



SOLAR IN THE SOUTHEAST

Annual Report
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INTRODUCTION

Solar in the Southeast illuminates the critical role of utilities in the growing southeastern solar market. Southeastern states, particularly Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, and Tennessee, grant monopoly utilities, rather than a competitive marketplace, 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 that portfolio.

To provide an equitable, unbiased comparison of various-sized utilities throughout the Southeast, SACE has ranked utilities on the basis of **watts per customer** (W/C) of solar power sourced to customers. SACE has also calculated and forecast total installed capacity of solar power (in megawatts, MW) particularly for state comparisons.

☀ 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.

ABOUT SACE

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

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EXECUTIVE SUMMARY

UTILITIES

- Among the large utilities, Tampa Electric exhibited the largest increase (173%) in solar watts per customer ratio in 2019 and has since announced an additional 600 MW of solar by 2023 to retain its SunRiser designation. Duke Energy Progress (DEP) remains atop the utility leaderboard for the third consecutive year.
- Florida Power & Light (FPL) received approval for its innovative SolarTogether program (1,490 MW) that will double the amount of community solar in the United States.
- Each of the potential options for the future of Santee Cooper includes substantial solar expansion so the SunBlocker designation no longer applies for that South Carolina utility.

STATES

- Florida continued its rapid scale-up of both utility-scale as well as distributed solar. We now project Florida will have the most installed solar capacity in the Southeast by 2021.
- Alabama, Mississippi and Tennessee have the least installed solar. The forecast for Alabama reflects a promising increase. The lower population of Mississippi yields a higher watts per customer ratio than Tennessee.



POLICIES MATTER

Legislative, regulatory, and utility **policies vary considerably** across the Southeast. These either spur or stifle solar growth. **Favorable examples** include the Energy Freedom Act in South Carolina, Public Service Commission (PSC) decisions in Georgia, and utility innovation in Florida. **Adverse policies** continue to emerge from the Tennessee Valley Authority (TVA), like sunseting the once exemplary Green Power Provider program.



MILESTONES IN SIGHT

By the end of 2019, the Southeast had achieved a major milestone: installed capacity of **more than 10,000 MW** (slightly less on a full-year operations equivalent basis, 9,622 MW). SACE continues to raise our forecast for the ensuing years. We now project solar to **double by 2022**, and approach 25,000 MW, **10% of total capacity, by 2023**.



SUNRISERS

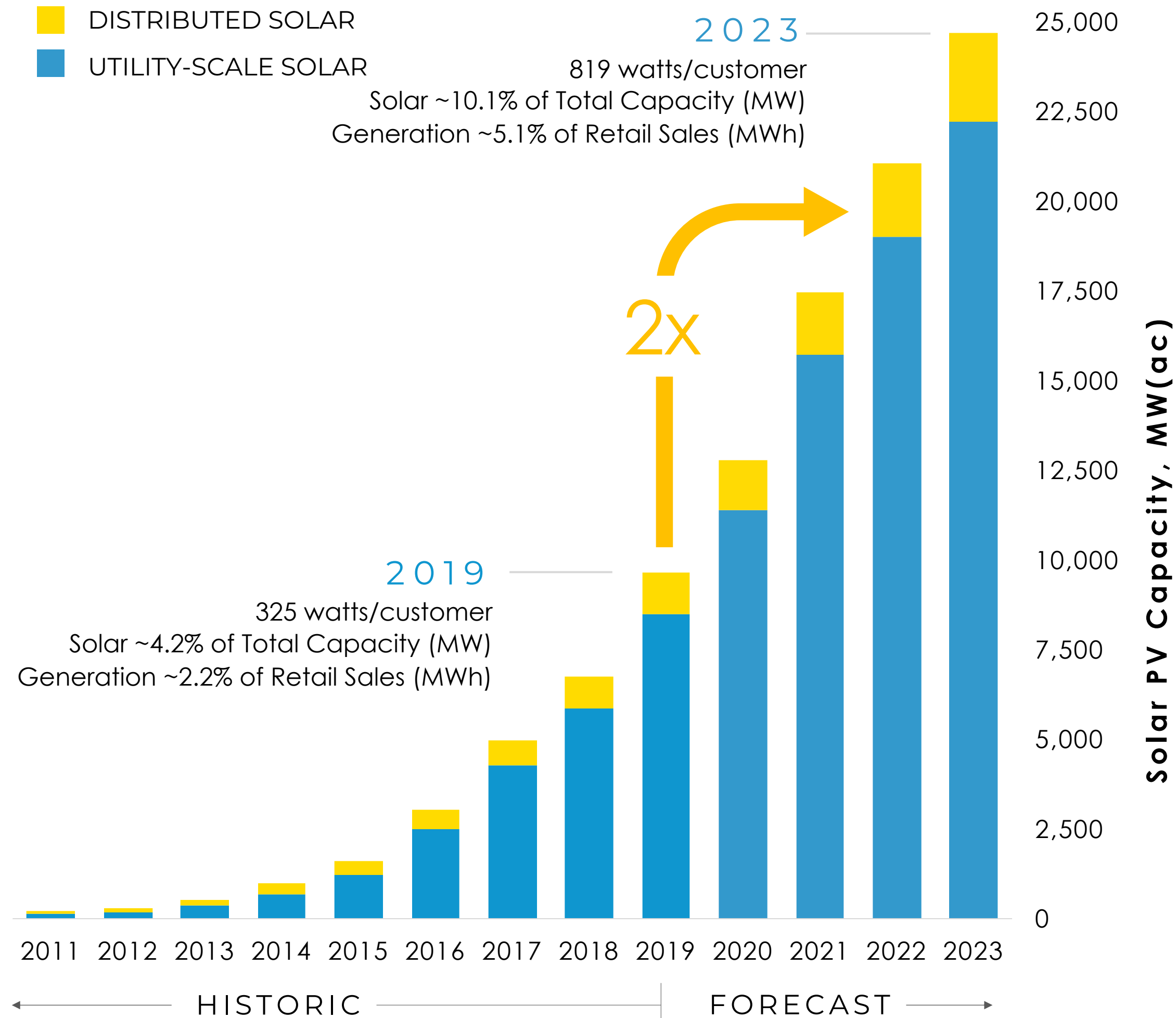
Gulf Power made its debut on the SunRiser list – utilities that demonstrate the highest solar ambition (measured as the increase in their W/C solar ratio of the four-year forecast period). **Walton EMC** commissioned additional solar projects for Facebook to remain the top SunRiser. Three of the seven SunRisers this year have earned that distinction in each of our annual reports thus far: **Duke Energy Progress (DEP), Tampa Electric, and Dominion Energy South Carolina (DESC)**.



SUNBLOCKERS

We have repeat offenders: **Seminole Electric, the North Carolina Electric Cooperatives, and the Tennessee Valley Authority (TVA)** -- who has been promoting misleading claims of solar growth- deserve this dishonorable mention again for this reporting cycle. The plans for all three utilities over the next four years (2023) remain below the region average from last year (2019).

SOUTHEAST SOLAR CAPACITY FORECAST



CAPACITY TO DOUBLE AGAIN BY 2022

Total solar capacity for the Southeast in 2019 on a full-year equivalent basis was 9,622 MW. New plans/announcements have increased the forecast for the next three-four years, reflecting more than twice that amount by 2022 and almost 25,000 MW for 2023.

PENETRATION TO SURPASS 10% BY 2023

This four-year forward forecast indicates solar in the Southeast exceeding 10% of total capacity (MW) for the first time by 2023. Similarly, 2023 is the first year our forecast of solar generation megawatt hours (MWh) exceeds 5% of retail sales for the region.

SUBSCRIPTION SOLAR EMERGES

Southeastern utilities have begun uniting the economic advantage of utility-scale projects with subscription models to offer creative community/shared solar opportunities. In March 2020, FPL received approval to establish SolarTogether, the largest community solar program in the country (1,490 MW over the next two years).

DISTRIBUTED SOLAR: HIGHLIGHTS & LOWLIGHTS

South Carolina legislators extended retail net metering until mid-2021. Regulators ordered Georgia Power to establish a pilot program for monthly netting. On the other hand, Alabama Power continues to charge a penalty for rooftop solar and TVA eliminated their Green Power Partners program altogether.

LARGE UTILITY SYSTEM RANKINGS

SYSTEMS WITH > 500,000 CUSTOMERS	2019 W/C
DUKE ENERGY PROGRESSS	1,755
DOMINION ENERGY SC	807
DUKE ENERGY CAROLINAS	585
GEORGIA POWER	533
TAMPA ELECTRIC	428
SOUTHEAST AVERAGE	325
FLORIDA POWER & LIGHT	265
OGLETHORPE POWER	186
DUKE ENERGY FLORIDA	155
TENNESSEE VALLEY AUTHORITY	99
NC ELECTRIC COOPERATIVES	62
ALABAMA POWER	59
SEMINOLE ELECTRIC CO-OP	34
SANTEE COOPER	31

Ranked by solar W/C, the top four utilities remained unchanged in 2019 -- with the former SCE&G rebranding to Dominion Energy South Carolina (DESC).

Policies matter. Enabling legislation in North and South Carolina continues to propel the top three: Duke Energy Progress (DEP), DESC and Duke Energy Carolinas (DEC). Early regulatory leadership by the Georgia PSC established a successful market for solar in the Peach State and continues to sustain that momentum for Georgia Power with another 2,210 MW of solar in its current Integrated Resources Plan (IRP).

Tampa Electric continues fulfillment of a prior, voluntary 600 MW solar commitment. Progress to-date places that utility above the region average of 325 MW. Additionally, it has recently announced a further expansion (another 600 MW by 2023) which earns it the number two slot on our 2023 forecast, as well as a third consecutive year on our SunRiser list (see page 8).

The 2023 forecast for FPL reflects the integration of Gulf Power. A joint Ten Year Site Plan recently filed for these utilities exhibits a shift of solar development into the Florida panhandle (Gulf Power territory) for 2022 and 2023.

Three of the larger utility systems continue to earn the distinction of SunBlockers. TVA, Seminole Electric, and the North Carolina Electric Cooperatives each exhibit a solar ambition for 2023 that remains far below the 2019 region average of 325 MW.

SYSTEMS WITH > 500,000 CUSTOMERS	2023 FORECAST
DUKE ENERGY PROGRESSS	2,718
TAMPA ELECTRIC	1,827
DOMINION ENERGY SC	1,809
GEORGIA POWER	1,435
DUKE ENERGY CAROLINAS	887
FLORIDA POWER & LIGHT	839
SOUTHEAST AVERAGE	819
DUKE ENERGY FLORIDA	722
SANTEE COOPER	664
OGLETHORPE POWER	550
ALABAMA POWER	395
TENNESSEE VALLEY AUTHORITY	303
SEMINOLE ELECTRIC CO-OP	301
NC ELECTRIC COOPERATIVES	98

The 13 largest utility systems in the Southeast each serve more than 500,000 customers. This includes individual investor owned utilities like Georgia Power, as well as the combination of utilities organized into cooperatives like Oglethorpe and the federally-owned Tennessee Valley Authority. Also studied, but not exceeding the 500,000 customer benchmark, are several regional municipal power agencies.

FORECAST FOR SELECT UTILITY SYSTEMS

DUKE ENERGY LEADS THE SOUTHEAST

Duke Energy remains the region's solar leader in installed solar capacity, but can no longer claim to have half of all the solar in the Southeast. Significant expansion by other utilities have begun to close the gap and reduce that regional lead.

SOUTHERN COMPANY

The Georgia PSC more than doubled the amount of solar proposed in the Georgia Power IRP – to 2,210 MW. That is the main driver of the Southern Company trajectory after 2021. Mississippi Power has a similar opportunity with an upcoming IRP and Alabama Power has had 500 MW of solar approved since 2015 but has, thus far, only developed 100 MW (for the U.S. Army and Walmart).

