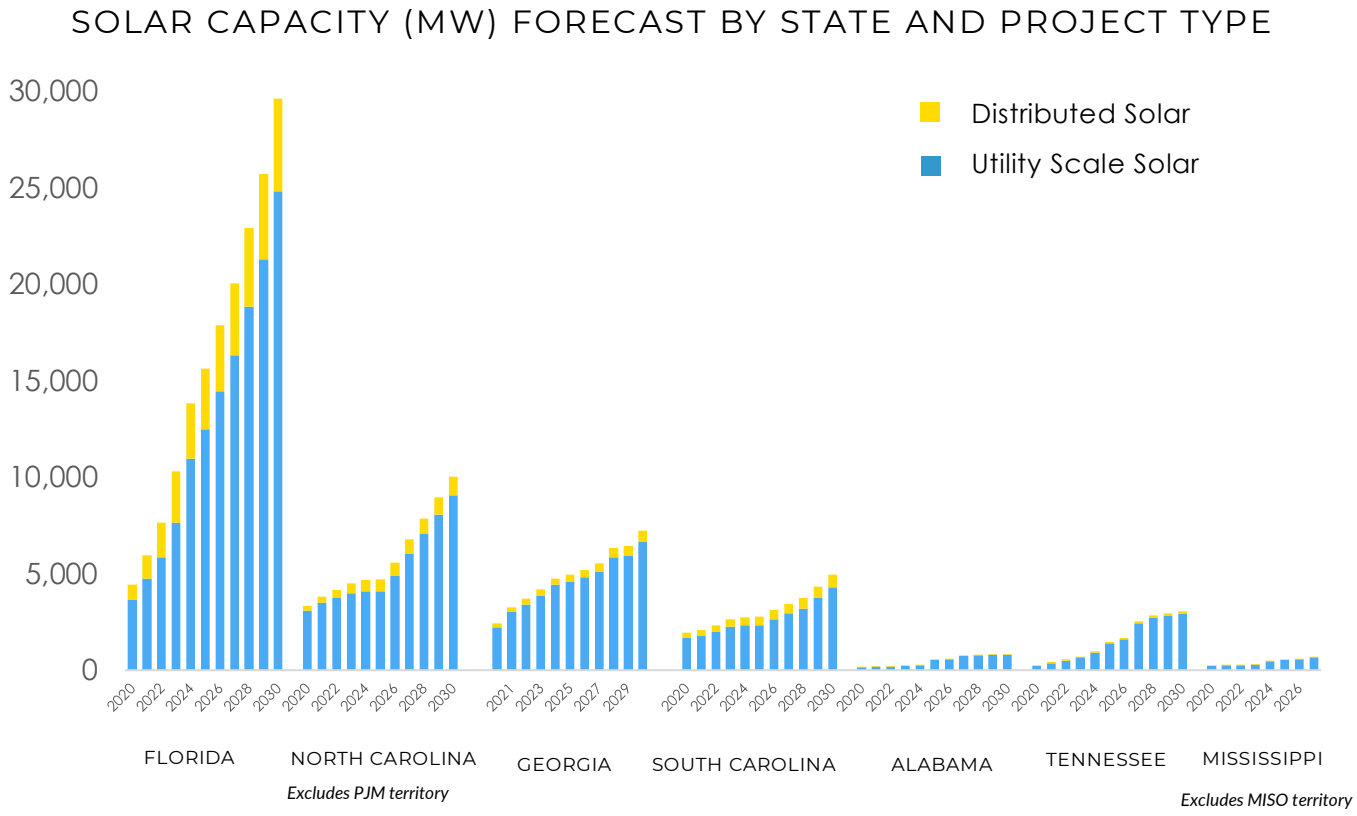
Instead of opting to build solar and battery storage which is least cost, Dominion Energy South Carolina has partnered with Santee Cooper to build a gas plant in Canadys, SC. Additionally, coal retirements are being extended with the possibility of hybrid solar and storage to help make up for this lost capacity. Instead of relying on solar and battery storage, which is least cost, Dominion Energy South Carolina has decided to reduce its plans for solar and storage, add gas, and extend the use of coal plants.



