EARTHJUSTICE

June 6, 2024

VIA ELECTRONIC FILING

Adam J. Teitzman
Office of Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Blvd.
Tallahassee, Florida 32399-0850

Re: Docket Nos. 20240026-EI, Tampa Electric Company Petition for Rate Increase

Dear Mr. Teitzman,

On behalf of Intervenors Florida Rising and League of United Latin American Citizens ("LULAC"), I have enclosed the testimony and exhibits of MacKenzie D. Marcelin. Please file these documents in Docket No. 20240026-EI. Please contact me if there are any questions regarding this filing.

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CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true copy and correct copy of the foregoing was served on this 6th day of June, 2024, via electronic mail on:

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DATED this 6th day of June, 2024

/s/ Bradley Marshall
Attorney

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re:	Petition for rate increase by Tampa Electric Company	)	DOCKET NO. 20240026-EI

TESTIMONY OF MACKENZIE D. MARCELIN

ON BEHALF OF

FLORIDA RISING AND LEAGUE OF UNITED LATIN AMERICAN CITIZENS

June 6, 2024

Q. Please state your name and business address.

A. My name is MacKenzie Marcelin. My business address is 10800 Biscayne Blvd Suite 1050, Miami, FL 33161.

Q. What is your current position?

A. I am the Climate Justice Director at Florida Rising.

Q. What are your duties as Climate Justice Director?

A. In my role I am responsible for developing campaign strategies that address the climate crisis from a racial justice lens at the local, state, and federal levels. I am also tasked with designing and implementing actions and events to mobilize base, allies, and partners toward key climate justice policy wins. Lastly, I develop and activate natural disaster response and manage disaster response initiative work.

Q. Please summarize your qualifications and work experience.

A. In 2019, I was hired as a climate justice organizer at Florida Rising where I began my organizing work in climate justice. My general qualifications include organizing for 6 years and organizing multiple energy justice campaigns. I have experienced electricity disconnections and know the hardships they can cause. I have personally experienced energy insecurity, and as a Floridian, have had to engage in preparation for multiple hurricanes. I have a Bachelor of Arts in History from the University of Florida, with a focus on the Black experience, race, and inequality. My litigation experience is limited, however, I have participated in a few dockets at the Florida Public Service Commission.

Q. Have you ever testified before the Florida Public Service Commission before?

A. Yes, I have participated in a few dockets at the Florida Public Service Commission advocating on behalf of Florida Rising's values of racial and economic justice and for Florida Rising's members, who are mostly black and brown, and are facing high energy burdens due to high electric bill costs. In Docket Nos. 20190015-EG, 20190016-EG, 20190018-EG, 20190020-EG, 20190021-EG, *In re: Commission review of numeric conservation goals*, I gave testimony to the importance of energy efficiency in helping customers lower energy bills, especially for low-income communities and communities of color. For more information, please see a transcript of my remarks here: http://www.psc.state.fl.us/library/filings/2019/08186-2019/08186-2019.pdf. In Docket No. 20200219-EI, *In re: Petition to initiate emergency rulemaking to prevent electric utility shutoffs, by League of United Latin American Citizens, Zoraida Santana, and Jesse Moody*, I gave testimony to the importance of halting electric power disconnections for the health of members of low-income communities. For more information, please see a transcript of my remarks here: http://www.psc.state.fl.us/library/filings/2020/11330-2020/11330-2020.pdf. In Docket No. 202000181-EU, *In re: Proposed amendment of Rule 25-17.0021, F.A.C., Goals for Electric Utilities*, I gave testimony to the importance of energy efficiency in helping customers lower energy bills, especially for low-income communities and communities of color. For more information, please see a video of my remarks here: http://psc-fl.granicus.com/MediaPlayer.php?view_id=2&clip_id=3368 and here: http://psc-fl.granicus.com/MediaPlayer.php?view_id=2&clip_id=3335.

Q. Have you ever testified as a formal witness before the Florida Public Service Commission?

A. Yes, in the FPL Rate Case I submitted formal testimony on behalf of Florida Rising (Docket 20210015-EI). That testimony can be found here: https://www.floridapsc.com/pscfiles/library/filings/2021/06451-2021/06451-2021.pdf. https://www.floridapsc.com/pscfiles/library/filings/2021/06451-2021/06451-2021.pdf. On June 5, 2024, I filed formal testimony in the energy-efficiency goal setting proceedings (Docket Nos. 20240012, 20240013, 20240014, 20240016, and 20240017). That testimony can be found here: https://www.floridapsc.com/pscfiles/library/filings/2024/04599-2024/04599-2024.pdf.

Q. On whose behalf are you testifying in this proceeding?

A. Florida Rising and LULAC.

Q. What is Florida Rising?

A. We are a people-powered organization made up of members advancing economic and racial justice across Florida. We build independent political power that centers historically marginalized communities so everyday Floridians can shape the future. As an organization, we engaged in the 2019 FEECA Hearings, intervened in the 2021 FPL Rate Case, commented on the energy-efficiency rulemaking proceeding (Docket No. 20200181), including in the Rule hearing, commented in some of the fuel dockets and storm recovery dockets, and, in addition to this proceeding, have intervened in the Duke Energy Florida Rate Case and energy-efficiency goal setting proceedings, happening at the same time as this case.

Q. Does Florida Rising have members in Tampa Electric Company's service

territory?

A. Yes, Florida Rising has a lot of members in the Tampa Bay area, with many members in Tampa Electric Company's ("TECO") service territory, with 105 active members in Hillsborough County. Also, Florida Rising as an organization pays electric bills to TECO for our office located in TECO's service territory.

Q. Why is Florida Rising in this proceeding?

A. As mentioned before, Florida Rising is an organization made up of members focused on empowering marginalized communities to advance racial and economic justice across Florida. In our climate justice work we want a future where the frontline and most impacted communities are at the center of energy policy, disaster response, and all climate change initiatives.

As I discuss below, TECO's residential customers, including Florida Rising's members, face some of the highest electricity bills in the nation. Our members face an affordability crisis between rising rents and rising electricity bills. While the Florida Public Service Commission does not regulate rental prices, they are supposed to regulate electricity prices.

Florida's dependency on fossil fuels has led to our current energy system polluting our communities, fueling our climate crisis, and leading many in dire economic straits. These issues in our energy system have an unequal and harmful impact on Black, Brown, and low-income communities. A 2020 report by ACEEE found that low-income, Black, Hispanic, and Native American households face higher energy burdens than the average household.[1] Rising housing costs, insurance costs, and stagnant wages have made Florida unaffordable, leaving families with high energy burdens. The

financial hardship is forcing people to make tough choices between keeping the lights on or paying for groceries or prescription medications or living in hot and unsafe housing conditions. All the while, major utility companies have been experiencing record profits over the last few years.

Florida has been experiencing an uptick in climate disasters like extreme heat, sea level rise, flooding, and severe storms, which are leaving our neighborhoods and infrastructure vulnerable. Record high heat days,[2] stronger and more frequent storms,[3] and other climate disasters are a direct result of our energy system's reliance on dirty fossil fuels. The increase in extreme heat days means that more energy and access to A/C are a requirement in Florida for keeping our homes healthy, habitable, and cool. Stronger and more frequent storms threaten the reliability of our electrical grid, causing loss of property to our state and an increase in illness and death. The increase in extreme disasters places an unfair burden on communities' colors and often leads them into a more vulnerable state than before.

Yet, Florida Rising believes that we must transition to a clean energy system with more community members included in the decision-making. If we do that, we can ensure that everyone has access to clean, affordable energy that creates jobs and is environmentally friendly and resilient against natural disasters.

Q. Have you looked at how TECO ranks nationally when it comes to residential electricity bills?

A. Yes, according to the most recent data from the Energy Information Administration ("EIA"), for 2023, TECO had the third highest electricity bills in the nation with an average monthly residential electricity bill of

$191.95 (of utilities with more than 100,000 residential customers).

Q. How did you determine this?

A. I simply calculated the average monthly revenue per residential customer for each utility and state and combined the data together. All of these calculations are included in my electric bill comparisons from the EIA 2023 data and are attached as Exhibit MM-1. TECO already admitted that the information it submits to the EIA is accurate and that its total billed revenue for the residential class divided for each month by the customer count for that month, averaged for all twelve months, results in $191.95. Although TECO denies the importance of this calculation, the calculation represents the average revenue per residential customer per month. In other words, it represents the average monthly residential electricity bill. TECO also admitted that, as presented by the EIA for 2023, of the 149 electric utilities with over 100,000 residential customers, TECO had the third highest average monthly residential electricity bills. These admissions are attached as Exhibit MM-2.

Q. Is this a standard-practice for comparing electric bills?

A. Yes, the Energy Information Administration calculates the average residential electric bills itself using this methodology and compares average monthly bills across utilities and states using this method every year.

Q. How do Florida-utilities frequently do "bill" comparisons?

A. They frequently do "bill" comparisons using a standardized 1,000 kWh assumption.

Q. What's your opinion regarding that kind of comparison?

A. It is an arbitrary and misleading comparison. Consumers do not pay bills

based off of 1,000 kWh of usage; they pay bills off of actual usage. Florida utilities often have higher rates above 1,000 kWh of usage, and most average above 1,000 kWh of usage. Most utilities out of state have consumers that use less than 1,000 kWh of usage. Thus, 1,000 kWh of usage frequently understates the actual bills Florida consumers pay, while overstating the actual bills others pay.

Q. Have you looked at the impact of TECO's proposed rate increase in this case?

A. Yes. In 2023, TECO's residential customers averaged 1,157 kWh of usage. Assuming that usage stays roughly the same, under current rates, that same kWh of usage would cost $166.04 today (which is substantially less than in 2023 due to decreased fuel prices, although presumably lower fuel prices would apply to other utilities as well). Under their proposed rates, this usage would cost $184.25 in 2025. With the subsequent year adjustments, this rises to $196.96 by 2027, an over $30 increase in base rates per month from current bills.

Q. Isn't $166.04 less than $191.95?

A. Yes. Thankfully fuel prices have fallen and charges for storm recovery are falling off as well. However, fuel prices can be expected to rise again, and betting our residential electricity bills on the idea that no storms will hit TECO's service territory from now through the end of 2027 seems like a bad idea. So, if fuel prices rise or a storm hits (or both), residential electricity bills could be a lot, lot higher, and with the base rate increases TECO is proposing, could easily be the most expensive residential electricity bills in the nation.

Q. Why is that an issue?

A. Florida has increasingly become unaffordable. Housing and property insurance costs continue to rise with little to no increase in income. This dire situation is putting Floridians in an economic chokehold, especially for already marginalized communities. An increase in electricity bills lead to higher energy burden, which in turn can impact health and quality of life for many individuals. A higher energy burden can lead to individuals having to choose between paying for the bare necessities of survival, like keeping the power on or paying for rent, groceries, and/or medical supplies. Also, for TECO to have among the highest bills in the nation for such a small territory in comparison to FPL and Duke is ridiculous.

Q. Have you evaluated TECO's Energy Efficiency performance?

A. Yes. TECO has been meeting, and, in fact, greatly exceeding, all of their energy-efficiency goals as set by the Florida Public Service Commission. However, compared to national averages, their savings are still rather small. A common way of comparing actual performance on energy efficiency between utilities is to look at the total amount of energy each utility saved in a year as a percent of that utility's total retail sales for the same year. This gives a fair comparison of how each utility is doing, since in absolute numbers, a small utility with excellent energy efficiency achievements won't save as much total energy as a huge utility with abysmal performance.

In 2021, the latest year for which the analysis has been completed, the national average for energy savings as a percent of total retail sales was 0.68%. SACE Energy Efficiency in the Southeast Report (March 2023), attached as Exhibit MM-3, at 4. In that same year, TECO achieved 0.3%. *Id.*

at 20. TECO achieved roughly the same result in 2023. I have prepared a workpaper supporting these calculations and attached it as Exhibit MM-4.

Q. Do you have any recommendations in regards to TECO's Commercial and Industrial load control and load management programs?

A. Yes. As shown in Exhibit MM-5, TECO spent $22,761,449 on its Industrial Load Management program (almost entirely in the form of credits to participating customers), $3,849,871 on its Demand Response program, and $5,153,806 on its Standby Generator program, well over half of the total $47,132,152 it spent on demand-side management programs. Residential customers, of course, account for the majority of the funding for this program. I propose that these credits be cut by at least three-quarters, if not eliminated entirely, to bring them more in line with the value that they provide to customers.

Q. Please summarize your testimony.

A. TECO's residential customers, including Florida Rising members, already pay some of the highest residential electricity bills in the nation. The proposed massive base rate increases will leave TECO's residential customers vulnerable to the extraordinary energy burden TECO is proposing to place on them. If fuel prices increase, or a storm hits, or both, TECO's residential customers could very well end up paying the highest residential electricity bills in the nation. The affordability crisis is present now, and under TECO's proposal would only get much worse. The Florida Public Service Commission should be working towards lowering residential electric bills, and working to drop TECO down in the national rankings. If the goal isn't to have the highest residential electric bills in the nation, the proposed

rate increase should be rejected and TECO should be instructed to shift some of the cost-burden onto its large commercial and industrial customers. Increasing rates as TECO has proposed would increase unaffordability and limit access to our energy systems. For many, limiting access to the energy we all need to survive in this modern day would perpetuate and exacerbate inequality, particularly for low-income and communities of color already facing systemic burdens. A fair and just energy system should ensure that all Floridians, especially the most vulnerable of us, have access to the affordable energy we need to live a quality life.

Q. Does this conclude your testimony?

A. Yes, it does.

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[1] Ariel Drehobl, Lauren Ross, & Roxana Ayala, American Council for an Energy-Efficient Economy, How High Are Household Energy Burdens? at 9-13 (2020), https://www.aceee.org/research-report/u2006.

[2] Ian Livingston, *Florida is roasting in extreme heat and on pace for a record-warm year*, Washington Post (Aug. 11, 2023), https://www.washingtonpost.com/weather/2023/08/11/florida-record-heat-climate-summer/.

[3] Nat'l Oceanic & Atmospheric Admin., *NOAA predicts above-normal 2024 Atlantic hurricane season* (May 23, 2024), https://www.noaa.gov/news-release/noaa-predicts-above-normal-2024-atlantic-hurricane-season.

UTILITY CHARATERISTICS							RESIDENTIAL			
							Revenue	Sales	Customers	Average Monthly Bill
2023	12	4176	Connecticut Light & Power Co	CT	Investor Owned	Preliminary	171,504.495	658,907.802	902,974	$204.27
2023	12	19547	Hawaiian Electric Co Inc	HI	Investor Owned	Preliminary	59,345.787	142,163.588	275,966	$201.30
2023	12	18454	Tampa Electric Co	FL	Investor Owned	Preliminary	115,903.382	669,610.173	748,020	$191.95
2023	12	9216	Imperial Irrigation District	CA	Political Subdivisic	Preliminary	19,013.000	90,132.000	140,906	$189.40
2023	12	6455	Duke Energy Florida, LLC	FL	Investor Owned	Preliminary	263,919.575	1,381,306.078	1,773,314	$186.56
2023	12	11804	Massachusetts Electric Co	MA	Investor Owned	Preliminary	95,998.035	283,682.630	554,670	$177.37
2023	12	195	Alabama Power Co	AL	Investor Owned	Preliminary	241,561.000	1,584,829.000	1,327,562	$173.78
2023	12	6452	Florida Power & Light Co	FL	Investor Owned	Preliminary	676,900.190	4,511,051.000	5,179,817	$170.11
2023	12	733	Appalachian Power Co	WV	Investor Owned	Preliminary	72,095.000	496,453.000	350,306	$169.65
2023	12	40228	Rappahannock Electric Coop	VA	Cooperative	Preliminary	32,189.000	243,616.000	165,828	$169.53
2023	12	5027	Delmarva Power	MD	Investor Owned	Preliminary	37,005.648	188,775.907	170,787	$168.80
2023	12	19497	United Illuminating Co	CT	Investor Owned	Preliminary	45,291.596	145,240.272	258,658	$167.19
2023	12	55937	Entergy Texas Inc.	TX	Investor Owned	Preliminary	57,425.439	430,254.335	450,506	$167.12
2023	12	16609	San Diego Gas & Electric Co	CA	Investor Owned	Preliminary	55,422.187	133,144.194	383,150	$166.61
2023	12	14328	Pacific Gas & Electric Co.	CA	Investor Owned	Preliminary	279,981.000	873,051.000	1,868,939	$165.64
2023	12	3046	Duke Energy Progress - (NC)	SC	Investor Owned	Preliminary	29,025.966	216,663.456	143,242	$165.23
2023	12	15472	Public Service Co of NH	NH	Investor Owned	Preliminary	48,093.717	200,597.954	298,361	$164.73
2023	12	14006	Ohio Power Co	OH	Investor Owned	Preliminary	118,382.000	610,191.000	611,660	$162.57
2023	12	733	Appalachian Power Co	VA	Investor Owned	Preliminary	98,316.000	629,611.000	463,562	$162.43
2023	12	12685	Entergy Mississippi LLC	MS	Investor Owned	Preliminary	53,025.240	383,286.983	383,816	$162.27
2023	12	5860	Empire District Electric Co	MO	Investor Owned	Preliminary	23,681.835	160,605.578	139,947	$162.01
2023	12	11171	Long Island Power Authority	NY	State	Preliminary	145,391.643	703,531.838	1,028,815	$160.74
2023	12	12686	Mississippi Power Co	MS	Investor Owned	Preliminary	22,512.925	165,930.509	156,882	$160.67
2023	12	3249	Central Hudson Gas & Elec Corp	NY	Investor Owned	Preliminary	33,910.000	160,089.000	219,551	$159.78
2023	12	19876	Virginia Electric & Power Co	NC	Investor Owned	Preliminary	20,442.576	150,107.640	108,262	$159.19
2023	12	14715	PPL Electric Utilities Corp	PA	Investor Owned	Preliminary	138,385.326	798,650.267	787,988	$158.87
2023	12	22053	Kentucky Power Co	KY	Investor Owned	Preliminary	21,053.102	193,741.852	130,995	$158.31
2023	12	3265	Cleco Power LLC	LA	Investor Owned	Preliminary	31,350.000	287,265.000	251,458	$155.64
2023	12	1613	Berkeley Electric Coop Inc	SC	Cooperative	Preliminary	16,825.000	121,082.000	110,849	$155.48
2023	12	803	Arizona Public Service Co	AZ	Investor Owned	Preliminary	147,150.340	955,819.212	1,242,360	$155.41
2023	12	3266	Central Maine Power Co	ME	Investor Owned	Preliminary	80,113.730	285,984.210	511,550	$155.28
2023	12	1179	Versant Power	ME	Investor Owned	Preliminary	22,402.940	73,513.493	129,738	$154.79
2023	12	17637	Southern Maryland Elec Coop Inc	MD	Cooperative	Preliminary	23,878.296	205,134.684	156,946	$154.28
2023	12	13407	Nevada Power Co	NV	Investor Owned	Preliminary	89,269.881	564,630.756	905,298	$153.35
2023	12	12390	Metropolitan Edison Co	PA	Investor Owned	Preliminary	73,529.175	404,001.838	415,324	$153.25
2023	12	13214	The Narragansett Electric Co	RI	Investor Owned	Preliminary	54,641.872	176,351.479	310,132	$151.79
2023	12	5070	Delaware Electric Cooperative	DE	Cooperative	Preliminary	15,360.000	106,301.000	103,287	$151.72
2023	12	14716	Pennsylvania Power Co	PA	Investor Owned	Preliminary	21,267.368	120,502.859	123,849	$150.66
2023	12	16572	Salt River Project	AZ	Political Subdivisic	Preliminary	103,035.000	865,708.000	1,044,438	$148.69
2023	12	14154	Orange & Rockland Utils Inc	NY	Investor Owned	Preliminary	25,884.105	104,059.929	162,420	$147.88
2023	12	17633	Southern Indiana Gas & Elec Co	IN	Investor Owned	Preliminary	16,550.347	99,802.696	133,060	$146.89
2023	12	12745	Modesto Irrigation District	CA	Political Subdivisic	Preliminary	12,903.303	71,203.081	102,862	$146.65
2023	12	15270	Potomac Electric Power Co	MD	Investor Owned	Preliminary	74,307.900	405,844.258	479,584	$146.46
2023	12	17539	Dominion Energy South Carolina, Inc	SC	Investor Owned	Preliminary	93,175.000	673,948.000	680,200	$141.75
2023	12	54913	NSTAR Electric Company	MA	Investor Owned	Preliminary	58,816.000	212,202.000	441,362	$141.58
2023	12	15474	Public Service Co of Oklahoma	OK	Investor Owned	Preliminary	57,181.870	472,786.981	496,215	$141.56
2023	12	7140	Georgia Power Co	GA	Investor Owned	Preliminary	338,244.940	2,549,518.147	2,405,579	$140.95
2023	12	17718	Southwestern Public Service Co	TX	Investor Owned	Preliminary	27,477.624	225,257.837	221,164	$140.45

