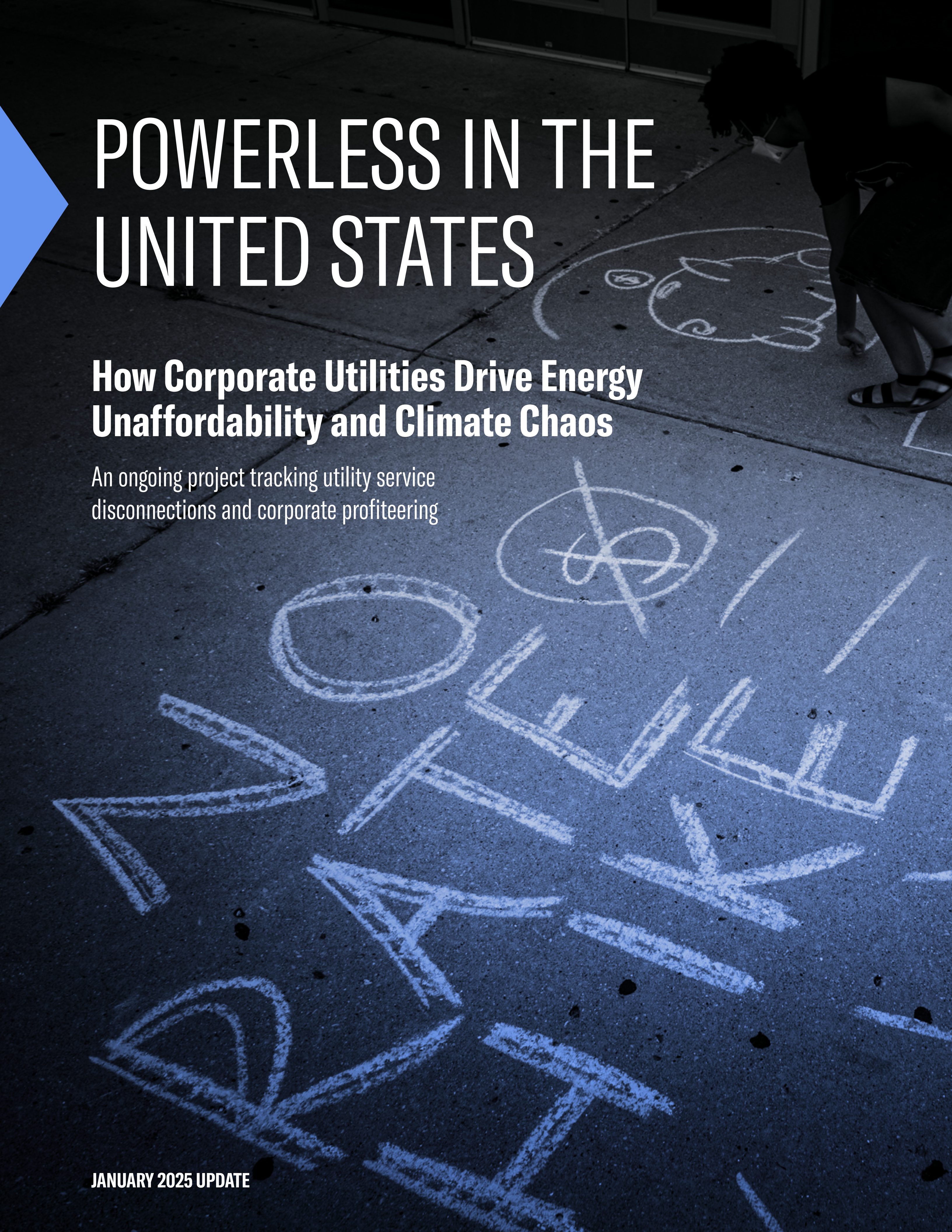


POWERLESS IN THE UNITED STATES

How Corporate Utilities Drive Energy Unaffordability and Climate Chaos

An ongoing project tracking utility service disconnections and corporate profiteering

JANUARY 2025 UPDATE

POWERLESS IN THE UNITED STATES

JANUARY 2025 UPDATE

How Corporate Utilities Drive Energy Unaffordability and Climate Chaos

An ongoing project tracking utility service disconnections and corporate profiteering

---

Center for Biological Diversity | Selah Goodson Bell and Jean Su

Acknowledgments

The authors would like to thank the following people for their contributions and review: Jonathan Kim, Daniel Tate, Karlee Weinmann, and Stephanie Chase (Energy and Policy Institute) and the Energy Justice Program at the Center for Biological Diversity.