NEXTERA

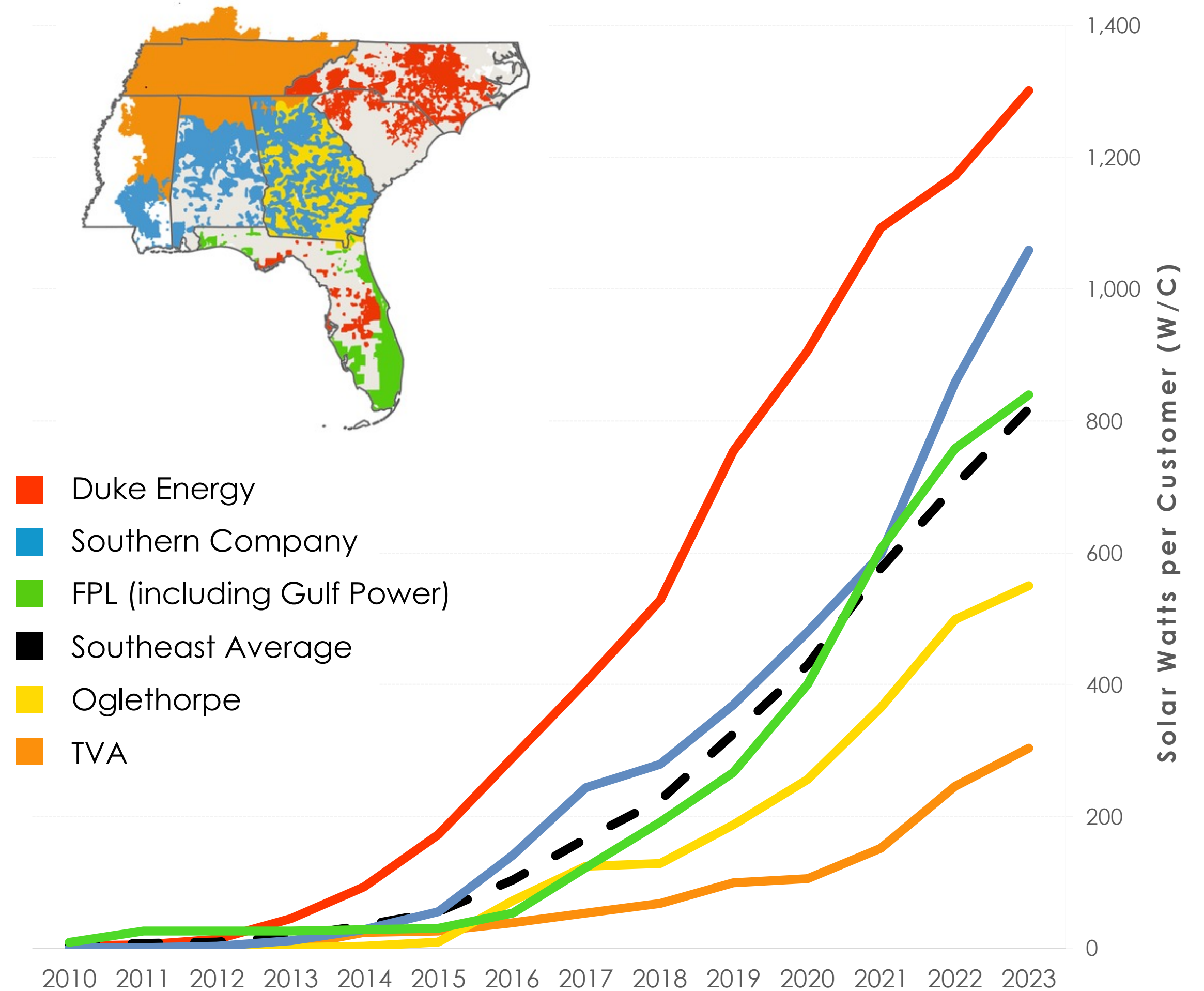
After receiving approval from the Florida PSC in March, Florida Power & Light, a subsidiary of NextEra, has begun developing SolarTogether, the largest community solar program in the country (1,490 MW over the next two years). NextEra plans to fully integrate Gulf Power with FPL after 2022. The two utilities filed a joint Ten Year Site Plan this year.

OGLETHORPE POWER

Oglethorpe Power, and Green Power EMC, serve the Georgia co-ops. Walton EMC announced additional projects for Facebook of 232 MW which contribute to the upsurge for this utility system.

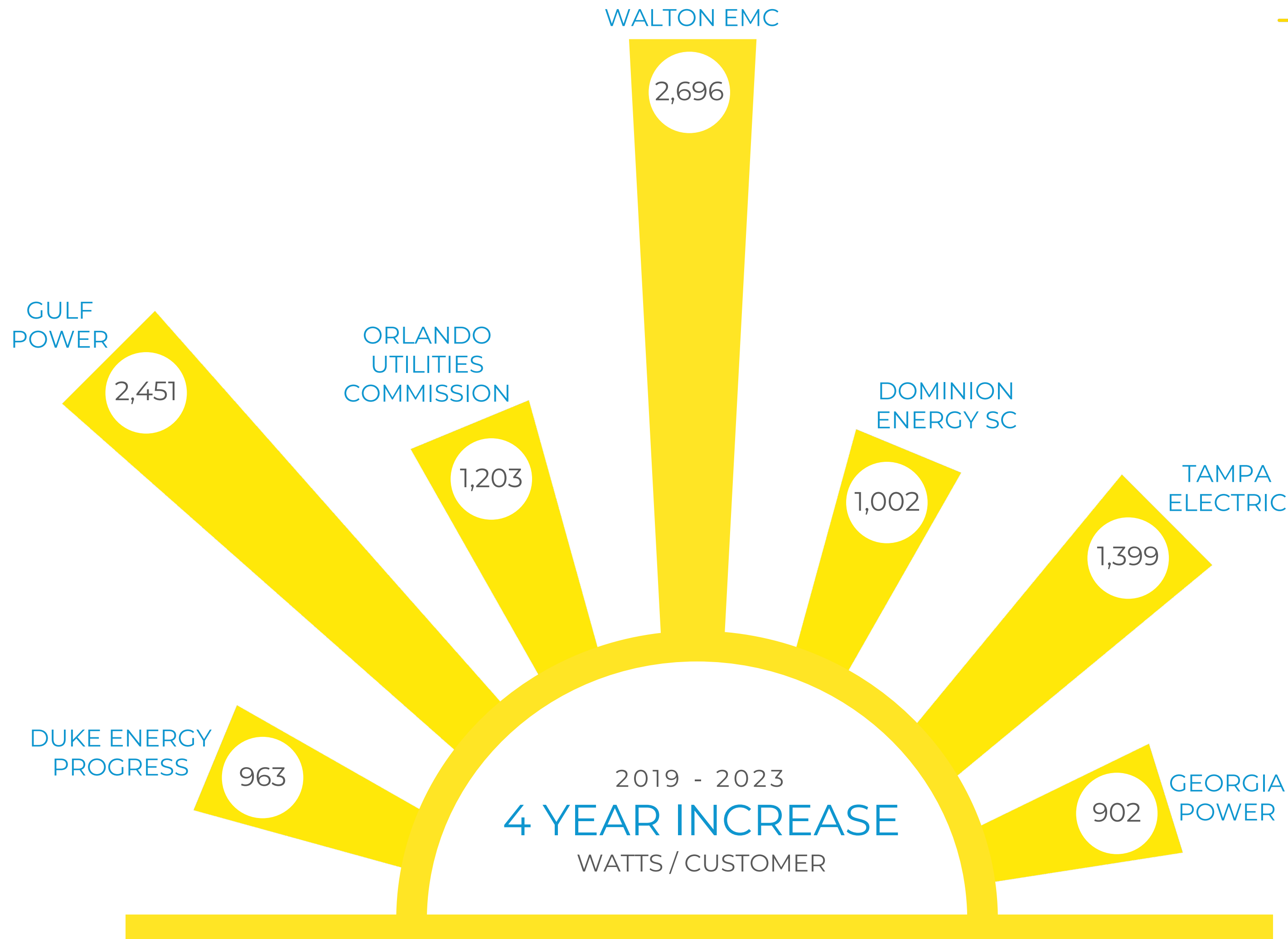
TENNESSEE VALLEY AUTHORITY

In 2019, TVA released an IRP promoting “up to” 14 GW, or 14,000 MW, of solar over the next 20 years. Despite these exaggerated and misleading claims, the actual plan for solar in the Tennessee Valley significantly trails the other comparably-sized utility systems in the region.



These five utility systems serve 74% of retail customers in the Southeast.

SOUTHEAST SOLAR MOMENTUM: SUNRISERS⁸



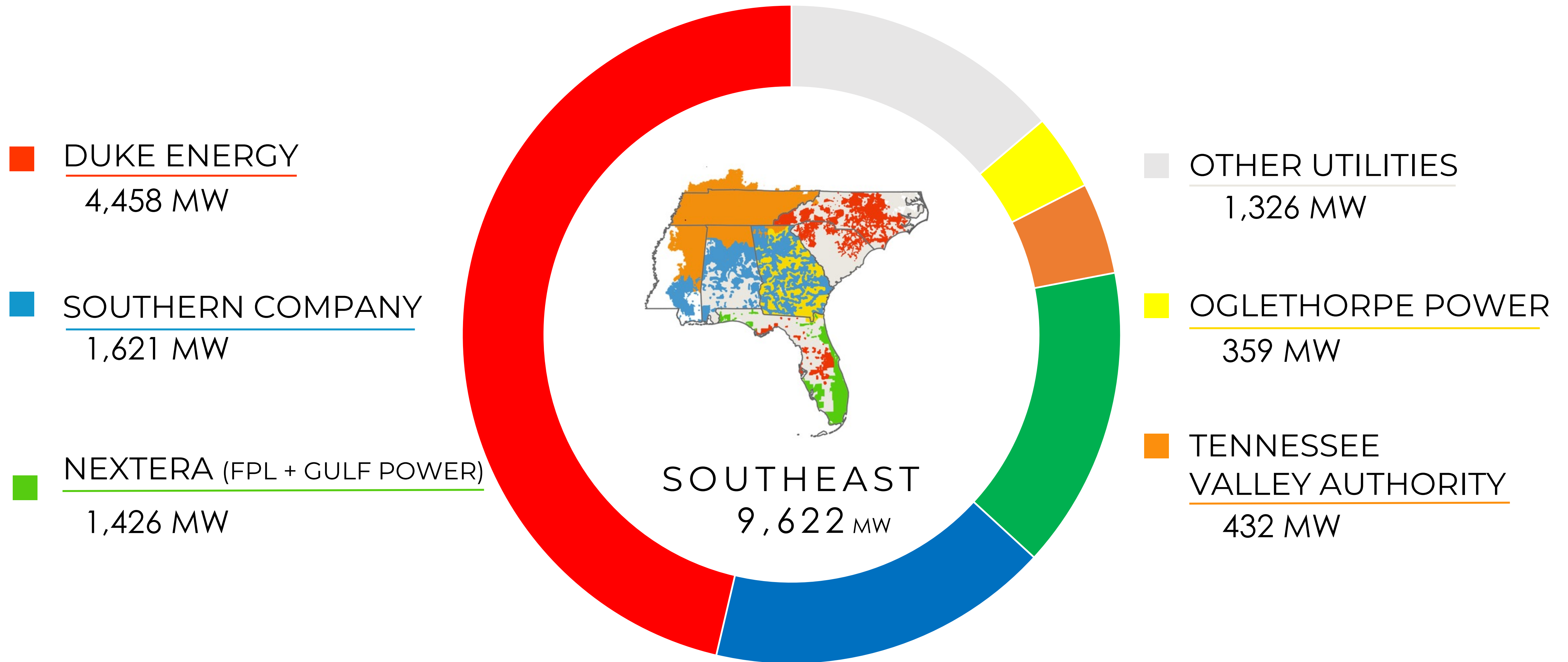
SUNRISERS

- Georgia's Walton EMC retained the top slot on this year's SunRiser list with further expansion of its solar portfolio for Facebook.
- Gulf Power made its debut on the SunRiser list as sister-company FPL shifted some of the planned solar development for the next four years into the Florida panhandle.
- Georgia Power reemerged onto the SunRiser list as a result of 2,210 MW of additional solar ordered by the PSC in approving its IRP.
- DEP, Tampa Electric, and DESC both earned SunRiser designation for the third-consecutive year. Orlando Utilities Commission joins them for the second straight year.

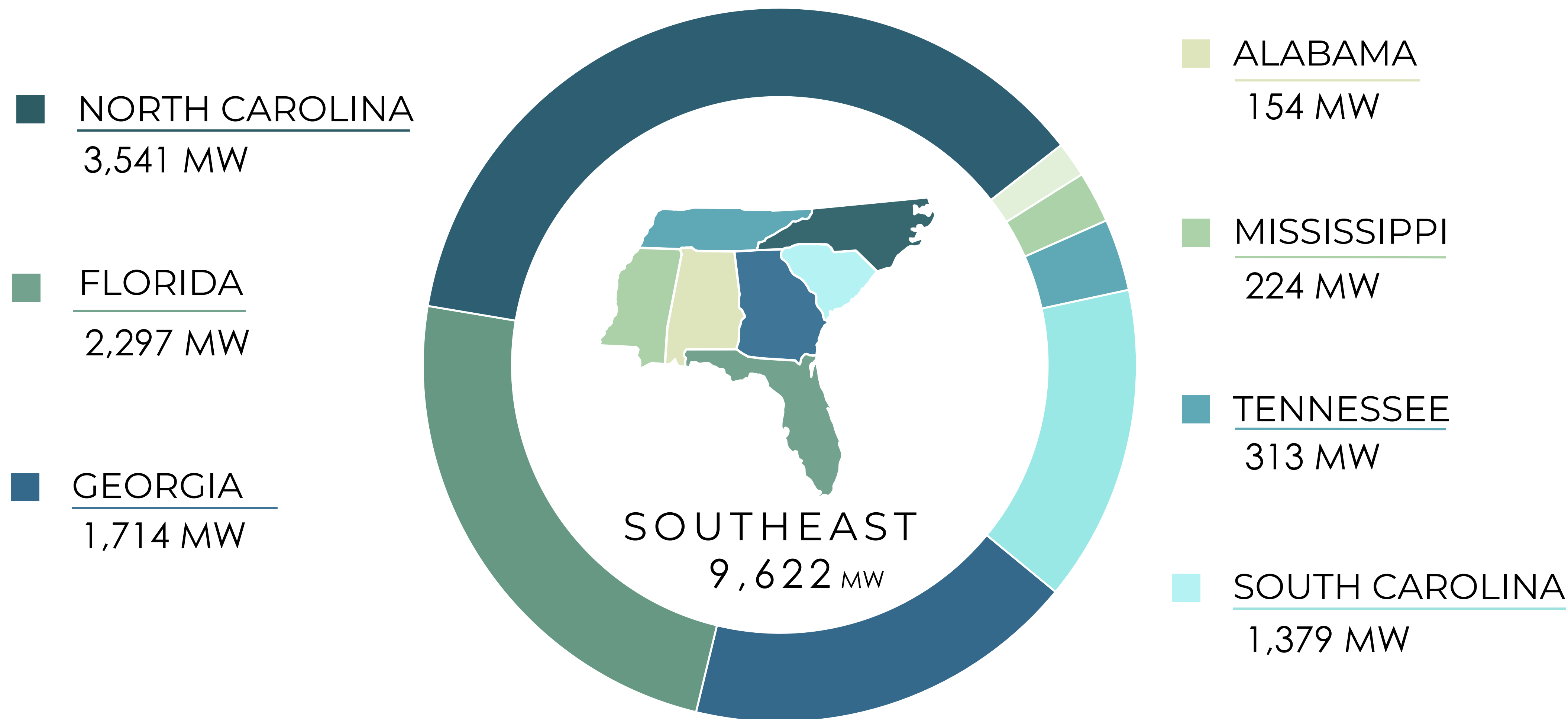
UTILITY	2019 W/C	2023 W/C
WALTON EMC	461	3,157
GULF POWER	297	2,748
TAMPA ELECTRIC	428	1,827
ORLANDO (OUC)	142	1,345
DOMINION ENERGY SC	807	1,809
DUKE ENERGY PROGRESS	1,755	2,718
GEORGIA POWER	533	1,435