Source: Southern Alliance for Clean Energy (SACE), "Solar in the Southeast" Eighth Edition Report published October 2025.

SOLAR (MW)	2024	2030
Distributed (MW)	156	259
Utility-Scale (MW)	1,107	1,708
Total Solar (MW)	**1,263**	**1,967**

STATE TRENDS – CAPACITY FORECAST



Source: Southern Alliance for Clean Energy (SACE), "Solar in the Southeast" Eighth Report published October 2025.

Florida utilities have taken a strong lead in total installed solar in the region. Cumulatively, Florida utilities are expected to reach approximately 13,850 MW of solar in 2024 and nearly 30,000 MW by 2030. Florida is also notably one of the only states to have a significant amount of capacity coming from distributed solar relative to the total capacity.

North Carolina currently remains second in the Southeast in installed solar capacity (MW). It is important to note that SACE apportions utility-scale solar according to where the load is served. For example, many Duke Energy solar projects are physically located in North Carolina, but may have some capacity partially be attributed to South Carolina in SACE's reporting since Duke serves load in both states.

The forecast indicates that Georgia is no longer expected to surpass North Carolina in total installed solar in the long-term, although in recent years they have been effectively tied at 4,760 and 4,670 MW respectively.

Despite several utility-scale projects from TVA going into service, Alabama, Tennessee, and Mississippi still have a lot of catching up to do. Unfortunately, the slow solar growth from TVA and other utilities operating in these states makes it difficult to keep pace with the rest of the region.

For figures on Alabama and Tennessee solar capacity, please see page 11 for insights covering the Tennessee Valley Authority or consult Appendix C.

DRIVERS OF SOLAR

FEDERAL POLICY UPDATE

The “One Big Beautiful Bill” (OBBB) had and will have a big effect on the solar industry. One program that was cut is Solar for All. The purpose of this program was to provide solar solutions for all communities regardless of location, income, and housing type. Solutions this program envisioned unlocking included rooftop solar and community solar. The US Environmental Protection Agency terminated the Solar for All program on August 7, 2025 as a result of the OBBB. Programs within the Southeast have decided to terminate, and a few are looking at ways to pivot. The OBBB also terminated tax credits for solar. The lack of solar tax credits will affect residential and commercial projects in the near term and utility-scale projects in the mid-term. Solar installations have increased considerably in anticipation of the residential/commercial credits terminating at the end of 2025.

LOAD GROWTH & BATTERY ENERGY STORAGE

Utilities are increasing load forecasts and forecasting generation capacity needs due to increased manufacturing and data centers looking to locate in the southeast. Solar is a least cost method to increase capacity to address this need. In order to realize this need, flexibility in utility regulation is needed. An area often overlooked is how residential and commercial customers can aid in reducing consumption during peak demand periods, either by responding to utility signals or by using their own battery or solar and battery systems.

Utilities have been opting to build battery energy storage systems (BESS) in recent years. Utility-scale battery storage allows energy to be stored while it is being generated, and then discharged back to the grid at a later time. Many BESS projects will generally charge from a mix of grid resources rather than just solar, but these systems can still help integrate solar more easily since they can ensure a constant level of power is delivered from solar, they ramp up and down faster than gas power plants, and they can be used to prevent curtailment when solar is producing more energy than needed.

STATE PROFILES

FLORIDA: FIRST IN SOLAR

Florida recently crossed a threshold over 10,000 MW of solar capacity. True to its name, the Sunshine State has the most total installed solar capacity (MW) in the region, approximately 13,850 MW in 2024. In fact, Florida has outperformed other states in the country, such as Texas and California, when it comes to the pace of capacity additions, adding over 3,000 MW of solar in 2024 alone.