2023	12	3046	Duke Energy Progress - (NC)	NC	Investor Owned	Preliminary	238,234.289	1,674,734.884	1,337,277	$139.87
2023	12	4922	Dayton Power & Light Co	OH	Investor Owned	Preliminary	21,340.877	145,067.000	140,413	$139.85
2023	12	56697	Ameren Illinois Company	IL	Investor Owned	Preliminary	74,864.551	466,036.096	541,275	$138.46
2023	12	11241	Entergy Louisiana LLC	LA	Investor Owned	Preliminary	101,467.550	909,065.097	953,932	$137.84
2023	12	13478	Entergy New Orleans, LLC	LA	Investor Owned	Preliminary	18,911.765	146,023.163	187,464	$137.56
2023	12	88888	US Total	US		Preliminary	18,726,006.832	119,052,479.286	141,496,756	$137.54
2023	12	814	Entergy Arkansas LLC	AR	Investor Owned	Preliminary	75,815.904	613,324.539	605,836	$137.22
2023	12	12470	Middle Tennessee E M C	TN	Cooperative	Preliminary	42,430.000	365,010.000	298,753	$137.13
2023	12	1167	Baltimore Gas & Electric Co	MD	Investor Owned	Preliminary	175,469.240	953,019.478	1,014,307	$137.06
2023	12	9601	Jackson Electric Member Corp - (GA)	GA	Cooperative	Preliminary	31,432.000	303,319.000	235,414	$136.35
2023	12	9617	JEA	FL	Municipal	Preliminary	53,838.000	415,903.000	462,922	$136.31
2023	12	963	Atlantic City Electric Co	NJ	Investor Owned	Preliminary	62,700.262	288,540.834	469,943	$134.28
2023	12	19876	Virginia Electric & Power Co	VA	Investor Owned	Preliminary	350,268.339	2,661,568.087	2,367,849	$133.77
2023	12	5027	Delmarva Power	DE	Investor Owned	Preliminary	40,931.955	244,094.250	273,220	$133.16
2023	12	3542	Duke Energy Ohio Inc	OH	Investor Owned	Preliminary	47,725.597	303,502.436	305,720	$133.16
2023	12	19898	Volunteer Electric Coop	TN	Cooperative	Preliminary	15,508.000	134,623.000	103,320	$133.13
2023	12	16604	City of San Antonio - (TX)	TX	Municipal	Preliminary	68,712.220	626,775.118	853,398	$133.08
2023	12	14711	Pennsylvania Electric Co	PA	Investor Owned	Preliminary	70,354.253	356,692.941	414,946	$132.93
2023	12	15263	The Potomac Edison Company	WV	Investor Owned	Preliminary	24,720.724	215,376.192	133,769	$132.84
2023	12	13216	Nashville Electric Service	TN	Municipal	Preliminary	52,334.000	394,645.000	405,896	$132.51
2023	12	20387	West Penn Power Company	PA	Investor Owned	Preliminary	83,877.550	548,962.477	524,872	$132.37
2023	12	12293	City of Memphis - (TN)	TN	Municipal	Preliminary	42,048.703	360,342.000	377,554	$131.70
2023	12	9094	City of Huntsville - (AL)	AL	Municipal	Preliminary	22,311.000	198,990.000	175,492	$131.58
2023	12	15470	Duke Energy Indiana, LLC	IN	Investor Owned	Preliminary	112,268.549	807,880.968	788,920	$131.36
2023	12	9324	Indiana Michigan Power Co	IN	Investor Owned	Preliminary	54,762.552	352,743.007	420,796	$130.26
2023	12	9417	Interstate Power and Light Co	IA	Investor Owned	Preliminary	49,417.892	309,655.252	414,637	$129.28
2023	12	9324	Indiana Michigan Power Co	MI	Investor Owned	Preliminary	13,920.964	95,853.658	112,380	$129.23
2023	12	10421	Knoxville Utilities Board	TN	Municipal	Preliminary	26,332.000	217,232.000	190,846	$129.05
2023	12	5416	Duke Energy Carolinas, LLC	SC	Investor Owned	Preliminary	95,457.027	735,133.690	560,921	$128.09
2023	12	3408	City of Chattanooga - (TN)	TN	Municipal	Preliminary	19,317.000	157,572.000	160,446	$127.73
2023	12	14354	PacifiCorp	WA	Investor Owned	Preliminary	18,727.751	173,246.932	114,013	$127.25
2023	12	10000	Evergy Metro	KS	Investor Owned	Preliminary	23,768.659	214,833.298	243,183	$126.37
2023	12	5487	Duquesne Light Co	PA	Investor Owned	Preliminary	54,259.650	255,009.880	432,904	$125.37
2023	12	12698	Evergy Missouri West	MO	Investor Owned	Preliminary	32,643.599	293,147.459	304,030	$124.92
2023	12	3916	Cobb Electric Membership Corp	GA	Cooperative	Preliminary	22,723.713	199,638.412	198,874	$124.71
2023	12	15263	The Potomac Edison Company	MD	Investor Owned	Preliminary	41,711.192	293,059.130	237,554	$124.32
2023	12	10171	Kentucky Utilities Co	KY	Investor Owned	Preliminary	64,947.884	561,065.978	449,052	$123.98
2023	12	15248	Portland General Electric Co	OR	Investor Owned	Preliminary	118,019.363	778,459.314	820,631	$123.42
2023	12	9336	CORE Electric Cooperative	CO	Cooperative	Preliminary	21,066.000	147,811.000	163,278	$122.57
2023	12	24211	Tucson Electric Power Co	AZ	Investor Owned	Preliminary	42,182.158	248,973.474	407,394	$122.31
2023	12	13998	Ohio Edison Co	OH	Investor Owned	Preliminary	33,593.415	213,784.329	259,762	$121.57
2023	12	19436	Union Electric Co - (MO)	MO	Investor Owned	Preliminary	116,031.250	1,156,194.489	1,066,688	$121.34
2023	12	7601	Green Mountain Power Corp	VT	Investor Owned	Preliminary	33,543.000	158,115.000	225,952	$120.74
2023	12	9273	Indianapolis Power & Light Co	IN	Investor Owned	Preliminary	54,911.100	425,933.000	462,848	$119.74
2023	12	20847	Wisconsin Electric Power Co	WI	Investor Owned	Preliminary	126,244.784	669,278.087	1,044,937	$118.50
2023	12	15500	Puget Sound Energy Inc	WA	Investor Owned	Preliminary	162,044.048	1,206,885.457	1,083,522	$117.12
2023	12	14940	PECO Energy Co	PA	Investor Owned	Preliminary	137,639.952	913,340.763	1,206,638	$116.34
2023	12	4254	Consumers Energy Co - (MI)	MI	Investor Owned	Preliminary	196,259.982	1,066,096.402	1,651,181	$115.90
2023	12	13780	Northern States Power Co	WI	Investor Owned	Preliminary	26,024.320	169,640.901	219,113	$115.75
2023	12	5109	DTE Electric Company	MI	Investor Owned	Preliminary	244,751.036	1,216,036.458	2,061,665	$115.41

2023	12	10005	Evergy Kansas South, Inc	KS	Investor Owned	Preliminary	29,019.228	227,343.743	301,496	$114.69
2023	12	13756	Northern Indiana Pub Serv Co	IN	Investor Owned	Preliminary	49,059.283	261,029.181	427,217	$114.30
2023	12	4226	Consolidated Edison Co-NY Inc	NY	Investor Owned	Preliminary	312,100.000	937,871.000	2,690,647	$114.18
2023	12	14063	Oklahoma Gas & Electric Co	OK	Investor Owned	Preliminary	65,358.525	719,383.655	704,612	$114.12
2023	12	5416	Duke Energy Carolinas, LLC	NC	Investor Owned	Preliminary	260,536.645	2,119,431.788	1,893,953	$112.84
2023	12	16534	Sacramento Municipal Util Dist	CA	Political Subdivisio	Preliminary	56,601.702	398,415.169	588,308	$112.83
2023	12	20856	Wisconsin Power & Light Co	WI	Investor Owned	Preliminary	49,897.166	304,165.785	433,061	$112.03
2023	12	14354	PacifiCorp	OR	Investor Owned	Preliminary	71,321.933	588,790.319	544,147	$111.09
2023	12	13511	New York State Elec & Gas Corp	NY	Investor Owned	Preliminary	100,412.336	607,658.300	730,728	$110.77
2023	12	11208	Los Angeles Department of Water & Power	CA	Municipal	Preliminary	144,865.817	617,623.841	1,404,314	$110.72
2023	12	22500	Evergy Kansas Central, Inc	KS	Investor Owned	Preliminary	33,328.707	261,909.239	341,128	$110.43
2023	12	10000	Evergy Metro	MO	Investor Owned	Preliminary	24,729.053	204,449.025	272,897	$110.02
2023	12	14127	Omaha Public Power District	NE	Political Subdivisio	Preliminary	35,085.000	320,092.000	359,834	$109.66
2023	12	17166	Sierra Pacific Power Co	NV	Investor Owned	Preliminary	37,201.385	244,461.076	328,103	$109.45
2023	12	689	Connexus Energy	MN	Cooperative	Preliminary	13,729.680	106,073.739	133,140	$109.23
2023	12	9191	Idaho Power Co	ID	Investor Owned	Preliminary	72,947.271	580,903.905	517,807	$108.45
2023	12	12796	Monongahela Power Co	WV	Investor Owned	Preliminary	44,502.187	356,807.198	335,017	$108.29
2023	12	16183	Rochester Gas & Electric Corp	NY	Investor Owned	Preliminary	34,897.000	202,005.000	290,313	$108.23
2023	12	13573	Niagara Mohawk Power Corp.	NY	Investor Owned	Preliminary	158,100.245	944,599.210	1,422,009	$107.39
2023	12	17543	South Carolina Public Service Authority	SC	State	Preliminary	17,494.937	166,756.790	182,208	$106.66
2023	12	11249	Louisville Gas & Electric Co	KY	Investor Owned	Preliminary	39,874.686	318,360.535	383,602	$106.24
2023	12	9726	Jersey Central Power & Lt Co	NJ	Investor Owned	Preliminary	98,198.806	727,299.773	967,516	$105.45
2023	12	19446	Duke Energy Kentucky	KY	Investor Owned	Preliminary	18,565.305	130,405.926	138,101	$104.29
2023	12	12825	NorthWestern Energy LLC - (MT)	MT	Investor Owned	Preliminary	43,096.410	287,975.377	325,066	$102.93
2023	12	17470	PUD No 1 of Snohomish County	WA	Political Subdivisio	Preliminary	45,610.000	420,381.000	344,120	$101.85
2023	12	13781	Northern States Power Co - Minnesota	MN	Investor Owned	Preliminary	117,007.900	749,329.128	1,221,183	$101.47
2023	12	15477	Public Service Elec & Gas Co	NJ	Investor Owned	Preliminary	185,817.447	1,020,279.892	1,959,635	$101.06
2023	12	20860	Wisconsin Public Service Corp	WI	Investor Owned	Preliminary	42,712.100	261,740.287	409,646	$100.08
2023	12	25177	Dakota Electric Association	MN	Cooperative	Preliminary	9,989.000	77,043.000	107,477	$100.03
2023	12	3755	Cleveland Electric Illum Co	OH	Investor Owned	Preliminary	13,073.642	82,935.688	131,996	$99.71
2023	12	20169	Avista Corp	WA	Investor Owned	Preliminary	31,938.969	283,329.165	243,524	$99.18
2023	12	11479	Madison Gas & Electric Co	WI	Investor Owned	Preliminary	14,679.000	73,937.000	144,597	$99.15
2023	12	18429	City of Tacoma - (WA)	WA	Municipal	Preliminary	19,862.745	198,927.518	172,189	$97.85
2023	12	3660	PUD No 1 of Clark County - (WA)	WA	Political Subdivisio	Preliminary	25,503.000	281,537.000	215,343	$96.55
2023	12	5701	El Paso Electric Co	TX	Investor Owned	Preliminary	19,727.000	144,641.000	311,326	$96.24
2023	12	12647	ALLETE, Inc.	MN	Investor Owned	Preliminary	12,872.436	95,435.954	125,346	$93.54
2023	12	17833	City Utilities of Springfield - (MO)	MO	Municipal	Preliminary	8,451.876	86,763.251	104,507	$93.40
2023	12	20169	Avista Corp	ID	Investor Owned	Preliminary	16,844.233	149,225.258	126,548	$91.89
2023	12	12341	MidAmerican Energy Co	IA	Investor Owned	Preliminary	51,710.451	552,174.367	628,525	$89.05
2023	12	15270	Potomac Electric Power Co	DC	Investor Owned	Preliminary	26,453.527	156,761.776	281,792	$88.59
2023	12	15473	Public Service Co of NM	NM	Investor Owned	Preliminary	41,318.000	293,918.000	490,439	$87.95
2023	12	11018	Lincoln Electric System	NE	Municipal	Preliminary	11,627.296	121,398.000	133,839	$86.75
2023	12	4110	Commonwealth Edison Co	IL	Investor Owned	Preliminary	223,082.330	1,645,277.264	2,958,052	$84.39
2023	12	14354	PacifiCorp	UT	Investor Owned	Preliminary	78,206.542	730,886.595	934,426	$84.11
2023	12	15466	Public Service Co of Colorado	CO	Investor Owned	Preliminary	121,493.742	874,709.903	1,353,213	$83.93
2023	12	3989	City of Colorado Springs - (CO)	CO	Municipal	Preliminary	19,589.742	146,023.710	211,787	$83.87
2023	12	14354	PacifiCorp	WY	Investor Owned	Preliminary	11,888.916	106,552.284	117,975	$83.39
2023	12	16868	City of Seattle - (WA)	WA	Municipal	Preliminary	40,453.006	318,531.249	454,320	$79.32

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition for Rate Increase by Tampa Electric Company	DOCKET NO. 20240026-EI
In re: Petition for approval of 2023 Depreciation and Dismantlement Study, by Tampa Electric Company	DOCKET NO. 20230139-EI
In re: Petition to implement 2024 Generation Base Rate Adjustment provisions in Paragraph 4 of the 2021 Stipulation and Settlement Agreement, by Tampa Electric Company	DOCKET NO. 20230090-EI SERVED: May 22, 2024

TAMPA ELECTRIC COMPANY'S
ANSWERS TO FLORIDA RISING & LEAGUE OF UNITED LATIN AMERICAN CITIZENS' FIRST REQUEST FOR ADMISSIONS (NOS. 1-6)

Pursuant to Rule 106.206, Florida Administrative Code, and Florida Rule of Civil Procedure 1.350, Tampa Electric Company ("Tampa Electric" or the "company"), hereby answers League of United Latin American Citizens of Florida ("LULAC") & Florida Rising's First Request for Admissions (Nos. 1-6), served May 2, 2024 ("LULAC & Florida Rising's First RFA").

General Objections

1. Tampa Electric objects to each request for admissions in LULAC & Florida Rising's First RFA ("RFA") to the extent that it seeks information that is duplicative, not relevant to the subject matter of this docket, and is not reasonably calculated to lead to the discovery of admissible evidence.

2. Tampa Electric objects to each RFA to the extent it is vague, ambiguous, overly broad, imprecise, or utilizes terms that are subject to multiple interpretations but are not properly defined or explained for purposes of such RFA. Tampa Electric will seek clarification from

LULAC & Florida Rising if a RFA is not clear, but Tampa Electric will produce documents subject to, and without waiving, this objection.

3. Tampa Electric objects to each RFA to the extent it requires Tampa Electric to produce information that is already in the public record before the Florida Public Service Commission ("FPSC" or the "Commission") or other public agency and available to LULAC & Florida Rising through normal procedures or is readily accessible through legal search engines.

4. Tampa Electric objects to each RFA to the extent that it calls for data or information protected by the attorney-client privilege, the work product doctrine, the accountant-client privilege, the trade secret privilege, or any other applicable privilege or protection afforded by law. Tampa Electric will describe the nature of the privileged material, if any, in a privilege log that will accompany its responses.

5. Tampa Electric objects to producing paper copies on the grounds that doing so would be unduly burdensome. Tampa Electric has entered into an agreement with LULAC & Florida Rising, governing discovery production and responses, and will serve its answers to the RFA and related responsive documents to LULAC & Florida Rising in electronic form via a SharePoint site to which LULAC & Florida Rising have remote access.

6. Tampa Electric objects to each Request to the extent it requires the company to provide information that it believes is "proprietary confidential business information" as described in Section 366.093, Florida Statutes. Tampa Electric will provide such confidential information to LULAC & Florida Rising in a designated confidential portion of the SharePoint site described above and subject to a Motion for Temporary Protective Order, Notice of Intent to Request Confidential Classification, and/or Request for Confidential Classification, as appropriate.

7. Tampa Electric objects to each RFA, instruction, or definition in that purports to expand Tampa Electric's obligations under applicable law.

8. Tampa Electric objects to each RFA to the extent it requests Tampa Electric to prepare information in a particular format or create data or information that it otherwise does not possess as unduly burdensome and as purporting to expand Tampa Electric's obligations under applicable law.

9. Subject to Section 366.093(1), Florida Statutes, Tampa Electric objects to any definition or RFA that requests documents from persons or entities who are not parties to this proceeding, that seek information from affiliates unrelated to transactions or cost allocations involving Tampa Electric, or that are not otherwise subject to discovery under applicable rules.

10. Tampa Electric objects to any RFA requiring the company to provide additional information beyond that obtained through a reasonable and diligent search.