Minimum 100,000 customers

2019 SOUTHEAST SOLAR SNAPSHOT BY UTILITY

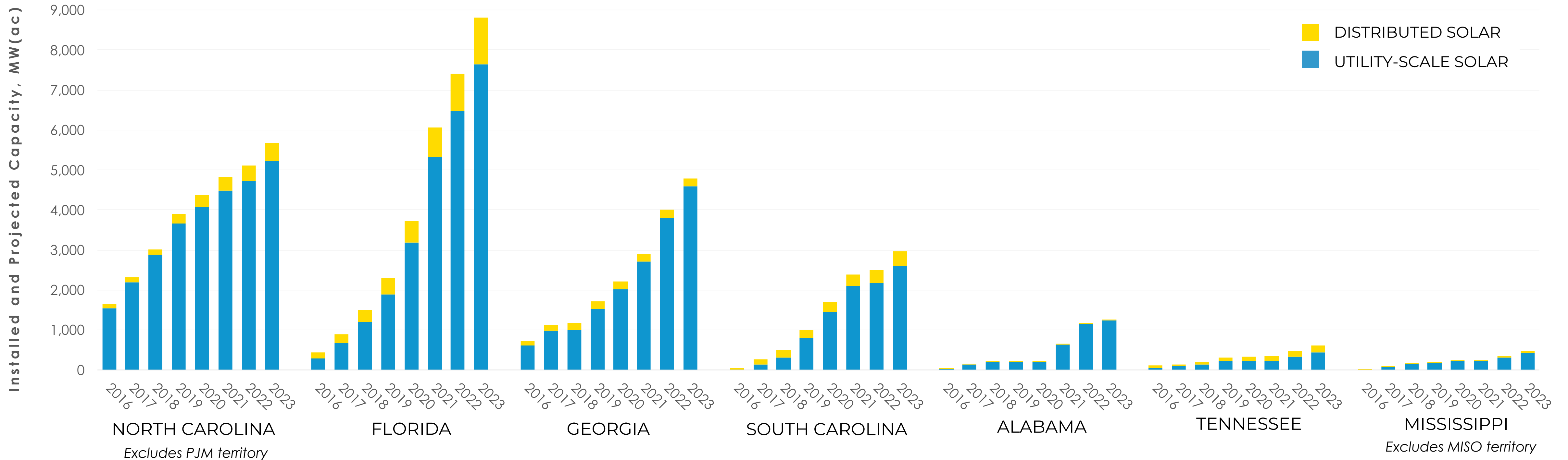


2019 SOUTHEAST SOLAR SNAPSHOT BY STATE



FORECAST FOR SOUTHEAST STATES

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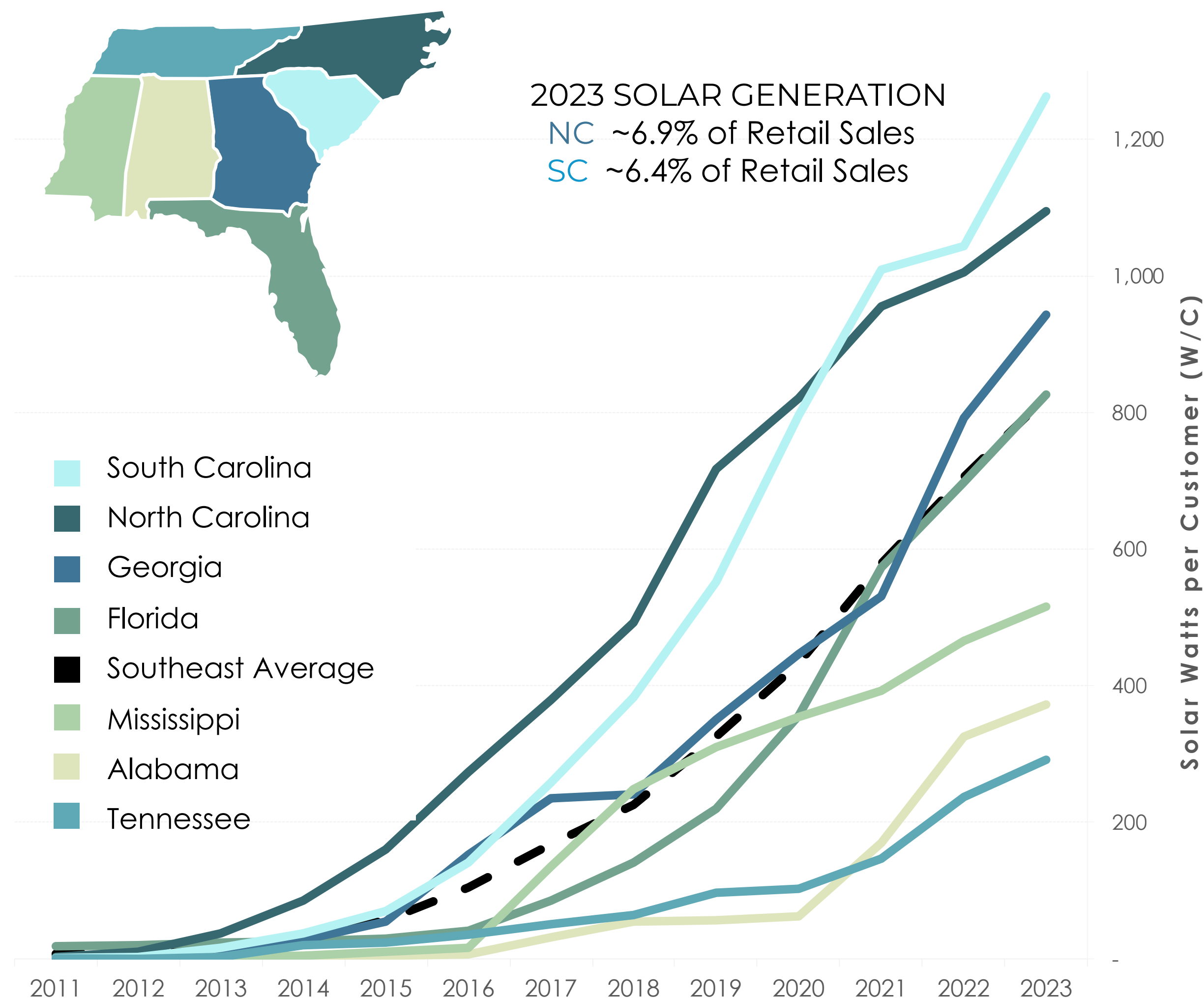
- After eclipsing Georgia in 2018, Florida remains on pace to surpass North Carolina in installed solar capacity by 2021 – sooner than indicated in previous forecasts. Interconnection delays are constraining the near-term North Carolina forecast (reduced from prior years) while projects like FPL’s SolarTogether have accelerated the Florida forecast.
- The Energy Freedom Act (Act 62, see page 19) in South Carolina passed unanimously in both chambers of the General Assembly to sustain the state’s market for both utility-scale and distributed solar.

- As a result of the Georgia Power 2019 IRP and subsequent rate case, the Georgia PSC has ensured a legacy of leadership on solar. The majority of the approved 2,210 MW solar expansion is reflected in the 2022-2023 forecast above.
- Forecasts for Alabama and Mississippi include both the Southern Company units in those states as well as TVA. Despite exaggerated claims surrounding the IRP TVA promoted last year, these territories will remain underserved with solar for the next four years.

POLICIES BEHIND THE PERFORMANCE

- ☀️ Legislation propelled the markets in both North and South Carolina. Most recently, the South Carolina General Assembly unanimously adopted the Energy Freedom Act (Act 62, see page 19). The accompanying SACE forecast reflects South Carolina overtaking North Carolina in watts per customer solar ratio.
- ☀️ Regulatory leadership from the PSC has been the driving force for the investor owned utility in Georgia.
- ☀️ Market economics and customer demand have played a major role in an increase in installed and forecasted solar in Florida (as well as many of the unregulated utilities in the region).

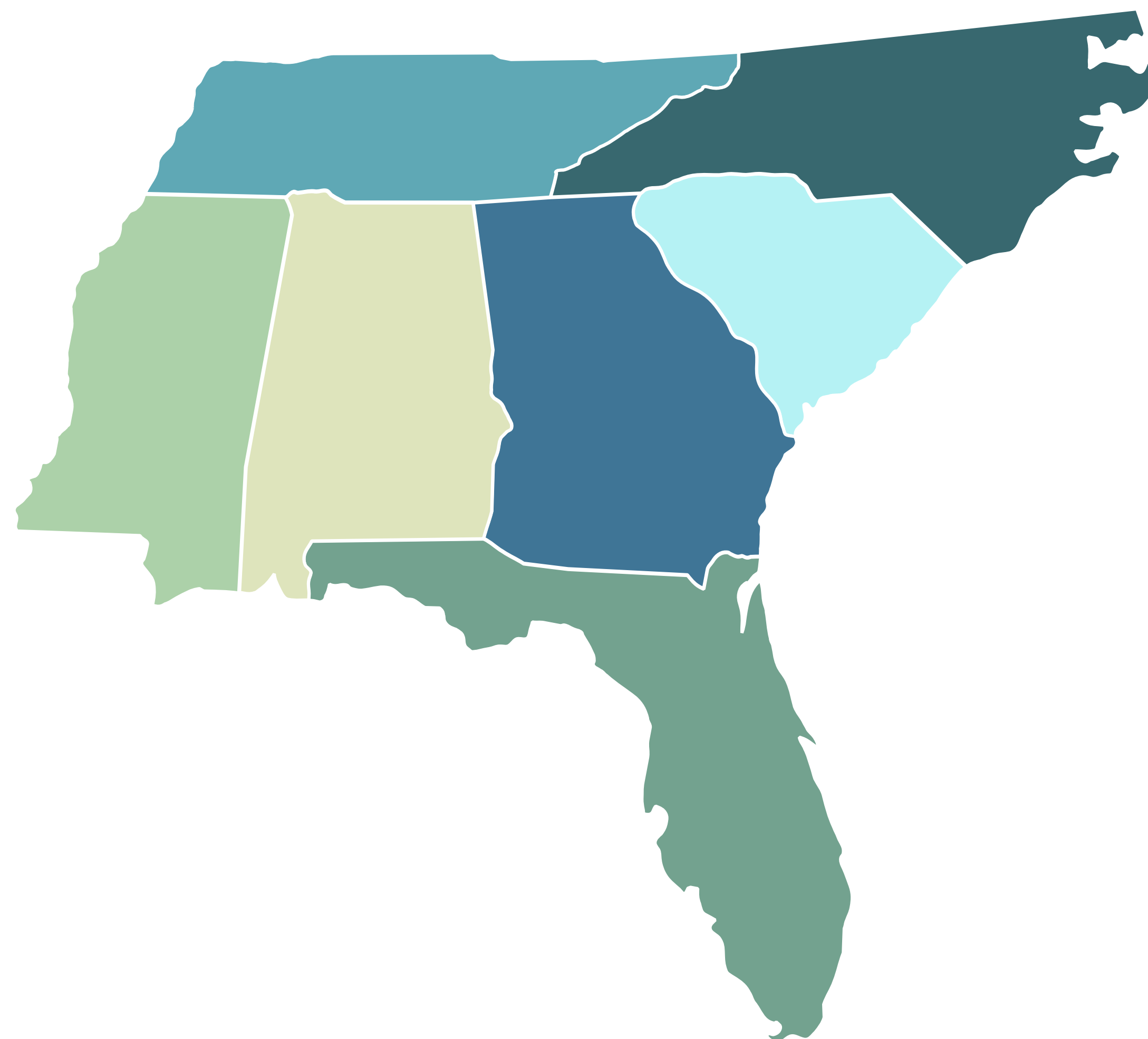
STATE	2019 W/C	2023 W/C
SOUTH CAROLINA	551	1,262
NORTH CAROLINA	717	1,094
GEORGIA	349	943
FLORIDA	220	826
SOUTHEAST	326	822
MISSISSIPPI	310	516
ALABAMA	56	372
TENNESSEE	97	291