Design

1338 Creative

Photo credit: Michigan Environmental Justice Coalition

TABLE OF CONTENTS

INTRODUCTION

Corporate electric utilities are at the frontlines of driving the country's dual crises of energy unaffordability and climate change. In 2024 U.S. households and businesses experienced increasingly high electricity costs and, as a consequence, life-altering utility disconnections for nonpayment. At the same time, corporate utilities reaped record corporate profits for their shareholders and executives.

Building off prior Center for Biological Diversity reports tracking utility disconnections and corporate profits since COVID-19 began,[1] this report spotlights the recent activities of six investor-owned utilities: Georgia Power, DTE Energy, Duke Energy, Ameren Corporation, Pacific Gas & Electric (PG&E), and Arizona Public Service (APS). These six corporations were chosen because they have readily available utility shutoff data and collectively represent most of the country's largest regions, serving more than 200 million customers from California to the Carolinas.

Our analysis of these six companies' recent activities reveals widespread industry practices that hurt the public and the planet. These include shutting off electricity to some of the country's poorest communities, raising rates for record corporate profits, and worsening climate chaos by prolonging fossil fuel usage, which contributes to deadly extreme weather events like January's catastrophic fires in Los Angeles County.

From January through September 2024, these six corporate utilities collectively increased shutoffs by nearly 21%, compared to the same period in 2023, disconnecting power to homes and businesses over 662,000 times — including during the hottest months of 2024's record-breaking heat. Only 1.4% of the more than $6.8 billion the utilities spent on shareholder dividends from January through September 2024 could have covered the cost to prevent these shutoffs.

From January to September 2024, these six investor-owned utilities raked in more than $10 billion in net income.

At the same time, these utilities raised their rates by at least $3.5 billion. Every year, these forces push utility bills farther beyond the threshold of affordability and cause a growing number of people to lose access to electricity.[2]

From January to September 2024, these six investor-owned utilities raked in more than $10 billion in net income. In 2023, as millions of households faced rising debt and relentless utility shutoffs, the industry made $52.8 billion — the highest profits utilities had seen in the past decade.[3]

These mounting and preventable hardships are not felt equally: Historically racist and exploitative energy, housing and land-use policies have produced race and class-based disparities in the utility shutoff and affordability crises.[4]

Through 2033 these six corporate utilities are planning to build at least 22 methane gas expansion projects.

What's more, corporate utilities are responding to recent surges in energy demand — driven by the onshoring of manufacturing and growth of electric vehicles, building electrification and data centers — by doubling down on investments in methane gas, hydrogen, carbon capture and sequestration technologies (CCS), and other false climate solutions.[5] Through 2033 these six corporate utilities are planning to build at least 22 methane gas expansion projects.[6]

Meanwhile, these investor-owned utilities are treating distributed energy resources (including rooftop solar, storage, electrification, demand response, and energy efficiency) as threats to their bottom lines and blocking Black, Brown, Indigenous, and low-income communities' access to more affordable and resilient energy solutions.

The public harms of these utility actions are real and self-evident, as are the solutions. Since the new Trump administration is pursuing a profit seeking, fossil-fueled energy agenda, it likely won't be responsive to holding corporate utilities accountable. Therefore, this report focuses on policy actions that can be taken at the state level. (See Annex I.)

EXECUTIVE SUMMARY

This report found that:

- The electricity shutoffs crisis is worsening, reflecting the country's deepening struggle with energy unaffordability. **FROM JANUARY THROUGH SEPTEMBER 2024, THESE SIX CORPORATE UTILITIES INCREASED SHUTOFFS BY NEARLY 21% COMPARED TO THE SAME PERIOD IN 2023,** disconnecting power to homes and businesses over 662,000 times — including during the hottest months of the heat-record-breaking year of 2024. Climate change-fueled extreme weather, inflation, and relentless rate hikes are making it harder for people to afford their energy bills.

- Corporate utilities are increasingly lucrative. **TOGETHER THESE UTILITIES TOOK HOME MORE THAN $10 BILLION IN PROFITS FROM JANUARY THROUGH SEPTEMBER 2024, A 21% INCREASE FROM THE SAME PERIOD IN 2023.**[1] Meanwhile they collectively raised rates by at least $3.5 billion.

- **ONLY 1.4% OF THE MORE THAN $6.8 BILLION THE UTILITIES SPENT ON SHAREHOLDER DIVIDENDS** from January through September 2024 would have covered the cost to prevent the more than 662,000 shutoffs they executed during the same nine-month period.