General Response

Subject to and without waiving its general objections, which are incorporated by reference in each of its specific answers, Tampa Electric provides its answers to LULAC & Florida Rising's First RFA. The company's specific answers will identify requests for admissions that call for answers that contain (a) information for which the company asserts a legal privilege and/or (b) "proprietary confidential business information" as defined in Section 366.093, Florida Statutes.

An answer that contains information for which the company asserts a legal privilege will be identified in the privilege log attached as Exhibit A.

Specific Answers

1. Please admit or deny that TECO seeks to recover (approximately) an additional $1.162 billion in this rate case in the years 2025-2027 (as compared to if no rate increase was approved).

Answer: Admitted.

2. Please admit or deny that the information TECO submits to the Energy Information Administration ("EIA") is accurate.

Answer: Admitted.

3. Please admit or deny that, according to the EIA, in 2023, the average TECO residential monthly bill was $191.95 (residential revenue per customer, average of the 12 months in 2023).

Answer: Tampa Electric objects to this request because the term "average residential monthly bill" is not defined and because Tampa Electric does not track any metric known as an "average monthly bill." Tampa Electric also objects to this request for admission because it is not reasonably calculated to lead to the discovery of admissible evidence because it does not present a calculation based on the rates proposed in this case.

Notwithstanding this objection, the company admits that the EIA presents the company's total billed revenue for the residential class for each month in 2023 and the total customer count for the residential class for each month 2023. The company also admits that dividing the total billed revenue for each month by the customer count for that month, then taking an average of all twelve months results in an arithmetic mean of $191.95.

The company denies, however, that this calculation provides a meaningful approximation of an "average residential monthly bill" because the company has multiple rate schedules available to residential customers, meaning that even customers with relatively similar levels of electricity usage may have different bills. The company also denies that this calculation provides a relevant approximation of a current or future "average residential monthly bill" because the calculation uses 2023 data, which does not reflect current *or* proposed rates.

4. Please admit or deny that the average TECO residential monthly bill was $191.95 in 2023.

Answer: Tampa Electric objects to this request because the term "average residential monthly bill" is not defined and because Tampa Electric does not track any metric known as an "average monthly bill." Tampa Electric also objects to this request for admission because it is not reasonably calculated to lead to the discovery of admissible evidence because it does not present a calculation based on the rates proposed in this case.

Notwithstanding this objection, the company admits that the EIA presents the company's total billed revenue for the residential class for each month in 2023 and the total customer count for the residential class for each month 2023. The company also admits that dividing the total billed revenue for each month by the customer count for that month, then taking an average of all twelve months results in an arithmetic mean of $191.95.

The company denies, however, that this calculation provides a meaningful approximation of an "average residential monthly bill" because the company has multiple rate schedules available to residential customers, meaning that even customers with relatively similar levels of electricity usage may have different bills. The company also denies that this calculation provides a relevant approximation of a current or future "average residential monthly bill" because the calculation uses 2023 data, which does not reflect current *or* proposed rates.

5. Please admit or deny that the EIA is a valid source of utility revenue and data.

Answer: Tampa Electric objects to this request on ground that the term "valid" is unclear and ambiguous. Subject to and without waiving this objection, Tampa cannot admit or deny this matter. Although the information Tampa Electric submits to the EIA is accurate, Tampa Electric does not know whether that is true of the other utilities that submit information to the EIA. Tampa Electric notes that the EIA's website contains an extensive explanation of its information quality guidelines, but states "the performance standards applied to information that apply to information generated by EIA cannot be applied to information from external sources" and that "data users are encouraged to consider the initial source of information presented in EIA's information products and to determine the suitability of such information for their purposes." Notwithstanding the foregoing, Tampa Electric admits that the EIA is a frequently cited source of information about the electric utility industry.

6. Please admit or deny that according to the EIA 861M data for 2023, that of the 149 electric utilities with over 100,000 residential customers, TECO had the 3rd highest average monthly residential electric bills in 2023.

Answer: Tampa Electric admits that this reflects the data as presented by the EIA but denies that this provides a meaningful comparison because: (1) it is not based on current *or* proposed rates; (2) it does not compare utilities by electricity *usage;* (3) it does not present how Tampa Electric compares in terms of electricity *rates;* (4) it is not weather normalized; and (5) it does not reflect that customers in areas of the country with significantly more heating degree days may use natural gas for heating, which is billed separately and is not included in this metric.

Dated this 22nd day of May, 2024.

Respectfully submitted,

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ATTORNEYS FOR TAMPA ELECTRIC COMPANY

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that electronic copies of the foregoing response have been served by posting on a shared document site, hand delivery of a USB drive or by electronic mail on this 22nd day of May 2024 to the following:

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ATTORNEY

SOUTHERN ALLIANCE FOR CLEAN ENERGY

ENERGY EFFICIENCY IN THE SOUTHEAST

FIFTH ANNUAL REPORT

cleanenergy.org Southern Alliance for Clean Energy

MARCH 2023

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.

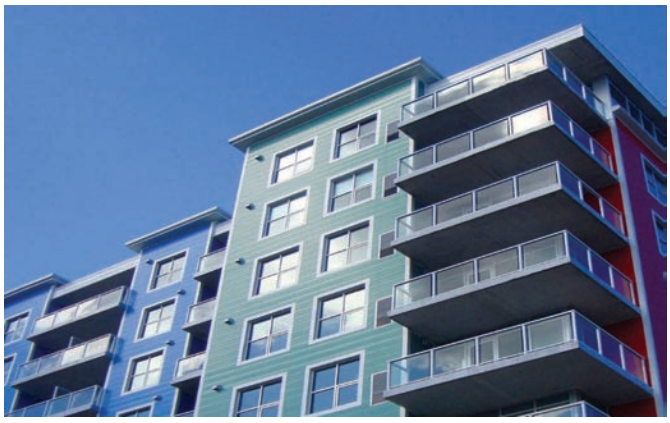
CONTENTS

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.

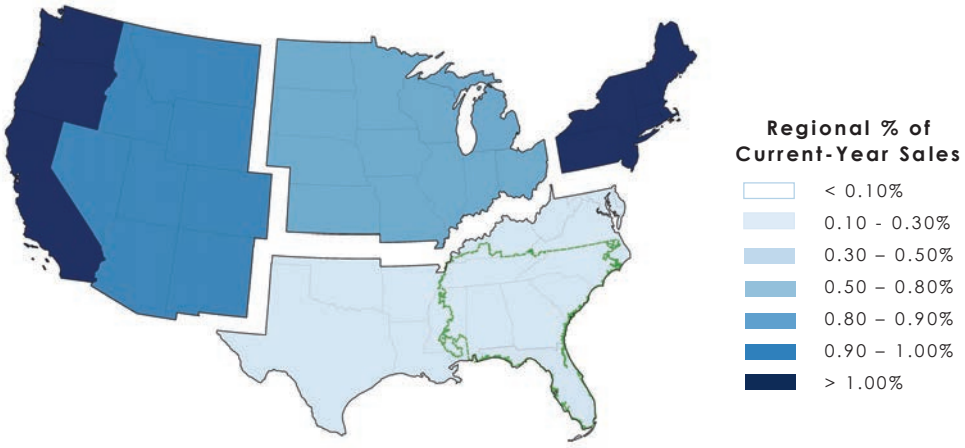
The COVID-19 pandemic had a particularly large impact on efficiency in the Southeast, resulting in savings declines that pushed the region further below the national average in 2020. In 2021, a few Southeastern utilities saw partial rebounds in their annual efficiency savings from the previous year,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

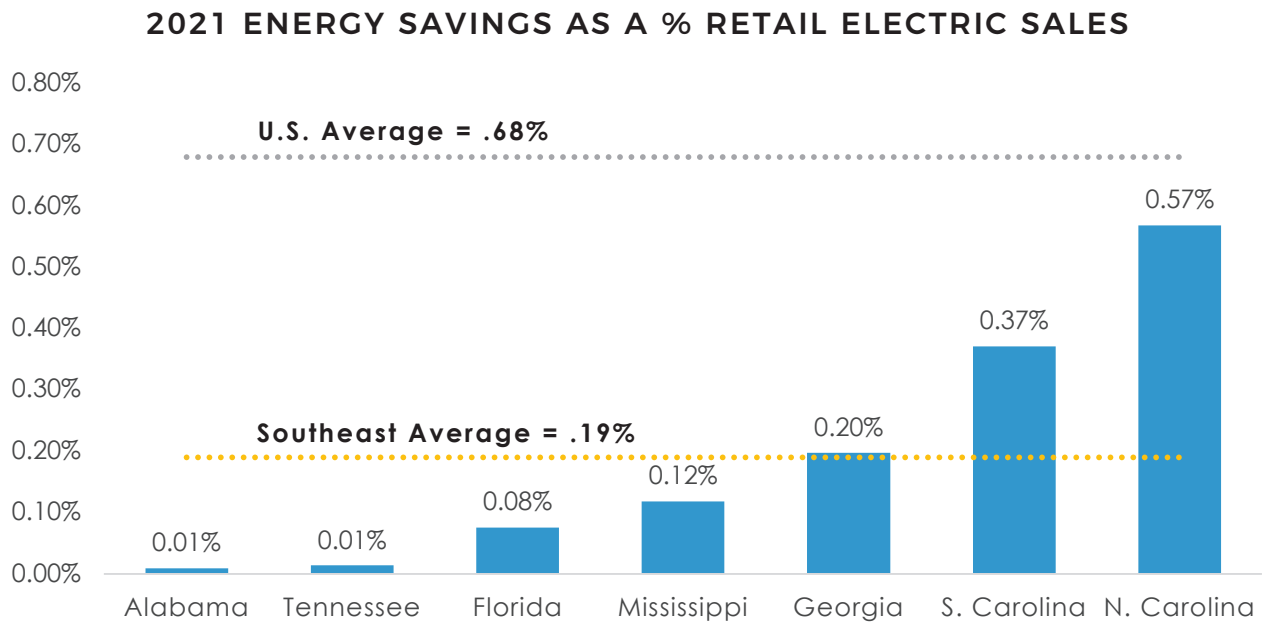
REGION	PERCENTAGE
Pacific West	1.64%
Northeast	1.13%
Mountain West	0.85%
Midwest	0.78%
U.S. Average	0.68%
South	0.27%
Southeast	**0.19%**

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 Southeast[1] 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

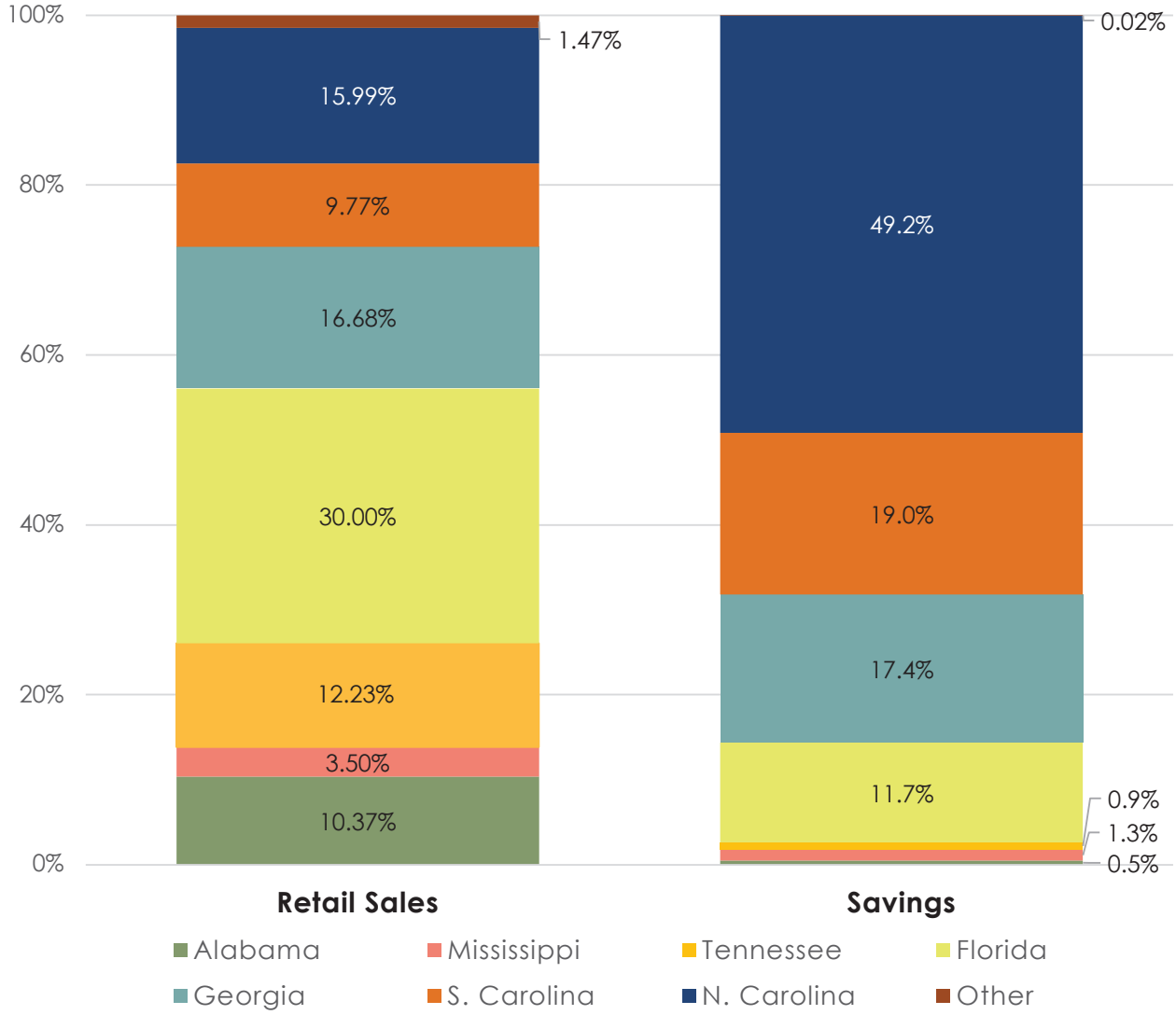
To provide an equitable, unbiased comparison of efficiency performance for states of various sizes in the Southeast, SACE uses a standard metric that compares the percentage of annual efficiency savings to total retail electricity consumption.



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.

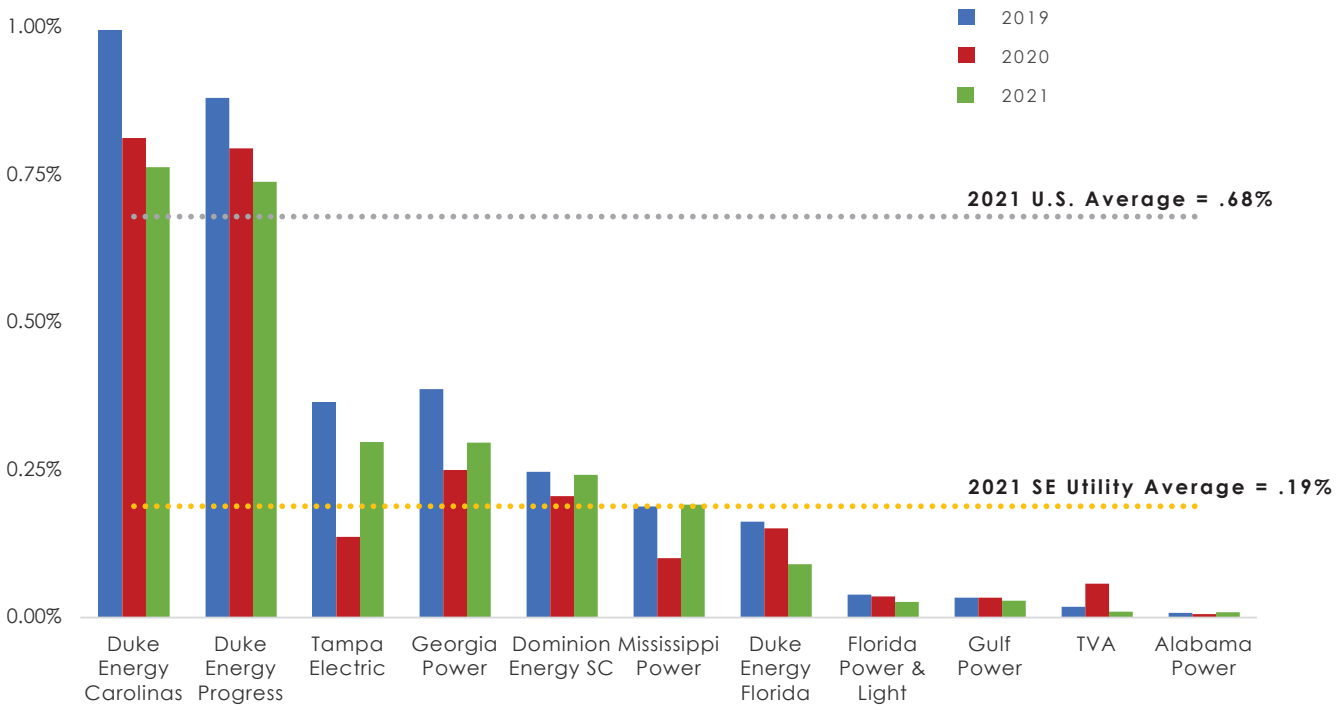
[1] The Southeast falls within a portion of the South region. Please see appendix A for map.

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.

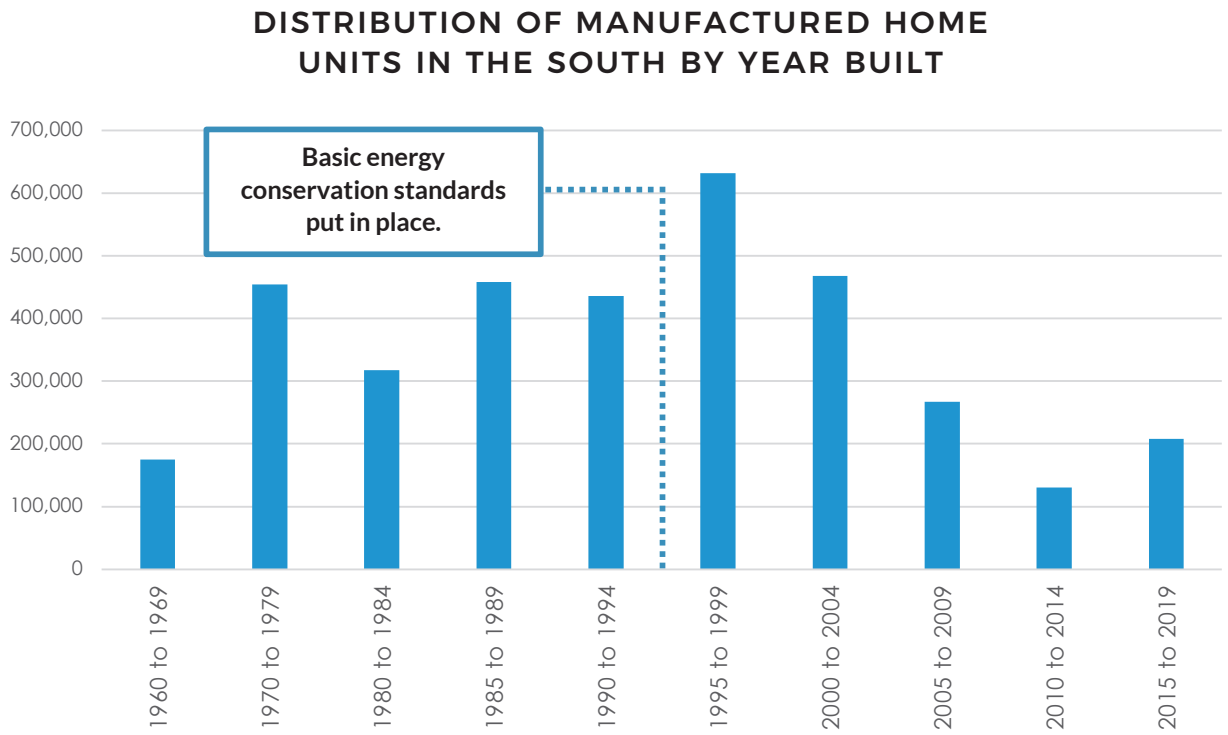
MANUFACTURED HOUSING AND EFFICIENCY

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.