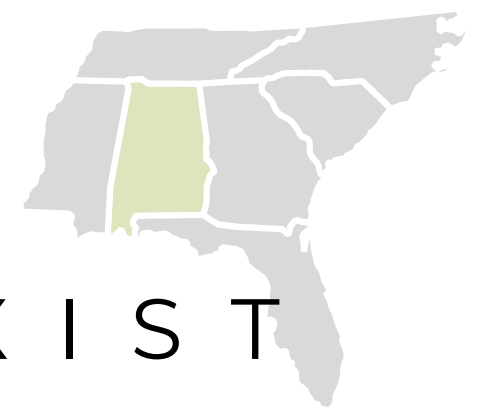
* This analysis excludes the portion of Kentucky served by TVA. Similarly, the PJM portion of North Carolina is excluded as is the MISO portion of Mississippi

STATE PROFILES

ALABAMA
FLORIDA
GEORGIA
MISSISSIPPI
NORTH CAROLINA
SOUTH CAROLINA
TENNESSEE



ALABAMA



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LITTLE PROGRESS TO-DATE; OPPORTUNITIES EXIST

UTILITY-SCALE SOLAR, MW

UTILITY	2019	2023
ALABAMA POWER	97	582
TVA	47	172
POWERSOUTH	0	80

DISTRIBUTED SOLAR, MW

UTILITY	2019	2023
ALABAMA POWER	3	6
TVA	6	12
POWERSOUTH	0.4	0.7

SOLAR WATTS PER CUSTOMER

UTILITY	2019	2023
SOUTHEAST AVERAGE	325	819
ALABAMA POWER	68	395
STATE AVERAGE	56	372
TVA	89	303
POWERSOUTH	1	227

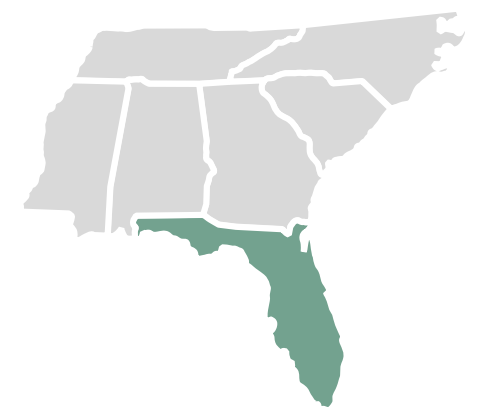


- Alabama remains the Southeastern state exhibiting the lowest solar W/C ratio. While the region average has been escalating, the Alabama state average has not moved appreciably since 2018.
- TVA projects for Facebook and Google are underway and will bring 377 MW of utility-scale solar online within the forecast period. Due to the nature of the TVA system, the majority of its solar power will actually serve load in Tennessee rather than Alabama.

- The SACE forecast has been anticipating 500 MW for Alabama Power. These 500 MW were first approved by the Alabama PSC in 2015 and is now expressed in the Alabama Power resource plan.
- PowerSouth has begun to incorporate solar into its forward plans, as well, announcing an 80 MW project for 2022.
- A discriminatory solar fee imposed by Alabama Power has been constraining the distributed solar market in Alabama since 2013. Elimination of the TVA Green Power Partnership will further limit the state's progress in this segment.

FLORIDA

THE SUNSHINE STATE IS RISING



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UTILITY-SCALE
SOLAR, MW

DISTRIBUTED
SOLAR, MW

UTILITY	2019	2023	2019	2023
FLORIDA POWER & LIGHT	1,157	2,950	138	386
TAMPA ELECTRIC	281	1,298	42	133
GULF POWER	120	1,163	11	30
DUKE ENERGY FLORIDA	166	1,033	119	339
JACKSONVILLE (JEA)	33	283	17	47
ORLANDO (OUC)	14	272	19	55
SEMINOLE	2	151	21	59
LAKELAND	15	65	4	12
TALLAHASSEE	40	60	4	11
GAINESVILLE (GRU)	3	53	26	30
POWERSOUTH	0	0	4	10

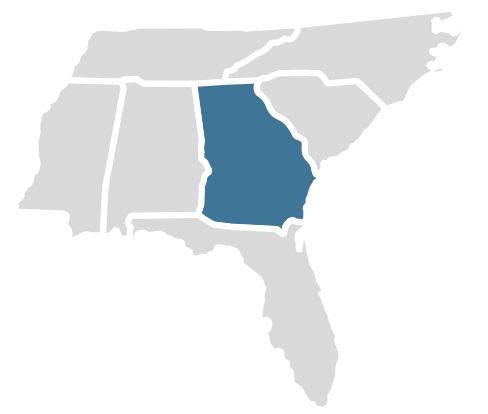
- ☀️ Gulf Power is new to the SunRiser list as NextEra shifts some of the solar planned for FPL into the western Florida panhandle.
- ☀️ The Florida PSC recently approved the innovative SolarTogether program (1,490 MW) from FPL that will double the amount of community solar in the United States and includes a low-income aspect.
- ☀️ Tampa Electric continued progress on its initial 600 MW commitment and announced another doubling by 2022.

SOLAR WATTS PER CUSTOMER

UTILITY	2019	2023
GULF POWER	297	2,748
TAMPA ELECTRIC	428	1,827
ORLANDO (OUC)	141	1,345
GAINESVILLE (GRU)	292	883
STATE AVERAGE	220	826
SOUTHEAST AVERAGE	325	819
JACKSONVILLE (JEA)	112	738
DUKE ENERGY FLORIDA	155	722
FLORIDA POWER & LIGHT	265	672
TALLAHASSEE	363	579
LAKELAND	139	565
SEMINOLE	34	301
POWERSOUTH	31	85



- ☀️ Florida Municipal Power Agency commissioned an additional 149 MW.
- ☀️ Seminole replaced a 2022 solar contract with a larger one for 2023, yet remains one of the least ambitious large utilities.
- ☀️ Approval of solar leasing models in 2018 contributed to a 30% increase in distributed solar for Florida in 2019.



UTILITY-SCALE SOLAR, MW

UTILITY	2019	2023
GEORGIA POWER	1,179	3,451
OGLETHORPE	338	1,126
TVA	7	26
MEAG	0	0

DISTRIBUTED SOLAR, MW

UTILITY	2019	2023
GEORGIA POWER	151	160
OGLETHORPE	22	33
TVA	6	9
MEAG	3	5

- ☀️ The Georgia PSC reinforced its legacy of solar leadership by more than doubling the amount of solar in the Georgia Power 2019 IRP. The investor-owned utility will expand its solar portfolio by another 2,210 MW by 2023.
- ☀️ Georgia's 2019 solar ratio of 349 W/C was higher than the Southeast average of 325 W/C – and is now forecast to remain above the region average through 2023.

SOLAR WATTS PER CUSTOMER

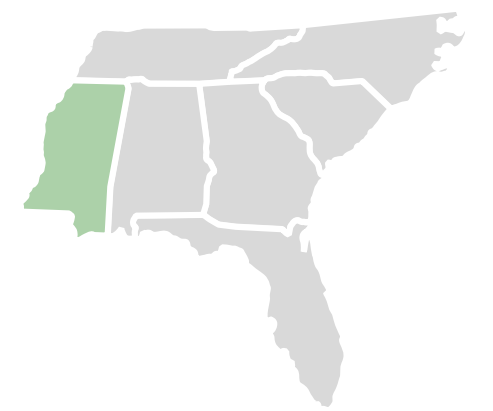
UTILITY	2019	2023
GEORGIA POWER	533	1,435
STATE AVERAGE	349	943
SOUTHEAST AVERAGE	325	819
OGLETHORPE	186	550
TVA	92	234
MEAG	10	15



- ☀️ In Georgia Power's 2019 rate case, the PSC ordered the utility to establish a pilot program for monthly netting, bringing true net metering to this utility territory for the first time.
- ☀️ The Oglethorpe system experienced an additional solar boost as Walton EMC announced more projects for Facebook. Green Power EMC continues to expand the solar portfolio for its participating co-ops as well.
- ☀️ Unlike municipal utilities in other states, MEAG Power is exhibiting uncharacteristically low solar ambition at just 15 W/C for 2023.

MISSISSIPPI

A LITTLE GOES A LONG WAY



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UTILITY-SCALE SOLAR, MW

UTILITY	2019	2023
MISSISSIPPI POWER	184	210
TVA	30	110

DISTRIBUTED SOLAR, MW

UTILITY	2019	2023
MISSISSIPPI POWER	5	25
TVA	3	13

SOLAR WATTS PER CUSTOMER

UTILITY	2019	2023
MISSISSIPPI POWER	1,015	1,301
SOUTHEAST AVERAGE	325	819
STATE AVERAGE	310	516
TVA	77	286



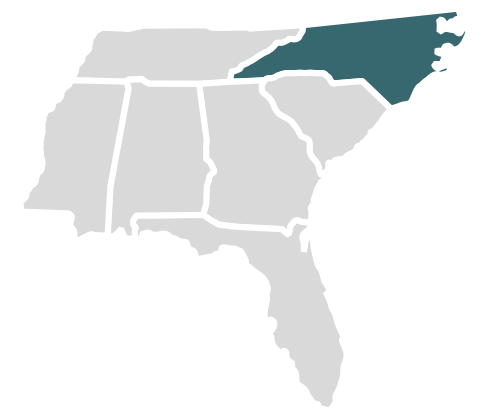
Note: The Southeast region for SACE does not include the portion of Mississippi in the MISO territory served by Entergy Mississippi.

- Mississippi Power exhibits one of the highest W/C solar ratios of any utility in the southeast at 1,015 W/C in 2019, due to a relatively small customer base (approximately 188,000 retail customers) denominates the W/C solar ratio for Mississippi Power.
- Increases in the numerator that seem small in absolute terms relative to other states or utilities can drive meaningful increases in the resulting ratio.
- Although not yet reflected in this year's forecast, SACE expects Mississippi's first IRP process to result in higher solar ambition for this Mississippi affiliate of Southern Company.

- TVA serves the northern part of Mississippi including approximately 430,000 customers in the state.
- In contrast to Mississippi Power, TVA provides less solar in Mississippi than through its affiliate utilities in other states.
- TVA has commissioned a 200 MW solar project for Lowndes County, Mississippi, to be operational by late 2022. But the vast majority of that project will serve customers in other states.
- Mississippi is falling off pace with solar development across the southeast, but the state offers significant opportunity for likely solar expansion beyond the four-year time horizon.

NORTH CAROLINA

REMAINS THE SOUTHEAST LEADER



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UTILITY-SCALE
SOLAR, MW

DISTRIBUTED
SOLAR, MW

UTILITY	2019	2023	2019	2023
DUKE ENERGY PROGRESS	2,209	3,420	89	163
DUKE ENERGY CAROLINAS	974	1,476	123	229
NC ELECTRIC COOPERATIVES	45	67	19	36
NC EASTERN MUNICIPAL	63	63	1	3
TVA	2	6	16	31
NC MUNICIPAL POWER	0	0	0.7	1.3

- North Carolina remains the only state in the Southeast with a renewable portfolio standard, which initiated solar development more than a decade ago. The state still has the most solar PV capacity in the southeast (though Florida is catching up quickly).
- Updated plans from the Duke utilities in the state reflect higher long-term (5-15 year) solar development, but interconnection delays reduced near-term plans. SACE had been anticipating 6,000 MW of solar in North Carolina for 2022. That forecast is now tempered to 5,100 MW (and still less than 6,000 MW for 2023), with a portion of that capacity serving customers in South Carolina.

Note: The Southeast region for SACE does not include the portion of North Carolina in the PJM territory served by Dominion Energy.

SOLAR WATTS PER CUSTOMER

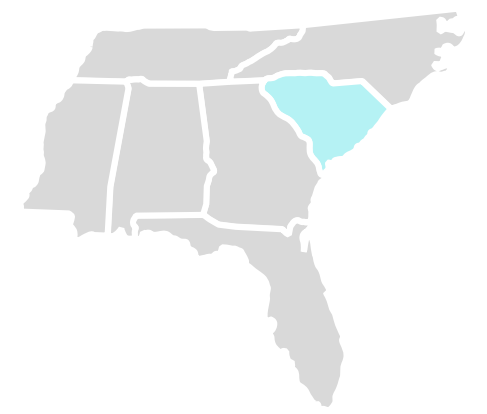
UTILITY	2019	2023
DUKE ENERGY PROGRESS	1,685	2,610
STATE AVERAGE	717	1,094
TVA	409	860
DUKE ENERGY CAROLINAS	557	846
SOUTHEAST AVERAGE	325	819
NC EASTERN MUNICIPAL	256	259
NC ELECTRIC COOPERATIVES	62	98
NC MUNICIPAL POWER	5	10



- DEP has topped the leaderboard of large Southeast utilities for all three years of our *Solar in the Southeast* reporting. It has also maintained a coveted spot on our SunRiser list of utilities exhibiting the highest solar ambition.
- North Carolina is a bright spot on an otherwise lackluster scorecard for TVA. When apportioned to the 43,000 customers in the state, the forecast for TVA solar moves them ahead of Duke Energy Carolinas.
- The NC Electric Cooperatives retain designation as one of the Southeast SunBlockers, with the lowest solar ambition among large utilities.

