

SOUTHERN ALLIANCE FOR CLEAN ENERGY

ENERGY EFFICIENCY IN THE SOUTHEAST

FIFTH ANNUAL REPORT



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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.

Proper citation for this report:

Southern Alliance for Clean Energy (2023).

Energy Efficiency in the Southeast, Fifth Annual Report.

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INTRODUCTION

Energy efficiency is a proven low-cost clean energy resource, but Southeastern utilities and regulators continue to underinvest and deprioritize it. As a result, households in many Southeastern states have some of the highest electricity usage and monthly energy bills in the nation. The fifth annual “Energy Efficiency in the Southeast” report examines the connection between energy efficiency and utility integrated resource planning, and the impacts that new federal investments will have on energy efficiency deployment in the region.

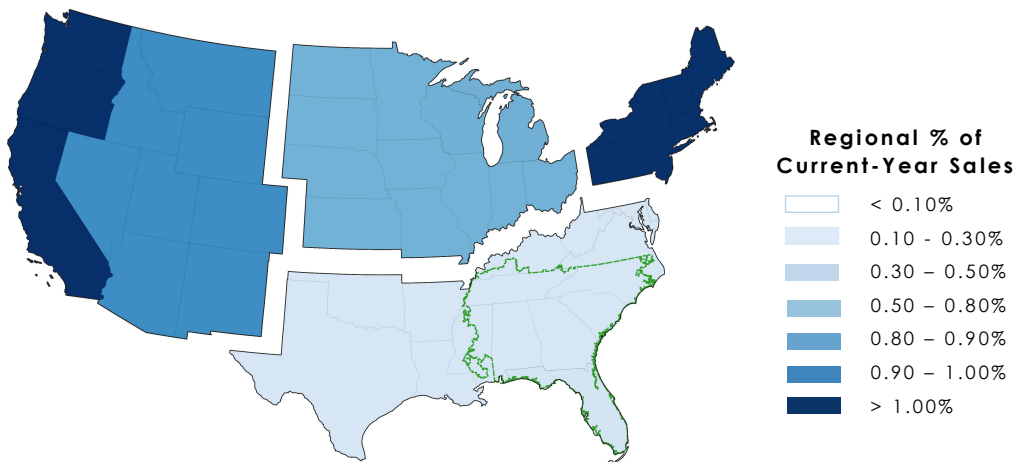
The COVID-19 pandemic had a particularly large impact on efficiency in the Southeast, resulting in savings declines that pushed the region further below the national average in 2020. In 2021, a few Southeastern utilities saw partial rebounds in their annual efficiency savings from the previous year, while others continued to slide.

This year’s “Energy Efficiency in the Southeast” report documents recent policy developments and trends in electric utility efficiency data from 2021. **Utility energy efficiency programs are scored primarily on the basis of energy saved in 2021 as a percentage of the utility’s total electricity sales.** Projected utility spending data in this report is used specifically for comparison to projected new federal spending on efficiency. All other comparisons of utility energy efficiency program performance are based on the primary metric of percentage annual electric savings described above. Additional policy context is then added along with comparisons to state, regional, and national averages that highlight recent trends. The appendices include data for each of the utilities that fall within the scope of this report.



EFFICIENCY PERFORMANCE OF THE SOUTHEAST, STATES, AND UTILITIES

ENERGY PERFORMANCE OF U.S. REGIONS



*Area outlined in green are the utilities in the "Southeast" region covered in this report.

REGION-TO-REGION COMPARISON

The Southeast has consistently lagged far behind other regions and the nation as a whole on utility energy efficiency performance. Since the start of the COVID-19 pandemic in early 2020, the region's downward slide has continued, in both absolute and relative terms. In 2021, total efficiency savings in the Southeast were approximately 25% lower than before the pandemic. Unfortunately, current policies and practices (or lack thereof) in the Southeast continue to be a barrier to attaining higher efficiency savings for customers, even as skyrocketing fossil gas prices drive up electricity bills.

ENERGY PERFORMANCE OF U.S. REGIONS

| REGION | PERCENTAGE |
|------------------|--------------|
| Pacific West | 1.64% |
| Northeast | 1.13% |
| Mountain West | 0.85% |
| Midwest | 0.78% |
| U.S. Average | 0.68% |
| South | 0.27% |
| Southeast | 0.19% |

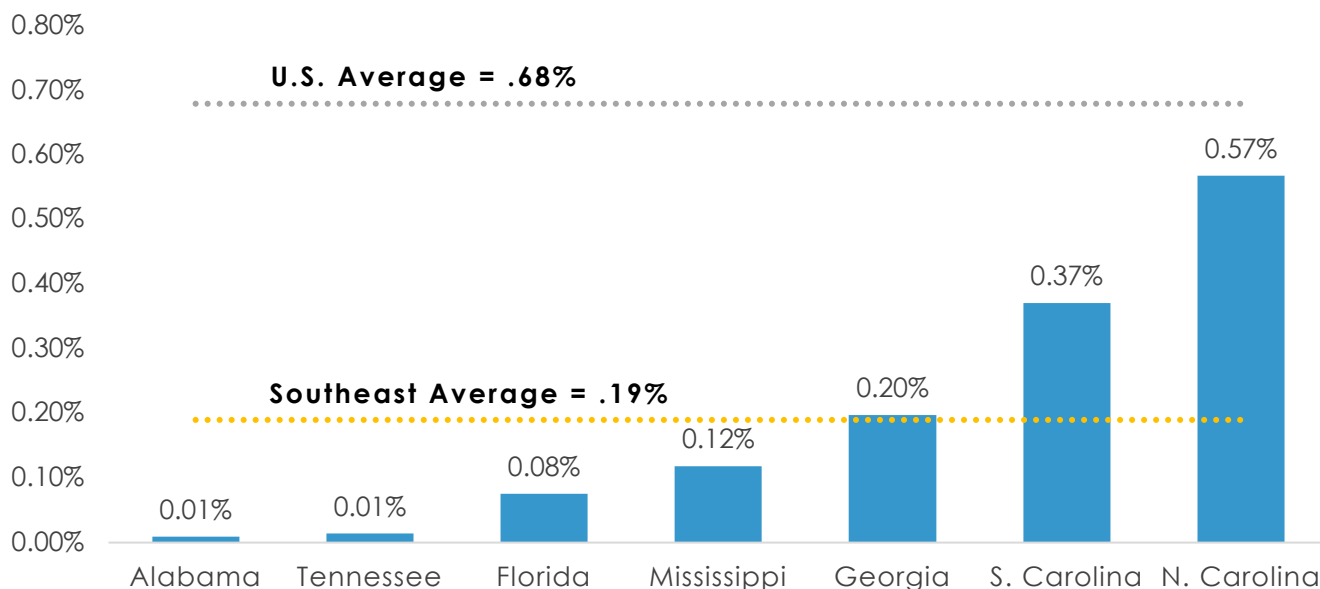
Throughout the rest of the U.S., states have found ways to maintain high levels of savings even as customer adoption and program penetration increased over time. Not only are the South and Southeast¹ performance outliers relative to all other regions, they have also consistently been the only ones that are below the national average – and as a result the only ones who are dragging the national average downwards. If the South is removed from the calculation, efficiency performance for all other regions would jump from 0.68% up to 1.04%, more than five times higher than savings in the Southeast region covered in this report.

But we can turn this long-standing deficiency into an opportunity. While other regions show how much higher efficiency saving performance can be, finding the next batch of efficiency savings can be more expensive and more challenging for them. By contrast, historic underinvestment on efficiency in the South and Southeast means that we still have abundant, low-cost efficiency resources available. Because of this, the South and Southeast are effectively the strategic efficiency reserve for our nation! Capturing this efficiency potential now will produce much needed economic benefits for the Southeast, and could accelerate our transition to clean energy.

STATE RANKINGS IN THE SOUTHEAST

To provide an equitable, unbiased comparison of efficiency performance for states of various sizes in the Southeast, SACE uses a standard metric that compares the percentage of annual efficiency savings to total retail electricity consumption.

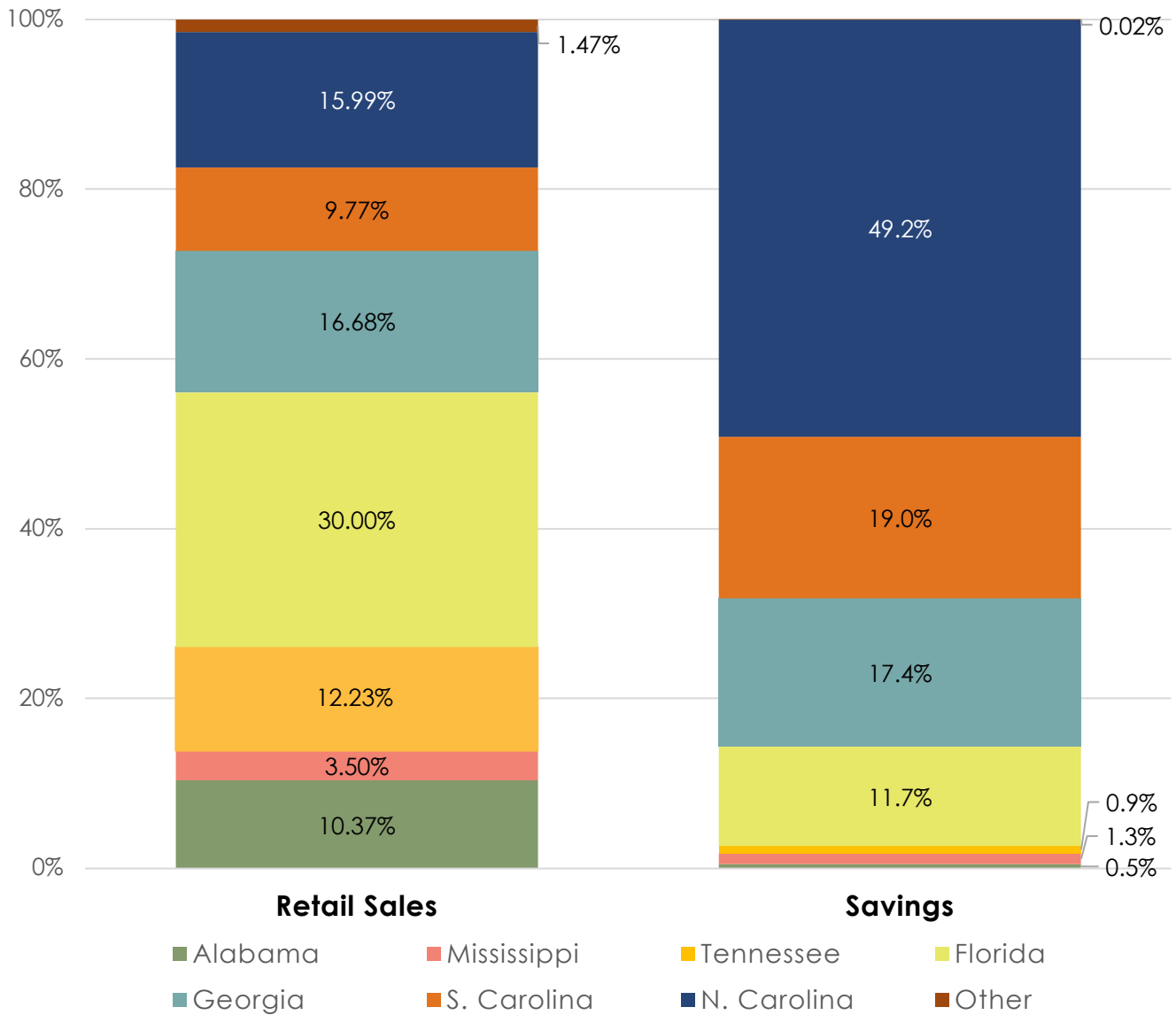
2021 ENERGY SAVINGS AS A % RETAIL ELECTRIC SALES



In 2021, efficiency performance in most Southeastern states continued to be lower than their pre-pandemic levels. While South Carolina and Georgia saw modest efficiency savings increases over their performance in 2020, Tennessee had yet another steep decline, with savings levels that are now 95% lower than they were just five years ago. While North and South Carolina continued to pull the regional average up, all Southeastern states were below the national average in 2021.