- **THESE SIX UTILITIES ARE PLANNING AT LEAST 22 NEW METHANE GAS EXPANSION PROJECTS THROUGH 2033** and continue to embrace false climate solutions like carbon capture and storage, hydrogen, and biofuels, which prolong dangerous fossil fuel combustion and pollution.

- Investor-owned utilities wield considerable political influence to obstruct democratic sources of clean energy like rooftop and community solar. **THE CORPORATIONS SUCCESSFULLY INFLUENCED STATE REGULATORS AND LEGISLATORS TO UNDERMINE SOLAR COMPENSATION RATES, WIPE OUT INCENTIVES, AND ESTABLISH CRIPPLING FIXED FEES.**

- **STATE AND FEDERAL DECISION-MAKERS CAN TAKE IMPORTANT STEPS TO HOLD CORPORATE UTILITIES ACCOUNTABLE** by halting their use of punitive collection practices, expansion of fossil fuels, and obstruction of distributed renewable energy systems. In Annex I we provide a policy blueprint focused on state and local action under a Trump administration.

[1] The report's findings primarily rely on utility shutoff data from January 2022 to September 2024. September 2024 is the cutoff date for data collection because the different states that these utility companies operate in have unique reporting requirements and timelines and September was the latest month for which we could have comparable data for all six utility companies in the report. It also allowed shutoff data to align with net income and shareholder dividend totals which are released quarterly. For more info on shutoff data, see Methodology (Annex II).

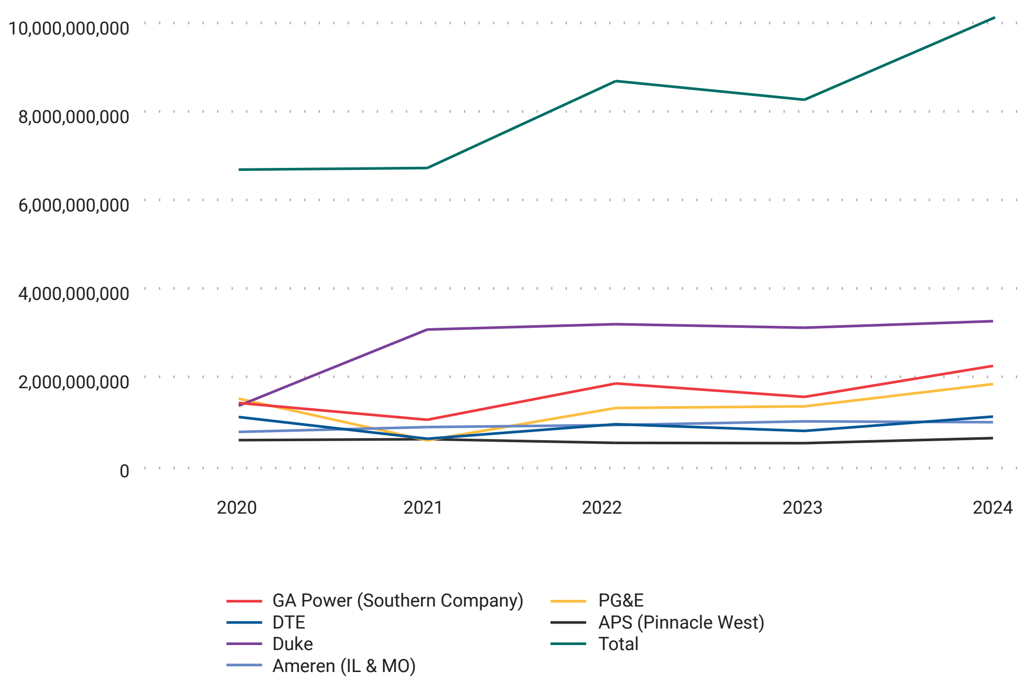
TABLE 1

State Percentage of Shareholder Dividends to Cover the Cost to Prevent Utility Shutoffs for Nonpayment

Utility	Shutoffs	Shareholder Dividends ($)	% of Shareholder Dividends to Prevent Disconnections
GA Power	186,858	1,538,000,000	1.7
DTE	150,871	607,000,000	2.9
Duke (NC & SC)	135,028	2,411,000,000	0.9
Ameren (IL & MO)	123,133	535,000,000	2.7
PG&E	45,783	1,450,000,000	0.5
APS	20,456	294,589,000	1.1
Combined Total	662,129	6,835,589,000	1.4

CHART 1

Utility companies' Net Income from January 2020 through September 2024



GEORGIA POWER

"Don't raise my rates. Enough. ...I can't survive like that. My businesses won't survive. I won't survive. My kids won't see generational wealth."