SOUTH CAROLINA

LET FREEDOM RING



19

UTILITY-SCALE SOLAR, MW

UTILITY	2019	2023
DOMINION ENERGY SC	439	1,058
Santee Cooper	6	597
DUKE ENERGY PROGRESS	372	576
DUKE ENERGY CAROLINAS	359	544

DISTRIBUTED SOLAR, MW

UTILITY	2019	2023
DOMINION ENERGY SC	126	247
Santee Cooper	25	41
DUKE ENERGY PROGRESS	11	20
DUKE ENERGY CAROLINAS	36	68

- South Carolina's "Energy Freedom Act" (Act 62) passed unanimously in both chambers of the South Carolina General Assembly in 2019. This comprehensive solar bill will sustain all segments of the vibrant solar market in the state.
- Act 62 eliminates caps and extends retail net metering through mid-2021, thereby preserving value for customers with distributed/rooftop solar generation.

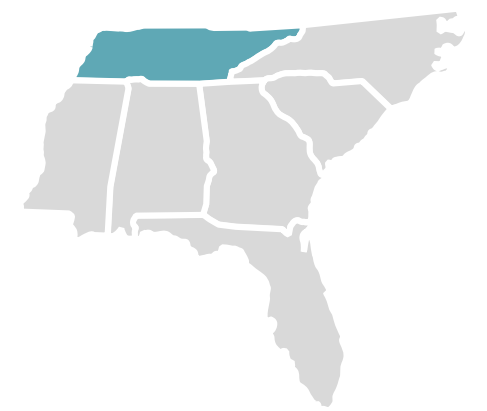
SOLAR WATTS PER CUSTOMER

UTILITY	2019	2023
DUKE ENERGY PROGRESS	2,343	3,622
DOMINION ENERGY SC	807	1,809
STATE AVERAGE	551	1,262
DUKE ENERGY CAROLINAS	681	1,029
SOUTHEAST AVERAGE	325	819
Santee Cooper	31	664



- Act 62 also ensures fair market access for developers of utility-scale solar projects. Across the spectrum, the Energy Freedom Act protects jobs for hard-working South Carolinians in this field, adding certainty to a healthy economic driver in the state.
- Equally important, the bill asserts that it is "the intent of the General Assembly to expand the opportunity to support solar energy and support access to solar energy options for all South Carolinians."
- DEP and DESC both earned the SunRiser designation for the third consecutive year.
- Each of the potential options for the future of Santee Cooper includes substantial solar expansion therefore, the SunBlocker designation no longer applies for that South Carolina utility.

T E N N E S S E E



20

T V A M I S L E A D S T H E R E G I O N W I T H W E A K I R P

UTILITY-SCALE SOLAR, MW

UTILITY	2019	2023
TVA	214	781

DISTRIBUTED SOLAR, MW

UTILITY	2019	2023
TVA	100	183

- Like many other utilities in the region, the TVA updated its IRP in 2019. However, the self-regulated monopoly, not subject to federal or state regulatory oversight, promoted a false narrative around that plan to imply significantly more solar than it intends to adopt.
- Hyperbolic claims of “up to” 14 gigawatts of solar are not only inaccurate, they are intentionally misleading. The actual budget that was requested and approved is for 5.5 gigawatts by 2030. That is the more reliable “plan” the SACE forecast is predicated on. And most of that solar is planned for the latter years of that timespan. Between now and 2023, TVA anticipates 800 MW of new utility-scale solar across the entire region, with most of that dedicated to specific, non-residential customers.
- At the end of 2019, TVA also sunset the very program that had rendered it an early leader on small-scale, distributed solar. The Green Power Providers (GPP) program delivered virtually all of the distributed solar capacity represented in the table above and ending it will stifle rooftop solar growth.

SOLAR WATTS PER CUSTOMER

UTILITY	2019	2023
SOUTHEAST AVERAGE	325	819
MEMPHIS (MLGW)	100	304
CHATTANOOGA (EPB)	99	300
TVA (TN) AVERAGE	97	291
NASHVILLE (NES)	94	283
MIDDLE TENNESSEE (EMC)	93	272
KNOXVILLE (KUB)	87	259
VOLUNTEER ELECTRIC CO-OP	77	217



The six largest LPCs in Tennessee are included above.

Kingsport, TN (served by AEP Appalachian Power) is not included in the Southeast region.

- TVA is presently coercing local power companies (LPCs) within its service territory to sign a long-term (20-year) partnership agreement. As part of the agreement, TVA offers the LPCs “flexibility” to generate three-five% of its own power. However, the convoluted way it computes that allowance really results in much less than five% of an LPC load.
- For comparison, TVA will allow Memphis Light, Gas & Water (MLGW) to commission 202.5 MW of solar themselves. If MLGW decides to leave the oppressive TVA system, portfolios modeled by Siemens include 1,000 MW of solar locally and up to 4,450 MW of renewables in total (mostly solar).

DATA SOURCES, METHODS, AND ASSUMPTIONS

Compiling data from publicly-available reports as well as proprietary forecasts, the Southern Alliance for Clean Energy (SACE) has curated a system of information about electric power generation in the southeast United States. For the *Solar in the Southeast* Annual Report, primary datasets derive from the Energy Information Administration (EIA) and the Federal Energy Regulatory Commission (FERC) – particularly, EIA 860 (Annual Electric Generator Data), EIA 861 (Annual Electric Power Industry Report), EIA 923 (Annual Electric Utility Data), and FERC 714 (Annual Electric Balancing Authority Area and Planning Area Report).

Future projections are informed by additional datasets including Wood Mackenzie Power & Renewables (formerly GTM Research), the EIA Annual Energy Outlook, utility Integrated Resource Plans (IRPs), interconnection queues, identified projects as well as utility announcements of ongoing and future plans, along with information gathered from solar developers and professional judgement of staff experts.

Solar data are reported as $MW_{(ac)}$ – alternating current. Where applicable, data identifiable as $MW_{(dc)}$ is derated to $MW_{(ac)}$ equivalent. *AC reporting is becoming increasingly more common, particularly for utility-scale solar projects.*

SACE tracks both capacity as well as generation, $MW_{(ac)}$ and MWh, respectively. Consequently, the capacity of solar projects that begin operation late in the year are only partially attributable in the first year. Tracking solar data in this manner enables a correlation between capacity and generation statistics.

In some cases, the utility that receives the generation from planned or existing solar projects is not known. In such cases, the capacity and generation is allocated to utilities based on proximity and the degree to which utilities needs are met by generation owned or contracted for. The amount of solar capacity allocated to utilities in this manner is a small fraction of all Southeastern generation, but it can make up a substantial portion of the solar generation reported for utilities with small solar portfolios.

SACE projects distributed generation solar (e.g., residential and commercial rooftop solar) independently for large utility systems. Smaller municipal and cooperative systems are projected at an aggregate level based on the averages for those systems.

State-level reports are aggregated using two, complementary methods. The “Forecast for Southeast States” (page 11) reflects total solar capacity (MW) in the state where the generation originates. Other results correlate to the watts per customer calculation and are allocated to the state where the load is served. SACE apportions utility-scale solar generation to loads served across multi-state utility service territories. Smaller, distributed generation systems are assumed to serve their local load. This method establishes a close relationship with the retail sales and customers served by the respective 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.*

SOLAR IN THE SOUTHEAST

2020 Annual Report

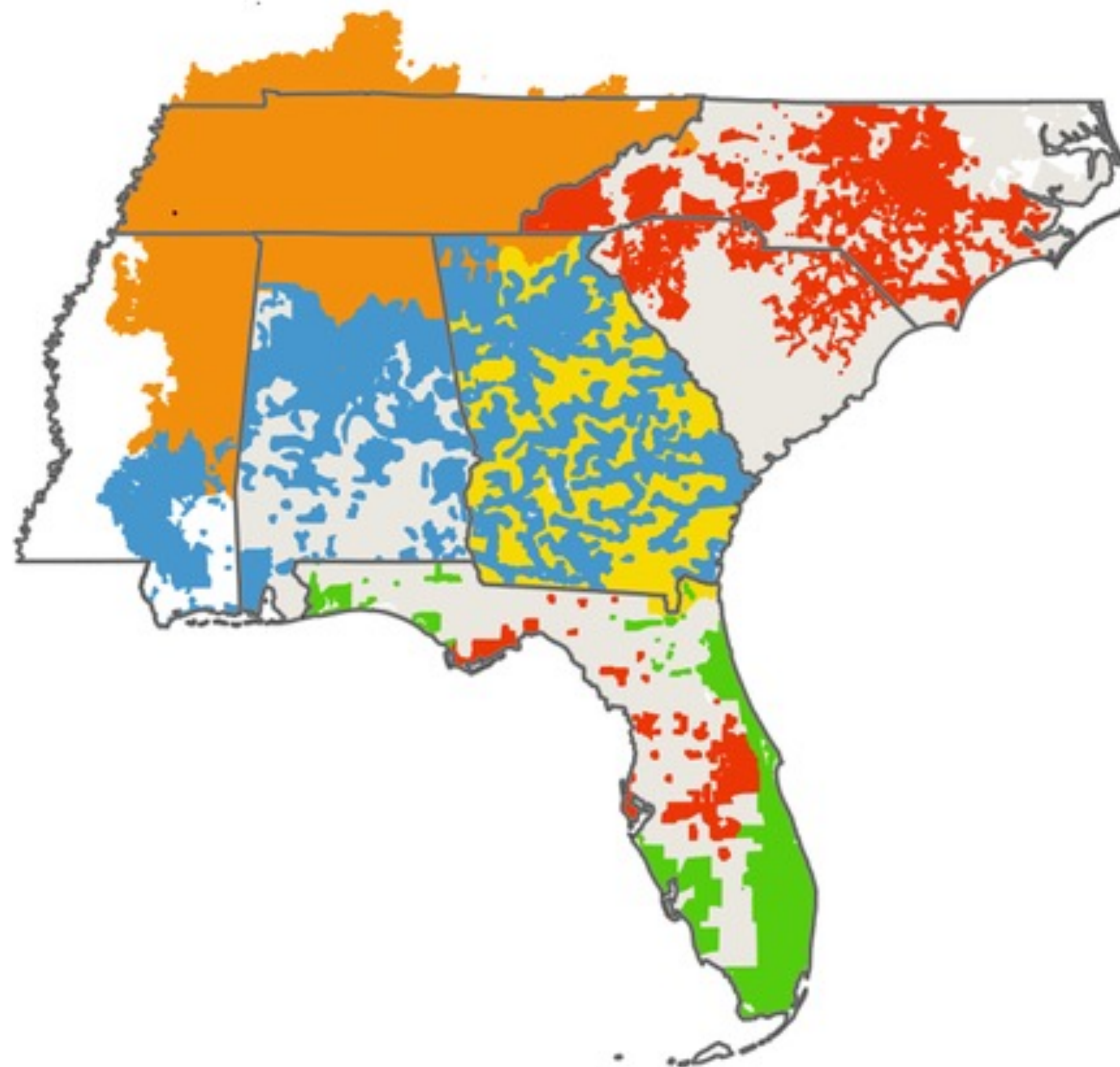
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APPENDIX A: SERVICE TERRITORIES OF FIVE SOUTHEAST UTILITY SYSTEMS

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UTILITY SERVICE TERRITORIES

- SOUTHERN COMPANY
- TENNESSEE VALLEY AUTHORITY
- DUKE ENERGY COMPANY
- FLORIDA POWER & LIGHT (incl. GULF POWER)
- OGLETHORPE POWER CORPORATION
- OTHER SOUTHEASTERN UTILITIES
- NON-SOUTHEASTERN BALANCING AREAS



APPENDIX B: SOUTHEAST UTILITY RANKING

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UTILITY	Customers (2018)	Total Solar (W/C)			Utility-Scale Solar (W/C)			Distributed Solar (W/C)		
		2018	2019	2023	2018	2019	2023	2018	2019	2023
All SE Utility Systems	30,120,411	224	325	819	194	286	737	30	39	82
Alabama Cooperatives	35,907	-	1	2	-	-	-	-	1	2
Black Warrior Electric Member Corp (AL)	26,560	-	1	2	-	-	-	-	1	2
Tombigbee Electric Cooperative (AL)	9,347	-	1	2	-	-	-	-	1	2
Alabama Municipals	70,583	-	0	1,408	-	-	1,408	-	0	0
City of Alexander City (AL)	6,153	-	0	0	-	-	-	-	0	0
City of Dothan (AL)	30,692	-	0	0	-	-	-	-	0	0
City of Opelika (AL)	12,873	-	0	0	-	-	-	-	0	0
Sylacauga Utilities Board (AL)	6,128	-	0	0	-	-	-	-	0	0
Troy Utilities Department (AL)	8,115	-	0	0	-	-	-	-	0	0
City of Tuskegee (AL)	6,622	-	0	0	-	-	-	-	0	0
Duke Energy	5,978,646	527	753	1,301	480	689	1,166	47	64	135
 Duke Energy Progress	1,580,649	1,080	1,755	2,718	1,037	1,690	2,600	43	65	119
Duke Energy Carolinas	2,596,446	501	585	887	452	523	774	49	62	114
Duke Energy Florida	1,801,551	79	155	722	33	90	544	47	65	179
 Dominion Energy South Carolina (former SCE&G)	726,679	488	807	1,809	364	627	1,467	124	180	342
 Florida Cooperatives	1,041,631	55	95	304	32	65	220	24	31	85
Central Florida Electric Cooperative	33,750	11	31	85	-	-	-	11	31	85
Clay Electric Cooperative (FL)	175,642	33	31	85	-	-	-	33	31	85
Florida Keys Electric Cooperative Association	32,508	20	31	86	-	-	1	20	31	85
Glades Electric Cooperative (FL)	16,344	14	31	85	-	-	-	14	31	85
Lee County Electric Cooperative (FL)	216,595	19	31	86	-	-	1	19	31	85
Peace River Electric Cooperative (FL)	42,772	52	31	85	-	-	-	52	31	85
Reedy Creek Improvement Dist (FL)	1,524	20,276	44,314	42,369	20,276	44,282	42,282	-	31	87
Sumter Electric Cooperative (FL)	205,644	16	31	85	-	-	-	16	31	85
Suwannee Valley Electric Cooperative (FL)	26,246	15	31	85	-	-	-	15	31	85
Talquin Electric Cooperative (FL)	54,217	14	31	85	-	-	-	14	31	85
Tri-County Electric Cooperative (FL)	18,391	40	31	85	-	-	-	40	31	85
Withlacoochee River Electric Cooperative (FL)	217,998	27	31	85	-	-	-	27	31	85