FLORIDA SOLAR CAPACITY (TOTAL MW) BY UTILITY

UTILITY	DISTRIBUTED MW		UTILITY-SCALE MW		TOTAL SOLAR MW	
	2024	2030	2024	2030	2024	2030
Florida Power & Light	1,069	1,777	7,312	15,805	8,382	17,582
Duke Energy Florida	900	1,342	1,793	3,815	2,693	5,157
Tampa Electric	370	615	1,351	2,393	1,720	3,007
Florida Municipals	316	526	290	2,452	606	2,978
Florida Cooperatives	212	353	215	364	427	716
Other Utilities	22	36	-	-	22	36
Total Florida	**2,890**	**4,802**	**10,961**	**24,829**	**13,850**	**29,476**

Source: Southern Alliance for Clean Energy (SACE), "Solar in the Southeast" Eighth Edition Report published October 2025.

There are multiple noteworthy solar leaders in the state in addition to FPL, Duke, and Tampa Electric. Municipal utilities such as the Orlando Utilities Commission and Jacksonville Electric Authority have contributed to the state's capacity due to their leadership in the Florida Municipal Solar Project, a partnership of Florida public power utilities that pursue utility-scale solar.

Distributed solar is another bright spot in Florida, showing much higher growth than other states. This is at least partially attributable to solar leasing, since sharp increases were observed each year for several years following approval of those programs in 2018. In particular, Duke Energy Florida has seen a recent growth of rooftop solar in 2023 and 2024.

GEORGIA: CONTINUED SURGE FROM DATA CENTERS

The main utility systems in the state of Georgia are the investor-owned utility, Georgia Power, the cooperative utility Oglethorpe Power, and the federal utility TVA. While resource decisions and management of cooperative utilities in the state are left to their board of directors, it is important to note that Georgia Power is the only utility that is regulated by the Georgia Public Service Commission (PSC), a five-person elected body that regulates utilities. Commissioners serve six-year terms and there are two seats up for election in November 2025.

GEORGIA SOLAR CAPACITY (TOTAL MW) BY UTILITY

UTILITY	DISTRIBUTED MW		UTILITY-SCALE MW		TOTAL SOLAR MW	
	2024	2030	2024	2030	2024	2030
Georgia Power	240	421	3,322	5,012	3,562	5,433
Oglethorpe Power	79	139	1,072	1,542	1,151	1,681
TVA	6	16	30	96	36	113
Georgia Municipals	4	8	7	7	11	14
Total Georgia	**330**	**585**	**4,430**	**6,657**	**4,760**	**7,241**

Source: Southern Alliance for Clean Energy (SACE), "Solar in the Southeast" Eighth Edition Report published October 2025.

Even prior to recent data center developments in Georgia Power's service territory, some of Georgia's early solar development came from large-scale customers. For instance, Green Power EMC is a renewable energy provider to 38 electric membership cooperatives, including Walton EMC, which initially built a large amount of solar due to an agreement with Facebook (now Meta). Walton is part of the Oglethorpe Power system and a Green Power EMC affiliate, and has continued to expand well beyond the original project due to this partnership, with almost 300 MW expected to come online by 2028.

MISSISSIPPI: MODEST SOLAR

Mississippi is another one of the states in the Southeast that is regulated by a public service commission (PSC) that is elected, rather than appointed. There are three Commissioners who serve four-year terms, and the next election is scheduled for 2027. Mississippi is made up of multiple large investor-owned utilities, several cooperatives, and a small portion of the federal utility TVA. It is important to note that this report does not include utilities that participate in competitive markets such as Mississippi's largest electric utility, Entergy Mississippi, which is a member of MISO.

MISSISSIPPI SOLAR CAPACITY (TOTAL MW) BY UTILITY

UTILITY	DISTRIBUTED MW		UTILITY-SCALE MW		TOTAL SOLAR MW	
	2024	2030	2024	2030	2024	2030
Mississippi Power	7	13	369	369	376	382
TVA	1	4	109	351	110	355
Mississippi Co-ops	3	5	-	-	3	5
Total Mississippi	**12**	**22**	**477**	**720**	**489**	**741**

Source: Southern Alliance for Clean Energy (SACE), "Solar in the Southeast" Eighth Edition Report published October 2025.