TIA BRIGHTWELL, GEORGIA POWER CUSTOMER[7]

TABLE 2

Georgia Power's Shutoffs and Profiteering Data (2022 through September 2024)

Utility	Year	Shutoffs	Shareholder Dividends ($)	% of Shareholder Dividends to Prevent Disconnections	Net Income ($)
Georgia Power	2022	240,706	1,691,000,000	1.8	1,851,000,000
	2023	222,991	1,855,000,000	1.7	1,547,000,000
	2024 (through September)	186,858	1,538,000,000	1.7	2,249,000,000

Georgia Power is a subsidiary of Southern Company and the largest electric utility in the state, serving more than 2.7 million customers. The utility has the highest shutoff rate among the six utilities in this report. Georgia Power is doubling down on its reliance on methane gas while waging a full-fledged assault against rooftop and community solar, which helped bring in record profits in 2024.

Predatory Collection Practices Punish Customers

Georgia Power was one of the worst offenders in our previous 2022 shutoffs report, and the utility's reliance on punitive credit and collection practices has only increased.[8] Residential customers were cut off from essential electricity service for nonpayment almost 187,000 times through September 2024 alone, a 21% increase from the same period in 2023.[9]

Although Georgia has a heat-based shutoff restriction, many of these rising shutoffs occurred during hot summer months.[10] As households endured record-breaking heat, Georgia Power disconnected them more than 103,000 times between May and September 2024. The following factors exacerbated the energy affordability crisis in Georgia.

Inflation.
Georgia's inflation rate is above the national average, according to Congress' Joint Economic Committee.[11] Through November 2024 the state saw a 22.2% inflation rate compared to the national rate of 20.6%.

Climate Change.
The climate crisis caused much of Georgia Power's service territory to experience above-normal temperatures for most of 2024, especially during the summer.[12] The National Oceanic and Atmospheric Administration found that "the first eight months of 2024 have already been the sixth-hottest such period Georgia has experienced since record-keeping began in 1895." Climate change worsened the damage and destruction of Hurricane Helene,[13] which devastated Georgia and will cause bills to increase as customers cover the costs of repairing and rebuilding thousands of power poles, transmission lines and transformers.[14]

Rate Hikes.
Georgia Power has imposed six rate increases on its customers since 2023. The Southern Environmental Law Center estimates that households will be paying about $500 more annually in 2025 than they did in 2022, bearing a total rate increase in 2025 of $307.6 million.[15] Many of these increased expenses are a result of the utility's costly obsession with large, capital-intensive energy resources like nuclear, gas and coal.[16]

Fossil Fuel Expansion Worsens Climate Change

Georgia Power is expanding its methane gas and oil infrastructure and delaying coal plant retirements to accommodate a lucrative surge in power demand from new industrial customers. The utility is courting energy-intensive data centers and using the expected spikes in energy demand to justify coal plant retirement delays and hurried buildouts and procurement of costly, price-volatile, climate-warming methane gas.[17] Specifically it is fast-tracking the construction of three new methane and oil-burning units at Plant Yates and delaying the closure of two of its coal-fired units, Plants Bowen and Scherer, from 2027 to 2035.

Georgia Power's insistence on expanding fossil fuels will thrust more of its customers onto the frontlines of the climate catastrophe. Hurricane Helene devasted hundreds of communities throughout the South and left millions without power for several days. In Georgia more than 30 deaths have been attributed to Helene and some cities, like Savannah, were directly hit by a hurricane for the first time in almost 50 years.[18] Scientists have attributed the wide reach and intensity of Hurricane Helene to climate change, estimating that global warming may have caused as much as 50% more rainfall and made rainfall up to 20 times more likely in the areas that were hit.[19]

Anti-Competitive Obstruction of Distributed Renewable Energy

Georgia Power has repeatedly stymied efforts to deploy distribute renewable energy resources, like rooftop and community solar, despite the capacity for these technologies to protect its ratepayers from surging energy bills and destructive climate disasters. The state is ripe for solar development — the utility says it's a top 10 state for solar installation capacity — yet finds itself in the bottom 10 states for distributed solar.[20]