APPENDIX B: SOUTHEAST UTILITY RANKING

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UTILITY	Customers (2018)	Total Solar (W/C)			Utility-Scale Solar (W/C)			Distributed Solar (W/C)		
		2018	2019	2023	2018	2019	2023	2018	2019	2023
Florida Municipals	1,461,954	96	119	790	53	79	676	43	41	113
City of Alachua (FL)	4,584	122	31	2,141	-	-	2,054	122	31	87
City of Bartow (FL)	12,391	342	607	1,642	295	575	1,555	48	31	87
City of Clewiston (FL)	4,045	-	31	90	-	-	3	-	31	87
Fort Pierce Utilities Authority (FL)	28,331	4	31	655	-	-	568	4	31	87
Gainesville Regional Utilities (FL)	97,681	275	292	883	29	29	566	246	263	318
City of Green Cove Springs (FL)	4,196	26	31	91	-	-	4	26	31	87
Havana Power & Light Company (FL)	1,457	275	31	242	-	-	156	275	31	87
City of Homestead (FL)	25,048	16	31	623	-	-	536	16	31	87
Beaches Energy Services (FL)	34,878	22	31	840	-	-	753	22	31	87
JEA (FL)	467,084	82	112	738	55	74	633	27	38	105
City of Key West (FL)	29,728	10	31	1,099	-	-	1,012	10	31	87
Kissimmee Utility Authority (FL)	73,968	27	31	691	-	-	604	27	31	87
City of Lake Worth (FL)	27,145	-	31	1,288	-	-	1,201	-	31	87
City of Lakeland (FL)	130,659	104	139	565	90	116	484	15	23	82
City of Leesburg (FL)	26,288	13	31	89	-	-	2	13	31	87
City of New Smyrna Beach (FL)	28,030	11	31	445	-	-	359	11	31	87
City of Ocala (FL)	53,485	23	31	589	-	-	502	23	31	87
 Orlando Utilities Commission (FL)	241,638	115	142	1,345	58	63	1,128	57	79	217
City of Starke (FL)	2,794	17	31	90	-	-	3	17	31	87
City of Tallahassee (FL)	117,138	182	363	579	171	338	496	12	25	83
City of Vero Beach (FL)	35,821	16	31	87	-	-	-	16	31	87
City of Wauchula	2,814	-	-	1,745	-	-	1,745	-	-	-
City of Winter Park - (FL)	15,565	44	31	1,234	-	-	1,147	44	31	87
NextEra Energy	5,425,970	191	267	839	170	239	762	20	28	77
Florida Power & Light	4,961,288	182	264	672	162	236	595	20	28	78
 Gulf Power Co (FL)	464,682	276	297	2,748	258	271	2,679	18	25	70
Florida Public Utilities Company	31,009	27	37	101	-	-	-	27	37	101

APPENDIX B: SOUTHEAST UTILITY RANKING

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UTILITY	Customers (2018)	Total Solar (W/C)			Utility-Scale Solar (W/C)			Distributed Solar (W/C)		
		2018	2019	2023	2018	2019	2023	2018	2019	2023
Georgia Municipals	291,994	32	30	34	22	20	19	10	10	15
City of Adel (GA)	2,661	-	10	15	-	-	-	-	10	15
Albany Water Gas & Light Commission (GA)	37,083	-	10	15	-	-	-	-	10	15
City of Acworth (GA)	6,544	4	10	15	-	-	-	4	10	15
City of Buford (GA)	3,540	-	10	15	-	-	-	-	10	15
City of Cairo (GA)	4,553	-	10	15	-	-	-	-	10	15
City of Calhoun (GA)	5,436	6	10	15	-	-	-	6	10	15
City of Camilla (GA)	2,582	-	10	15	-	-	-	-	10	15
City of Cartersville (GA)	7,661	235	10	15	-	-	-	235	10	15
City of College Park (GA)	8,810	7	10	15	-	-	-	7	10	15
City of Covington (GA)	11,915	-	10	15	-	-	-	-	10	15
Crisp County Power Commission (GA)	11,900	3	10	15	-	-	-	3	10	15
Dalton Utilities (GA)	16,874	439	402	403	385	391	388	53	10	15
City of Douglas (GA)	5,658	-	10	15	-	-	-	-	10	15
City of East Point (GA)	15,810	-	10	15	-	-	-	-	10	15
City of Elberton (GA)	4,418	-	10	15	-	-	-	-	10	15
Fitzgerald Water Light & Bond Commission (GA)	5,887	-	10	15	-	-	-	-	10	15
Fort Valley Utility Commission (GA)	4,698	-	10	15	-	-	-	-	10	15
City of Griffin (GA)	15,261	-	10	15	-	-	-	-	10	15
City of La Grange (GA)	13,210	-	10	15	-	-	-	-	10	15
City of Lawrenceville (GA)	11,086	0	10	15	-	-	-	0	10	15
City of Marietta (GA)	41,595	1	10	15	-	-	-	1	10	15
City of Monroe (GA)	6,323	-	10	15	-	-	-	-	10	15
City of Moultrie (GA)	6,888	-	10	15	-	-	-	-	10	15
Newnan Water, Sewer & Light Commission (GA)	10,089	-	10	15	-	-	-	-	10	15
City of Norcross (GA)	5,097	-	10	15	-	-	-	-	10	15
City of Sylvania (GA)	2,456	-	10	15	-	-	-	-	10	15
City of Thomaston (GA)	5,857	-	10	15	-	-	-	-	10	15
City of Thomasville (GA)	15,743	2	10	15	-	-	-	2	10	15
City of Washington (GA)	2,359	-	10	15	-	-	-	-	10	15

APPENDIX B: SOUTHEAST UTILITY RANKING

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UTILITY	Customers (2018)	Total Solar (W/C)			Utility-Scale Solar (W/C)			Distributed Solar (W/C)		
		2018	2019	2023	2018	2019	2023	2018	2019	2023
Mississippi Cooperatives	117,586	13	26	136	-	-	-	13	26	136
Pearl River Valley Electric Power Association (MS)	50,039	22	26	136	-	-	-	22	26	136
Southern Pine Electric Power Association (MS)	67,547	7	26	136	-	-	-	7	26	136
 North Carolina Cooperatives	1,060,717	42	62	98	27	44	64	15	18	35
Albemarle Electric Member Corp (NC)	12,931	7	18	35	-	-	-	7	18	35
Blue Ridge Electric Member Corp (NC)	76,261	20	18	35	-	-	-	20	18	35
Cape Hatteras Electric Member Corp (NC)	7,774	11	18	35	-	-	-	11	18	35
Carteret-Craven Electric Member Corp (NC)	40,467	-	18	35	-	-	-	-	18	35
Central Electric Membership Corp (NC)	22,840	-	18	35	-	-	-	-	18	35
Edgecombe-Martin County Electric Member Corp (NC)	11,344	-	18	35	-	-	-	-	18	35
Four County Electric Member Corp (NC)	32,725	3	18	35	-	-	-	3	18	35
French Broad Electric Member Corp (NC)	37,240	23	18	35	-	-	-	23	18	35
Halifax Electric Member Corp (NC)	11,743	9	238	472	-	220	438	9	18	35
Haywood Electric Member Corp (NC)	26,884	20	18	35	-	-	-	20	18	35
Jones-Onslow Electric Member Corp (NC)	75,645	5	18	35	-	-	-	5	18	35
Lumbee River Electric Member Corp (NC)	61,427	11	18	35	-	-	-	11	18	35
Pee Dee Electric Member Corp (NC)	21,075	14	18	35	-	-	-	14	18	35
Pitt & Greene Electric Member Corp (NC)	8,755	-	18	35	-	-	-	-	18	35
Piedmont Electric Member Corp (NC)	32,113	67	18	35	-	-	-	67	18	35
Randolph Electric Member Corp (NC)	31,994	34	18	35	-	-	-	34	18	35
Roanoke Electric Member Corp (NC)	14,229	-	18	35	-	-	-	-	18	35
Rutherford Electric Member Corp (NC)	70,153	12	18	35	-	-	-	12	18	35
South River Electric Member Corp (NC)	44,701	12	18	35	-	-	-	12	18	35
Surry-Yadkin Electric Member Corp (NC)	27,063	13	18	35	-	-	-	13	18	35
Tri-County Electric Member Corp (NC)	25,096	302	307	321	279	289	287	23	18	35
Tideland Electric Member Corp (NC)	22,955	-	18	35	-	-	-	-	18	35
Union Electric Membership Corp (NC)	77,041	26	18	35	-	-	-	26	18	35
Wake Electric Membership Corp (NC)	45,235	12	18	35	-	-	-	12	18	35
EnergyUnited Electric Member Corp (NC)	129,872	14	18	35	-	-	-	14	18	35
Brunswick Electric Member Corp (NC)	93,154	15	18	35	-	-	-	15	18	35

APPENDIX B: SOUTHEAST UTILITY RANKING

UTILITY	Total Solar (W/C)				Utility-Scale Solar (W/C)			Distributed Solar (W/C)		
	Customers (2018)	2018	2019	2023	2018	2019	2023	2018	2019	2023
North Carolina Municipals	548,063	120	124	128	115	119	117	4	5	10
City of Albemarle (NC)	12,118	-	5	10	-	-	-	-	5	10
Town of Apex (NC)	21,229	11	5	10	-	-	-	11	5	10
Town of Ayden (NC)	3,996	-	5	10	-	-	-	-	5	10
Town of Clayton (NC)	6,924	-	5	10	-	-	-	-	5	10
City of Concord (NC)	31,298	-	5	10	-	-	-	-	5	10
City of Elizabeth City (NC)	12,526	-	5	10	-	-	-	-	5	10
City of Fayetteville Public Works Commission (NC)	81,991	-	5	10	-	-	-	-	5	10
Town of Forest City (NC)	4,144	-	5	10	-	-	-	-	5	10
Town of Edenton (NC)	4,146	-	5	10	-	-	-	-	5	10
City of Gastonia (NC)	27,963	34	5	10	-	-	-	34	5	10
Greenville Utilities Commission (NC)	67,704	1	5	10	-	-	-	1	5	10
Town of High Point (NC)	41,398	2	5	10	-	-	-	2	5	10
Town of Huntersville (NC)	6,096	-	5	10	-	-	-	-	5	10
City of Kings Mountain (NC)	4,920	-	5	10	-	-	-	-	5	10
City of Kinston (NC)	11,864	-	5	10	-	-	-	-	5	10
City of Laurinburg (NC)	5,658	-	5	10	-	-	-	-	5	10
City of Lexington (NC)	18,791	4	5	10	-	-	-	4	5	10
City of Lumberton (NC) (NC)	11,486	-	5	10	-	-	-	-	5	10
City of Monroe (NC)	10,958	-	5	10	-	-	-	-	5	10
City of Morganton (NC)	8,321	96	5	10	-	-	-	96	5	10
City of New Bern (NC)	22,745	-	5	10	-	-	-	-	5	10
New River Light & Power (NC)	8,275	-	5	10	-	-	-	-	5	10
City of Newton (NC)	4,710	-	5	10	-	-	-	-	5	10
Town of Pineville (NC)	3,605	-	5	10	-	-	-	-	5	10
City of Rocky Mount (NC)	27,992	-	5	10	-	-	-	-	5	10