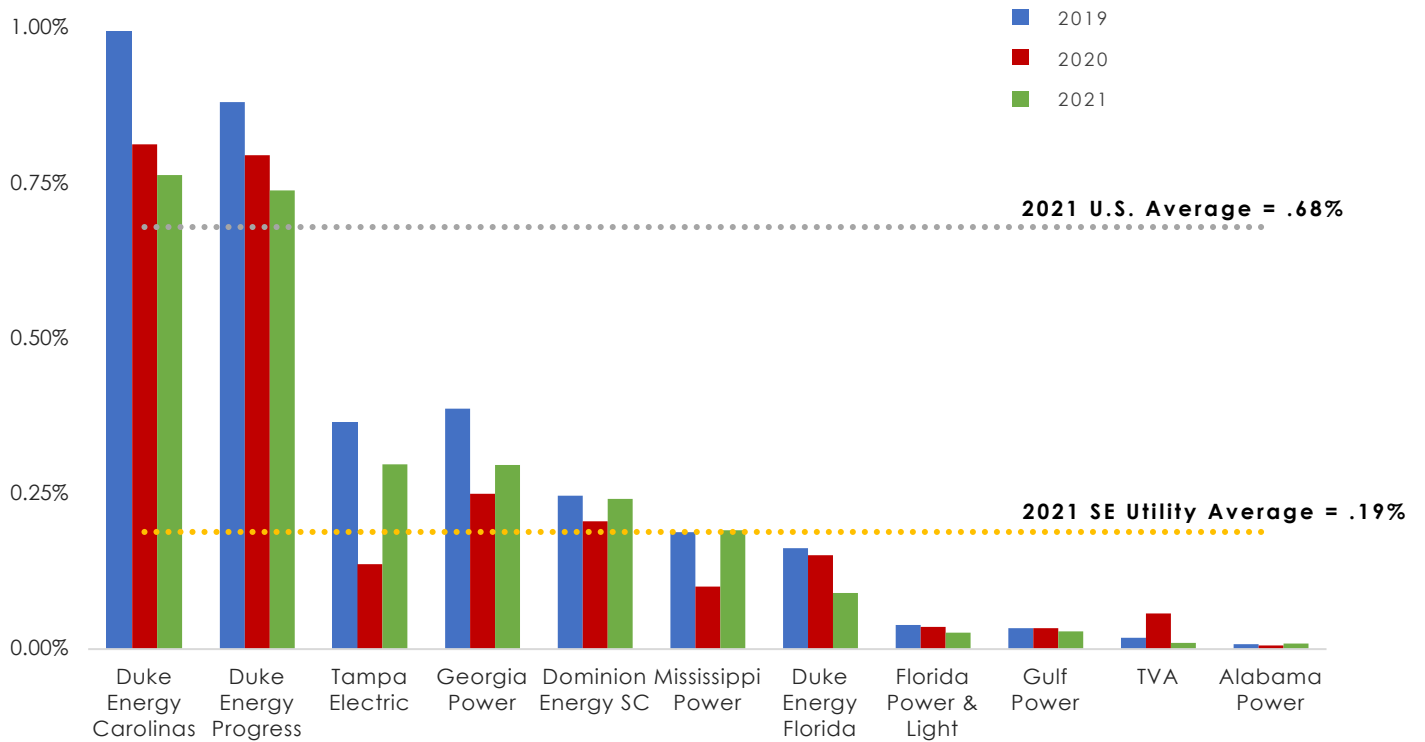
¹ The Southeast falls within a portion of the South region. Please see appendix A for map.

SOUTHEAST STATES SHARE OF REGIONAL 2021 SALES AND SAVINGS



Only two states in the Southeast, North and South Carolina, deliver substantially more efficiency savings relative to their share of total retail electric sales (26% of regional electric sales vs. 68% of efficiency savings). Georgia’s share of efficiency savings is slightly more than its share of electric sales. Efficiency savings in Florida, Tennessee, Mississippi, and Alabama are far below their proportionate share, indicating that their customers are being deprived of valuable efficiency resources.

EFFICIENCY PERFORMANCE OF MAJOR SOUTHEASTERN UTILITIES



MAJOR UTILITIES IN THE SOUTHEAST

Tampa Electric, Georgia Power, Mississippi Power, and Dominion South Carolina saw partial rebounds from deep savings declines in 2020, though Tampa Electric and Georgia Power still trailed their pre-pandemic performance.

Duke's savings continued to decline across the board, though its performance in the Carolinas continues to lead in the Southeast.

TVA's savings fell to the bottom with Alabama Power, completing a 95% slide in efficiency savings since 2017. Annual savings in 2021 remained very low at both Florida Power & Light and Gulf Power, which then merged in 2022.

EFFICIENCY REDUCES FOSSIL FUEL EMISSIONS

Energy efficiency is a crucial tool for attaining carbon reduction goals. Even at savings levels that are far below potential, efficiency is still helping the Southeast to retire its aging fleet of fossil fuel power plants, reduce the need for more expensive fossil gas generation, and make the transition to renewable energy more affordable. In 2021, efficiency eliminated an estimated 1,534 gigawatt hours (GWh) of energy waste across the Southeast, enough to power 136,942 homes and avoid approximately one million tons of carbon emissions last year.

NEW FEDERAL FUNDING FOR ENERGY EFFICIENCY

With the passage of the Bipartisan Infrastructure Law (BIL) and Inflation Reduction Act (IRA) in 2022, the federal government is making an unprecedented investment in clean energy, which could include as much as \$62 billion for energy efficiency. Individual residents and businesses can take advantage of generous rebates and federal tax credits, and local governments can compete for grants and loans worth billions of dollars. The Southeast will receive nearly \$1.8 billion in non-competitive formula allocations to expand existing Weatherization Assistance Programs (WAP), as well as new energy efficiency and electrification rebates that will be administered by individual states through the Home Energy Performance-Based Whole House Rebates (HOMES) and High-Efficiency Electric Home Rebate Program for Low- and Moderate-Income Households (HEERA) programs.

UTILITY ENERGY EFFICIENCY INVESTMENTS OVER TEN-YEARS AND NEW ENERGY EFFICIENCY FEDERAL FUNDING DOLLARS AVAILABLE

| FUNDING SOURCE | UTILITY INVESTMENT | FEDERAL: BIL | FEDERAL: IRA REBATES | TOTAL FEDERAL \$ |
|------------------|--------------------|------------------|----------------------|--------------------|
| Alabama | \$59,829 | \$47,489 | \$145,639 | \$193,128 |
| Florida | \$800,548 | \$93,648 | \$346,326 | \$439,973 |
| Georgia | \$382,361 | \$84,313 | \$218,995 | \$303,308 |
| Mississippi | \$163,126 | \$28,078 | \$104,780 | \$132,858 |
| North Carolina | \$1,190,278 | \$89,776 | \$209,225 | \$299,001 |
| South Carolina | \$608,000 | \$42,582 | \$137,303 | \$179,885 |
| Tennessee | \$203,070 | \$66,347 | \$167,267 | \$233,614 |
| Southeast | \$3,407,213 | \$452,233 | \$1,329,534 | \$1,781,767 |

Numbers in \$ Thousands. Ex. \$1,781,767 = \$1,718,767,000
 BIL = Bipartisan Infrastructure Law; IRA = Inflation Reduction Act

While not a formula allocation like those on the table above, if citizens and businesses access the new energy efficiency tax credits on a roughly proportionate basis, that would bring an additional \$1.9 billion for energy efficiency in the Southeast. Taken together, these formula allocated funds and consumer tax credits could roughly equal utility spending on energy efficiency over the next ten years, based on a continuation of 2021 utility efficiency budget levels.

THE SOUTHEAST: OUR NATION'S STRATEGIC EFFICIENCY RESERVES

The Southeast has consistently lagged behind the rest of the nation on energy efficiency, but a massive infusion of federal funding creates an opportunity for our region to take a big step forward. Only a portion of the federal funding will be automatically allocated to individual states, while large portions of the new funds will flow through competitive grants and consumer tax credits. **Our region has a tremendous opportunity to untap our efficiency potential.** But to ensure maximum financial benefit flows to our region, Southeastern states, utilities, and customers will need to aggressively pursue these funds.

IT IS BOTH, NOT EITHER OR

Some utilities in the Southeast, like FPL and TVA, have incorrectly argued in the past that building codes and federal standards make utility energy efficiency programs unnecessary. Yet utilities and states with similar or higher codes and standards in other parts of the country have still managed to deliver savings that are many times higher than the Southeast. With the new federal funding from the BIL and IRA, Southeastern utilities may once again roll out similar arguments, but it would be a mistake to dial back utility efficiency program investment. While new federal efficiency tax credits and rebate programs have rightly garnered attention, their annualized spending levels for the Southeast region are roughly equivalent to annual spending on utility efficiency programs. Not only would it be a mistake for utilities to reduce their efficiency investments in response to new federal spending, the IRA includes language specifically cautioning against it.

But remember, efficiency performance in the South has long trailed other regions. Combining traditional utility energy efficiency programs with the new federal spending provides a unique chance for the Southeast to make up for lost time by capturing untapped efficiency resources. There can be little doubt states and utilities in other regions will be doing so, potentially leaving us even further behind if we do not seize this once in a lifetime moment.

TO MAXIMIZE BENEFITS, UTILITIES, AND STATES MUST ALIGN THEIR EFFICIENCY PROGRAMS

New federal rebate programs for energy efficiency and electrification will be administered by state energy offices, and expanded tax credits will be implemented through the IRS. How well these new programs align with utility efficiency programs will have significant implications for customers. To avoid confusion and maximize energy saving benefits for customers, utilities and state energy offices will need to proactively coordinate their efforts. This should include finding ways to leverage federal programs, both rebates and tax credits, and existing utility energy efficiency program offerings together. Providing clear marketing information and creating convenient ways for customers to access all available incentives is also important. Utility Commissions can also play an important role by updating regulations where needed, ensuring utilities' efficiency programs are aligned with the new federal incentives, and requiring utilities to appropriately reflect the impacts of BIL and IRA in their integrated resource plans.