Until recently, solar in Mississippi was primarily driven by the resource plans of the Tennessee Valley Authority, a federal utility headquartered in Tennessee that serves multiple states, including Mississippi. There are now several large additions attributable to Mississippi Power that make up the bulk of solar in the state, although the balance between TVA and Mississippi Power is expected to even up again in the near future.

Mississippi Power recently filed its second Integrated Resource Plan (IRP) in April 2024. The utility did not forecast the need for new capacity additions, so there is not expected to be much of an increase in utility-scale solar. On the distributed side, Mississippi's net metering rules, which did not apply to the parts of the state served by TVA, were initially suspended by the Mississippi Public Service Commission in April 2024 along with several other solar programs. Following a legal battle challenging the suspension, the Commission decided to reinstate two of the distributed solar programs serving schools and low-income households in April 2025.

Note: This report does not cover the portion of Mississippi in the MISO territory served by Entergy Mississippi and Cooperative Energy so it is not included in state total or Southeast regional total.

NORTH CAROLINA: A CHALLENGING MOMENT

North Carolina set the stage for large, statewide solar increases several years ago. In 2021, the passage of a bill at the legislature created a requirement for Duke's operating utilities to file a "Carbon Plan" that would reduce CO_2 emissions from electricity generation by 70% below 2005 levels by 2030, and to net-zero by 2050. However, earlier this year, the legislature removed the 2030 emission reduction requirement. This comes at a time where the state is experiencing unprecedented load growth.

NORTH CAROLINA SOLAR CAPACITY (TOTAL MW) BY UTILITY

UTILITY	DISTRIBUTED MW		UTILITY-SCALE MW		TOTAL SOLAR MW	
	2024	2030	2024	2030	2024	2030
Duke Energy Progress	231	383	2,489	4,306	2,721	4,691
Duke Energy Carolinas	249	414	1,474	2,649	1,723	3,063
NC Electric Co-ops	64	106	63	63	127	169
NC Municipals	16	26	64	64	80	90
TVA	15	41	5	16	20	56
Total North Carolina	**575**	**971**	**4,095**	**7,098**	**4,670**	**8,069**

Source: Southern Alliance for Clean Energy (SACE), "Solar in the Southeast" Eighth Edition Report published October 2025.

SACE apportions utility-scale solar generation to loads served across multi-state utility service territories. For example, many Duke Energy solar projects are physically located in North Carolina, but may have some capacity partially be attributed to South Carolina in SACE's reporting since Duke serves load in both states. This report does not include the state in the PJM territory served by Dominion Energy.

Distributed solar in the state is growing somewhat modestly. The NCUC approved a Solar Choice Metering program that represents the next evolution of solar net metering that started October 1, 2023. The key feature is a time-of-use design that nets a solar customer's generation and consumption within those time-of-use periods.

In January 2024, the NCUC approved a new residential pilot program called PowerPair to incentivize solar customers to install companion battery storage and participate in a demand response program. Duke Energy is offering this pilot program in both of its utilities' territories in the state. Based on the CPIRP filed in October 2025, it is not clear whether Duke plans to continue its residential PowerPair program after it reaches its cap, likely in the next year or so. Duke has simultaneously proposed a non-residential version of PowerPair that is currently being considered by the Commission.

This year, Duke Energy proposed a community solar program, Clean Energy Connection. This program was quickly approved in SC but was withdrawn in NC. The program is modeled after Duke Energy Florida's community solar program, but unlike in Florida, the program in South Carolina does not lead to the utility adding additional solar to its system.

Cooperative utilities in North Carolina have shown promise in the hybrid solar and storage space despite their overall solar capacity being modest compared to investor-owned utilities. North Carolina Electric Member Corporation is an example of this as it owns and operates many small battery energy storage projects that are paired with solar.

SOUTH CAROLINA: A NEW SOLAR TRAJECTORY?