APPENDIX B: SOUTHEAST UTILITY RANKING

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	Total Solar (W/C)				Utility-Scale Solar (W/C)			Distributed Solar (W/C)		
UTILITY	Customers (2018)	2018	2019	2023	2018	2019	2023	2018	2019	2023
North Carolina Municipals (continued)										
City of Shelby (NC)	8,308	-	5	10	-	-	-	-	5	10
Town of Smithfield (NC)	4,407	-	5	10	-	-	-	-	5	10
City of Statesville (NC)	13,623	16	5	10	-	-	-	16	5	10
Town of Tarboro (NC)	5,947	-	5	10	-	-	-	-	5	10
Town of Wake Forest (NC)	6,660	-	5	10	-	-	-	-	5	10
City of Washington (NC)	13,764	-	5	10	-	-	-	-	5	10
City of Wilson (NC)	34,496	-	5	10	-	-	-	-	5	10
Oglethorpe Power	1,924,858	128	186	550	117	175	534	11	11	16
Altamaha Electric Member Corp (GA)	22,790	1	11	16	-	-	-	1	11	16
Amicalola Electric Member Corp (GA)	49,146	7	11	16	-	-	-	7	11	16
Canoochee Electric Member Corp (GA)	21,745	7	11	16	-	-	-	7	11	16
Carroll Electric Member Corp (GA)	51,237	2	11	16	-	-	-	2	11	16
Central Georgia Electric Member Corp	57,383	3	11	16	-	-	-	3	11	16
Coastal Electric Member Corp (GA)	19,835	13	11	16	-	-	-	13	11	16
Cobb Electric Membership Corp (GA)	208,088	551	560	519	548	549	503	3	11	16
Coweta-Fayette Electric Member Corp (GA)	80,494	2	11	16	-	-	-	2	11	16
Excelsior Electric Member Corp (GA)	23,132	4	11	16	-	-	-	4	11	16
Flint Electric Membership Corp (GA)	86,696	200	208	196	196	197	180	3	11	16
GreyStone Power Corporation (GA)	132,927	0	11	16	-	-	-	0	11	16
Grady Electric Membership Corp (GA)	19,851	3	11	16	-	-	-	3	11	16
Habersham Electric Membership Corp (GA)	34,754	13	11	16	-	-	-	13	11	16
Hart Electric Member Corp (GA)	36,324	8	11	16	-	-	-	8	11	16
Irwin Electric Membership Corp (GA)	12,417	10	11	16	-	-	-	10	11	16
Jackson Electric Member Corp (GA)	228,950	18	11	16	-	-	-	18	11	16
Jefferson Electric Member Corp (GA)	34,233	0	11	16	-	-	-	0	11	16

APPENDIX B: SOUTHEAST UTILITY RANKING

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	Total Solar (W/C)				Utility-Scale Solar (W/C)			Distributed Solar (W/C)		
UTILITY	Customers (2018)	2018	2019	2023	2018	2019	2023	2018	2019	2023
Oglethorpe Power (continued)										
Southern Rivers Energy (GA)	19,417	8	11	16	-	-	-	8	11	16
Middle Georgia Electric Member Corp	8,127	6	11	16	-	-	-	6	11	16
Mitchell Electric Member Corp (GA)	24,983	9	11	16	-	-	-	9	11	16
Ocmulgee Electric Member Corp (GA)	12,194	1	11	16	-	-	-	1	11	16
Oconee Electric Member Corp (GA)	12,665	4	11	16	-	-	-	4	11	16
Planters Electric Member Corp (GA)	17,022	-	11	16	-	-	-	-	11	16
Rayle Electric Membership Corp (GA)	18,438	7	11	16	-	-	-	7	11	16
Satilla Rural Electric Member Corporation (GA)	55,777	21	11	16	-	-	-	21	11	16
Sawnee Electric Membership Corporation (GA)	178,847	102	107	103	95	95	87	6	11	16
Slash Pine Electric Member Corp (GA)	8,895	0	11	16	-	-	-	0	11	16
Snapping Shoals Electric Member Corp (GA)	99,401	-	11	16	-	-	-	-	11	16
Sumter Electric Member Corp (GA)	20,561	22	11	16	-	-	-	22	11	16
Three Notch Electric Member Corp (GA)	15,261	14	11	16	-	-	-	14	11	16
Tri-County Electric Member Corp (GA)	21,642	3	11	16	-	-	-	3	11	16
Diverse Power Incorporated (GA)	33,478	5	11	16	-	-	-	5	11	16
Upton Electric Member Corp (GA)	9,112	-	11	16	-	-	-	-	11	16
☀️ Walton Electric Member Corp (GA)	128,579	93	461	3,157	39	450	3,141	54	11	16
Washington Electric Member Corp (GA)	15,526	1	11	16	-	-	-	1	11	16
Little Ocmulgee Electric Member Corp (GA)	11,410	4	11	16	-	-	-	4	11	16
Okefenoke Rural Electric Member Corp (GA)	26,458	81	11	16	-	-	-	81	11	16
Colquitt Electric Membership Corp (GA)	67,063	6	11	16	-	-	-	6	11	16

APPENDIX B: SOUTHEAST UTILITY RANKING

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UTILITY	Customers (2018)	Total Solar (W/C)			Utility-Scale Solar (W/C)			Distributed Solar (W/C)		
		2018	2019	2023	2018	2019	2023	2018	2019	2023
PowerSouth	443,143	3	9	191	-	-	168	3	9	23
City of Andalusia (AL)	4,642	-	0	0	-	-	-	-	0	0
Baldwin County Electric Member Corp (AL)	76,771	-	1	2	-	-	-	-	1	2
Central Alabama Electric Cooperative	43,397	1	1	2	-	-	-	1	1	2
Choctawhatche Electric Cooperative (FL)	51,790	11	31	85	-	-	-	11	31	85
Coosa Valley Electric Cooperative (AL)	16,794	-	1	2	-	-	-	-	1	2
Covington Electric Cooperative (AL)	23,297	1	1	2	-	-	-	1	1	2
Dixie Electric Cooperative (AL)	24,137	-	1	2	-	-	-	-	1	2
Escambia River Electric Cooperative (FL)	11,197	16	31	85	-	-	-	16	31	85
Gulf Coast Electric Cooperative (FL)	20,948	6	31	85	-	-	-	6	31	85
Pea River Electric Cooperative (AL)	18,826	-	1	2	-	-	-	-	1	2
South Alabama Electric Cooperative	16,571	-	1	2	-	-	-	-	1	2
Southern Pine Electric Cooperative (AL)	21,598	0	1	2	-	-	-	0	1	2
Tallapoosa River Electric Cooperative (AL)	27,196	10	1	2	-	-	-	10	1	2
West Florida Electric Cooperative Association	28,623	7	31	85	-	-	-	7	31	85
Wiregrass Electric Cooperative (AL)	24,463	-	1	2	-	-	-	-	1	2
Pioneer Electric Cooperative (AL)	12,824	0	1	2	-	-	-	0	1	2
Clarke-Washington Electric Member Corp (AL)	20,069	-	1	2	-	-	-	-	1	2

APPENDIX B: SOUTHEAST UTILITY RANKING

UTILITY	Customers (2018)	Total Solar (W/C)			Utility-Scale Solar (W/C)			Distributed Solar (W/C)		
		2018	2019	2023	2018	2019	2023	2018	2019	2023
Santee Cooper	1,000,484	25	33	735	3	6	689	22	27	46
Aiken Electric Cooperative (SC)	47,759	14	30	189	1	4	143	13	27	46
City of Bennettsville (SC)	4,425	1	14	168	1	4	150	-	10	18
Berkeley Electric Cooperative (SC)	100,139	43	32	260	1	5	214	41	27	46
Black River Electric Cooperative (SC)	32,392	32	31	205	1	4	159	31	27	46
Blue Ridge Electric Cooperative (SC)	69,117	42	30	162	1	3	116	42	27	46
Broad River Electric Cooperative (SC)	21,451	45	30	179	1	3	133	44	27	46
Coastal Electric Cooperative (SC)	11,664	17	30	160	1	3	114	17	27	46
Edisto Electric Cooperative (SC)	20,233	21	30	180	1	3	134	20	27	46
Fairfield Electric Cooperative (SC)	29,269	1	31	214	1	4	168	0	27	46
City of Georgetown (SC)	5,004	1	15	215	1	5	197	-	10	18
Horry Electric Cooperative (SC)	79,747	22	30	157	1	3	111	22	27	46
Laurens Electric Cooperative (SC)	58,266	28	30	183	1	3	137	27	27	46
Little River Electric Cooperative (SC)	14,264	1	29	147	1	3	101	0	27	46
Lynches River Electric Cooperative (SC)	21,084	15	31	211	1	4	165	14	27	46
Marlboro Electric Cooperative (SC)	6,486	16	51	1,018	6	25	972	10	27	46
Mid-Carolina Electric Cooperative (SC)	56,225	21	30	180	1	3	134	20	27	46
Newberry Electric Cooperative (SC)	12,982	15	31	231	1	5	185	14	27	46
Tri-County Electric Cooperative (SC)	18,005	19	30	171	1	3	125	18	27	46
Palmetto Electric Cooperative (SC)	72,610	11	31	196	1	4	150	10	27	46
Pee Dee Electric Cooperative (SC)	30,430	17	31	210	1	4	164	16	27	46
Santee Electric Cooperative (SC)	43,500	12	32	259	1	5	213	11	27	46
South Carolina Public Service Authority	185,144	31	42	3,075	14	15	3,029	17	27	46
York Electric Cooperative (SC)	60,288	30	30	172	1	3	126	29	27	46


APPENDIX B: SOUTHEAST UTILITY RANKING

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UTILITY	Customers (2018)	Total Solar (W/C)			Utility-Scale Solar (W/C)			Distributed Solar (W/C)		
		2018	2019	2023	2018	2019	2023	2018	2019	2023
South Carolina Municipals	171,645	10	42	134	0	31	116	9	10	18
City of Camden (SC)	11,037	5	10	18	-	-	-	5	10	18
Clinton Combined Utility System (SC)	4,117	1	13	131	1	3	114	-	10	18
Easley Combined Utility System (SC)	14,747	16	13	104	0	2	86	15	10	18
City of Gaffney (SC)	7,401	3	14	155	1	3	137	2	10	18
Greenwood Commission of Public Works (SC)	14,018	-	10	18	-	-	-	-	10	18
Greer Commission of Public Works (SC)	25,976	17	12	82	0	2	64	17	10	18
Lockhart Power (SC)	6,169	-	836	1,630	-	826	1,612	-	10	18
City of Newberry (SC)	5,004	1	15	198	1	5	180	-	10	18
City of Orangeburg (SC)	24,440	5	10	18	-	-	-	5	10	18
City of Rock Hill (SC)	38,900	19	13	110	1	2	92	18	10	18
City of Seneca (SC)	7,528	-	10	18	-	-	-	-	10	18
City of Union (SC)	6,935	4	12	98	0	2	80	3	10	18
City of Laurens (SC)	5,373	1	13	106	1	2	88	-	10	18
Southern Company	4,205,160	280	369	1,059	244	332	1,014	36	36	45
Alabama Power Co	1,480,475	67	59	395	66	57	391	2	2	4
 Georgia Power Co	2,536,685	362	533	1,435	304	472	1,372	57	61	63
 Mississippi Power Co	188,000	851	1,015	1,301	838	988	1,164	13	26	136
 Tampa Electric	763,571	157	428	1,827	125	373	1,657	32	56	170

APPENDIX B: SOUTHEAST UTILITY RANKING

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UTILITY	Customers (2018)	Total Solar (W/C)			Utility-Scale Solar (W/C)			Distributed Solar (W/C)		
		2018	2019	2023	2018	2019	2023	2018	2019	2023
 TVA	4,820,811	68	99	303	48	69	248	20	30	56
Aberdeen Electric Department (MS)	3,232	95	144	532	93	134	482	2	10	49
Albertville Municipal Utilities Board (AL)	10,235	89	133	466	87	126	451	2	7	15
Alcorn County Electric Power Association (MS)	18,842	52	74	274	48	69	248	4	5	25
City of Amory (MS)	3,999	49	80	305	49	71	256	-	10	49
City of Alcoa Utilities (TN)	29,347	43	76	220	32	47	167	10	30	53
Appalachian Electric Cooperative (TN)	46,750	39	78	219	31	45	159	8	33	60
Arab Electric Cooperative (AL)	15,555	50	61	193	31	45	161	19	16	32
City of Athens Electric Department (AL)	46,973	47	64	217	39	56	202	8	7	15
Athens Utility Board (TN)	13,296	116	134	428	73	105	375	43	30	53
Benton County Electric System (TN)	10,262	31	73	207	30	43	154	1	30	53
Benton Electric System (KY)	2,526	61	100	289	41	60	216	20	40	73
City of Bessemer Utilities (AL)	11,150	42	67	227	41	59	212	1	7	15
Blue Ridge Mountain Electric Member Corp (GA)	52,759	312	184	387	20	28	102	292	155	285
Bolivar Energy Authority (TN)	11,065	36	75	218	32	46	164	4	30	53
Bowling Green Municipal Utilities (KY)	30,367	48	104	301	44	64	228	4	40	73
Bristol Tennessee Essential Services	33,659	59	88	263	41	59	210	18	30	53
Brownsville Utility Department (TN)	5,346	68	114	356	59	85	303	9	30	53
Central Electric Power Association (MS)	36,554	41	57	212	36	52	186	4	5	25
Caney Fork Electric Cooperative (TN)	32,528	110	75	209	29	42	149	81	33	60
Carroll County Electric Department (TN)	15,554	56	90	271	42	61	217	14	30	53
Electric Power Board of Chattanooga (TN)	173,656	82	99	300	50	69	247	32	30	53
Cherokee Electric Cooperative (AL)	23,902	32	62	196	32	46	164	-	16	32
Chickamauga Electric System (GA)	978	38	99	268	38	55	207	-	44	62
CDE Lightband (TN)	70,501	37	78	227	34	49	174	4	30	53
Cleveland Utilities (TN)	31,697	66	99	303	48	70	250	18	30	53