In 2022 Georgia Power convinced the Georgia Public Service Commission (PSC) to maintain the cap for its popular net-metering program at 5,000 customers, even though the cap was met in 2021 just two years after the program's inception. In the same order, it also succeeded in getting the commission to cut the compensation rate for rooftop solar in half.[21] The utility compounded these stifling decisions by also seeking a $200 grid access fee for any customer trying to connect their new rooftop solar unit to the grid — the PSC approved a $100 interconnection fee instead.[22]

Recent legislative efforts to create a community solar program in Georgia have also come under fire from the utility, despite the legislature's carveout for low-income customers and research from the U.S. Department of Energy demonstrating the program's potential to reduce customer bills by 10% to 20%.[23]

Rampant Profiteering Drives Customer Misery

Georgia Power's profits reached $1.2 billion by September 2024, a 56% increase over 2023.[24] A utility spokesman attributed the latest jump in profits to the increase in summer temperatures.[25] In 2023 utility CEO Kimberly S. Greene took home nearly $5 million in compensation.[26]

The shutoff, affordability and climate crises that continue to pummel Georgia Powers' customers are entirely avoidable. Just 2% of the more than $1.5 billion the company sent to its shareholders as dividends through September 2024 could have covered the estimated cost to prevent the more than 167,000 residential shutoffs for nonpayment through September 2024.[27] Similarly, portions of the company's windfall profits could dramatically increase the deployment of distributed renewable energy in the state's disadvantaged and environmental justice communities. This would reduce customers' utility bills, help communities withstand climate disasters and reduce peak demand, eliminating the company's alleged need to delay coal plant retirements and build out methane gas plants.

DTE ENERGY

"[DTE's] reliance on fossil fuels is a direct threat to our health...On our death certificates it won't say DTE pollution... it will say lung disease and congestive heart failure; it will say stroke. But the finger will never be pointed at DTE, [and] their profits will remain full while we struggle to pay our bills...We're essentially being forced to pay more for our own demise."

MIA MCPHERSON, DTE CUSTOMER.[28]

DTE Electric, Michigan's largest investor-owned utility, subjects its 2.3 million customers to unreliable service and frequent shutoffs for nonpayment while relying on expensive, poisonous, climate-heating fossil fuels.

TABLE 3

DTE's Shutoff and Profiteering Data (2022 through September 2024)

Utility	Year	Shutoffs	Shareholder Dividends ($)	% of Shareholder Dividends to Prevent Disconnections	Net Income ($)
DTE	2022	213,980	514,000,000	5.0	930,000,000
	2023	191,105	564,000,000	4.1	778,000,000
	2024 (through September)	150,871	607,000,000	2.9	1,102,000,000

Predatory Collection Practices Punish Customers

DTE reported almost 378,000 electric and gas shutoffs from 2020 through October 2022, the third-highest among utilities that disclosed data during the height of the pandemic.[29] DTE shutoffs increased in 2024, with customers losing electricity for nonpayment more than 150,000 times. Summer months were the worst: DTE shut off power nearly 90,000 times from May through September.[30]

DTE is uniquely predatory toward its low-income customers. In 2023 the utility forced more than 48,000 struggling customers to pay for their bills in cash.[31] Ratepayer advocates in the state couldn't find any other utility that adopts this vindictive policy, which makes it more difficult to pay bills and takes a mental and emotional toll on families already facing inordinate social, financial and energy burdens.

Michigan's vague temperature shutoff restriction — which offers no guidance on temperatures or dates — has allowed the utility's power disconnections to spike in the summer for two years in a row.[32]

Inflation.
The August 2024 inflation rate for the Detroit metropolitan area was about 3.5% above August 2023, 1% higher than the national rate.[33] Millions of households are living paycheck to paycheck across the state, where economic hardships were particularly pervasive in Black, Hispanic and single female-headed households even before the pandemic.[34]

Climate Change.
Accelerating climate change, driven by burning fossil fuels, caused above average temperatures this summer in southeast Michigan. In Detroit, average temperatures during May, June and July were among the top 3% ever recorded.[35] Climate change-induced winter storms have strained Michigan's energy grid and caused severe and prolonged power outages. In February 2023 a devastating ice storm cut power to some 700,000 people, spurred the introduction of new legislation and redoubled demands for utility accountability and climate resilience.[36]

Rate Hikes.
Repeated rate increases and regressive pricing mechanisms are part and parcel of DTE's exploitative ratemaking strategy that spurs shutoffs and boosts profits at ratepayers' expense. DTE customers already have some of the highest residential rates in the country — the average residential bill is 17% more than the Great Lakes region and 11% more than the U.S. average.[37] Michigan Attorney General Dana Nessel criticized the utility's latest $456 million electric rate hike proposal as "an abuse of the ratemaking system."[38]