There are three main utility systems in the state of South Carolina: Duke, Dominion, and the state-owned public utility Santee Cooper. These figures include both solar in Santee Cooper's own plan and also the solar that Central Electric Cooperative, a customer of Santee Cooper, has commissioned directly.

SOUTH CAROLINA SOLAR CAPACITY (TOTAL MW) BY UTILITY

UTILITY	DISTRIBUTED MW		UTILITY-SCALE MW		TOTAL SOLAR MW	
	2024	2030	2024	2030	2024	2030
Dominion Energy SC	156	259	1,108	1,708	1,264	1,967
Duke Energy Carolinas	136	226	522	939	659	1,164
Duke Energy Progress	29	48	400	692	429	740
Santee Cooper	64	106	270	384	333	490
SC Municipals	6	11	36	47	43	57
Total South Carolina	**391**	**649**	**2,336**	**3,770**	**2,727**	**4,418**

Source: Southern Alliance for Clean Energy (SACE), "Solar in the Southeast" Eighth Edition Report published October 2025.

South Carolina passed a large energy bill during the 2025 legislative session, H.3309, on May 7, 2025. This legislation included several items that address renewable energy:

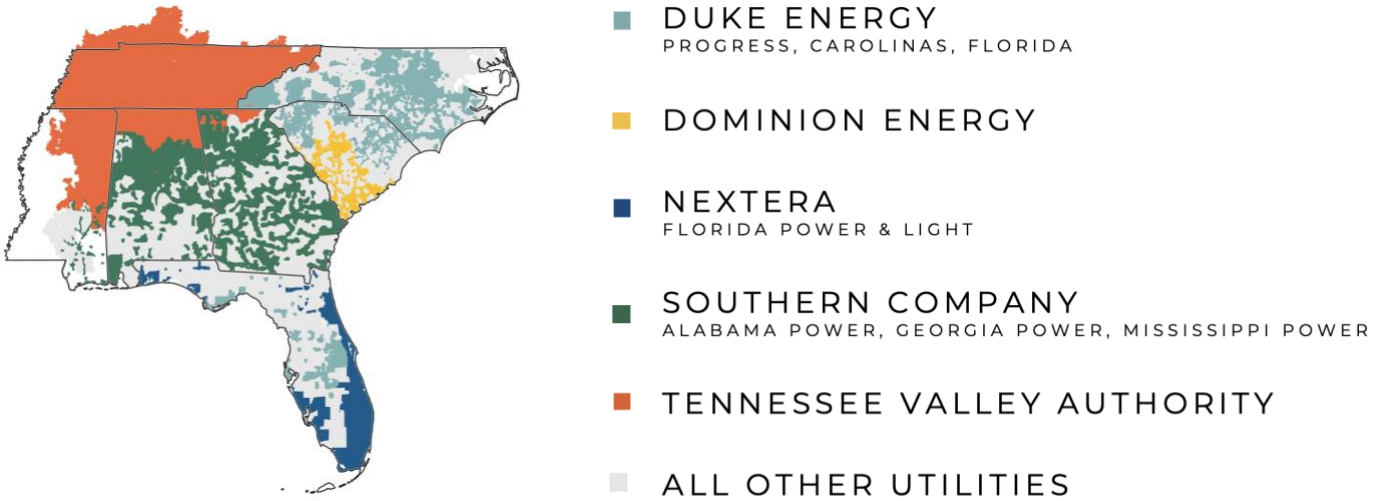
- Increasing the size limit on net metering
- Requiring utilities to issue requests for proposals the competitively procure renewable energy and storage to align with their approved integrated resource plans
- Authorizing the Public Service Commission to approve utility demand-side management programs that include customer renewable energy and energy storage
- Raising the statutory limit on the size of behind-the-meter (BTM) solar for commercial customers from 1 MW to 5 MW.

In addition to this legislation, renewable associated manufacturing and solar to complement a large load are new to SC news in 2025. In January 2025, ES Foundry opened in Greenwood, SC. This facility produces US made solar cells. Additionally, in August 2025, it was announced that a 100 MW solar facility will be built in Orangeburg, SC to serve an Aiken, SC Meta data center.