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 South[2] 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

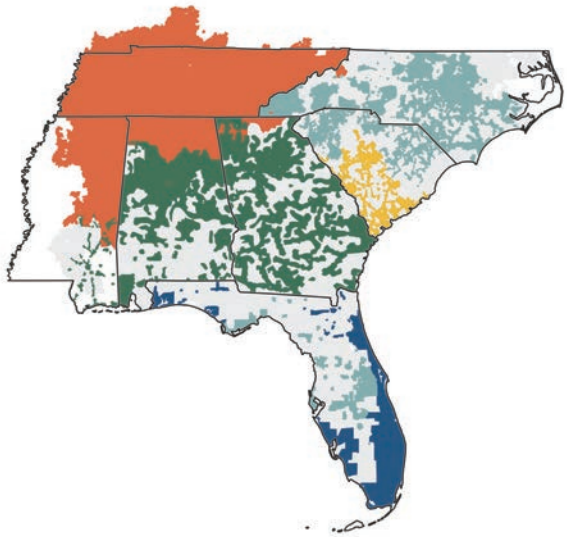
DUKE ENERGY

DOMINION ENERGY

SOUTHERN COMPANY

TVA

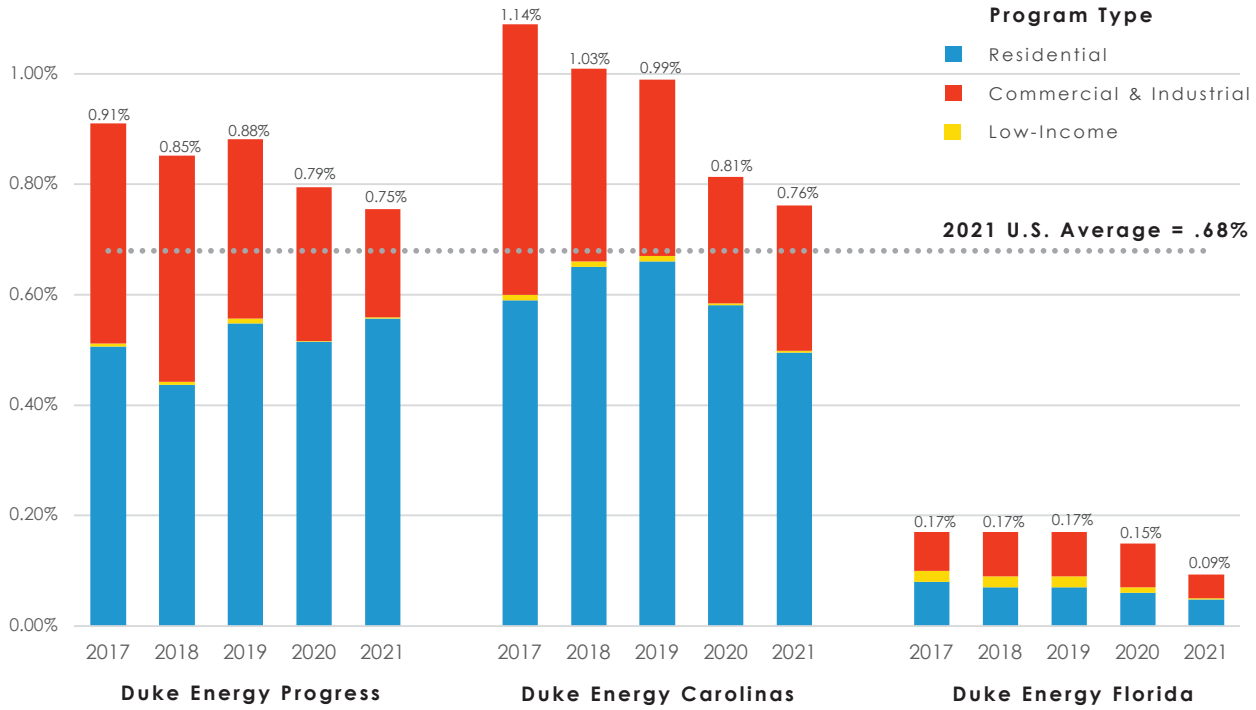
NEXTERA



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.

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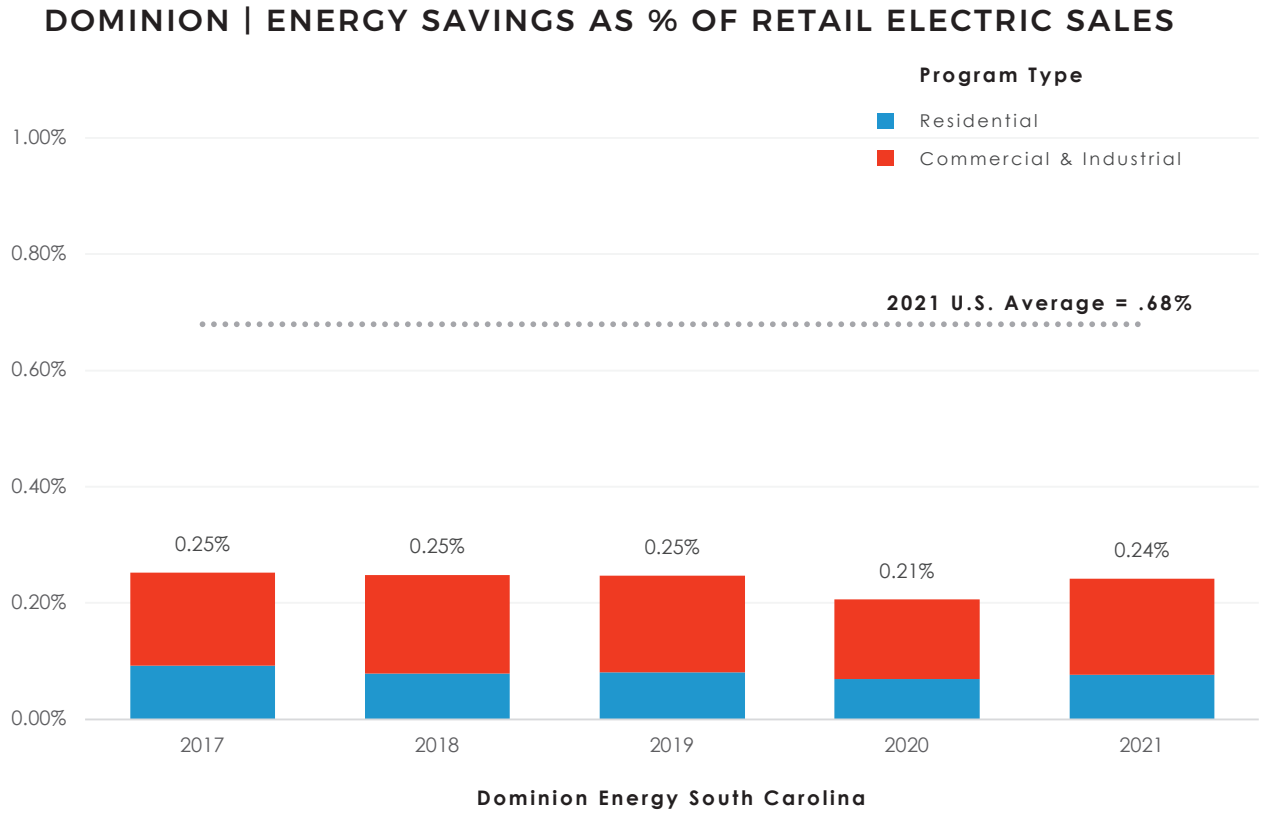
[3] In contrast with past precedent and conventional methods used by monitoring organizations like ACEEE, SACE, and others, the calculation method Duke proposed redefined the target by removing opted-out commercial and industrial customers from the retail sales figure used to calculate the percentage 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.



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

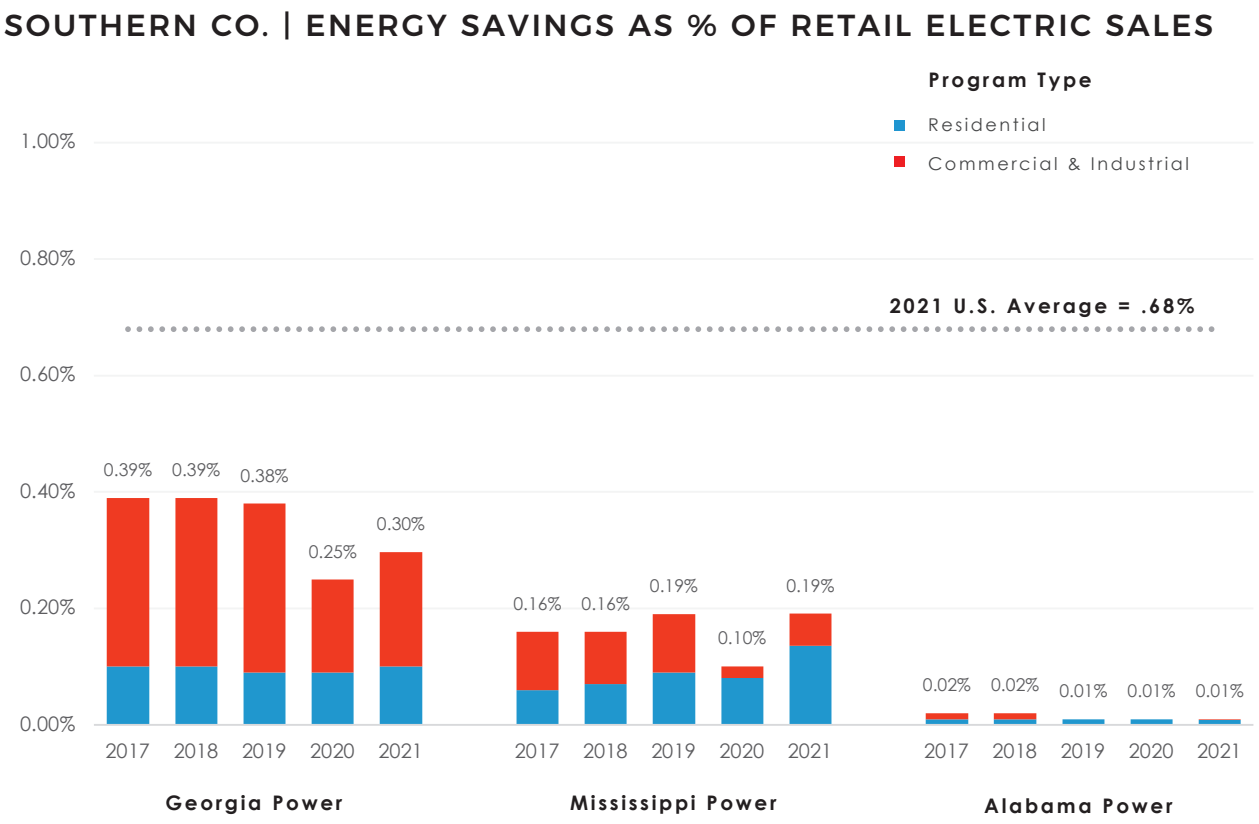
As part of its 2020 IRP process, Dominion indicated that it would double participation in its low-income Neighborhood Energy Efficiency Program (NEEP). This was an encouraging development, for which we applaud both DESC and the Commission. Unfortunately, Dominion's actual efficiency savings in pandemic-impacted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



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.

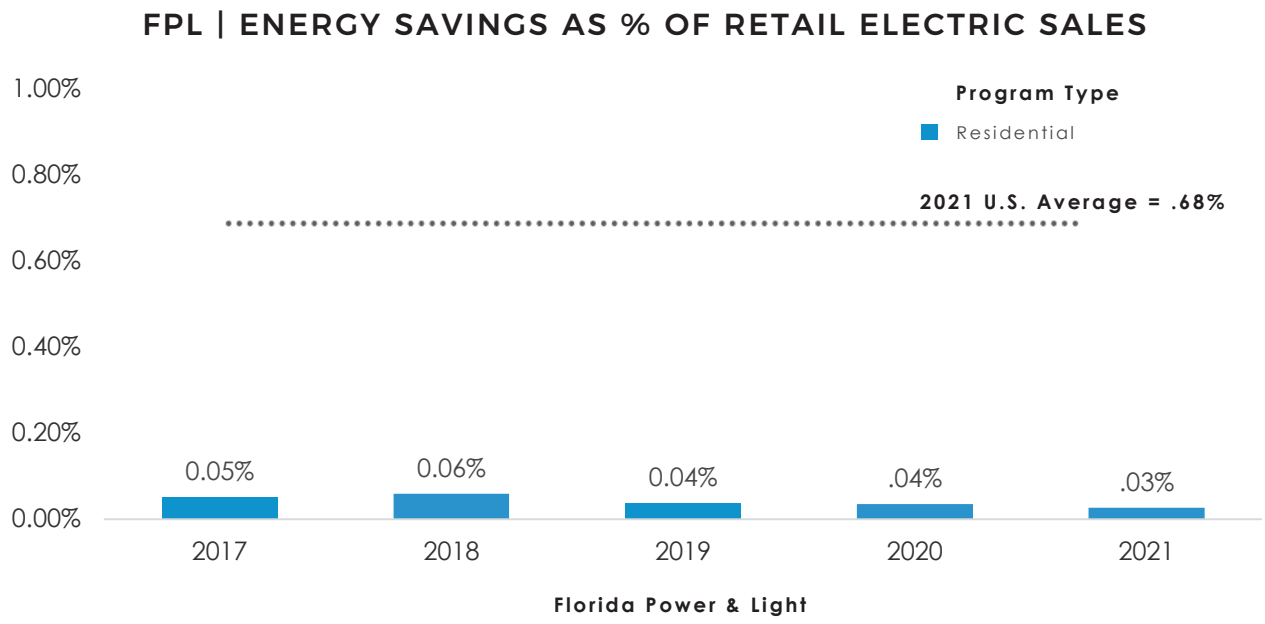
NO NEWS IS BAD NEWS IN ALABAMA

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.



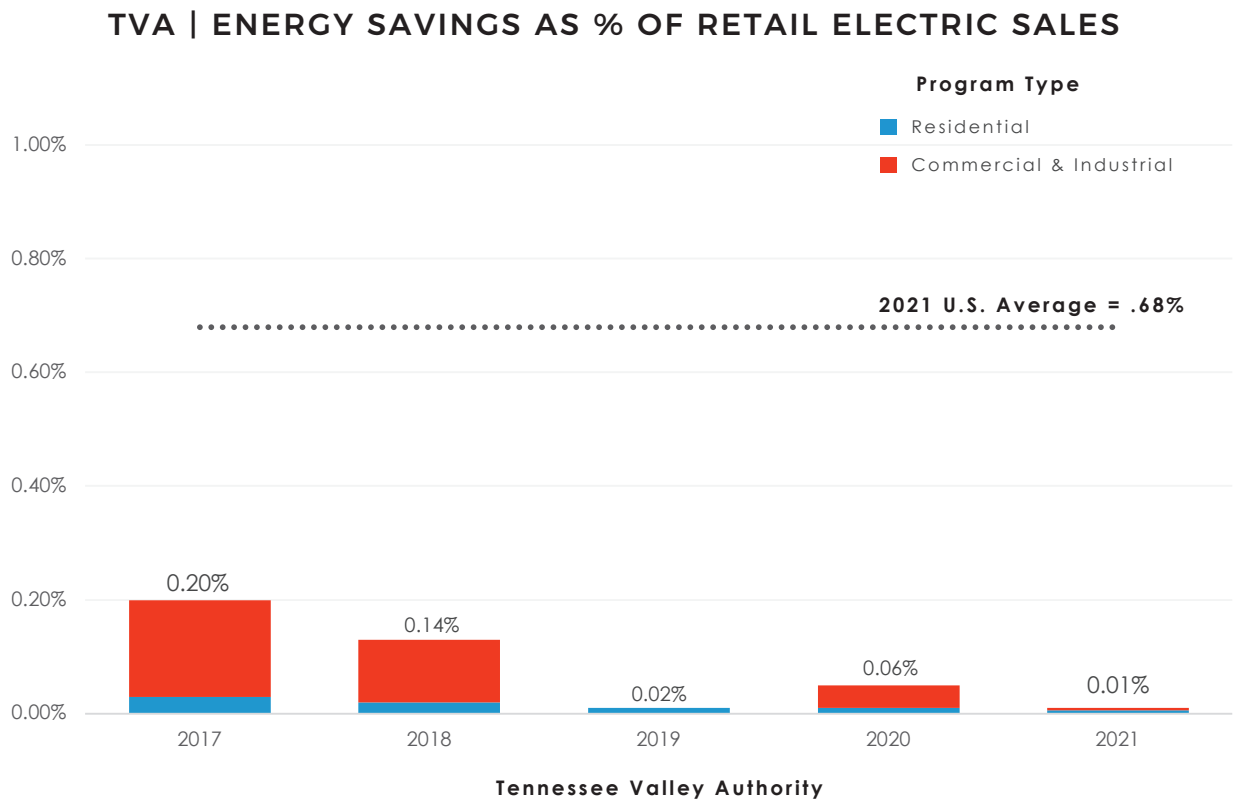
Florida Power & Light's efficiency performance has historically been among the lowest in the Southeast, and in 2021 its annual savings declined even below 2020 levels. Because FPL generates over half of all electric sales in Florida, its decisions surrounding energy efficiency have enormous repercussions 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.



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.