EFFICIENCY AS AN ENERGY RESOURCE

ENERGY EFFICIENCY IN INTEGRATED RESOURCE PLANNING

Demand-side management, which includes energy efficiency, has long been recognized as a least-cost energy resource and a valuable alternative to traditional supply-side power generation. This is because it is often cheaper to invest in helping customers cut energy waste, rather than build more expensive power generation to supply it. The benefits of energy efficiency programs include reduced demand for power generation, reduced risk from fuel price volatility and power plant construction cost overruns, and improved grid reliability – especially during extreme weather and times of peak demand. There is a myriad of non-energy benefits of efficiency as well, like pollution reduction, job creation, and improved health and comfort, but these benefits are typically not considered during utility resource planning.

Utilities can include efficiency resources in resource planning in a variety of ways, typically comparing the cost of energy efficiency program investments by the utility against the cost of serving the same energy needs with power generation. However, some important energy efficiency benefits, like fuel price hedging and improved utility system resilience, are often excluded. Ultimately, only efficiency savings from utility programs are considered in resource selection as part of the resource planning process, although savings that are assumed to occur outside of such programs are important for estimating future energy demand. But not all utility resource planning includes this comparison of cost effectiveness between efficiency resources and supply resources.

EFFICIENCY RESOURCE PLANNING IN SOUTHEASTERN STATES VARIES CONSIDERABLY

The grid reliability and financial benefits of energy efficiency are tremendous. But there is a tension between what is best for customers and the financial interests of utility companies, which frequently leads utilities to downplay efficiency options during resource planning. Stakeholders like SACE have an important role to play in advocating for increased attention to energy efficiency as a resource. This is especially needed here in the Southeast, where historic underinvestment in efficiency has contributed to energy consumption that is far higher than the national average, forcing customers to foot some of the highest bills in the country. Resource planning practices vary considerably across states and utilities, especially in regard to how efficiency is factored into utility resource planning.

ALABAMA

Alabama does not require utilities to conduct formal integrated resource planning. What Alabama Power files with the Commission as its resource plan lacks even the most basic elements of other utilities' IRPs, namely disclosure of its modeling assumptions and consideration of energy efficiency as an alternative to supply-side resources. Failure to conduct transparent integrated resource planning is a big part of why Alabama consistently has the worst efficiency performance in the Southeast, and its customers have among the nation's highest electricity consumption and monthly bills.

FLORIDA

Utilities in Florida do not conduct formal integrated resource planning, instead they produce what is called a Ten Year Site Plan each year. The only efficiency included in the TYSP are savings levels established in a separate efficiency goalsetting process that occur once every five years. These savings levels are often among the lowest in the nation for major electric utilities. The Ten Year Site Plan process does not include analysis to determine whether higher levels of utility investment in energy efficiency would reduce total utility system costs for customers.

GEORGIA

Historically, Georgia Power used prescribed efficiency savings levels in the IRPs it files with the Georgia PSC every three years, but in 2022 the Georgia PSC ordered the utility to allow both demand response and energy efficiency to compete head-to-head against supply-side resources in the utility's next resource planning process in 2025. The aim is to identify economically optimal levels of efficiency investment.

MISSISSIPPI

IRP rules were established in Mississippi for the first time in 2019. After many years with energy efficiency programs in a "QuickStart" phase, the Commission rolled its efficiency policies into the new IRP rules. However, in the first cycle of resource planning under the new rules, both Entergy and Mississippi Power submitted resource plans that were demonstrably inferior to the plans submitted by their sister companies in other states. Their IRPs did not move the needle on efficiency, though the utilities indicated intentions to grow their efficiency savings after the plans were finalized. How or whether energy efficiency requirements in future IRPs will be strengthened remains to be seen.

NORTH CAROLINA

North Carolina has combined its IRP process for Duke's two utilities into a single proceeding that covers both the IRP and the Carbon Plan, where Duke Energy Carolinas and Duke Energy Progress evaluate resources to meet future needs, reliability requirements, and carbon reduction targets. While the North Carolina regulations do not specify levels of energy efficiency, the North Carolina Utilities Commission has directed Duke to look at both its proposed level of energy efficiency and a higher level of energy efficiency.

SOUTH CAROLINA

The South Carolina PSC now has regulatory oversight for integrated resource planning by three electric utility systems – Duke, Dominion, and the state-owned public utility Santee Cooper. In the wake of the VC Summer nuclear power plant debacle, South Carolina's Energy Freedom Act (Act 62) established new responsibilities for electric utilities around resource planning, and directed the Commission to oversee compliance with the new law. One outcome of the changes is that the Commission has directed utilities to evaluate certain levels of energy efficiency savings, in particular requiring that Dominion evaluates savings levels up to 2% of annual retail sales in its 2023 IRP.

TENNESSEE

The Tennessee Valley Authority once sought to be a leader on energy efficiency in resource planning, and for two cycles it showed that substantial investments in efficiency were warranted. However, its actions never lived up to its plans, and TVA's most recent IRP essentially eliminated efficiency as a resource. Following a congressional oversight letter criticizing the utility's poor record on energy efficiency and other clean energy resources, TVA has promised to do better in its next IRP, which is slated to begin in 2023 or 2024. But whether or how that will happen also remains to be seen.

THE IMPACT OF FEDERAL EFFICIENCY PROGRAMS

A massive infusion of federal funding for energy efficiency over the next decade from the BIL and IRA has significant implications for utility resource planning, both in substance and process. Additional efficiency savings resulting from these federal programs will impact future demand forecasts for electric utilities. Federal efficiency rebate programs could also help to propel utility efficiency programs to achieve higher savings levels. It is also possible that utilities ignore those opportunities or even argue against utility investment due to the new federal funding. As a matter of process, utilities should diligently explore the implications of new federal efficiency spending, though some will likely claim that uncertainty about the specific future impacts on energy demand justifies ignoring it for now. Ultimately, it will be up to stakeholders and regulators to ensure utility resource plans appropriately consider and incorporate the impacts of IRA and BIL on utility resource planning.

MANUFACTURED HOUSING AND EFFICIENCY

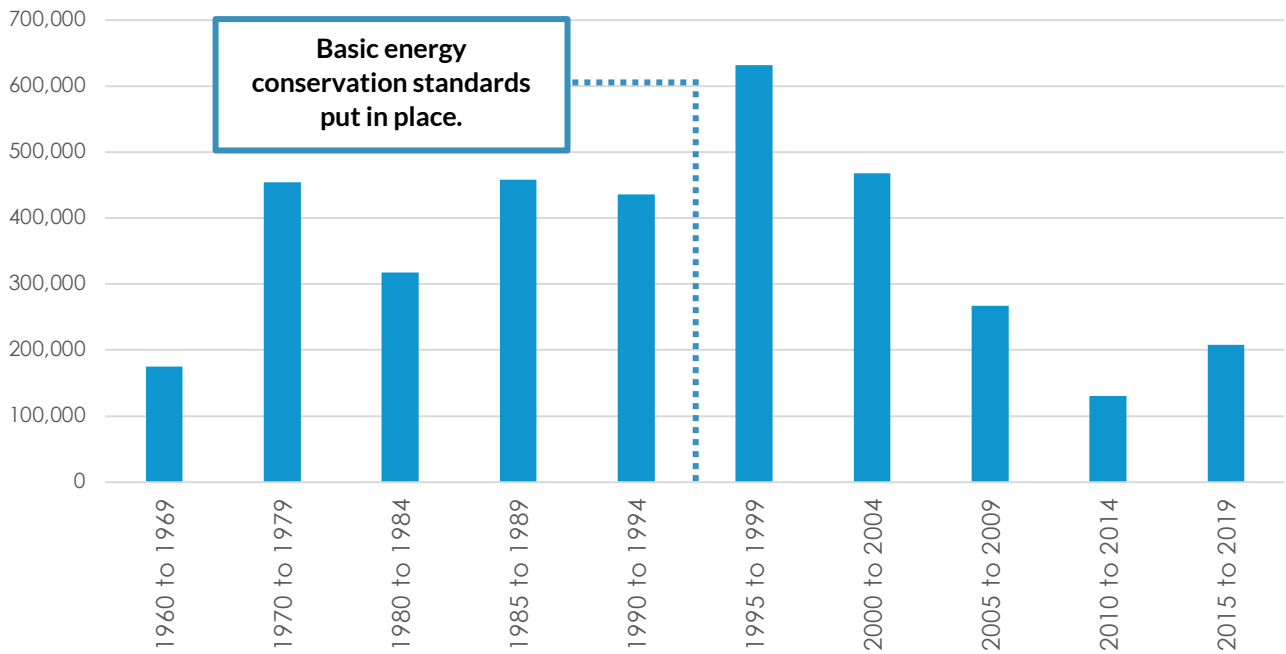
Manufactured housing, also known as mobile homes, have the highest energy consumption per square foot of any housing type, making them a prime candidate for energy efficiency improvements. On average, manufactured homes use about 50% more electricity than single- or multi-family homes. The majority of residents of manufactured homes are low- and fixed-income households, with annual income that is about half of the average for single family homes. In the Southeast, there are few examples of utility energy efficiency programs specifically targeting this housing segment, and there is almost no reporting of participation by manufactured home residents in standard utility efficiency programs. In 2021, the Georgia Public Service Commission directed Georgia Power to fund efficiency projects in manufactured homes, which could be the start of a trend across the Southeast.

MANUFACTURED HOMES IN THE SOUTHEAST BY STATE

| STATE | MANUFACTURED HOMES | PERCENTAGE OF MANUFACTURED HOUSING IN U.S. | NATIONAL RANKING |
|------------------|--------------------|--|------------------|
| Florida | 831,641 | 10% | 1 |
| North Carolina | 581,328 | 7% | 3 |
| Georgia | 373,960 | 4% | 5 |
| South Carolina | 367,358 | 4% | 6 |
| Alabama | 296,231 | 4% | 8 |
| Tennessee | 267,878 | 3% | 10 |
| Mississippi | 196,763 | 2% | 14 |
| Southeast | 2,915,132 | 35% | |

There are 8.4 million manufactured homes in the U.S. and 2.9 million, or about 35% of them, are in the Southeast. Manufactured homes represent a little over 11% of the Southeast’s residential housing stock. Florida, North Carolina, and Georgia are all in the top five states for total manufactured homes.