APPENDICES

APPENDIX A: GEOGRAPHIC COVERAGE

The geographic coverage of data encompasses Southeastern utilities outside of the PJM/MISO regions. The states of Alabama, Florida, Georgia, and South Carolina are fully covered; relatively small portions of North Carolina and Tennessee are served by utilities that participate in PJM (thus while statewide reports for these states are relatively comprehensive, they may not align exactly with other data sources); only portions of Mississippi and Kentucky that are parts of TVA or the Southern Planning Area are included.



APPENDIX B: METHODS, DATA SOURCES, AND ASSUMPTIONS

DATA SOURCES

U.S. Energy Information Administration (EIA) - the primary source for Southeastern capacity, project type, utility, technology, and operating date for plants and units are reported in the following:

- Forms EIA 860 (Annual Electric Generator Data) – 2024 – released September 9, 2025
- EIA 861 (Annual Electric Power Industry Report) – 2024 – released October 7, 2025

Utility integrated resource plans (IRPs) – EIA data is supplemented by utility resource plans, primarily through EQ Research's IRP as a Data Service for most major utilities, although solar capacity additions for some utilities that filed more recently are derived directly by SACE staff.

METHODS

Assigning solar capacity owned across multiple states or utility-cooperatives - SACE apportions utility-scale solar capacity (MW) according to the load that it serves. This helps give "credit" for solar in multi-state utility service territories, or among electric cooperative utilities. For example, a solar project in Alabama contracted to the Tennessee Valley Authority (TVA) will proportionally serve customers in multiple states across TVA service territory rather than just Alabama. Smaller, distributed generation systems are assumed to serve only their local load.

Reporting solar capacity in $MW_{(ac)}$ – All solar data is reported as nameplate capacity megawatts (MW) in alternating current (AC). Where applicable, data reported as $MW_{(dc)}$ is derated to $MW_{(ac)}$ equivalent, although AC reporting is becoming increasingly more common, particularly for utility-scale solar projects. We use 0.8256 as a conversion factor to change DC to AC.

Assigning solar contracts or solar not directly owned - In most cases, the owner and operator of the solar generator is reported on EIA-860. But in other cases, the utility that receives the generation from operating solar is not known or reported. The capacity can be assigned in a variety of ways. Some are assigned based on the plant's reported transmission or distribution system owner utility, while many others can be assigned or verified via FERC Form 556, utility resource plans, press releases, news articles, or information gathered from solar developers. The amount of solar capacity allocated to utilities in this manner is a small fraction of all Southeastern, but it can make up a substantial portion of the solar generation reported for utilities with small solar portfolios.

Future solar operating date - Future projections are informed by multiple datasets. SACE projects distributed generation solar (e.g., residential and commercial rooftop solar) independently for large utility systems based on the EIA Annual Energy Outlook. Smaller municipal and cooperative systems are projected at an aggregate level based on the averages for those systems. For utility-scale solar, SACE primarily uses planned capacity additions reported utility Integrated Resource Plans (IRPs). Some smaller utilities that do not regularly file resource plans might have future solar informed by interconnection queues, identified projects as well as utility announcements of ongoing and future plans, along with information gathered from solar developers to project planned solar.

APPENDIX C: SOUTHEAST UTILITY RESULTS

Appendix C is accessible on our website and contains distributed, utility-scale, and total solar capacity in megawatts (MW) for states and utilities across the region.

ADDITIONAL RESOURCES FROM SACE

The Southern Alliance for Clean Energy (SACE) releases several reports covering utility, clean energy, and transportation trends in the Southeast. We invite you to view all of our reports, white papers, and other clean energy resources and select reports below.

Energy Efficiency in the Southeast, *Sixth Edition Report. (2025)*

Tracking Decarbonization in the Southeast, *Fifth Edition Report. (2023)*

Transportation Electrification in the Southeast, *Sixth Annual Report. (2025)*