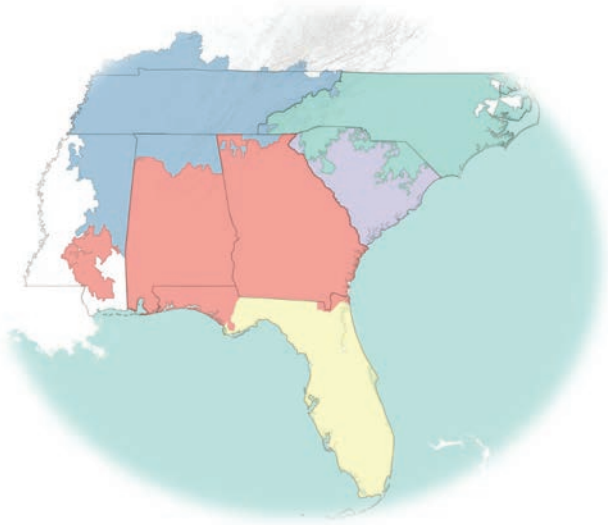
State formula funding allocations from the federal Bipartisan Infrastructure Law and Inflation Reduction Act were sourced from DOE announcements in March 23, 2022 and November 2, 2022, respectively. The comparison to utility energy efficiency program spending over the same ten-year period was developed 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)*

Total Combined							
Utility	Total GWh Savings @ Generator	Correction Factor	GWh Savings @ meter	Total Retail Sales (@ meter)	Energy Savings as %of Total Retail Sales	US Average*	*2021 SACE EE Report
FPL	83.92	0.951655848	79.86295878	127,904	0.062439766	0.68	
Duke	61	0.950086593	57.95528219	40,832	0.141935938		
OUC	10.34	0.96246387	9.951876419	7,155	0.139089817		
TECO	59.9	0.946969671	56.72348329	20,791	0.272827104		
JEA	8.16	0.963386728	7.861235698	12295	0.063938477		

Residential					
Utility	Total GWh Savings @ Generator	Correction Factor	GWh Savings @ meter	Total Retail Sales (@ meter)	Energy Savings as %of Total Retail Sales
FPL	33.97	0.951655848	32.32774916	127,904	0.02527501
Duke	50	0.950086593	47.50432966	40,832	0.116340933
OUC	1.856	0.96246387	1.786332943	7,155	0.024966219
TECO	29.6	0.946969671	28.03030226	20,791	0.134819404
JEA	3.61	0.963386728	3.477826087	12,295	0.028286507

Commercial and Industrial					
Utility	Total GWh Savings @ Generator	Correction Factor	GWh Savings @ meter	Total Retail Sales (@ meter)	Energy Savings as %of Total Retail Sales
FPL	49.95	0.951655848	47.53520962	127,904	0.037164756
Duke	10	0.950086593	9.500865932	40,832	0.023268187
OUC	8.489	0.96246387	8.170355795	7,155	0.114190857
TECO	30.3	0.946969671	28.69318103	20,791	0.138007701
JEA	4.55	0.963386728	4.383409611	12295	0.035651969

Total					
Utility	Total GWh Savings	Residential GWh Savings	Commercial and Industrial GWh Savings	Residential Savings% of Total	Commercial Savings % of Total
FPL	83.92	33.97	49.95	40.48%	59.52%
Duke	61	50	10	81.97%	16.39%
OUC	10.34	1.856	8.489	17.95%	82.10%
TECO	59.9	29.6	30.3	49.42%	50.58%
JEA	8.16	3.61	4.55	44.24%	55.76%

Correction Factor Calculation Chart				
Utitlity	@ Meter	@ Generator	Correction Factor	Source of Data
FPL	15,093,375	15,860,119	0.951655848	Residential Low Income (Pg. 9)
Duke	22,587,714	23,774,374	0.950086593	Home Energy Check (Pg. 3)
OUC	3,232,330	3,358,391	0.96246387	Commerical Indoor Lighting Rebate (Pg. 3-19)
TECO	15,954,456	16,847,906	0.946969671	Neighborhood Weatherization (Pg. 47)
JEA	4,252,100	4,413,700	0.963386728	Commercial Perscriptive Lighting (Pg. 10)

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May 1, 2024

VIA: ELECTRONIC FILING

Mr. Adam Teitzman
Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Re: Energy Conservation Cost Recovery Clause
FPSC Docket No. 20240002-EG

Dear Mr. Teitzman:

Attached for filing in the above docket on behalf of Tampa Electric Company is the Testimony of M. Ashley Sizemore and Exhibit MAS-1, entitled Schedules Supporting Conservation Cost Recovery Factor, Actual, for the period January 2023 – December 2023.

Thank you for your assistance in connection with this matter.

Sincerely,

Malcolm N. Means

Malcolm N. Means

MNM/bml
Attachment

cc: All Parties of Record (w/attachment)

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing Testimony, filed on behalf of Tampa Electric Company, has been furnished by electronic mail on this 1st day of May, 2024 to the following:

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ATTORNEY

TECO
TAMPA ELECTRIC
AN EMERA COMPANY

BEFORE THE

FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 20240002-EG

IN RE: ENERGY CONSERVATION COST RECOVERY CLAUSE

TESTIMONY AND EXHIBIT

OF

M. ASHLEY SIZEMORE

FILED: May 1, 2024

TAMPA ELECTRIC COMPANY
DOCKET NO. 20240002-EG
FILED: MAY 1, 2024

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

PREPARED DIRECT TESTIMONY

OF

M. ASHLEY SIZEMORE

Q. Please state your name, address, occupation and employer.

A. My name is M. Ashley Sizemore. My business address is 702 North Franklin Street, Tampa, Florida 33602. I am employed by Tampa Electric Company ("Tampa Electric" or "the company") as Director, Regulatory Rates in the Regulatory Affairs.

Q. Please provide a brief outline of your educational background and business experience.

A. I received a Bachelor of Arts degree in Political Science and a Master of Business Administration from the University of South Florida in 2005 and 2008, respectively. I joined Tampa Electric in 2010 as a Customer Service Professional. In 2011, I joined the Regulatory Affairs Department as a Rate Analyst. I spent six years in the Regulatory Affairs Department working on environmental and fuel and capacity cost recovery clauses. During the following three years as a Program

Manager in Customer Experience, I managed billing and payment customer solutions, products and services. I returned to the Regulatory Affairs Department in 2020 as Manager, Rates. I was promoted to my current position in May 2023. My duties entail overseeing the cost recovery for fuel and purchased power, interchange sales, capacity payments, approved environmental projects, conservation and storm protection plan projects. I have over 11 years of electric utility experience in the areas of customer experience and project management as well as the management of fuel clause and purchased power, capacity, and environmental cost recovery clauses.

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my testimony is to present and support for Commission review and approval the company's actual DSM programs related true-up costs incurred during the January through December 2023 period.

Q. Did you prepare any exhibits in support of your testimony?

A. Yes. Exhibit No. MAS-1, entitled "Tampa Electric Company, Schedules Supporting Conservation Cost Recovery

Factor, Actual, January 2023–December 2023" was prepared under my direction and supervision. This Exhibit includes Schedules CT-1 through CT-6 which support the company's actual and prudent DSM program related true-up costs incurred during the January through December 2023 period.

Q. What were Tampa Electric's actual January through December 2023 conservation costs?

A. For the period, January through December 2023, Tampa Electric incurred actual net conservation costs of $47,132,152.

Q. What is the final end of period true-up amount for the conservation clause for January through December 2023?

A. The final conservation clause end of period true-up for January through December 2023 is an over-recovery of $8,209,235 which includes interest. This calculation is detailed on Schedule CT-1, page 1 of 1.

Q. Please summarize how Tampa Electric's actual program costs for January through December 2023 period compare to the actual/estimated costs presented in Docket No.

20230002-EG?

A. For the period, January through December 2023, Tampa Electric had a variance of $66,651 or 0.14 percent more than the estimated amount. The estimated total program costs were projected to be $47,065,501 which was the amount approved in Order No. PSC 2023-0342-FOF-EG, issued November 16, 2023, as compared to the incurred actual net conservation costs of $47,132,152.

Q. Please summarize the reasons why the actual expenses were more than projected expenses by $66,651?

A. The variance was a result of the following actual expenses being more than estimated in the following residential programs: Walk-through Energy Audit; Computer Assisted Audits; ENERGY STAR for New Homes; ENERGY STAR Pool Pumps; ENERGY STAR Thermostats; Neighborhood Weatherization; and Energy Planner. Additionally, actual expenses were more than estimated in the following commercial/industrial programs: Commercial/Industrial Audit (Free); Commercial Cooling; Industrial Load Management; Lighting Non-Conditioned; and the Integrated Renewable Energy System (Pilot). Each DSM program's detailed variance and common variance contribution is

shown on Schedule CT-2, Page 3 of 4.

Q. Are all costs listed on Schedule CT-2 directly related to the Commission's approved DSM programs?

A. Yes.

Q. When did Tampa Electric transition to the Commission approved 2020-2029 Ten-Year DSM Plan?

A. Tampa Electric transitioned to the Commission approved 2020-2029 Ten-Year DSM Plan on November 2, 2020, for all DSM programs.

Q. Did Tampa Electric offer the programs contained in the 2020-2029 Ten-Year DSM Plan the entire 2023 period?

A. Yes.

Q. Should Tampa Electric's cost incurred during the January through December 2023 period for energy conservation be approved by the Commission?

A. Yes, the costs incurred were prudent and directly related to the Commission's approved DSM programs and should be

approved.

Q. Does that conclude your testimony?

A. Yes, it does.

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EXHIBIT MAS-1

TAMPA ELECTRIC COMPANY

SCHEDULES SUPPORTING CONSERVATION

COST RECOVERY FACTOR

ACTUAL

JANUARY 2023 - DECEMBER 2023

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CONSERVATION COST RECOVERY

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SCHEDULE CT-1
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TAMPA ELECTRIC COMPANY
Energy Conservation
Adjusted Net True-up
For Months January 2023 through December 2023

End of Period True-up			
	Principal	$7,900,469	
	Interest	$308,766	
	Total		$8,209,235
Less: Projected True-up			
(Last Projected Conservation Hearing)			
	Principal	$7,092,733	
	Interest	$270,457	
	Total		$7,363,190
Adjusted Net True-up			$846,045

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SCHEDULE CT-2
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TAMPA ELECTRIC COMPANY
Analysis of Energy Conservation Program Costs
Actual vs. Projected
For Months January 2023 through December 2023

	Description	Actual	Projected	Difference
1	Capital Investment	$1,863,435	$1,862,018	$1,417
2	Payroll	$4,922,976	$4,859,139	$63,838
3	Materials and Supplies	$482,028	$313,562	$168,466
4	Outside Services	$2,829,193	$2,670,662	$158,531
5	Advertising	$1,354,240	$1,252,620	$101,619
6	Incentives	$35,167,660	$35,228,550	($60,890)
7	Vehicles	$135,047	$133,162	$1,884
8	Other	$397,694	$777,705	($380,011)
9	Subtotal	$47,152,274	$47,097,418	$54,856
10	Less: LED Street and Outdoor Conversion Program	($175)	($175)	$0
11	Less: Renewable Revenues	($123,843)	($120,676)	($3,167)
12	Total	$47,028,255	$46,976,566	$51,689
13	Less: Renewable Program	$103,897	$88,934	$14,963
14	Total Program Costs	$47,132,152	$47,065,501	$66,651
15	Beginning of Period True-up Overrecovery	($4,883,834)	($4,883,834)	$0
16	Amounts included in Base Rates	$0	$0	$0
17	Conservation Adjustment Revenues	($50,148,788)	($49,274,401)	($874,387)
18	Regulatory Adjustments	0	$0	$0
19	True-up Before Interest	$7,900,469	$7,092,733	$807,736
20	Interest Provision	$308,766	$270,457	$38,309
21	End of Period True-up	$8,209,235	$7,363,190	$846,045

SCHEDULE CT-2
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TAMPA ELECTRIC COMPANY
Actual Conservation Program Costs per Program
For Months January 2023 through December 2023

	Program Name	Capital Investment	Payroll & Benefits	Materials & Supplies	Outside Services	Advertising	Incentives	Vehicles	Other	Program Revenues	Total
D0083437	Residential Walk-Through Energy Audit	0	1,473,790	25,694	14,831	542,761	0	74,130	30,907	0	2,162,112
D0083432	Residential Customer Assisted Audit	0	3,643	0	398,000	0	0	0	0	0	401,643
D0083434, D0083317	Residential Computer Assisted Audit	0	3,427	0	0	0	0	0	0	0	3,427
D0083526	Residential Ceiling Insulation	0	47,328	0	0	0	136,793	0	3,452	0	187,574
D0083530	Residential Duct Repair	0	13,930	0	0	0	54,788	0	0	0	68,718
D0083488	Energy and Renewable Education, Awareness and Agency Outreach	4,662	56,497	26,890	150,338	0	0	457	26,068	0	264,912
D0083546	Energy Star Multi-Family	0	0	0	0	0	0	0	0	0	-
D0083541	Energy Star for New Homes	0	16,650	0	0	0	770,000	0	2,728	0	789,378
D0091086	Energy Star Pool Pumps	0	25,024	0	0	0	511,000	0	403	0	536,427
D0091087	Energy Star Thermostats	0	40,036	0	0	0	75,134	0	2,204	0	117,374
D0083332	Residential Heating and Cooling	0	64,449	0	0	34	226,935	0	3,287	0	294,706
D0083538	Neighborhood Weatherization	0	593,205	253,933	159,108	550	1,067,482	961	11,857	0	2,087,096
D0083542	Energy Planner	763,984	770,970	121,903	697,900	501,216	0	47,207	57,662	0	2,960,842
D0091106	Residential Prime Time Plus	50,772	430,377	52,733	674,582	196,336	17,853	180	2,141	0	1,424,973
D0083486	Residential Window Replacement	0	74,347	0	0	0	175,823	0	0	0	250,170
D0083335	Prime Time	0	45,890	0	16,018	0	0	0	0	0	61,908
D0083447	Commercial/Industrial Audit (Free)	0	414,451	443	0	113,036	0	9,416	22,169	0	559,516
D0083446	Comprehensive Commercial/Industrial Audit (Paid)	0	0	0	0	0	0	8	0	0	8
D0083534	Commercial Chiller	0	597	0	0	0	5,598	17	0	0	6,212
D0083487	Cogeneration	0	35,730	0	0	0	0	0	0	0	35,730
D0083318	Conservation Value	0	0	0	0	0	0	8	0	0	8
D0083540	Commercial Cooling	0	4,921	0	0	0	27,576	196	1,673	0	34,366
D0083533	Demand Response	0	33,968	0	0	0	3,813,567	0	2,336	0	3,849,871
D0091107	Facility Energy Management System	0	24,303	0	0	0	595,936	31	0	0	620,270
D0083506	Industrial Load Management (GLSM 2&3)	0	38,698	0	0	0	22,722,751	0	0	0	22,761,449
D0083547	LED Street and Outdoor Conversion Program	0	0	0	0	0	0	0	12,803	(175)	12,628
D0083528	Lighting Conditioned Space	0	60,173	233	0	306	237,809	1,148	4,144	0	303,814
D0083544	Lighting Non-Conditioned Space	0	55,870	0	0	0	166,049	616	2,689	0	225,225
D0083535	Lighting Occupancy Sensors	0	16,474	0	0	0	13,435	58	0	0	29,967
D0083527	CILM (GLSM 1)	0	0	0	0	0	6,531	0	0	0	6,531
D0091108	Commercial Smart Thermostats	0	23,500	0	0	0	1,667	31	0	0	25,198
D0083529	Standby Generator	0	52,473	0	539,295	0	4,531,333	0	30,705	0	5,153,806
D0091109	Variable Frequency Drive Control for Compressors	0	14,078	0	0	0	9,600	14	0	0	23,693
D0083537	Commercial Water Heating	0	75	0	0	0	0	0	0	0	75
D0083539	Conservation Research and Development	0	1,771	0	44,028	0	0	20	1,804	0	47,624
D0083531	Renewable Energy Program (Sun to Go)	0	9,501	0	10,343	0	0	102	0	(123,843)	(103,897)
D0083328	Common Expenses	0	476,130	199	107,715	0	0	445	178,662	0	763,151
D0090066	Integrated Renewable Energy System (Pilot)	1,044,017	698	0	17,036	0	0	0	0	0	1,061,751
	Total All Programs	1,863,435	4,922,976	482,028	2,829,193	1,354,240	35,167,660	135,047	397,694	(124,018)	47,028,255
	Less Renewable Energy Program	-	9,501	-	10,343	-	-	102	-	(123,843)	(103,897)
	Total Less Renewable Energy Program	1,863,435	4,913,475	482,028	2,818,851	1,354,240	35,167,660	134,944	397,694	(175)	47,132,152

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TAMPA ELECTRIC COMPANY
Conservation Program Costs per Program
Variance - Actual vs. Projected
For Months January 2023 through December 2023

	Program Name	Capital Investment	Payroll & Benefits	Materials & Supplies	Outside Services	Advertising	Incentives	Vehicles	Other	Program Revenues	Total
D0083437	Residential Walk-Through Energy Audit	0	169,643	11,252	(16,570)	(58,974)	0	2,828	9,418	0	117,597
D0083432	Residential Customer Assisted Audit	0	(1,761)	0	398,000	0	0	0	(398,100)	0	(1,861)
D0083434, D0083317	Residential Computer Assisted Audit	0	1,306	0	0	0	0	0	0	0	1,306
D0083526	Residential Ceiling Insulation	0	(8,396)	0	0	0	(1,421)	(120)	2,833	0	(7,104)
D0083530	Residential Duct Repair	0	(12,335)	0	(500)	0	(10,831)	(240)	0	0	(23,906)
D0083488	Energy and Renewable Education, Awareness and Agency	4	(49,954)	22,550	5,781	0	0	(143)	(1,082)	0	(22,844)
D0083546	Energy Star Multi-Family	0	0	0	0	0	0	0	0	0	0
D0083541	Energy Star for New Homes	0	(8,964)	0	0	0	91,000	(150)	(2,221)	0	79,665
D0091086	Energy Star Pool Pumps	0	633	0	0	0	109,200	(60)	403	0	110,175
D0091087	Energy Star Thermostats	0	684	0	0	0	10,206	0	2,204	0	13,094
D0083332	Residential Heating and Cooling	0	(5,481)	0	0	34	(16,335)	(180)	476	0	(21,486)
D0083538	Neighborhood Weatherization	0	35,760	75,181	159,108	0	202,004	(205)	(671)	0	471,177
D0083542	Energy Planner	849	43,221	78,180	(26,139)	46,155	0	13,599	(1,854)	0	154,011
D0091106	Residential Prime Time Plus	3,408	(82,583)	(18,815)	(17,631)	97,237	3,231	(11,055)	(8,275)	0	(34,483)
D0083447	Commercial/Industrial Audit (Free)	0	(9,476)	94	(2,000)	16,861	0	1,409	13,001	0	19,889
D0083446	Comprehensive Commercial/Industrial Audit (Paid)	0	(514)	0	(500)	0	0	(72)	0	0	(1,085)
D0083534	Commercial Chiller	0	(85)	0	0	0	(10,500)	(8)	0	0	(10,593)
D0083487	Cogeneration	0	(8,034)	0	0	0	0	(600)	0	0	(8,634)
D0083318	Conservation Value	0	(1,534)	0	(542)	0	(20,000)	8	0	0	(22,068)
D0083540	Commercial Cooling	0	368	0	0	0	12,312	66	500	0	13,246
D0083533	Demand Response	0	(2,746)	0	0	0	(0)	(600)	(542)	0	(3,888)
D0091107	Facility Energy Management System	0	(4,381)	0	0	0	(695,000)	(100)	0	0	(699,481)
D0083506	Industrial Load Management (GLSM 2&3)	0	(6,255)	0	0	0	506,059	(950)	0	0	498,855
D0083547	LED Street and Outdoor Conversion Program	0	0	0	0	0	0	0	0	0	0
D0083528	Lighting Conditioned Space	0	(4,156)	98	0	306	(97,114)	(298)	1,379	0	(99,785)
D0083544	Lighting Non-Conditioned Space	0	5,261	0	0	0	40,190	(258)	257	0	45,451
D0083535	Lighting Occupancy Sensors	0	1,294	0	(8,488)	0	1,864	(67)	0	0	(5,398)
D0083527	CILM (GLSM 1)	(3,167)	(82)	0	0	0	0	0	0	0	(3,249)
D0091108	Commercial Smart Thermostats	0	337	0	0	0	(5,000)	(142)	(500)	0	(5,304)
D0083529	Standby Generator	0	6,008	0	46,444	0	(110,632)	(300)	1,782	0	(56,699)
D0091109	Variable Frequency Drive Control for Compressors	0	(938)	0	0	0	(6,000)	(136)	0	0	(7,074)
D0083537	Commercial Water Heating	0	(181)	0	0	0	(2,000)	(25)	0	0	(2,206)
D0083539	Conservation Research and Development	0	(712)	0	(280,972)	0	0	(300)	1,804	0	(280,179)
D0083531	Renewable Energy Program (Sun to Go)	0	(1,873)	0	0	0	0	77	(10,000)	(3,167)	(14,963)
D0083328	Common Expenses	0	(8,984)	(74)	(76,213)	0	0	445	9,478	0	(75,347)
D0090066	Integrated Renewable Energy System (Pilot)	323	(4,110)	0	(17,000)	0	0	(150)	0	0	(20,937)
	Total All Programs	1,417	63,838	168,466	158,531	101,619	(60,890)	1,884	(380,011)	(3,167)	51,689
	Less Renewable Energy Program	0	(1,873)	0	0	0	0	77	(10,000)	(3,167)	(14,963)
	Total Less Renewable Energy Program	1,417	65,711	168,466	158,531	101,619	(60,890)	1,807	(370,011)	0	66,651