DISTRIBUTION OF MANUFACTURED HOME UNITS IN THE SOUTH BY YEAR BUILT

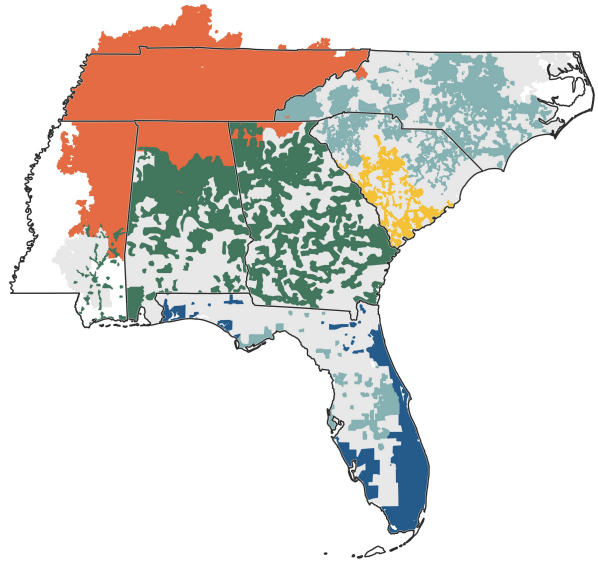


In 1976 standards were established to ensure the longevity of manufactured homes, and basic energy conservation standards for manufactured homes were put in place in 1994. Unfortunately, many of the manufactured homes in the South² were built after the longevity standards were enacted but before the creation of energy conservation standards. Thus, much of the manufactured housing stock is long-lasting but extremely inefficient.

² U.S. Census Bureau 2016-2020 ACS 5-year Public Use Microdata Samples (PUMS) West South Central, South Atlantic, East South Central Unit Records. ACS data groups manufactured homes in the “mobile homes” category of unit structure type. The Southeast falls within a portion of the South region. Please see appendix A for map.

UTILITY COMPANY PROFILES

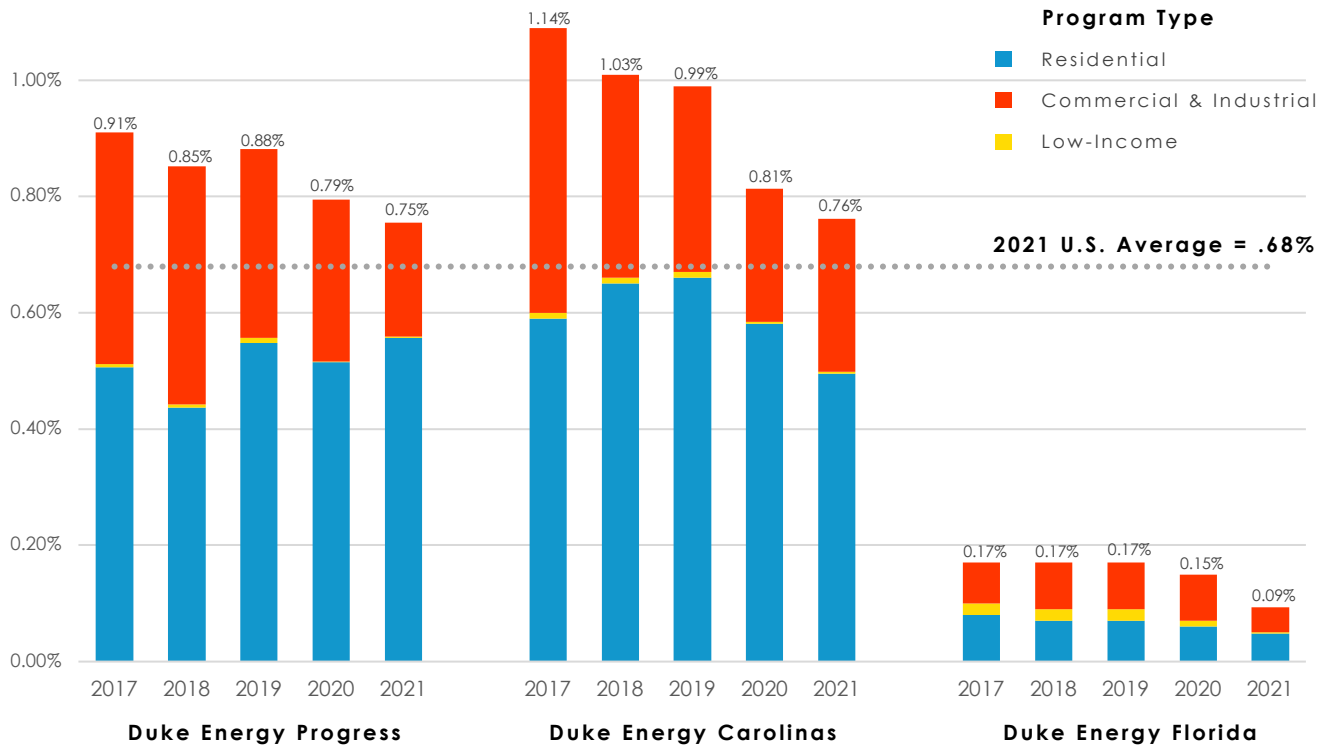
- DUKE ENERGY
- DOMINION ENERGY
- SOUTHERN COMPANY
- TVA
- NEXTERA



DUKE ENERGY

Duke Energy is one of the largest electric holding companies in the country. It operates three electric utilities in the Southeast, including Duke Energy Florida, Duke Energy Progress and Duke Energy Carolinas. **Duke Energy Carolinas** serves approximately 2.7 million customers in North and South Carolina. **Duke Energy Progress** serves approximately 1.6 million customers in North and South Carolina. **Duke Energy Florida** serves approximately 1.8 million customers in Florida. Duke Energy also has utilities in Indiana, Ohio, and Kentucky that are not included here.

DUKE ENERGY | ENERGY SAVINGS AS % OF RETAIL ELECTRIC SALES



EFFICIENCY'S CONTRIBUTION TO NC'S CARBON REDUCTION TARGETS

North Carolina is the only state in the Southeast to have formally committed to cutting carbon emissions from its electricity sector. In its inaugural Carbon Plan, the North Carolina Utility Commission's final order adopted Duke's proposed efficiency savings goal, which was nominally 1% of "eligible" retail sales.³ Following our modeling that included savings of 1.5% of total retail sales, the Commission also directed DEP and DEC to seek a more aspirational goal of 1.5% savings of eligible retail sales, and include this higher savings level as an alternate modeling scenario in its next Carbon Plan/Integrated Resource Plan (CPIRP).

On its face, this appears to represent progress, even if incremental, but it is worth noting that even at this level Duke will continue to lag behind average savings achieved by peer utilities around the country. Because Duke removes opt-out customers from its retail sales figure before calculating efficiency savings, the utility's current 1% target of so-called "eligible sales" is actually lower than its actual savings performance in recent years. Nevertheless, Duke has indicated a desire to pursue several new "enablers" for achieving higher efficiency and demand-side savings, and the Commission directed the utility to file corresponding applications and rulemaking requests for consideration that could open up additional savings opportunities.

STRUGGLING TO SERVE DUKE'S LOW-INCOME CUSTOMERS

In the wake of the COVID-19 pandemic, efficiency savings for Duke's low-income customers have taken a devastating turn for the worse. In 2020 and 2021, efficiency savings from Duke's income qualified programs in Florida fell by a whopping 75% compared to 2019. In the Carolinas, Duke's income qualified efficiency program savings fell by 77%, and savings for its residential multifamily housing program fell by 84%. Given the recent financial impacts of the pandemic and rising inflation, this decline could not have come at a worse time for low-income households. Labor shortages and supply chain issues have further complicated the return to pre-pandemic savings in these programs, but hopefully soon they will again reach full capacity and grow to meet the full scale of customer needs.

Following Duke's most recent rate case in North Carolina, in early 2021 the Commission ordered the creation of a year-long Low-Income Affordability Collaborative (LIAC). The final report from the LIAC states that approximately 29% of DEC and DEP residential account holders fall below 200% of the Federal Poverty Guideline, and therefore qualify for Duke's income qualified efficiency programs. This equates to an estimated 900,000 households meeting the low-income criteria, with approximately 490,000 struggling with arrears (unpaid bills). The majority of recommended actions in the LIAC report relate to expanding efficiency programs to improve energy bill affordability for low-income households, but the Commission took no direct action in response to the report.

RECENT STRIDES TO EXPAND LOW-INCOME EFFICIENCY OFFERINGS

Rate case settlement agreements between Duke, SACE, and our advocacy partners represented by the Southern Environmental Law Center have nevertheless produced tangible results in other ways. In 2022, Duke submitted an application to the Commission for a pilot program that we co-designed, which is aimed at delivering deep efficiency improvements at no cost to participants for low-income households with very high energy use. Duke will also work with us this year to develop a pilot program to serve low-income renters in multifamily buildings.

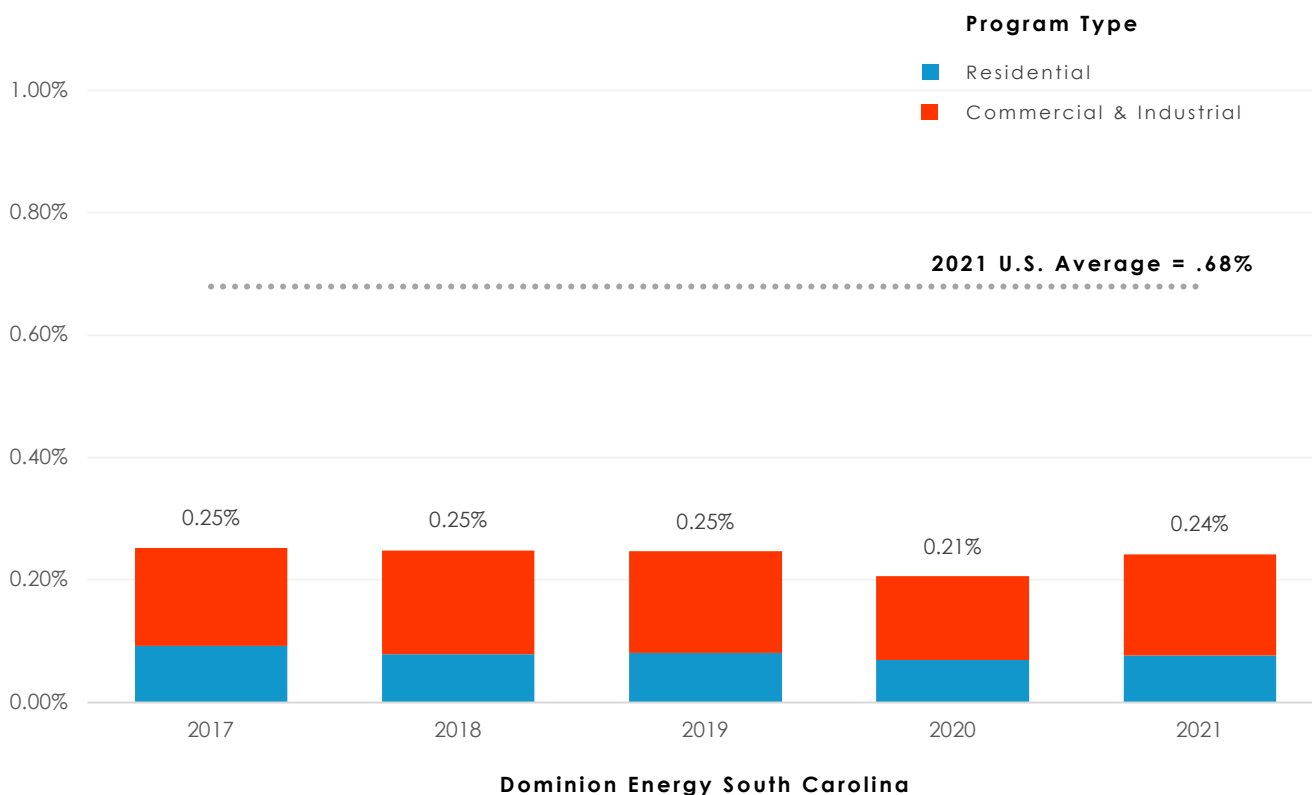
³ In contrast with past precedent and conventional methods used by monitoring organizations like ACEEE, SACE, and others, the calculation method Duke proposed redefined the target by removing opted-out commercial and industrial customers from the retail sales figure used to calculate the percentage of efficiency savings. This change in how efficiency savings are calculated results in a less ambitious efficiency savings target than Duke had agreed to following the merger of Progress Energy and Duke Energy Carolinas.