APPENDIX B: SOUTHEAST UTILITY RANKING

		Total Solar (W/C)			Utility-Scale Solar (W/C)			Distributed Solar (W/C)		
UTILITY	Customers (2018)	2018	2019	2023	2018	2019	2023	2018	2019	2023
☀️ TVA (continued)										
Clinton Utilities Board (TN)	29,907	44	88	261	40	58	208	3	30	53
Columbia Power & Water Systems (TN)	28,477	41	80	233	35	50	180	6	30	53
Columbus Light & Water (MS)	12,864	44	72	274	44	63	225	-	10	49
Cookeville Electric Department (TN)	18,141	63	97	293	46	67	240	17	30	53
Covington Electric System (TN)	4,698	76	139	444	76	109	391	-	30	53
Cullman Power Board (AL)	8,686	53	77	263	48	69	248	5	7	15
Cullman Electric Cooperative (AL)	43,630	67	69	222	37	53	190	30	16	32
Cumberland Electric Member Corp (TN)	96,298	57	95	281	43	62	221	14	33	60
City of Dayton Electric Department (TN)	10,647	47	87	258	40	57	205	7	30	53
Decatur Utilities (AL)	26,596	77	104	362	67	97	347	9	7	15
Dickson Electric Department (TN)	35,139	60	84	248	38	55	195	22	30	53
Duck River Electric Member Corp (TN)	75,460	49	88	254	38	54	194	11	33	60
Dyersburg Electric System (TN)	11,908	53	105	325	53	76	271	-	30	53
East Mississippi Electric Power Association	12,783	29	45	169	28	40	144	1	5	25
City of Elizabethton Electric Department (TN)	26,431	37	73	208	30	43	155	6	30	53
Erwin Utilities (TN)	8,921	39	82	241	36	52	188	3	30	53
Etowah Utilities (TN)	5,117	78	135	429	73	105	376	6	30	53
Fayetteville Public Utilities (TN)	18,536	343	84	246	38	54	193	306	30	53
Florence Utilities (AL)	49,637	40	61	206	37	54	192	3	7	15
Fort Loudoun Electric Cooperative (TN)	32,493	44	76	211	29	42	151	15	33	60
Fort Payne Improvement Authority (AL)	8,572	74	87	301	56	80	286	19	7	15
4-County Electric Power Association (MS)	48,564	39	54	200	34	49	175	6	5	25
Franklin Electric Cooperative (AL)	7,740	63	107	359	63	91	327	-	16	32
Franklin Electric Power Board (KY)	5,062	57	123	368	57	82	295	-	40	73
Fulton Electric System (KY)	1,616	64	109	322	47	68	250	17	40	73

APPENDIX B: SOUTHEAST UTILITY RANKING

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	Total Solar (W/C)				Utility-Scale Solar (W/C)			Distributed Solar (W/C)		
UTILITY	Customers (2018)	2018	2019	2023	2018	2019	2023	2018	2019	2023
 TVA (continued)										
Gallatin Department of Electricity (TN)	19,970	71	120	375	63	90	322	8	30	53
Gibson Electric Members Corp (TN)	34,663	69	85	243	36	51	183	33	33	60
Glasgow Electric Power Board (KY)	7,489	137	120	359	55	80	286	82	40	73
Greenville Light & Power System (TN)	38,347	60	97	295	47	68	242	13	30	53
Electric Board of Guntersville (AL)	6,446	80	89	307	57	81	292	23	7	15
Harriman Utiliy Board (TN)	10,978	38	72	206	30	43	153	8	30	53
Hartselle Utilities (AL)	5,557	39	64	218	39	57	203	-	7	15
Hickman Electric System (KY)	1,077	59	74	202	21	33	129	38	40	73
Holly Springs Utility Department (MS)	11,639	31	55	211	31	45	162	-	10	49
Holston Electric Cooperative (TN)	30,549	80	91	265	40	57	205	40	33	60
Hopkinsville Electric System (KY)	12,798	45	100	287	42	60	214	3	40	73
Humboldt Utilities (TN)	4,413	110	104	321	52	75	268	58	30	53
Huntsville Utilities (AL)	184,856	50	69	235	43	61	220	7	7	15
Jackson Energy Authority (TN)	36,348	105	129	407	69	99	354	36	30	53
Jellico Electric & Water System (TN)	2,322	48	70	201	48	41	147	-	30	53
Joe Wheeler Electric Member Corp (AL)	43,480	68	100	334	59	84	302	9	16	32
BrightRidge (TN)	78,609	49	82	241	36	52	188	13	30	53
Knoxville Utilities Board (TN)	203,571	55	87	259	40	58	206	15	30	53
LaFollette Utilities Board (TN)	22,180	54	70	198	28	41	145	26	30	53
Lawrenceburg Electric System (TN)	20,373	50	82	241	37	53	188	14	30	53
Lenoir City Utilities Board (TN)	65,912	61	84	248	38	54	195	23	30	53
Lewisburg Electric System (TN)	6,226	98	144	464	80	115	411	19	30	53
Lexington Electric System (TN)	22,534	34	72	206	30	43	152	4	30	53
Loudon Utilities Board (TN)	12,177	106	139	446	76	110	393	30	30	53
Louisville Utilities (MS)	3,456	71	88	333	54	78	283	17	10	49


APPENDIX B: SOUTHEAST UTILITY RANKING

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	Total Solar (W/C)				Utility-Scale Solar (W/C)			Distributed Solar (W/C)		
UTILITY	Customers (2018)	2018	2019	2023	2018	2019	2023	2018	2019	2023
 TVA (continued)										
City of Macon Electric Department (MS)	1,194	30	52	211	30	43	161	-	10	49
Marshall-De Kalb Electric Cooperative (AL)	19,882	57	65	207	34	49	175	23	16	32
City of Maryville Electric Department (TN)	21,553	61	108	333	54	78	280	6	30	53
Mayfield Electric & Water System (KY)	5,412	47	97	275	39	56	203	8	40	73
McMinnville Electric System (TN)	8,076	42	82	241	36	52	188	6	30	53
Memphis Light, Gas and Water (TN)	416,433	60	100	304	49	70	251	11	30	53
Meriwether Lewis Electric Cooperative (TN)	34,316	69	105	315	49	71	255	19	33	60
Middle Tennessee Electric Member Corp	225,415	65	93	272	41	59	212	23	33	60
Milan Department of Public Utilities (TN)	8,138	56	81	237	36	51	184	20	30	53
Morristown Utility Systems (TN)	14,926	98	161	524	91	132	471	6	30	53
Mountain Electric Cooperative (TN)	34,161	31	260	570	28	41	147	3	219	423
Mount Pleasant Power System (TN)	4,011	49	99	302	48	69	249	1	30	53
Murfreesboro Electric Department (TN)	64,096	47	90	268	42	60	215	6	30	53
Murray Electric System (KY)	7,956	70	120	356	55	79	283	15	40	73
Muscle Shoals Electric Board (AL)	8,112	58	90	311	58	83	297	1	7	15
Nashville Electric Service (TN)	402,990	60	94	283	45	64	230	16	30	53
Natchez Trace Electric Power Association (MS)	15,826	38	51	189	32	46	164	6	5	25
New Albany Light, Gas & Water (MS)	10,822	52	76	288	46	67	239	6	10	49
Newbern Electric, Water & Gas (TN)	1,805	87	154	505	87	125	451	-	30	53
Newport Utilities (TN)	21,765	78	86	256	39	57	203	38	30	53
North Alabama Electric Cooperative	18,254	42	66	213	35	51	181	7	16	32
North Georgia Electric Member Corp	100,289	70	96	247	36	52	186	34	44	62
Northcentral Mississippi Electric Power Associatio	31,603	52	77	283	50	72	258	2	5	25
Oak Ridge Electric Department (TN)	16,242	74	98	296	47	68	243	26	30	53
City of Okolona Electric Department (MS)	5,263	28	50	195	28	40	145	-	10	49
City of Oxford Electric Department (MS)	9,711	35	59	227	34	50	178	1	10	49

APPENDIX B: SOUTHEAST UTILITY RANKING

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	Total Solar (W/C)				Utility-Scale Solar (W/C)			Distributed Solar (W/C)		
UTILITY	Customers (2018)	2018	2019	2023	2018	2019	2023	2018	2019	2023
 TVA (continued)										
Paris Board of Public Utilities (TN)	21,353	53	78	226	33	48	173	20	30	53
Pennyrile Rural Electric Cooperative (KY)	43,889	73	102	293	43	62	221	30	40	73
Philadelphia Utilities (MS)	3,846	47	77	295	47	68	245	-	10	49
Pickwick Electric Cooperative (TN)	20,689	29	74	204	28	40	144	1	33	60
Plateau Electric Cooperative (TN)	17,072	31	73	204	28	40	144	3	33	60
Pontotoc Electric Power Association (MS)	19,296	34	54	202	34	49	177	-	5	25
Powell Valley Electric Cooperative (TN)	23,875	27	72	198	27	39	138	-	33	60
Prentiss County Electric Power Association (MS)	13,827	39	60	224	39	56	199	0	5	25
Pulaski Electric System (TN)	14,483	194	98	297	47	68	243	147	30	53
Rockwood Electric Utility (TN)	14,664	47	76	220	32	47	167	14	30	53
Russellville Electric Board (AL)	5,095	41	67	230	41	60	215	-	7	15
Russellville Electric Plant Board (KY)	4,055	49	108	317	47	68	245	2	40	73
Sand Mountain Electric Cooperative (AL)	31,325	38	60	189	31	44	157	7	16	32
Scottsboro Electric Power Board (AL)	8,299	59	92	318	59	85	303	-	7	15
Sequachee Valley Electric Cooperative (TN)	35,485	68	84	243	35	51	183	33	33	60
Sevier County Electric System (TN)	54,963	48	88	262	40	58	209	8	30	53
Sheffield Utilities (AL)	18,906	64	91	314	58	84	299	6	7	15
Shelbyville Power System (TN)	10,365	59	108	333	54	78	280	5	30	53
Smithville Electric System (TN)	2,738	78	129	413	69	99	359	9	30	53
Southwest Tennessee Electric Member Corp	50,130	39	75	211	29	42	151	10	33	60
Sparta Electric & Public Works (TN)	2,994	66	116	367	60	87	314	6	30	53
Springfield Electric (TN)	8,347	62	108	333	54	78	280	8	30	53
Starkville Electric Department (MS)	13,609	69	77	290	47	67	241	22	10	49
Sweetwater Utilities Board (TN)	9,047	69	88	261	40	58	208	29	30	53

APPENDIX B: SOUTHEAST UTILITY RANKING

UTILITY	Customers (2018)	Total Solar (W/C)			Utility-Scale Solar (W/C)			Distributed Solar (W/C)		
		2018	2019	2023	2018	2019	2023	2018	2019	2023
 TVA (continued)										
Tallahatchie Valley Electric Power Association (MS)	27,551	38	57	211	36	52	186	2	5	25
Tarrant Electric Department (AL)	2,754	52	57	196	34	50	181	18	7	15
Tennessee Valley Electric Cooperative	19,638	34	77	216	30	43	156	4	33	60
Tippah Electric Power Association (MS)	13,796	38	59	220	38	55	195	0	5	25
Tishomingo County Electric Power Association (MS)	13,420	32	51	192	32	46	167	-	5	25
Tombigbee Electric Power Association (MS)	43,686	40	62	228	39	57	203	1	5	25
Trenton Light & Water Department (TN)	2,431	47	91	277	43	62	224	4	30	53
Tri-State Electric Member Corp (GA)	19,179	81	100	231	22	32	117	59	68	113
Tri-County Electric Member Corp (TN)	52,473	40	90	258	37	54	192	3	37	66
Tullahoma Utilities Authority (TN)	10,798	47	88	262	40	58	209	7	30	53
City of Tupelo Water & Light Department (MS)	15,338	64	96	360	60	87	311	3	10	49
Tuscumbia Electricity Department (AL)	4,828	32	51	174	31	44	159	1	7	15
Union City Electric System (TN)	6,426	70	128	404	68	98	351	2	30	53
Upper Cumberland Electric Member Corp (TN)	50,046	41	81	229	33	47	169	8	33	60
Volunteer Electric Cooperative (TN)	116,585	57	77	217	31	44	157	26	33	60
Warren Rural Electric Cooperative Corp (KY)	66,144	106	110	320	48	69	248	58	40	73
City of Water Valley Electric Department (MS)	2,009	52	85	322	52	75	272	-	10	49
Weakley County Municipal Electric System (TN)	20,428	41	80	235	35	51	182	6	30	53
West Kentucky Rural Electric Cooperative	38,743	105	81	217	28	40	144	77	40	73
City of West Point Electric System (MS)	3,910	32	55	214	32	45	165	-	10	49
Winchester Utilities (TN)	6,018	54	93	281	44	63	228	10	30	53
Ripley Power & Light (TN)	6,645	43	92	277	43	62	224	-	30	53
Chickasaw Electric Cooperative (TN)	20,106	42	86	247	36	52	187	6	33	60
Forked Deer Electric Cooperative (TN)	9,950	31	75	208	29	41	149	2	33	60
North East Mississippi Electric Power Association	26,962	39	59	218	37	54	192	1	5	25
Monroe County Electric Power Association (MS)	11,254	31	46	174	29	42	149	2	5	25
HFC RECC (Merged into Gibson EMC) (KY)	2,557	107	103	300	45	63	228	62	40	73
City of Courtland (AL)	784	39	63	226	39	56	211	-	7	15
Murphy Electric Power Board (NC)	5,062	107	490	1,147	83	119	428	24	371	719