SCHEDULE CT-2
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TAMPA ELECTRIC COMPANY
Description for Accounts
For Months January 2023 through December 2023

Internal Order	Program Name
D0083437	Residential Walk-Through Energy Audit
D0083432	Residential Customer Assisted Audit
D0083434, D0083317	Residential Computer Assisted Audit
D0083526	Residential Ceiling Insulation
D0083530	Residential Duct Repair
D0083488	Energy and Renewable Education, Awareness and Agency Outreach
D0083546	Energy Star Multi-Family
D0083541	Energy Star for New Homes
D0091086	Energy Star Pool Pumps
D0091087	Energy Star Thermostats
D0083332	Residential Heating and Cooling
D0083538	Neighborhood Weatherization
D0083542	Energy Planner
D0091106	Residential Prime Time Plus
D0083486	Residential Window Replacement
D0083335	Prime Time
D0083447	Commercial/Industrial Audit (Free)
D0083446	Comprehensive Commercial/Industrial Audit (Paid)
D0083534	Commercial Chiller
D0083487	Cogeneration
D0083318	Conservation Value
D0083540	Commercial Cooling
D0083533	Demand Response
D0091107	Facility Energy Management System
D0083506	Industrial Load Management (GLSM 2&3)
D0083547	LED Street and Outdoor Conversion Program
D0083528	Lighting Conditioned Space
D0083544	Lighting Non-Conditioned Space
D0083535	Lighting Occupancy Sensors
D0083527	CILM (GLSM 1)
D0091108	Commercial Smart Thermostats
D0083529	Standby Generator
D0091109	Variable Frequency Drive Control for Compressors
D0083537	Commercial Water Heating
D0083539	Conservation Research and Development
D0083531	Renewable Energy Program (Sun to Go)
D0083328	Common Expenses
D0090066	Integrated Renewable Energy System (Pilot)

SCHEDULE CT-3
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TAMPA ELECTRIC COMPANY
Energy Conservation Adjustment
Summary of Expenses by Program by Month
For Months January 2023 through December 2023

	Program Name	January	February	March	April	May	June	July	August	September	October	November	December	Total
D0083437	Residential Walk-Through Energy Audit	152,369	130,435	177,470	158,811	339,488	173,534	151,076	285,221	156,648	115,699	160,258	161,104	2,162,112
D0083432	Residential Customer Assisted Audit	284	150	450	191	311	319	398,321	303	281	422	227	385	401,643
D0083434, D0083317	Residential Computer Assisted Audit	0	0	0	416	419	368	522	1,029	0	673	0	0	3,427
D0083526	Residential Ceiling Insulation	12,726	16,009	16,442	11,846	19,891	12,395	8,929	30,059	6,374	14,808	16,612	21,484	187,574
D0083530	Residential Duct Repair	2,982	13,141	2,716	1,603	15,065	746	1,136	10,704	3,885	778	3,331	12,631	68,718
D0083488	Energy and Renewable Education, Awareness ar	9,056	44,191	26,590	17,937	10,456	36,623	24,577	22,612	7,533	23,269	22,444	19,624	264,912
D0083546	Energy Star Multi-Family	0	0	0	0	0	0	0	0	0	0	0	0	0
D0083541	Energy Star for New Homes	62,594	46,677	59,709	54,245	54,011	51,416	0	239,000	14,311	89,019	43,446	74,950	789,378
D0091086	Energy Star Pool Pumps	34,382	39,428	27,449	39,376	50,089	44,903	52,486	67,285	32,770	72,953	30,457	44,849	536,427
D0091087	Energy Star Thermostats	12,628	9,887	8,544	10,024	6,979	9,515	4,193	18,157	6,386	14,142	6,642	10,278	117,374
D0083332	Residential Heating and Cooling	29,732	25,503	26,015	27,964	24,804	17,657	28,420	23,575	16,013	28,337	16,373	30,315	294,706
D0083538	Neighborhood Weatherization	180,088	66,921	181,775	93,670	79,560	153,279	230,667	298,307	50,173	169,481	228,884	354,291	2,087,096
D0083542	Energy Planner	182,262	183,993	421,059	262,277	225,993	308,095	188,747	194,367	193,487	175,711	209,634	415,219	2,960,842
D0091106	Residential Prime Time Plus	150,340	56,549	338,973	118,655	139,486	66,349	47,721	57,287	64,788	121,901	162,965	99,958	1,424,973
D0083486	Residential Window Replacement	27,048	19,118	23,052	22,373	22,035	20,954	20,505	22,867	16,562	21,499	17,053	17,104	250,170
D0083335	Prime Time	1,028	5,237	3,761	586	7,351	7,578	6,123	10,158	6,150	5,861	4,570	3,505	61,908
D0083447	Commercial/Industrial Audit (Free)	40,878	34,412	44,502	37,312	42,801	39,850	45,343	50,271	51,752	74,896	70,111	27,388	559,516
D0083446	Comprehensive Commercial/Industrial Audit (Pa	0	0	0	0	0	0	0	0	0	0	0	8	8
D0083534	Commercial Chiller	5,669	109	0	0	0	0	0	109	0	85	51	189	6,212
D0083487	Cogeneration	2,382	2,350	6,543	2,726	2,870	2,232	2,869	2,650	2,435	2,904	2,164	3,606	35,730
D0083318	Conservation Value	2,000	(2,000)	0	0	0	0	0	0	0	0	0	8	8
D0083540	Commercial Cooling	1,770	456	652	11,437	322	551	5,398	6,484	378	5,932	356	630	34,366
D0083533	Demand Response	574,633	297,579	298,108	297,756	297,502	297,444	297,875	298,061	297,449	297,401	297,945	298,119	3,849,871
D0091107	Facility Energy Management System	1,533	1,676	1,593	243,791	6,626	277,566	1,883	2,096	1,923	52,385	1,817	27,379	620,270
D0083506	Industrial Load Management (GLSM 2&3)	1,525,506	2,077,105	1,875,732	1,810,380	1,930,620	1,891,035	1,992,020	2,056,462	2,143,358	1,985,028	1,698,548	1,775,656	22,761,449
D0083547	LED Street and Outdoor Conversion Program	10,483	2,145	0	0	0	0	0	0	0	0	0	0	12,628
D0083528	Lighting Conditioned Space	49,002	23,247	6,345	24,640	8,933	26,843	6,179	77,410	7,788	13,321	33,937	26,168	303,814
D0083544	Lighting Non-Conditioned Space	16,319	16,126	3,746	22,489	5,123	18,380	7,545	60,105	4,766	13,155	4,607	52,864	225,225
D0083535	Lighting Occupancy Sensors	1,022	1,161	2,805	1,325	1,540	1,344	1,524	1,264	1,451	2,930	11,826	1,776	29,967
D0083527	CILM (GLSM 1)	0	0	0	0	1,866	933	933	933	933	933	0	0	6,531
D0091108	Commercial Smart Thermostats	1,533	1,676	1,742	2,213	3,139	3,013	2,286	1,928	2,048	2,197	1,564	1,858	25,198
D0083529	Standby Generator	411,784	409,596	417,852	414,885	419,956	426,765	426,350	451,479	406,598	450,853	464,993	452,695	5,153,806
D0091109	Variable Frequency Drive Control for Compressc	1,022	1,118	976	1,166	10,300	2,044	1,280	1,285	1,123	1,060	1,077	1,242	23,693
D0083537	Commercial Water Heating	0	0	75	0	0	0	0	0	0	0	0	0	75
D0083539	Conservation Research and Development	0	0	447	147	368	102	76	0	0	170	1,785	44,528	47,624
D0083531	Renewable Energy Program (Sun to Go)	(9,355)	1,646	(9,015)	(10,296)	(10,718)	(10,490)	(10,098)	(10,190)	(9,740)	(9,109)	(8,271)	(8,262)	(103,897)
D0083328	Common Expenses	54,079	70,981	72,155	54,080	61,252	48,397	42,267	59,106	112,355	84,368	33,875	70,236	763,151
D0090066	Integrated Renewable Energy System (Pilot)	89,713	106,259	88,989	88,390	88,048	87,263	86,737	86,249	85,759	85,271	84,781	84,293	1,061,751
	Total All Programs	3,637,494	3,702,882	4,127,252	3,822,415	3,866,486	4,017,002	4,073,888	4,426,631	3,685,737	3,918,331	3,624,061	4,126,078	47,028,255
	Less Renewable Energy Program	(9,355)	1,646	(9,015)	(10,296)	(10,718)	(10,490)	(10,098)	(10,190)	(9,740)	(9,109)	(8,271)	(8,262)	(103,897)
	Total Less Renewable Energy Program	3,646,848	3,701,236	4,136,266	3,832,711	3,877,204	4,027,492	4,083,986	4,436,821	3,695,477	3,927,440	3,632,331	4,134,339	47,132,152

SCHEDULE CT-3
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TAMPA ELECTRIC COMPANY
Energy Conservation Adjustment
Calculation of True-up and Interest Provision
For Months January 2023 through December 2023

Description	January	February	March	April	May	June	July	August	September	October	November	December	Total
1 Residential Conservation Audit Fees (A)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2 Conservation Adjustment Revenues *	3,783,092	3,435,853	3,530,619	3,845,837	4,054,549	4,452,607	5,049,290	5,118,045	5,223,905	4,447,626	3,701,237	3,506,130	50,148,788
3 Total Revenues	3,783,092	3,435,853	3,530,619	3,845,837	4,054,549	4,452,607	5,049,290	5,118,045	5,223,905	4,447,626	3,701,237	3,506,130	50,148,788
4 Prior Period True-up	30,160	30,160	30,160	30,160	30,160	30,160	30,160	30,160	30,160	30,160	30,160	30,163	361,923
5 Conservation Revenue Applicable to Period	3,813,252	3,466,013	3,560,779	3,875,997	4,084,709	4,482,767	5,079,450	5,148,205	5,254,065	4,477,786	3,731,397	3,536,293	50,510,711
6 Conservation Expenses	3,646,848	3,701,236	4,136,266	3,832,711	3,877,204	4,027,492	4,083,986	4,436,821	3,695,477	3,927,440	3,632,331	4,134,339	47,132,152
8 Regulatory Adjustments	0	0	0	0	0	0	0	0	0	0	0	0	0
7 True-up This Period (Line 5 - Line 6)	166,404	(235,223)	(575,488)	43,285	207,504	455,274	995,464	711,384	1,558,588	550,347	99,066	(598,047)	3,378,559
9 Interest Provision This Period	18,520	18,937	17,868	17,139	18,071	19,870	23,467	27,796	32,723	37,521	39,093	37,761	308,766
10 True-up & Interest Provision Beginning of Period	4,883,834	5,038,598	4,792,152	4,204,372	4,234,636	4,430,051	4,875,035	5,863,806	6,572,826	8,133,977	8,691,685	8,799,684	4,883,834
11 Prior Period True-up Collected (Refunded)	(30,160)	(30,160)	(30,160)	(30,160)	(30,160)	(30,160)	(30,160)	(30,160)	(30,160)	(30,160)	(30,160)	(30,163)	(361,923)
12 End of Period Total Net True-up	5,038,598	4,792,152	4,204,372	4,234,636	4,430,051	4,875,035	5,863,806	6,572,826	8,133,977	8,691,685	8,799,684	8,209,235	8,209,235

* Net of Revenue Taxes

(A) Included in Line 6

Revenues:	3,813,252	Expenses:	3,646,848	True Up:	166,404
	3,466,013		3,701,236		(235,223)
	3,560,779		4,136,266		(575,488)
	3,875,997		3,832,711		43,285
	4,084,709		3,877,204		207,504
	4,482,767		4,027,492		455,274
	5,079,450		4,083,986		995,464
	5,148,205		4,436,821		711,384
	5,254,065		3,695,477		1,558,588
	4,477,786		3,927,440		550,347
	3,731,397		3,632,331		99,066
	3,536,293		4,134,339		(598,047)
	50,510,711		47,132,152		3,378,559
				Check	3,378,559
				Variance	0

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FINAL ECCR 2023 TRUE-UP
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TAMPA ELECTRIC COMPANY
Energy Conservation Adjustment
Calculation of True-up and Interest Provision
For Months January 2023 through December 2023

Interest Provision	January	February	March	April	May	June	July	August	September	October	November	December	Total
1 Beginning True-up Amount	$4,883,834	$5,038,598	$4,792,152	$4,204,372	$4,234,636	$4,430,051	$4,875,035	$5,863,806	$6,572,826	$8,133,977	$8,691,685	$8,799,684	
2 Ending True-up Amount Before Interest	5,020,078	4,773,215	4,186,504	4,217,497	4,411,980	4,855,165	5,840,339	6,545,030	8,101,254	8,654,164	8,760,591	8,171,474	
3 Total Beginning & Ending True-up	9,903,912	9,811,813	8,978,656	8,421,869	8,646,616	9,285,216	10,715,374	12,408,836	14,674,080	16,788,141	17,452,276	16,971,158	
4 Average True-up Amount (50% of Line 3)	4,951,956	4,905,907	4,489,328	4,210,935	4,323,308	4,642,608	5,357,687	6,204,418	7,337,040	8,394,071	8,726,138	8,485,579	
5 Interest Rate - First Day of Month	4.370000	4.610000	4.660000	4.880000	4.890000	5.140000	5.130000	5.370000	5.370000	5.330000	5.400000	5.340000	
6 Interest Rate - First Day of Next Month	4.610000	4.660000	4.880000	4.890000	5.140000	5.130000	5.370000	5.370000	5.330000	5.400000	5.340000	5.340000	
7 Total (Line 5 + Line 6)	8.980000	9.270000	9.540000	9.770000	10.030000	10.270000	10.500000	10.740000	10.700000	10.730000	10.740000	10.680000	
8 Average Interest Rate (50% of Line 7)	4.490000	4.635000	4.770000	4.885000	5.015000	5.135000	5.250000	5.370000	5.350000	5.365000	5.370000	5.340000	
9 Monthly Average Interest Rate (Line 8/12)	0.003740	0.003860	0.003980	0.004070	0.004180	0.004280	0.004380	0.004480	0.004460	0.004470	0.004480	0.004450	
10 Interest Provision (Line 4 x Line 9)	$18,520	$18,937	$17,868	$17,139	$18,071	$19,870	$23,467	$27,796	$32,723	$37,521	$39,093	$37,761	$308,766

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FINAL ECCR 2023 TRUE-UP
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TAMPA ELECTRIC COMPANY
Schedule of Capital Investment, Depreciation and Return
For Months January 2023 through December 2023

PRICE RESPONSIVE LOAD MANAGEMENT

	Description	Beginning of Period	January	February	March	April	May	June	July	August	September	October	November	December	Total
1	Investment		$51,085	$67,588	$47,788	$92,967	$53,902	$88,003	$58,289	$96,430	$67,522	$11,046	$35,214	$56,191	$726,025
2	Retirements		$40,587	$60,384	$57,762	$35,531	$78,973	$28,407	$90,592	$70,139	$82,613	$69,501	$77,785	$26,158	$718,433
3	Depreciation Base		3,104,309	3,111,512	3,101,539	3,158,975	3,133,904	3,193,500	3,161,197	3,187,488	3,172,397	3,113,941	3,071,370	3,101,402	
4	Depreciation Expense		51,651	51,799	51,775	52,171	52,441	52,728	52,956	52,906	52,999	52,386	51,544	51,440	626,796
5	Cumulative Investment	3,093,811	$3,104,309	$3,111,512	$3,101,539	$3,158,975	$3,133,904	$3,193,500	$3,161,197	$3,187,488	$3,172,397	$3,113,941	$3,071,370	$3,101,402	$3,101,402
6	Less: Accumulated Depreciation	1,534,783	1,545,847	1,537,261	1,531,274	1,547,914	1,521,382	1,545,703	1,508,067	1,490,833	1,461,219	1,444,104	1,417,863	1,443,145	1,443,145
7	Net Investment	$1,559,028	$1,558,462	$1,574,252	$1,570,264	$1,611,060	$1,612,522	$1,647,797	$1,653,130	$1,696,654	$1,711,177	$1,669,837	$1,653,507	$1,658,257	$1,658,257
8	Average Investment		1,558,745	1,566,357	1,572,258	1,590,662	1,611,791	1,630,160	1,650,464	1,674,892	1,703,916	1,690,507	1,661,672	1,655,882	
9	Return on Average Investment - Equity Component		8,475	8,516	8,548	8,648	8,763	8,863	8,949	9,082	9,239	9,166	9,010	8,978	106,237
10	Return on Average Investment - Debt Component		2,466	2,478	2,487	2,516	2,549	2,579	2,611	2,649	2,695	2,674	2,628	2,619	30,951
11	Total Depreciation and Return		$62,592	$62,793	$62,810	$63,335	$63,753	$64,170	$64,516	$64,637	$64,933	$64,226	$63,182	$63,037	$763,984

Depreciation expense is calculated using a useful life of 60 months.
Line 9 x 6.5244% x 1/12 (Jan-Jun) expansion factor of 1.34315. Line 9 x 6.5066% x 1/12 (Jul-Dec) expansion factor of 1.33950. Both based on ROE of 10.20% and weighted income tax rate of 25.345%.
Line 10 x 1.8981% x 1/12 (Jan-Dec).