Also from the rate case settlement, Duke filed an application for Tariffed On-Bill financing to cover the upfront cost of major efficiency improvements, with repayment collected over time on a customer’s bill. If approved, the program will be open to all customers regardless of income. In DEP’s most recent South Carolina rate case, the South Carolina Public Service Commission approved a settlement agreement between Duke, SACE, and our advocacy partners represented by the Southern Environmental Law Center that requires the utility to double the amount of spending for the its low-income efficiency programs in the state. Separately, after years of advocacy, DEP also filed an application for a deep efficiency weatherization program currently offered only to customers of DEC. Taken together, these are encouraging steps toward much needed expansion of efficiency program offerings to Duke’s low-income customers in the Carolinas.

DOMINION ENERGY SOUTH CAROLINA

Dominion Energy operates electric utilities in Virginia and the Carolinas, but only the South Carolina utility is within the geographic region of this study. **Dominion Energy South Carolina** serves 771,620 customers.

DOMINION | ENERGY SAVINGS AS % OF RETAIL ELECTRIC SALES



EVEN WITH UNAMBITIOUS GOALS, STILL FALLING SHORT

Dominion Energy South Carolina’s annual efficiency savings level is only about one third of the national average, and is even below its in-state neighbor, Duke Energy. For years, Dominion has set only modest efficiency savings goals for itself, and yet it has still consistently fallen short of attaining them. This divergence between the utility’s efficiency savings forecast and its actual savings performance was recently raised before the South Carolina Public Service Commission by the Office of Regulatory Staff, who noted the problem it creates for the utility’s load forecast during resource planning. In response, the Commission ordered the utility to better align its efficiency savings and load forecast, but unfortunately Dominion used this order not as a nudge to find solutions to actually achieve its savings targets, but instead as justification for lowering its savings goals going into the 2023 IRP.

IF DOMINION CAN'T DO IT, WHO CAN?

Dominion's low savings targets in its 2023 IRP appears to be plainly out of step with the Commission's previous order rejecting Dominion's 2020 IRP, which directed the utility to increase efficiency to 1% annual savings through 2024 and model higher savings levels all the way up to 2% in future IRPs. Instead, Dominion is once again arguing that only savings levels that are well under 1% are achievable. The Commission's 2020 order on Dominion's IRP also specifically directed the utility to engage stakeholders in iterative development of the higher-savings level scenarios, but stakeholders were denied any such opportunity, despite participating in numerous meetings with the utility that were meant to fulfill Commission requirements.

Dominion continues to double down with arguments that it can only achieve very modest efficiency savings levels. If that is so, perhaps it is time the utility was relieved of the responsibility to do something it either can't or won't do, in favor of a new energy efficiency program implementer who can get the job done.

LOW-INCOME EFFICIENCY PROGRAMS IN LIMBO

As part of its 2020 IRP process, Dominion indicated that it would double participation in its low-income Neighborhood Energy Efficiency Program (NEEP). This was an encouraging development, for which we applaud both DESC and the Commission. Unfortunately, Dominion's actual efficiency savings in pandemic-impacted 2020 and 2021 fell considerably, with low-income program performance seeing particularly sharp declines.

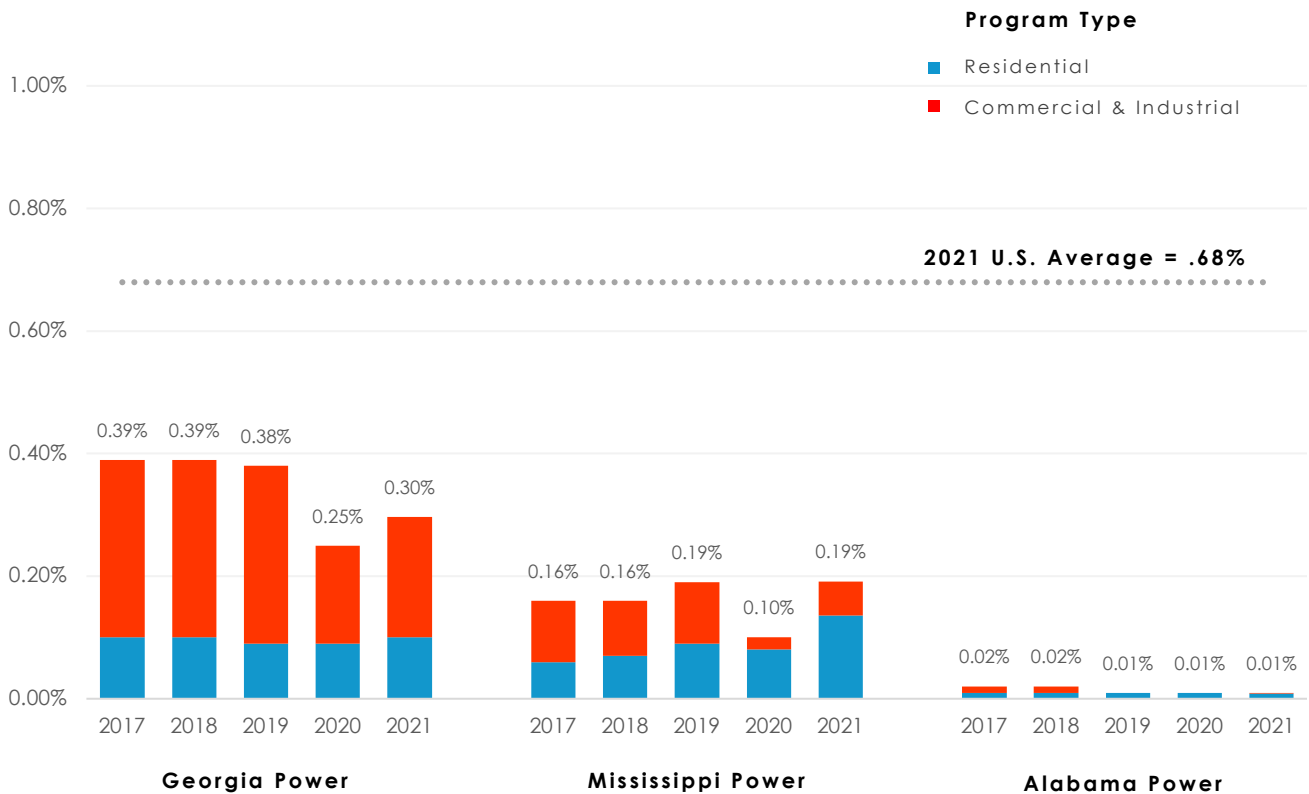
Dominion's 2021 rate case also had major energy efficiency implications. In settlement negotiations Dominion committed \$15 million of shareholder funds for a new deep efficiency retrofit program for low-income customers. That program has not yet been implemented, but is expected to begin April 1, 2023.

SOUTHERN COMPANY

Southern Company is a holding company with three electric utility subsidiaries, all within the geographic scope of this report. **Alabama Power** serves approximately 1.5 million homes, businesses, and industries across the southern two-thirds of Alabama. **Georgia Power** serves approximately 2.6 million customers in all or parts of 155 of the state’s 159 counties. **Mississippi Power** serves approximately 190,000 customers within 23 counties in southeastern Mississippi.

Historically, there have been big differences in energy efficiency policies and the company’s utility efficiency savings performance in these states.

SOUTHERN CO. | ENERGY SAVINGS AS % OF RETAIL ELECTRIC SALES



THE GEORGIA COMMISSION ORDERS HIGHER EFFICIENCY SAVINGS

In Georgia Power’s 2019 Integrated Resource Plan, the Commission directed the utility to increase its efficiency savings targets by 15%, an incremental but meaningful step forward. Unfortunately, Georgia Power’s efficiency programs went the wrong direction and savings levels fell during the COVID-19 pandemic far more than peer utilities and the national average, ultimately undermining achievement of the higher savings targets.

In the 2022 IRP, the Commission once again ordered Georgia Power to increase its efficiency savings targets by another 15% for each of the next three years, on top of the 15% it had already ordered in the previous IRP. As a result of this decision, customers are expected to receive approximately half a billion dollars in bill savings from efficiency measures that will be implemented over the next three years.

EFFICIENCY TO GO HEAD-TO-HEAD WITH POWER GENERATION

In another major development in the 2022 IRP, the Commission required Georgia Power to allow demand side resources like energy efficiency to compete head-to-head against traditional power plants in the utility's next IRP. This is a best practice for IRPs that has been historically elusive in the Southeast. Considering that higher levels of efficiency resulted in the lowest total cost resource portfolio in the 2022 IRP, it will be exciting to see higher levels of efficiency analyzed in Georgia Power's next IRP.

PRIORITIZING THE EFFICIENCY NEEDS OF MANUFACTURED HOUSING

The 2022 IRP also designated program funding and savings targets specifically for efficiency improvements in manufactured homes. Because of the prevalence of this housing type in the Southeast, their high energy use per square foot, and frequent overlap with low- and fixed-income households, these efficiency investments are expected to produce significant benefits. Going forward, we hope other states will want to follow suit. In fact, the first carryover for this new manufactured home efficiency program is with Georgia Power's sister company, Mississippi Power.

AFTER THE WHISTLE: MISSISSIPPI POWER ANNOUNCES EFFICIENCY EXPANSION

Mississippi Power filed its first ever IRP in 2021 under the state's new rules. Although it was a bust for energy efficiency, soon afterward the utility announced plans to roughly double its annual efficiency savings to about 0.5% over the next few years. Mississippi Power has quite a way to go to attain this goal, and even if successful it will still trail behind most major utilities, but it is a step in the right direction.