ROI Equity	0.065244	0.065244	0.065244	0.065244	0.065244	0.065244	0.065066	0.065066	0.065066	0.065066	0.065066	0.065066
ROI Debt	0.018981	0.018981	0.018981	0.018981	0.018981	0.018981	0.018981	0.018981	0.018981	0.018981	0.018981	0.018981

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TAMPA ELECTRIC COMPANY
Schedule of Capital Investment, Depreciation and Return
For Months January 2023 through December 2023

INDUSTRIAL LOAD MANAGEMENT

Description	Beginning of Period	January	February	March	April	May	June	July	August	September	October	November	December	Total
1 Investment		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2 Retirements		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
3 Depreciation Base		0	0	0	0	0	0	0	0	0	0	0	0	
4 Depreciation Expense		0	0	0	0	0	0	0	0	0	0	0	0	0
5 Cumulative Investment	-	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
6 Less: Accumulated Depreciation	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 Net Investment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
8 Average Investment		0	0	0	0	0	0	0	0	0	0	0	0	
9 Return on Average Investment		0	0	0	0	0	0	0	0	0	0	0	0	0
10 Return Requirements		0	0	0	0	0	0	0	0	0	0	0	0	0
11 Total Depreciation and Return		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Depreciation expense is calculated using a useful life of 60 months.
Line 9 x 6.5244% x 1/12 (Jan-Jun) expansion factor of 1.34315. Line 9 x 6.5066% x 1/12 (Jul-Dec) expansion factor of 1.33950. Both based on ROE of 10.20% and weighted income tax rate of 25.345%.
Line 10 x 1.8981% x 1/12 (Jan-Dec).

ROI Equity	0.065244	0.065244	0.065244	0.065244	0.065244	0.065244	0.065066	0.065066	0.065066	0.065066	0.065066	0.065066	
ROI Debt	0.018981	0.018981	0.018981	0.018981	0.018981	0.018981	0.018981	0.018981	0.018981	0.018981	0.018981	0.018981	

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TAMPA ELECTRIC COMPANY
Schedule of Capital Investment, Depreciation and Return
For Months January 2023 through December 2023

ENERGY EDUCATION AWARENESS

Description	Beginning of Period	January	February	March	April	May	June	July	August	September	October	November	December	Total
1 Investment		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$ -
2 Retirements		-$12,523	$13,325	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	801
3 Depreciation Base		33,693	20,368	20,368	20,368	20,368	20,368	20,368	20,368	20,368	20,368	20,368	20,368	
4 Depreciation Expense		457	451	339	339	339	339	339	339	339	339	339	339	4,302
5 Cumulative Investment	21,170	$33,693	$20,368	$20,368	$20,368	$20,368	$20,368	$20,368	$20,368	$20,368	$20,368	$20,368	$20,368	$20,368
6 Less: Accumulated Depreciation	14,661	27,642	14,767	15,107	15,446	15,786	16,125	16,465	16,804	17,143	17,483	17,822	18,162	18,162
7 Net Investment	$6,509	$6,052	$5,601	$5,262	$4,922	$4,583	$4,243	$3,904	$3,564	$3,225	$2,885	$2,546	$2,206	$2,206
8 Average Investment		6,280	5,826	5,431	5,092	4,752	4,413	4,073	3,734	3,395	3,055	2,716	2,376	
9 Return on Average Investment - Equity Component		34	32	30	28	26	24	22	20	18	17	15	13	279
10 Return on Average Investment - Debt Component		10	9	9	8	8	7	6	6	5	5	4	4	81
11 Total Depreciation and Return		$501	$492	$378	$375	$373	$370	$367	$365	$362	$361	$358	$356	$4,662

Depreciation expense is calculated using a useful life of 60 months.
Line 9 x 6.5244% x 1/12 (Jan-Jun) expansion factor of 1.34315. Line 9 x 6.5066% x 1/12 (Jul-Dec) expansion factor of 1.33950. Both based on ROE of 10.20% and weighted income tax rate of 25.345%.
Line 10 x 1.8981% x 1/12 (Jan-Dec).

ROI Equity	0.065244	0.065244	0.065244	0.065244	0.065244	0.065244	0.065066	0.065066	0.065066	0.065066	0.065066	0.065066
ROI Debt	0.018981	0.018981	0.018981	0.018981	0.018981	0.018981	0.018981	0.018981	0.018981	0.018981	0.018981	0.018981

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TAMPA ELECTRIC COMPANY
Schedule of Capital Investment, Depreciation and Return
For Months January 2023 through December 2023

COMMERCIAL LOAD MANAGEMENT

Description	Beginning of Period	January	February	March	April	May	June	July	August	September	October	November	December	Total
1 Investment		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$ -
2 Retirements		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0
3 Depreciation Base		0	0	0	0	0	0	0	0	0	0	0	0	
4 Depreciation Expense		0	0	0	0	0	0	0	0	0	0	0	0	0
5 Cumulative Investment	-	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
6 Less: Accumulated Depreciation	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 Net Investment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
8 Average Investment		0	0	0	0	0	0	0	0	0	0	0	0	
9 Return on Average Investment - Equity Component		0	0	0	0	0	0	0	0	0	0	0	0	0
10 Return on Average Investment - Debt Component		-	-	-	-	-	-	-	-	-	-	-	-	-
11 Total Depreciation and Return		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Depreciation expense is calculated using a useful life of 60 months.
Line 9 x 6.5244% x 1/12 (Jan-Jun) expansion factor of 1.34315. Line 9 x 6.5066% x 1/12 (Jul-Dec) expansion factor of 1.33950. Both based on ROE of 10.20% and weighted income tax rate of 25.345%.
Line 10 x 1.8981% x 1/12 (Jan-Dec).

ROI Equity	0.065244	0.065244	0.065244	0.065244	0.065244	0.065244	0.065066	0.065066	0.065066	0.065066	0.065066	0.065066	
ROI Debt	0.018981	0.018981	0.018981	0.018981	0.018981	0.018981	0.018981	0.018981	0.018981	0.018981	0.018981	0.018981	

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TAMPA ELECTRIC COMPANY
Schedule of Capital Investment, Depreciation and Return
For Months January 2023 through December 2023

INTEGRATED RENEWABLE ENERGY SYSTEMS (PILOT)

Description	Beginning of Period	January	February	March	April	May	June	July	August	September	October	November	December	Total
1 Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$ -
2 In-Service		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$ -
3 Retirements		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0
4 Depreciation Base		4,188,533	4,188,533	4,188,533	4,188,533	4,188,533	4,188,533	4,188,533	4,188,533	4,188,533	4,188,533	4,188,533	4,188,533	
5 Depreciation Expense		69,809	69,809	69,809	69,809	69,809	69,809	69,809	69,809	69,809	69,809	69,809	69,809	837,707
6 Cumulative Investment In-Service	4,188,533	$4,188,533	$4,188,533	$4,188,533	$4,188,533	$4,188,533	$4,188,533	$4,188,533	$4,188,533	$4,188,533	$4,188,533	$4,188,533	$4,188,533	$4,188,533
7 Less: Accumulated Depreciation	1,317,820	1,387,629	1,457,438	1,527,247	1,597,056	1,666,865	1,736,674	1,806,483	1,876,291	1,946,100	2,015,909	2,085,718	2,155,527	2,155,527
8 CWIP	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0
9 Net Investment	$2,870,713	$2,800,904	$2,731,095	$2,661,286	$2,591,478	$2,521,669	$2,451,860	$2,382,051	$2,312,242	$2,242,433	$2,172,624	$2,102,815	$2,033,006	$2,033,006
10 Average Investment		2,835,809	2,766,000	2,696,191	2,626,382	2,556,573	2,486,764	2,416,955	2,347,146	2,277,338	2,207,529	2,137,720	2,067,911	
11 Return on Average Investment - Equity Component		15,418	15,039	14,659	14,280	13,900	13,521	13,105	12,727	12,348	11,970	11,591	11,213	159,771
12 Return on Average Investment - Debt Component		4,486	4,375	4,265	4,154	4,044	3,933	3,823	3,713	3,602	3,492	3,381	3,271	46,539
13 Total Depreciation and Return		$89,713	$89,223	$88,733	$88,243	$87,753	$87,263	$86,737	$86,249	$85,759	$85,271	$84,781	$84,293	$1,044,017

Depreciation expense is calculated using a useful life of 60 months.
Line 9 x 6.5244% x 1/12 (Jan-Jun) expansion factor of 1.34315. Line 9 x 6.5066% x 1/12 (Jul-Dec) expansion factor of 1.33950. Both based on ROE of 10.20% and weighted income tax rate of 25.345%.
Line 10 x 1.8981% x 1/12 (Jan-Dec).

ROI Equity	0.065244	0.065244	0.065244	0.065244	0.065244	0.065244	0.065066	0.065066	0.065066	0.065066	0.065066	0.065066	
ROI Debt	0.018981	0.018981	0.018981	0.018981	0.018981	0.018981	0.018981	0.018981	0.018981	0.018981	0.018981	0.018981	
ck	-	-	-	-	-	-	-	-	-	-	-	-	

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TAMPA ELECTRIC COMPANY
Schedule of Capital Investment, Depreciation and Return
For Months January 2023 through December 2023

RESIDENTIAL PRIME TIME PLUS

Description	Beginning of Period	January	February	March	April	May	June	July	August	September	October	November	December	Total
1 Investment		$0	$2,942	$53,214	$14,596	$53,995	$27,353	$50,771	$48,668	$70,524	$20,983	$72,895	$59,241	$475,181
2 Retirements		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
3 Depreciation Base		0	2,942	56,156	70,752	124,747	152,100	202,871	251,539	322,062	343,045	415,940	475,181	
4 Depreciation Expense		0	25	492	1,058	1,629	2,307	2,958	3,787	4,780	5,543	6,325	7,426	36,329
5 Cumulative Investment	0	$0	$2,942	$56,156	$70,752	$124,747	$152,100	$202,871	$251,539	$322,062	$343,045	$415,940	$475,181	$475,181
6 Less: Accumulated Depreciation	0	0	25	517	1,575	3,204	5,511	8,469	12,256	17,036	22,578	28,903	36,329	36,329
7 Net Investment	$0	$0	$2,917	$55,639	$69,177	$121,543	$146,589	$194,402	$239,283	$305,027	$320,467	$387,037	$438,852	$438,852
8 Average Investment		0	1,459	29,278	62,408	95,360	134,066	170,495	216,842	272,155	312,747	353,752	412,945	
9 Return on Average Investment - Equity Component		0	8	159	339	518	729	924	1,176	1,476	1,696	1,918	2,239	11,182
10 Return on Average Investment - Debt Component		0	2	46	99	151	212	270	343	430	495	560	653	3,261
11 Total Depreciation and Return		$0	$35	$697	$1,496	$2,298	$3,248	$4,152	$5,306	$6,686	$7,734	$8,803	$10,318	$50,772

Depreciation expense is calculated using a useful life of 60 months.
Line 9 x 6.5244% x 1/12 (Jan-Jun) expansion factor of 1.34315. Line 9 x 6.5066% x 1/12 (Jul-Dec) expansion factor of 1.33950. Both based on ROE of 10.20% and weighted income tax rate of 25.345%.
Line 10 x 1.8981% x 1/12 (Jan-Dec).

ROI Equity	0.065244	0.065244	0.065244	0.065244	0.065244	0.065244	0.065066	0.065066	0.065066	0.065066	0.065066	0.065066
ROI Debt	0.018981	0.018981	0.018981	0.018981	0.018981	0.018981	0.018981	0.018981	0.018981	0.018981	0.018981	0.018981

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TAMPA ELECTRIC COMPANY
Reconciliation and Explanation of
Difference Between Filing and FPSC Audit
For Months January 2023 through December 2023

The audit has not been completed as of the date of this filing.

Program Description and Progress

Program Title: Energy Audits

Program Description: Energy audits are a conservation program designed to save demand and energy by increasing customer awareness of energy use in personal residences, commercial facilities and industrial plants. Five types of audits are available to Tampa Electric customers; three types are for residential class customers and two types are for commercial/industrial customers.

Program Accomplishments: January 1, 2023 to December 31, 2023

Number of customers participating:	
Residential Walk-Through:	4,090
Residential Customer Assisted:	100,189
Residential Computer Assisted:	5
Commercial/Industrial:	976
Commercial/Industrial Comprehensive:	0

Program Fiscal Expenditures: January 1, 2023 to December 31, 2023

Actual expenses were $3,126,707.

Program Progress Summary: Through this reporting period 376,221 customers have participated in on-site audits. Additionally, 557,543 customers have participated in company processed residential and commercial customer assisted audits.

Program Description and Progress

Program Title: Residential Ceiling Insulation

Program Description: The Residential Ceiling Insulation Program is designed to encourage customers to make cost-effective improvements to existing residences. The goal is to offer customer rebates for installing ceiling insulation to help reduce their energy consumption while reducing Tampa Electric's weather sensitive peak demand. Ceiling insulation is designed to reduce demand and energy by decreasing the load on residential air conditioning and heating equipment. Qualifying residential structures are eligible for a rebate based upon the total square footage of insulation installed over conditioned space. Customers will receive a certificate that is used as partial payment for the ceiling insulation installed.

Program Accomplishments: January 1, 2023 to December 31, 2023

Number of customers participating: 480

Program Fiscal Expenditures: January 1, 2023 to December 31, 2023

Actual expenses were $187,574.

Program Progress Summary: Through this reporting period 125,509 customers have participated.

Program Description and Progress

Program Title: Residential Duct Repair

Program Description: The Residential Duct Repair Program is a conservation rebate program designed to reduce demand and energy by decreasing the load on residential HVAC equipment helping the customer reduce their energy consumption and reducing Tampa Electric's peak demand. This program eliminates or reduces areas of HVAC air distribution losses by sealing and repairing the air distribution system. The air distribution system is defined as the air handler, air ducts, return plenums, supply plenums and any connecting structure.

Program Accomplishments: January 1, 2023 to December 31, 2023

Number of customers participating: 315

Program Fiscal Expenditures: January 1, 2023 to December 31, 2023

Actual expenses were $68,718.

Program Progress Summary: Through this reporting period 104,726 customers have participated.

Program Description and Progress

Program Title: Energy and Renewable Education, Awareness and Agency Outreach

Program Description: The Energy and Renewable Education, Awareness and Agency Outreach Program is comprised of three distinct initiatives. The Energy Education and Awareness portion of the program is designed to establish opportunities for engaging groups of customers and students in energy-efficiency related discussions in an organized setting. The Agency Outreach portion of the program will allow for delivery of energy efficiency kits that will help educate agency clients on practices that help to reduce energy consumption. The suggested practices will mirror the recommendations provided to customers who participate in a free energy audit.

Program Accomplishments: January 1, 2023 to December 31, 2023

In this reporting period Tampa Electric participated in over 40 designated energy education and awareness events. Tampa Electric also continues to partner with Junior Achievement BizTown. In addition, the company gave 2 presentations to civic organizations and distributed 2,401 energy saving kits to participating customers. As well as reengage the energy efficiency and electric vehicle ("EV") training curriculum through the local school systems.

Program Fiscal Expenditures: January 1, 2023 to December 31, 2023

Actual expenses were $264,912.

Program Progress Summary: Through this reporting period Tampa Electric has partnered with 152 local schools to present Energy Education to 42,044 students and Electric Vehicle Education to 1,838 with (three) local high schools. In addition, the company gave 224 presentations to civic organizations that generated 1,655 customer assisted audits and distributed 14,283 energy saving kits to participating customers.

Program Description and Progress

Program Title: ENERGY STAR for New Multi-Family Residences

Program Description: The ENERGY STAR for New Multi-Family Residences Program is a residential new construction conservation program designed to reduce the growth of peak demand and energy in the residential new construction apartment and condominium residence market. The program utilizes a rebate to encourage the construction of new multi-family residences to meet the requirements to achieve the ENERGY STAR certified apartments and condominium label. By receiving this certificate, the new residence will use less energy and demand which will help reduce the growth of Tampa Electric's peak demand.

Program Accomplishments: January 1, 2023 to December 31, 2023

Number of customers participating: 0

Program Fiscal Expenditures: January 1, 2023 to December 31, 2023

Actual expenses were $0.

Program Progress Summary: Through this reporting period 264 customers have participated.

Program Description and Progress

Program Title: ENERGY STAR for New Homes

Program Description: The ENERGY STAR for New Homes Program is a residential new construction conservation program designed to reduce the growth of peak demand and energy in the residential new construction market. The program utilizes a rebate to encourage the construction of new homes to meet the requirements to achieve the ENERGY STAR certified new home label. By receiving this certificate, the new home will use less energy and demand which will help reduce the growth of Tampa Electric's peak demand. This program replaced the prior Residential New Construction program.

Program Accomplishments: January 1, 2023 to December 31, 2023

Number of customers participating: 770

Program Fiscal Expenditures: January 1, 2023 to December 31, 2023

Actual expenses were $789,378.

Program Progress Summary: Through this reporting period 17,825 customers have participated.

Program Description and Progress

Program Title: ENERGY STAR Pool Pumps

Program Description: The ENERGY STAR Pool Pumps Program is designed to encourage customers to make cost-effective improvements to existing residences. The goal is to offer customer rebates for installing high efficiency ENERGY STAR rated pool pumps to help reduce their energy consumption while reducing Tampa Electric's weather sensitive peak demand. High efficiency pool pumps require less demand and energy as compared to standard systems. This program will rebate residential customers that install a qualifying pool pump.

Program Accomplishments: January 1, 2023 to December 31, 2023

Number of customers participating: 1,460

Program Fiscal Expenditures: January 1, 2023 to December 31, 2023

Actual expenses were $536,427.

Program Progress Summary: Through this reporting period 3,291 customers have participated.

Program Description and Progress

Program Title: ENERGY STAR Thermostats

Program Description: The ENERGY STAR Thermostats Program is designed to encourage customers to make cost-effective improvements to existing residences. The goal is to offer customer rebates for installing an ENERGY STAR certified smart thermostat to help reduce their energy consumption while reducing Tampa Electric's weather sensitive peak demand. Smart thermostats are designed to reduce demand and energy by decreasing the load on residential air conditioning and heating equipment and providing energy usage information regarding the heating and cooling system's settings and usage. This program will rebate residential customers that install a qualifying thermostat.

Program Accomplishments: January 1, 2023 to December 31, 2023

Number of customers participating: 1,505

Program Fiscal Expenditures: January 1, 2023 to December 31, 2023

Actual expenses were $117,374.

Program Progress Summary: Through this reporting period 3,900 customers have participated.

Program Description and Progress

Program Title: Residential Heating and Cooling

Program Description: The Residential Heating and Cooling Program is designed to encourage customers to make cost-effective improvements to existing residences. The goal is to offer customer rebates for installing high efficiency heating and cooling systems to help reduce their energy consumption while reducing Tampa Electric's weather sensitive peak demand. High efficiency heating and cooling systems require less demand and energy as compared to standard systems. This program will rebate residential customers that install a qualifying air conditioning system.

Program Accomplishments: January 1, 2023 to December 31, 2023

Number of customers participating: 1,681

Program Fiscal Expenditures: January 1, 2023 to December 31, 2023

Actual expenses were $294,706.

Program Progress Summary: Through this reporting period 219,269 customers have participated.

Program Description and Progress

Program Title: Neighborhood Weatherization

Program Description: The Neighborhood Weatherization Program is designed to assist low income families in reducing their energy usage. The goal of the program is to provide and install a package of conservation measures at no cost to the customer. Another key component will be educating families and promoting energy conservation techniques to help customers control and reduce their energy usage.

Program Accomplishments: January 1, 2023 to December 31, 2023

Number of customers participating: 8,258

Program Fiscal Expenditures: January 1, 2023 to December 31, 2023

Actual expenses were $2,087,096.

Program Progress Summary: Through this reporting period 79,010 customers have participated.

Program Description and Progress

Program Title:	Residential Price Responsive Load Management (Energy Planner)
Program Description:	The company's program relies on a multi-tiered rate structure combined with price signals conveyed to participating customers during the day. This price information is designed to encourage customers to make behavioral or equipment usage changes to their energy consumption thereby achieving the desired high-cost period load reduction to assist in meeting system peak.
Program Accomplishments:	January 1, 2023 to December 31, 2023 Number of net customers participating: 480
Program Fiscal Expenditures:	January 1, 2023 to December 31, 2023 Actual expenses were $2,960,842.
Program Progress Summary:	Through this reporting period 8,469 customers have participated.

Program Description and Progress

Program Title: Residential Prime Time Plus

Program Description: Tampa Electric's "Prime Time Plus" is a residential load management program designed to alter the company's system load curve by reducing summer and winter demand peaks. Residential loads such as heating, air conditioning, water heaters and pool pumps will be controlled via the company's advanced metering infrastructure ("AMI") when that system fully becomes available. In addition, the customer will receive the same programmable "smart thermostat" and access to the web portal offered in the Energy Planner program. The web portal and "smart thermostat" allow the customer to change thermostat settings from any web connected device. The program will leverage the company's AMI to provide the communication with the installed thermostat and customer selected appliances for load control.

Program Accomplishments: January 1, 2023 to December 31, 2023

Number of net customers participating: 537

Program Fiscal Expenditures: January 1, 2023 to December 31, 2023

Actual expenses were $1,424,973.

Program Progress Summary: Through this reporting period 538 customers have participated.

Program Description and Progress

Program Title:	Residential Window Replacement
Program Description:	The Residential Window Replacement Program is designed to encourage customers to make cost-effective improvements to existing residences. The goal is to offer customer rebates for replacing existing external windows with high performance windows that help reduce their energy consumption while reducing Tampa Electric's weather sensitive peak demand. High performance windows are designed to reduce demand and energy by decreasing the solar heat gain into a residence and in turn, decrease the load on residential air conditioning equipment. Qualifying residential structures are eligible for a rebate based upon the total square footage of exterior windows replaced.
Program Accomplishments:	January 1, 2023 to December 31, 2023 Number of customers participating: 1,236
Program Fiscal Expenditures:	January 1, 2023 to December 31, 2023 Actual expenses were $250,170.
Program Progress Summary:	Through this reporting period 21,811 customers have participated.

Program Description and Progress

Program Title:	Prime Time
Program Description:	This load management incentive program encourages residential customers to allow the control for reducing weather-sensitive heating, cooling and water heating through a radio signal control mechanism. The participating customers receive monthly incentives as credits on their electric bills. Per Commission Order No. PSC-15-0434-CO-EG issued October 12, 2015, the Prime Time Program began its systematic phased closure. This program was retired on May 11, 2016.
Program Accomplishments:	January 1, 2023 to December 31, 2023 See Program Progress Summary below.
Program Fiscal Expenditures:	January 1, 2023 to December 31, 2023 Actual expenses were $61,908.
Program Progress Summary:	This program was retired on May 11, 2016.

Program Description and Progress

Program Title: Commercial Chiller

Program Description: The Commercial Chiller Program is designed to encourage commercial/industrial customers to make cost-effective improvements to existing facilities and processes. The goal is to offer customer rebates for installing high efficiency electric water-cooled chillers and electric air-cooled chillers that exceed Florida's Building Code and minimum product manufacturing standards in commercial/industrial buildings or processes to help reduce their energy consumption and demand while reducing Tampa Electric's weather sensitive peak demand. High efficiency chillers reduce demand and energy by decreasing the load on air conditioning and heating equipment or process cooling equipment during weather sensitive peak demand times.

Program Accomplishments: January 1, 2023 to December 31, 2023

Number of customers participating: 3

Program Fiscal Expenditures: January 1, 2023 to December 31, 2023

Actual expenses were $6,212.

Program Progress Summary: Through this reporting period 78 customers have participated.

Program Description and Progress

Program Title:	Cogeneration
Program Description:	Tampa Electric's Cogeneration program is administered by a professional team experienced in working with cogenerators. The group manages functions related to coordination with Qualifying Facilities ("QFs") including negotiations, agreements and informational requests; functions related to governmental, regulatory and legislative bodies; research, development, data acquisition and analysis; economic evaluations of existing and proposed QFs as well as the preparation of Tampa Electric's Annual Twenty-Year Cogeneration Forecast.
Program Accomplishments:	January 1, 2023 to December 31, 2023 The company continued communication and interaction with all present and potential customers. Tampa Electric completed the development and publication of the 20-Year Cogeneration Forecast, reviewed proposed cogeneration opportunities for cost-effectiveness and answered data requests from existing cogenerators. The company also attended meetings as scheduled with cogeneration customer personnel at selected facilities.
Program Fiscal Expenditures:	January 1, 2023 to December 31, 2023 Actual expenses were $35,730.
Program Progress Summary:	At the end of 2023, there are seven cogeneration Qualifying Facilities ("QFs") that are on-line in Tampa Electric's service area. The total nameplate generation capacity of these seven interconnected cogeneration facilities is 398.3 MW. During 2023, the company received 97 GWh from these facilities. The company continues interaction with current and potential cogeneration developers regarding on-going and future cogeneration activities.

Program Description and Progress

Program Title: Conservation Value

Program Description: The Conservation Value Program is designed to encourage commercial/industrial customers to make cost-effective improvements to existing facilities. This rebate program is designed to recognize those investments in demand shifting or demand reduction measures that reduce Tampa Electric's peak demand. Measures funded in this program will not be covered under any other Tampa Electric commercial/industrial conservation programs. Candidates are identified through energy audits or their engineering consultants can submit proposals for funding which offer demand and energy reduction during weather sensitive peak periods helping reduce Tampa Electric's peak demand.

Program Accomplishments: January 1, 2023 to December 31, 2023

Number of customers participating: 0

Program Fiscal Expenditures: January 1, 2023 to December 31, 2023

Actual expenses were $8.

Program Progress Summary: Through this reporting period 51 customers have participated.

Program Description and Progress

Program Title: Commercial Cooling

Program Description: The Commercial Cooling Program is designed to encourage commercial/industrial customers to make cost-effective improvements to existing facilities. The goal is to offer customer rebates for installing high efficiency heating and cooling systems to help reduce their energy consumption and demand while reducing Tampa Electric's weather sensitive peak demand. High efficiency heating and cooling systems require less demand and energy as compared to standard systems. This program will rebate commercial/industrial customers that install a qualifying air conditioning system.

Program Accomplishments: January 1, 2023 to December 31, 2023

Number of customers participating: 174

Program Fiscal Expenditures: January 1, 2023 to December 31, 2023

Actual expenses were $34,366.

Program Progress Summary: Through this reporting period 2,626 customers have participated.

Program Description and Progress

Program Title:	Demand Response
Program Description:	Tampa Electric's Commercial Demand Response is a conservation and load management program intended to help alter the company's system load curve by reducing summer and winter demand peaks. The company will contract for a turn-key program that will induce commercial/industrial customers to reduce their demand for electricity in response to market signals. Reductions will be achieved through a mix of emergency backup generation, energy management systems, raising cooling set-points and turning off or dimming lights, signage, etc.
Program Accomplishments:	January 1, 2023 to December 31, 2023 See Program Progress Summary below.
Program Fiscal Expenditures:	January 1, 2023 to December 31, 2023 Actual expenses were $3,849,871.
Program Progress Summary:	Through this reporting period the company's vendor maintains a portfolio of participating customers providing an available total of 40 MW for demand response control.

Program Description and Progress

Program Title:	Facility Energy Management System
Program Description:	The Facility Energy Management System Program is designed to encourage commercial/industrial customers to make cost-effective improvements to existing facilities. The goal is to offer customer rebates for installing a facility energy management system that provides real time operational, production and energy consumption information which enables the customer to reduce their energy consumption and demand and reducing Tampa Electric's peak demand. Tampa Electric will provide a rebate to customers who install a qualifying facility energy management system.
Program Accomplishments:	January 1, 2023 to December 31, 2023 Number of customers participating: 26
Program Fiscal Expenditures:	January 1, 2023 to December 31, 2023 Actual expenses were $620,270.
Program Progress Summary:	Through this reporting period 30 customers have participated.

Program Description and Progress

Program Title: Industrial Load Management (GSLM 2&3)

Program Description: This load management program is for large industrial customers with interruptible loads of 500 kW or greater.

Program Accomplishments: January 1, 2023 to December 31, 2023

Net new customers participating: 0

Program Fiscal Expenditures: January 1, 2023 to December 31, 2023

Actual expenses were $22,761,449.

Program Progress Summary: This program was approved by the Commission in Docket No. 990037-EI, Order No. PSC-99-1778-FOF-EI, issued September 10, 1999.

Beginning May 2009, Tampa Electric transferred existing IS (non-firm) customers to a new IS (firm) rate schedule. Beginning January 2022, Tampa Electric closed the IS (firm) rate schedule and transferred these customers to either GSD or GSLD. These customers continue to be incented under GSLM-2 or GSLM-3 rate riders with expenses recovered through the ECCR clause.

Program Description and Progress

Program Title:	Commercial Street and Outdoor Lighting Conversion
Program Description:	The Commercial Street and Outdoor Lighting Conversion program is designed to convert the company's existing metal halide and high-pressure sodium street and outdoor luminaires to light emitting diode luminaires. The program allows for the recovery of the remaining unamortized costs in rate base associated with the luminaires converted.
Program Accomplishments:	January 1, 2023 to December 31, 2023 Number of luminaires retired: 8,827
Program Fiscal Expenditures:	January 1, 2023 to December 31, 2023 Net expenditures were $12,628.
Program Progress Summary:	Through this reporting period 209,821 luminaires have been converted. As of April 2023, the LED Street Light Conversion Program has been completed.

Program Description and Progress

Program Title:	Lighting Conditioned Space
Program Description:	The Lighting Conditioned Space Program is designed to encourage commercial/industrial customers to make cost-effective improvements to existing facilities. The goal is to offer customer rebates for installing energy efficient lighting technology and systems within conditioned space to help reduce their energy consumption and demand and reducing Tampa Electric's peak demand. Tampa Electric will provide a rebate to customers who install qualifying conditioned spaces lighting systems.
Program Accomplishments:	January 1, 2023 to December 31, 2023 Number of customers participating: 79
Program Fiscal Expenditures:	January 1, 2023 to December 31, 2023 Actual expenses were $303,814.
Program Progress Summary:	Through this reporting period 3,325 customers have participated.

Program Description and Progress

Program Title: Lighting Non-Conditioned Space

Program Description: The Lighting Non-Conditioned Space Program is designed to encourage commercial/industrial customers to make cost-effective improvements to existing facilities. The goal is to offer customer rebates for installing energy efficient outdoor lighting technology and systems or in non-conditioned spaces to help reduce their energy consumption and demand and reducing Tampa Electric's peak demand. Tampa Electric will provide a rebate to customers who install qualifying non-conditioned spaces lighting systems.

Program Accomplishments: January 1, 2023 to December 31, 2023

Number of customers participating: 38

Program Fiscal Expenditures: January 1, 2023 to December 31, 2023

Actual expenses were $225,225.

Program Progress Summary: Through this reporting period 1,261 customers have participated.

Program Description and Progress

Program Title:	Lighting Occupancy Sensors
Program Description:	The Lighting Occupancy Sensors Program is designed to encourage commercial/industrial customers to make cost-effective improvements to existing facilities. The goal is to offer customer rebates for installing lighting occupancy sensors to efficiently control lighting systems to help reduce their energy consumption and demand and reducing Tampa Electric's peak demand. Tampa Electric will provide a rebate to customers who install qualifying occupancy sensors for lighting systems.
Program Accomplishments:	January 1, 2023 to December 31, 2023 Number of customers participating: 6
Program Fiscal Expenditures:	January 1, 2023 to December 31, 2023 Actual expenses were $29,967.
Program Progress Summary:	Through this reporting period 243 customers have participated.

Program Description and Progress

Program Title: Commercial Load Management

Program Description: The Commercial Load Management Program is intended to help alter Tampa Electric's system load curve by reducing summer and winter demand peaks. The goal is to offer customer incentives for allowing the installation and control of load management control equipment on specific technologies to reduce Tampa Electric's weather sensitive peak demand. Customers that participate in this program choose whether to have the technology controlled either interrupted for the entire control period or cycled during the control period. Tampa Electric will provide a monthly incentive credit to customers participating in this program.

Program Accomplishments: January 1, 2023 to December 31, 2023

Net new customers participating: 0

Program Fiscal Expenditures: January 1, 2023 to December 31, 2023

Actual expenses were $6,531.

Program Progress Summary: Through this reporting period there are three participating customers on cyclic control and zero customers on extended control.

Program Description and Progress

Program Title:	Commercial Smart Thermostats
Program Description:	The Commercial Smart Thermostat Program is designed to encourage commercial/industrial customers to make cost-effective improvements to existing facilities. The goal is to offer customer rebates for installing smart thermostats to help reduce their demand while reducing Tampa Electric's weather sensitive peak demand. Smart thermostats are designed to reduce demand and energy by decreasing the load on commercial/industrial air conditioning and heating equipment and providing energy usage information regarding the heating and cooling system's settings and usage. This program will rebate commercial/industrial customers that install qualifying thermostat(s).
Program Accomplishments:	January 1, 2023 to December 31, 2023 Number of customers participating: 7
Program Fiscal Expenditures:	January 1, 2023 to December 31, 2023 Actual expenses were $25,198.
Program Progress Summary:	Through this reporting period 146 customers have participated.

Program Description and Progress

Program Title: Standby Generator

Program Description: The Standby Generator Program is designed to utilize the emergency generation capacity of commercial/industrial facilities in order to reduce weather sensitive peak demand. Tampa Electric provides the participating customers a 30-minute notice that their generation will be required. This allows customers time to start generators and arrange for orderly transfer of load. Tampa Electric meters and issues monthly credits for that portion of the generator's output that could serve normal building load after the notification time. Normal building load is defined as load (type, amount and time duration) that would have been served by Tampa Electric if the emergency generator did not operate. Under no circumstances will the generator deliver power to Tampa Electric's grid. Under the Environmental Protection Agency's rules, Tampa Electric classifies the Standby Generator Program as a non-emergency program.

Program Accomplishments: January 1, 2023 to December 31, 2023

Net new customers participating: 17

Program Fiscal Expenditures: January 1, 2023 to December 31, 2023

Actual expenses were $5,153,806.

Program Progress Summary: Through this reporting period there are 130 participating customers.

Program Description and Progress

Program Title: Variable Frequency Drive Control for Compressors

Program Description: The Variable Frequency Drive Control for Compressors Program is designed to encourage commercial/industrial customers to make cost-effective improvements to existing facilities. The goal is to offer customer rebates for installing variable frequency drives to their new or existing refrigerant or air compressor motors to help reduce their demand while reducing Tampa Electric's weather sensitive peak demand. Tampa Electric will provide a rebate to customers who install a qualifying variable frequency drive.

Program Accomplishments: January 1, 2023 to December 31, 2023

Number of customers participating: 16

Program Fiscal Expenditures: January 1, 2023 to December 31, 2023

Actual expenses were $23,693.

Program Progress Summary: Through this reporting period 38 customers have participated.

Program Description and Progress

Program Title:	Commercial Water Heating
Program Description:	The Commercial Water Heating Program is designed to encourage commercial/industrial customers to make cost-effective improvements to existing facilities. The goal is to offer customer rebates for installing energy efficient water heating systems to help reduce their energy consumption and demand and reducing Tampa Electric's peak demand. Tampa Electric will provide a rebate to customers who install qualifying water heating systems.
Program Accomplishments:	January 1, 2023 to December 31, 2023 Number of customers participating: 0
Program Fiscal Expenditures:	January 1, 2023 to December 31, 2023 Actual expenses were $75.
Program Progress Summary:	Through this reporting period zero customers have participated.

Program Description and Progress

Program Title: Integrated Renewable Energy System (Pilot)

Program Description: The commercial/industrial Integrated Renewable Energy System Program is a five-year pilot program to study the capabilities and DSM opportunities of a fully integrated renewable energy system. The integrated renewable energy system will include an approximate 800 kW photovoltaic array, two-250 kW batteries, and several electric vehicle charging systems to charge electric vehicles, industrial vehicles and auxiliary industrial vehicle batteries. The pilot program will have two main purposes. The first main purpose is to evaluate the capability to perform demand response from the main batteries and each vehicle battery and to determine the preferred operating characteristics of a fully integrated renewable and energy storage system to leverage DSM opportunities. The second main purpose is to use the installation and its associated operational information as an education platform for commercial and industrial customers seeking information on this type of system and its benefits, concerns and capabilities.

Program Accomplishments: January 1, 2023 to December 31, 2023

Number of customers participating: 0

Program Fiscal Expenditures: January 1, 2023 to December 31, 2023

Actual expenses were $1,061,751.

Program Progress Summary: Tampa Electric continued studying the Integrated Renewable Energy System (“IRES”) following its commissioning in 2021. The Pilot program is on track to be completed by the end of 2024.

Program Description and Progress

Program Title:	DSM Research and Development (R&D)
Program Description:	This program is in response to Rule 25-17.001 (5) (f), F.A.C., that requires aggressive R&D projects be "…an ongoing part of the practice of every well managed utility's programs." It is also in support of FPSC Order No. 22176 dated November 14, 1989, requiring utilities to "…pursue research, development, and demonstration projects designed to promote energy efficiency and conservation." R&D activity will be conducted on proposed measures to determine the impact to the company and its ratepayers and may occur at customer premises, Tampa Electric facilities or at independent test sites. Tampa Electric will report program progress through the annual ECCR True-Up filing and as communicated to the commission the company will also provide the results of R&D activities in the company's annual DSM Report.
Program Accomplishments:	January 1, 2023 to December 31, 2023 See Program Progress Summary below.
Program Fiscal Expenditures:	January 1, 2023 to December 31, 2023 Actual expenses were $47,624.
Program Progress Summary:	For 2023, the company worked on identifying the site selection and began the process for installing the first small to mid-size commercial battery in early 2024.

Program Description and Progress

Program Title: Renewable Energy Program

Program Description: This program provides customers with the option to purchase 200 kWh blocks of renewable energy for five dollars per block to assist in the delivery of renewable energy to the company's grid system. This specific effort provides funding for renewable energy procurement, program administration, evaluation and market research.

Program Accomplishments: January 1, 2023 to December 31, 2023

Year-end customers participating:	1,081
Number of net customers participating:	-40
Blocks of energy purchased:	1,924
One-time blocks of energy sold:	0

Program Fiscal Expenditures: January 1, 2023 to December 31, 2023

Actual expenses were $19,946.
Actual program revenues were $123,843.

Program Progress Summary: In this reporting period 24,498 monthly and one-time blocks of renewable energy have been purchased.

Program Description and Progress

Program Title:	Common Expenses
Program Description:	These are expenses common to all programs.
Program Accomplishments:	January 1, 2023 to December 31, 2023 N/A
Program Fiscal Expenditures:	January 1, 2023 to December 31, 2023 Actual expenses were $763,151.
Program Progress Summary:	N/A