NO NEWS IS BAD NEWS IN ALABAMA

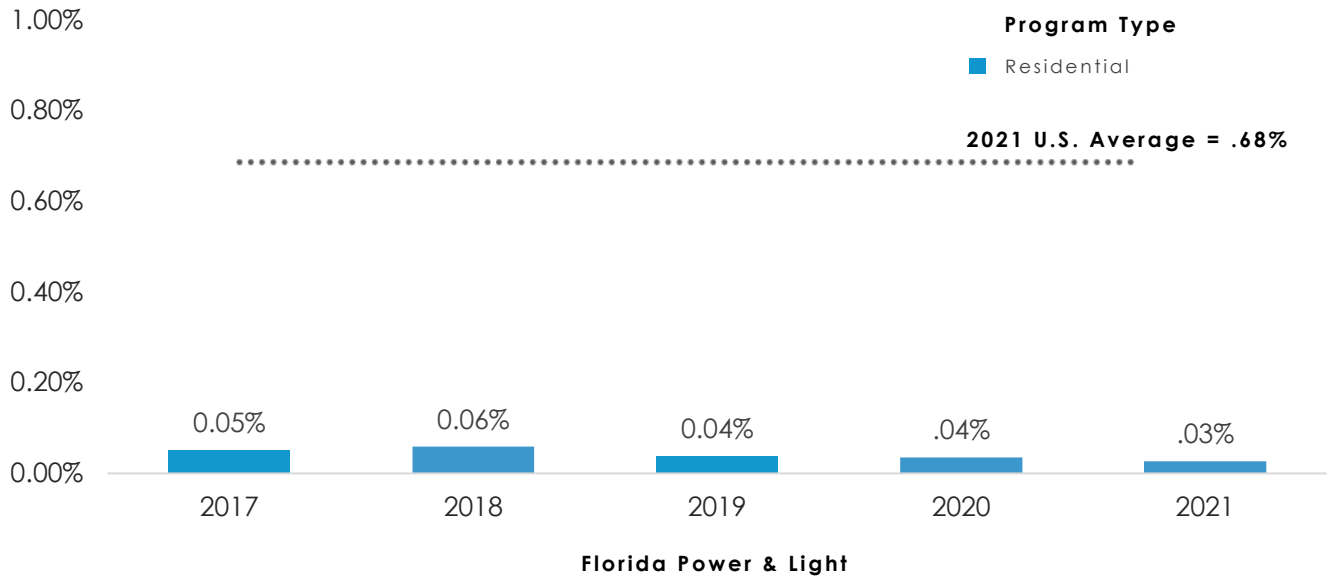
Alabama Power is the outlier among Southern Company subsidiaries for not conducting a formal and public integrated resource plan, nor evaluating efficiency as a resource for meeting customers' future energy needs. Unfortunately, the old adage that no news is good news doesn't apply to energy efficiency in Alabama, where Southern Company's subsidiary Alabama Power continues to be the lowest performing major utility in our region and among the worst in the nation.

The utility's only current offerings are a rebate for smart thermostats and another for water heaters. The latter program is premised on converting only gas water heaters to electric, which we conceptually support, but ironically it is clear the true intent of this program is to increase electricity usage and boost the utility's revenues.

FLORIDA POWER & LIGHT

Florida Power & Light is a subsidiary of NextEra Energy. FPL serves over 5.6 million customers in the northwestern, southern, and eastern portions of Florida, representing more than half of all electric customers in the state.

FPL | ENERGY SAVINGS AS % OF RETAIL ELECTRIC SALES



Florida Power & Light's efficiency performance has historically been among the lowest in the Southeast, and in 2021 its annual savings declined even below 2020 levels. Because FPL generates over half of all electric sales in Florida, its decisions surrounding energy efficiency have enormous repercussions for the entire state, and particularly for FPL's more than five million customers. Unfortunately, FPL has consistently resisted expanding energy saving programs – both as a matter of policy and as a matter of company practice.

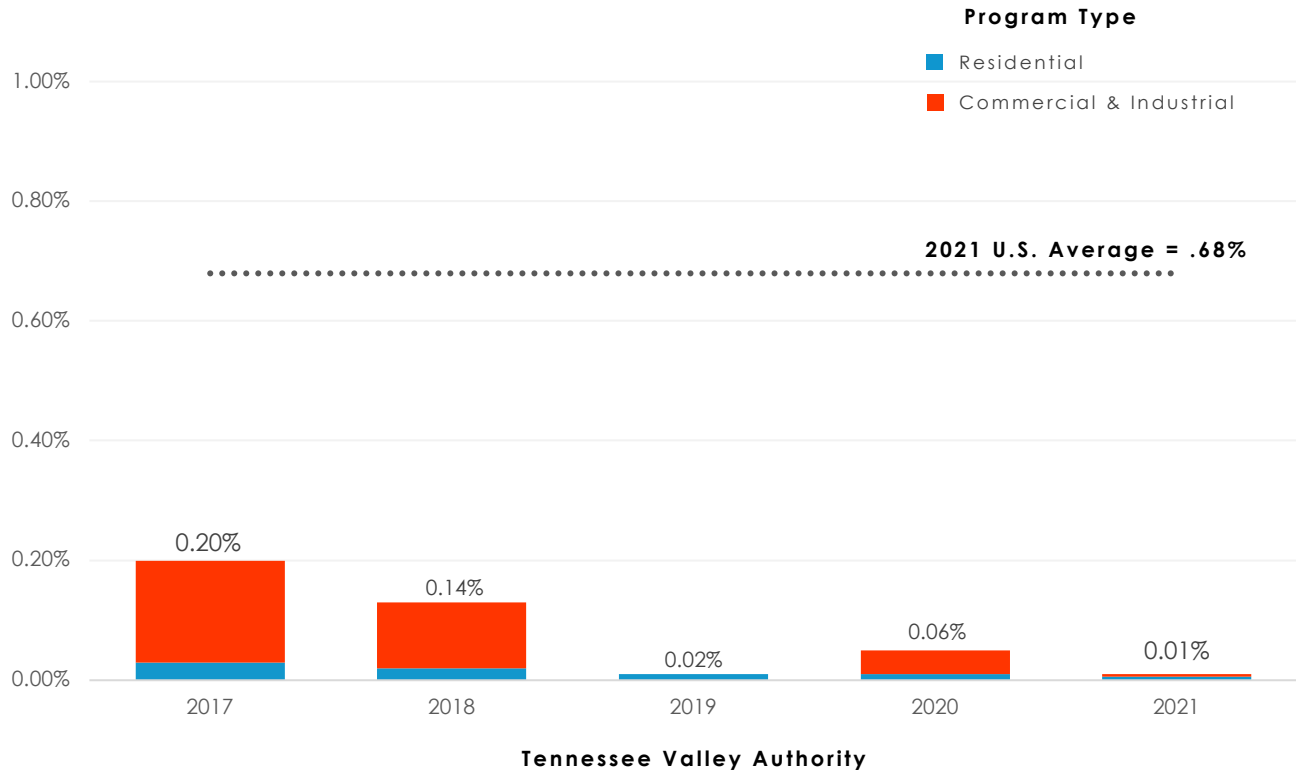
In June 2022, FPL's parent company, NextEra, announced a commitment to achieve "Real Zero" carbon emissions by 2045, and distinguished its intentions from those of other utilities that rely on buying carbon offsets to justify continuing to use fossil fuels to generate power. Instead, to achieve its decarbonization goal, FPL plans to replace existing fossil fuel generation with "a diverse mix of solar, battery storage, existing nuclear, green hydrogen and other renewable sources." Conspicuously missing from FPL's decarbonization strategy, however, is any mention of energy efficiency.

Without a plan to expand efficiency, the least cost energy resource, FPL's transition to clean energy will be more expensive, and it risks exacerbating existing energy equity problems. For customers who already struggle to afford high bills, energy efficiency is an essential service that will remain important as we transition to clean energy. For this and many other reasons, energy efficiency should be a first-choice resource for decarbonizing the grid... even at FPL.

TENNESSEE VALLEY AUTHORITY

The federally-owned **Tennessee Valley Authority** serves approximately 4.9 million customers in Tennessee, Alabama, Georgia, Kentucky, Mississippi, North Carolina, and Virginia.

TVA | ENERGY SAVINGS AS % OF RETAIL ELECTRIC SALES



LACK OF EFFICIENCY INVESTMENT DRIVES USAGE AND COSTS UP FOR CUSTOMERS

The Tennessee Valley Authority once promised to be a leader in energy efficiency, but in practice, the utility's efficiency investments have never lived up to those promises. Instead, TVA relies ever more on fossil gas for power generation and has no real strategy for cutting energy waste to reduce demand or the need for expensive power generation.

For the past decade, TVA has underspent on energy efficiency, and in 2018 it ended its standard efficiency rebate programs altogether. The only residential efficiency program TVA now offers is for low-income weatherization, and its funding and energy savings through that program lag behind its utility peers. TVA's historic lack of efficiency investment perpetuates unnecessary energy waste and leads to significantly higher energy bills. In 2021 residential customers in Tennessee consumed nearly 34% more electricity than the national average – making it once again the second highest state for residential electricity consumption in the country. Unfortunately, TVA continues to head in the wrong direction, and in 2021 fell to new lows, with its annual energy efficiency savings tied for the bottom alongside Alabama Power.

INEFFICIENT HOMES EXACERBATE WINTER POWER OUTAGES

Without energy efficiency, customers struggle to cool and heat inefficient homes during extreme hot or cold weather, causing energy demand to skyrocket, as it did on Christmas Eve 2022 across a large part of the Southeast region. This in turn placed extreme stress on the power grid, and TVA had to implement rolling blackouts throughout the Valley during Winter Storm Elliott to maintain the stability of the grid that covers most of the United States. These were just the latest reminder that continued failure to invest in energy efficiency can have devastating consequences when power consumption demands are pushed to the max. If TVA had consistently made prudent investments in energy efficiency, instead of repeatedly slashing funding for its efficiency programs, it could have insulated the grid from demand spikes, and potentially prevented the need for rolling outages.

RETIRING COAL PLANTS: EFFICIENCY VS. FOSSIL GAS

TVA has announced its plan to replace two of its retiring coal plants, Cumberland and Kingston, by constructing new fossil gas power plants. These two projects would lock TVA customers into carbon-emitting power for decades to come. Instead, a focus on renewable energy and energy efficiency could ramp up to replace these retiring coal plants and negate the need to build new fossil gas pipelines. Ultimately, the best route for deciding how to replace these and other major generation retirements is through an IRP. TVA is required to complete an IRP every five years, so it will need to start its resource planning process soon. However, TVA has indicated it will not start its next IRP until late 2023, meaning it will likely miss its five-year requirement.

CONGRESS INVESTIGATES TVA OVER EFFICIENCY AND CLEAN ENERGY

On January 13, 2022, the House Energy & Commerce Committee sent an oversight letter to TVA inquiring about its practices and policies on energy efficiency, solar, rate setting, carbon reductions, and funding it provided for anti-Clean Air Act lobbying. TVA's response included cherry-picked figures and long debunked arguments, but TVA did commit to increasing its investment in energy efficiency following its next IRP.

FEDERAL FUNDING CREATES A NEW OPPORTUNITY FOR EFFICIENCY AT TVA

Both its pending IRP and new funding opportunities resulting from the BIL and IRA create the conditions for TVA to become the energy efficiency leader it once promised to be. The question is whether TVA will take the opportunity this time and make good on those promises. The IRA is particularly impactful to TVA and its customers because it allows tax-exempt entities, like TVA, to take advantage of financial incentives that lower the cost of clean energy resources like solar, storage, and wind. In addition, new federal spending on energy efficiency will further reduce the need for fossil fuel power generation, thereby accelerating and lowering the cost of making the transition to a clean energy grid.

STATE PROFILES

- ALABAMA
- FLORIDA
- GEORGIA
- MISSISSIPPI
- NORTH CAROLINA
- SOUTH CAROLINA
- TENNESSEE



**View Appendix A for details on state coverage.*

ALABAMA

The Alabama Public Service Commission is a three-person regulatory-body for Alabama Power. The Tennessee Valley Authority is regulated by a nine-member Board of Directors. Since TVA is a federal agency, board members are appointed by the President and confirmed by the U.S. Senate. PowerSouth Energy Cooperative is managed by its board.

ALABAMA ENERGY EFFICIENCY PERFORMANCE

| UTILITY | % EE |
|----------------------------|--------------|
| Southeast Average | 0.19% |
| PowerSouth | 0.02% |
| Alabama Power | 0.01% |
| Alabama Average | 0.01% |
| Tennessee Valley Authority | 0.01% |

In a state without policy, regulatory oversight, or utility leadership on energy efficiency, Alabama’s largest utilities, Alabama Power and TVA, are regularly the worst performing in the region.

Alabama Power does not perform integrated resource planning with stakeholder involvement or the kind of regulatory oversight that is standard practice in the industry for major utilities. When the utility does undergo resource planning at all, it is conducted behind closed doors, lacks meaningful regulatory oversight, and excludes key resources like energy efficiency.

It is hardly surprising, then, that Alabama has the nation’s 4th highest monthly residential energy consumption and third highest energy bills. Extraordinarily high energy bills and high rates of poverty and inequality create the conditions for unaffordable energy burdens, with no remedy in sight.

FLORIDA

The Florida Public Service Commission is a five-person regulatory body that has jurisdiction over the largest electric utilities on goal-setting for energy efficiency. Commissioners are appointed by the state's governor and confirmed by the Florida Senate. Investor-owned utilities regulated by the Florida PSC include Tampa Electric Company, Duke Energy Florida, and Florida Power & Light. The Florida PSC also oversees energy efficiency goal-setting for select public utilities in the state including Orlando Utilities Commission, JEA, and the Florida Public Utilities Company.

FLORIDA ENERGY EFFICIENCY PERFORMANCE

| UTILITY | % EE |
|----------------------------------|--------------|
| Orlando Utilities Commission | 0.30% |
| Tampa Electric Company | 0.30% |
| Southeast Average | 0.19% |
| JEA | 0.17% |
| Duke Energy Florida | 0.09% |
| Florida Average | 0.08% |
| Florida Public Utilities Company | 0.04% |
| Florida Power & Light | 0.03% |

Florida utilities are heavily reliant on fossil gas, which provides approximately 70% of the state's total power generation. Therefore, when gas prices spike, like they did in the aftermath of Russia's invasion of Ukraine, customer bills rise steeply. Unfortunately, major Florida utilities like FPL have failed to make meaningful investment in energy efficiency resources, leading to more gas being burned, with higher costs passed on to all customers. Meanwhile, insufficient utility efficiency program offerings simultaneously deprive families of a valuable tool to save money on their power bills.

The unfortunate truth is that power bills today are higher than ever in Florida, and hard-working families need greater access to energy efficiency programs to help them manage their bills. After a nearly three-year process, the Commission has yet to modernize its rules to encourage meaningful utility energy efficiency goals and programs. Until there is real reform to Florida's energy efficiency rules, the state's major electric utilities will continue to be near the bottom of national rankings on efficiency performance.

By cutting energy waste, efficiency is the best tool for helping individual customers to quickly lower their energy bills, while also reducing the overall cost of providing power over time, which brings financial benefit to the general body of customers as a whole. But unless the Commission takes action, the existing efficiency rules will still be a major barrier to lowering energy bills for customers. Time and again, Florida's efficiency rules and practices have been far out of step with the rest of the nation, and used by Florida utilities to limit, rather than increase, energy savings opportunities for customers.

Florida utilities commonly argue that lost revenues from energy efficiency program savings results in a subsidy paid by other customers. This argument falls flat on several counts. To begin with, economic benefits of reducing energy consumption accrue to all customers. Moreover, in a state with a growing population and customer base, utility revenues continue to increase and earnings remain high, so efficiency savings do not result in unrecovered lost revenues that need to be collected. For instance, FPL consistently earns an 11.8% return on equity - the top of its authorized range and above the national average – even when fuel price spikes drive customer bills up. Given this level of earnings, scaled-up customer energy efficiency programs do not justify a utility filing a rate case to recover claims of lost revenue.

The vast majority of states require major utilities to undertake integrated resource planning under the oversight of Commission IRP rules and with opportunities for public scrutiny and input. Florida’s Ten Year Site Plan process falls short of these standards, both in terms of transparency and evaluation of energy efficiency as a resource. Instead of determining the best level of energy efficiency investment through IRP analysis, Florida utilities just assume they will meet minimal requirements established through the state’s broken energy efficiency goal setting rule – never evaluating the level of efficiency investment that will produce the lowest system cost. As a result, customers are on the hook to pay for even more expensive power generation, which has contributed to today’s over-reliance on fossil gas generation in the Sunshine State.

GEORGIA

The Georgia Public Service Commission is a five-person elected-body that has authority over Georgia Power. Municipal utilities in Georgia have local authority over decision-making and cooperatives in the state – including Oglethorpe Power Corporation – are managed by their member-elected boards. The Tennessee Valley Authority is regulated by a nine-member Board of Directors. Since TVA is a federal agency, board members are appointed by the President and confirmed by the U.S. Senate.

GEORGIA ENERGY EFFICIENCY PERFORMANCE

| UTILITY | % EE |
|----------------------------|--------------|
| Georgia Power | 0.30% |
| Georgia Average | 0.20% |
| Southeast Average | 0.19% |
| Oglethorpe | 0.07% |
| Tennessee Valley Authority | 0.01% |
| Municipal Utilities | 0.00% |

In 2021, the Georgia Public Service Commission directed Georgia Power to set aside \$1.5 million specifically for efficiency projects in manufactured homes, which could be the start of a trend across the Southeast. According to Georgia Power representatives, the program is expected to be very cost effective, producing between \$1.60 - \$1.80 in energy savings for each program dollar spent. Soon after the Georgia Commission’s decision, sister company Mississippi Power indicated that it too would be offering a manufactured housing efficiency program, a trend we hope will continue soon in other Southeastern states.

MISSISSIPPI

The Mississippi Public Service Commission is a three-person elected-body that has authority over Entergy Mississippi and Mississippi Power. The Tennessee Valley Authority is regulated by a nine-member Board of Directors. Since TVA is a federal agency, board members are appointed by the President and confirmed by the U.S. Senate.

MISSISSIPPI ENERGY EFFICIENCY PERFORMANCE

| UTILITY | % EE |
|----------------------------|--------------|
| Entergy Mississippi | 0.22% |
| Southeast Average | 0.19% |
| Mississippi Power | 0.19% |
| Mississippi Average | 0.12% |
| Tennessee Valley Authority | 0.00% |

Mississippi's recently established integrated resource planning rules, unfortunately, delivered no additional energy efficiency in its first planning cycle. But since then both Mississippi Power and Entergy Mississippi have indicated plans to increase efficiency savings in annual Energy Delivery Plans filed with the Commission.

After years of low performance, in 2021 Mississippi Power filed a plan with the Commission that would roughly double its efficiency savings over the next seven years to 0.5% of its 2020 retail sales. Because the pandemic reduced total retail sales in 2020, Mississippi Power's target makes its proposed savings appears higher than it would otherwise be if future efficiency savings were divided by the expected retail sales figures in a more typical year. And 0.5% is still far lower than most of its utility peers nationally. But Mississippi Power's plan to increase its efficiency savings is still a step in the right direction. In the near term, Mississippi Power is seeking additional savings by including large general service customers in its portfolio, expanding its behavioral energy efficiency program, and adding multifamily and manufactured housing efficiency offerings.

In 2021, Entergy Mississippi's efficiency savings rebounded 30% from its performance in 2020. It proposes increasing its annual budget from \$11 million to a bit over \$16 million in 2023.

NORTH CAROLINA

The North Carolina Utilities Commission is a seven-member government agency that regulates Duke Energy Carolinas and Duke Energy Progress. Cooperatives in the state are managed by their local boards, while the states municipal utilities are managed by local government.

NORTH CAROLINA ENERGY EFFICIENCY PERFORMANCE

| UTILITY | % EE |
|-------------------------------|--------------|
| Duke Energy Carolinas | 0.76% |
| Duke Energy Progress | 0.74% |
| North Carolina Average | 0.57% |
| North Carolina Cooperatives | 0.26% |
| Southeast Average | 0.19% |
| North Carolina Municipals | 0.02% |

EFFICIENCY'S ROLE FOR DECARBONIZATION

North Carolina's commitment to decarbonization following the enactment of House Bill 951 in the fall of 2021 creates a new impetus for expanding energy efficiency savings. As the least cost strategy for reducing emissions from fossil fuel generation, increased investment in efficiency is key to making the transition to a clean energy grid affordable for all. Programs that assist low- and moderate-income households to capture efficiency savings and lower their energy bills should be prioritized and expanded in order to ensure that the benefits of our shift to clean energy are equitable, and meet the needs of customers who are already struggling to afford essential electric utility service.

Ultimately, the North Carolina Utilities Commission is responsible for developing the state's carbon plan. But in its inaugural cycle, the Commission largely adopted Duke Energy's proposed decarbonization plan. This result was disappointing given the considerable input from clean energy organizations (like SACE) showing that higher levels of renewable energy and energy efficiency investment could reduce the cost of Duke's plan by as much as 19% and avoid new investments in expensive and polluting new fossil gas generation.⁴ However, the Commission did set an aspirational goal for Duke to pursue savings of at least 1.5% of "eligible load," and directed the utility to seek regulatory approval for several potential enablers of additional savings. Going forward, Carbon Planning and Integrated Resource Planning processes will be combined and occur every two years.

NEW FEDERAL FUNDING CAN TURBOCHARGE DECARBONIZATION

The BIL and IRA have the potential to rapidly accelerate North Carolina's decarbonization efforts. These new laws will greatly improve the economics of many clean energy resources, but energy efficiency is in for a particularly significant boost. The state is receiving formula allocations for energy efficiency and high efficiency electrification rebates totaling \$209 million and nearly \$90 million in expanded Weatherization Assistance Program funding. Individual residents and businesses can take advantage of generous federal tax credits, and local governments can compete for grants and loans worth billions of dollars. In short, these federal funds will further expand the impact of efficiency in the state while reducing the cost of complying with the state's greenhouse gas reduction targets.

⁴ Synapse Energy Economics, Inc. Carbon-Free by 2050: Pathways to Achieving North Carolina's Power Sector Carbon Requirements at Least Cost to Ratepayers. July 20, 2022. Available at: <https://cleanenergy.org/wp-content/uploads/2022-07-20-Synapse-Report-w-Attach-PUBLIC-REDACTED--E-100-Sub-179.pdf>.

How all of these new federal funds will be deployed in North Carolina remains to be seen, but utilities could play a major role to maximize benefits for their customers. If utilities leverage their own spending on efficiency with the federal funds, more customers will be served with deeper overall efficiency savings. In parts of the state where no utility efficiency programs are currently offered, delivery of federal funds could meet a long-underserved need – while hopefully setting the stage for local utilities to start offering their own programs soon. States that are proactive in their approach to efficiency are likely to see the greatest gains, and North Carolina is uniquely positioned for this once-in-a-generation opportunity

SOUTH CAROLINA

The South Carolina Public Service Commission is a seven-member regulatory body that oversees Duke Energy Carolinas, Duke Energy Progress, Dominion Energy South Carolina, and the Integrated Resource Plan for state-owned Santee Cooper.

SOUTH CAROLINA ENERGY EFFICIENCY PERFORMANCE

| UTILITY | % EE |
|--------------------------------|--------------|
| Duke Energy Carolinas | 0.76% |
| Duke Energy Progress | 0.74% |
| South Carolina Average | 0.37% |
| Dominion Energy South Carolina | 0.24% |
| Southeast Average | 0.19% |
| Santee Cooper | 0.06% |

DOMINION REQUIRED TO SHIFT COURSE AFTER IRP REJECTION

Soon after Act 62 went into effect, the PSC rejected Dominion’s 2021 IRP, citing failure to comply with the new law’s requirements to analyze higher levels of energy efficiency. Going forward, the Commission directed Dominion to comply with several new resource planning requirements including:

- Increasing efficiency savings to at least 1% annual savings
- Modeling higher efficiency savings in its next IRP, all the way up to 2% annual savings
- Changing its resource modeling software system, and providing access to intervenors
- Convening regular stakeholder engagement meetings throughout the IRP process

On January 31, 2023, Dominion filed its most recent draft IRP, which will now be reviewed by intervenors (including SACE) and the Commission.

STAKEHOLDERS TO HELP INFORM NEW SAVINGS POTENTIAL AT DUKE

Duke Energy fared better before the Commission in its 2021 IRP, which was approved. However, the Commission found that Duke had underestimated efficiency savings by limiting future participation to historic levels, and by not considering increased market acceptance and emerging technologies. It also indicated that Duke should prioritize longer-lived efficiency measures, rather than relying so heavily on short term behavioral programs. Duke’s next IRP to be filed in 2023 must reflect work with stakeholders on these issues, a direct statement regarding which stakeholder recommendations the utility did and did not include in its analysis of energy efficiency market potential.

SANTEE COOPER'S IRP NOW UNDER PSC JURISDICTION

For the first time, Santee Cooper is conducting integrated resource planning under the oversight of the Public Service Commission. Under this new arrangement, both the utility and stakeholders are trying to figure out how energy efficiency will fit into its forthcoming IRP, and how stakeholder input will be incorporated. Some of the key questions relate to the need to distinguish between forecasted utility and non-utility efficiency savings levels; incorporating the impacts of new federal funding for efficiency; and understanding the relationship between supply resource planning at Santee Cooper and efficiency for the cooperative utilities that consume the majority of Santee Cooper's generating output.

MAJOR DIFFERENCES IN ENERGY EFFICIENCY PORTFOLIO OVERSIGHT

Beyond resource planning, there are other key differences in how each utility's overall energy efficiency portfolio is regulated. Dominion submits a plan to the Commission every five years, detailing all of its proposed efficiency programs, along with forecasted spending and savings levels. Duke does not come before the Commission for approval of its efficiency portfolio, instead submitting individual program applications on a rolling basis. The Commission does not provide regulatory oversight for Santee Cooper's energy efficiency programs, savings, or spending, which is under the purview of the Santee Cooper board of directors.

CONCLUSION

It is high time for the Southeast to cash in on its lucrative and largely untapped energy efficiency reserves! The national average for annual efficiency savings across all regions except the South is 1.04%, five times higher than what utilities in the Southeast achieved in 2021. Now that the disruption the COVID-19 pandemic had on energy efficiency measures continues to pass, Southeast utilities can work to close the energy savings gap to be more in line with national peer utilities and substantially lower energy waste and reduce monthly energy bills for customers.

As the least-cost energy resource, increased investment in energy efficiency reduces total utility system costs, making it cheaper to meet customer energy needs. Integrated resource planning policies in the Carolinas and Georgia already contain critical building blocks on which a significant expansion of energy efficiency could be made, thereby offsetting the need for more expensive power generation. By contrast, to use low-cost energy efficiency as an alternative to traditional power generation, Florida, Alabama, Mississippi, and the Tennessee Valley Authority will need to make significant improvements in their IRP policies and practices. In all Southeastern states, regulators will have to provide additional guidance and increased oversight to utilities to ensure future utility resource plans fully recognize and maximize the financial benefit of energy efficiency for customers.

New federal energy efficiency programs enacted through the Bipartisan Infrastructure Law and Inflation Reduction Act have the potential to substantially accelerate the deployment of energy efficiency in the Southeast. If our region gets its fair share, these new federal programs could double efficiency savings in the Southeast relative to existing utility efficiency programs. This once-in-a-generation infusion of federal funding for energy efficiency presents a tremendous opportunity, particularly if state agencies and local utilities work together to leverage their combined funding and marketing efforts. Regardless, the new federal funds for energy efficiency will reduce energy consumption in the region, which must now be factored into future utility resource plans.

Manufactured homes are a prime candidate for targeted energy efficiency programs. This is due to their high energy consumption relative to other housing types, the fact that the majority of manufactured home residents are low- and fixed income, and the prevalence of this housing type in the Southeast region. To date the Southeast has few examples of utility energy efficiency programs specifically targeting this housing segment, but that appears to be beginning to change with a shift in Georgia and Mississippi.

Ultimately, energy efficiency is key to accelerating our transition to a clean energy grid, and making electricity affordable for everyone. Efficiency can help to speed up the retirement of polluting and outdated legacy fossil fuel power plants. It can also offset the need to build new power generation, while decreasing our dependence on fossil gas. Additionally, investing in energy efficiency can reduce the cost of new renewable energy investments and help to maintain grid reliability, including during severe weather incidents. With so many benefits, the key to energy efficiency is, quite simply, to just do it.

DATA SOURCES, METHODS, AND ASSUMPTIONS

The primary metric in this report is net energy savings as a percentage of current-year retail sales. SACE relies on two sources for historical efficiency savings, annual energy efficiency reports that utilities are required to file by state regulators and Energy Information Administration Form 861. In most cases, regulatory reporting requirements for investor-owned utilities allow SACE to gather detailed performance and budget data on specific programs on an annual basis. Nearly all of our data for municipal and co-op utilities come from EIA Form 861. In some cases, we opt to use EIA data even when program-level data is available for the sake of consistency when it comes to the reporting year, which may reflect the fiscal year in utility filings or other types of reports, and to include savings from programs that are outside the utility's main portfolio of energy efficiency programs.

EIA's reporting instructions have shifted over the years to direct utilities to report data at the meter rather than at the generator, and to clarify who is responsible for reporting (utility or nonutility demand-side management administrators). As a result, there is greater confidence in the consistency and reliability of more recent data that primarily only requires adjustments to utilities that report gross savings. Due to the fact that some utilities report net savings reflecting technical adjustments to energy efficiency program impacts, while others do not, we apply a net to gross ratio of 83.9% where gross savings are reported.

DSM/EE spending is inclusive of the total expenditures for each program approved or certified by a utility's respective regulator. Our review of data specific to programs may not reflect sub-programs, add-ons, or pilot programs if they are not tracked or reported by the utility. For example, income-qualified spending reflects standalone programs only.

Accumulated energy efficiency demand savings (MW) represents the maximum peak reduction to gross system demand. To capture the "maximum peak" and assign a nominal capacity to efficiency, SACE uses the summer demand reduction reported for programs and measures.

For the comparison with other regions of the country, our Southeast regional average is compared to regional and national averages from data sources such as EIA and research in ACEEE's Annual Energy Efficiency Scorecard. Our regional energy savings calculation differs from typical calculations of the U.S. 'South' region due to different geography of electric utility service areas and data sources included.

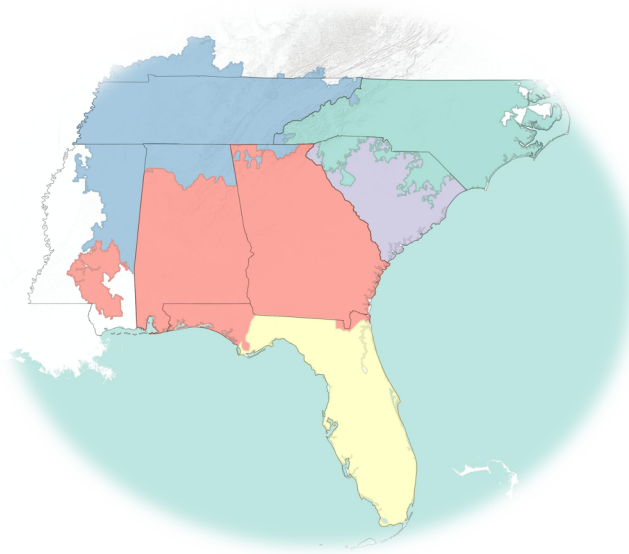
State formula funding allocations from the federal Bipartisan Infrastructure Law and Inflation Reduction Act were sourced from DOE announcements in [March 23, 2022](#) and [November 2, 2022](#), respectively. The comparison to utility energy efficiency program spending over the same ten-year period was developed by carrying forward annual utility spending at 2021 levels reported through Energy Information Administration Form 861.

The number of manufactured homes in Southeastern states was sourced from the [2020 American Community Survey](#). The age of manufactured homes was sourced from General Housing Data in the [2021 American Housing Survey](#), using year built and census division. Results for the South were created by aggregating data from the South Atlantic, East South Central, and West South Central Divisions.

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 the 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: ENERGY EFFICIENCY SAVINGS DATA

Retail sales, annual savings from energy efficiency, and percentage savings as a percentage of current-year retail sales are available for download. Please note that appendices for previous reports in the series reflect slightly different methodology such as a lower net to gross ratio and were calculated using savings as a % of prior-year sales, rather than current-year.

[For utility system and individual utility data for 2016-2020, please visit our website to access the appendix.](#)

ADDITIONAL RESOURCES FROM SACE

The Southern Alliance for Clean Energy (SACE) releases annual reports covering clean energy and transportation topics in the Southeast. We invite you to [view all of our reports, white papers, and other technical resources](#) and select reports below.

[Tracking Decarbonization in the Southeast, Fourth Annual Report. \(2022\)](#)

[Solar in the Southeast, Fifth Annual Report. \(2022\)](#)

[Transportation Electrification in the Southeast, Third Annual Report. \(2022\)](#)