From 2015 to 2019, DTE rate increases siphoned about $774 million from its customers, the second most of any investor-owned utility during that period.[39] Since November 2022 the utility has requested a series of rate hikes totaling almost $1.5 billion to help pay for carbon reduction, grid reliability and climate resiliency efforts.[40] State regulators approved $398 million in increases, significantly less than what DTE requested, in the last two rate cases and are weighing feedback from stakeholders on the utility's March 2024 $456 million rate hike request.[41]

DTE's regressive attempt to mitigate the summer surge in energy demand and relieve pressure on the grid caused financial burdens for low-income customers. Between June 1 and Sept. 30, the utility activated a dynamic pricing tariff with rates almost eight times higher in the mid-afternoon than during off-peak periods.[42] Time-of-use rates without exceptions for vulnerable groups often disproportionately harm seniors, customers with disabilities and low-income customers.[43]

Fossil Fuel Expansion Exacerbates Climate Change

Until recently DTE CEO Jerry Norcia served as chair of the American Gas Association, the gas utility trade group, which has led efforts to subvert climate policy at the local, state and federal levels and aggressively lobbies to promote methane gas.[44] DTE remains committed to its methane gas assets and continues to force ratepayers to shoulder the financial weight of its operation. The utility's projections call for increasing fossil fuel's share of its energy mix to 20% by 2042.[45] DTE expects its methane gas fleet to rely on unproven carbon capture and storage to comply with Michigan's latest climate law.[46]

CCS hasn't shown that it's commercially viable and risks extending the lifeline of gas infrastructure that exposes customers to unpredictably high energy bills and health harms. The technology also does little to reduce toxic pollution. This is dangerous for Michigan's low income, Black, Brown and immigrant communities, whose homes are most often close to peaker plants and other fossil fuel infrastructure.[47]

Anti-Competitive Obstruction of Distributed Renewable Energy

DTE has fought community solar, sought demand charges and lower compensation rates for rooftop solar customers, attempted to preserve low caps on distributed energy production, and opposed local and national efforts to increase access to electrification and energy efficiency. The utility justifies these anti-competitive tactics by feigning concern over equity, bill affordability and customer choice.

DTE recently opposed two Senate bills to create a community solar program with a 30% carve out for low-income customers.[48] According to Stephen R. Miller and several other researchers from Michigan State University, the program promises to save residents money, spur energy democracy, produce an estimated 18,500 jobs and bring in $1.4 billion in investments over the next 30 years.[49] DTE pushed its own programs, like MIGreenPower, where customers pay a premium to join utility-owned solar projects.

For years DTE has limited customers' access to distributed renewable energy by trying to maintain a 1% cap on distributed energy production.[50] In 2022 the utility targeted solar customers by attempting to charge fixed fees and slash compensation rates in half. Fortunately, the utility commission rejected DTE's plan.[51]

At the federal level, DTE worked with the American Gas Association to oppose Energy Department rules to improve the efficiency of gas furnaces and water heaters, even though the rules could save customers $25 billion over 30 years.[52]

DTE's obstruction of customer friendly, resilient energy solutions dangerously compounds its long-term reliability issues, which inordinately impact customers living in predominantly Black, Hispanic, and low-income neighborhoods. The utility is one of the worst nationwide for power outages and a recent, independent audit mandated by the Public Service Commission found its grid infrastructure to be far outdated and its restoration time to be "worse than average among utilities."[53] These shortcomings are part of the reason several reports have found Michigan to be the second worst state for power outages between 2000 and 2021 and the fourth worst for restoration time.[54]

Rampant Profiteering Drives Customer Misery

Despite its unreliable service, DTE's profits continue to soar. DTE's $1.1 billion in net income from January to September 2024 was more than 41% higher than the same period in 2023.[55] Customers, advocates, and state and federal officials are increasingly urging DTE to rein in its windfall profits and shoulder some of the costs of improving the grid's reliability, keeping bills affordable and reducing disconnections.

DTE continues to reward its shareholders with hundreds of millions of dollars. About 3% of the $607 million it sent to its shareholders as dividends from January to September 2024 could have covered the estimated cost to prevent all 150,000+ of its shutoffs during the same period.[56] In 2023 DTE's CEO took home almost $10 million in compensation. DTE executives also earned incentives based on profits and system reliability, even as outages persisted.[57]

DUKE ENERGY

"The thought of having a rate increase just scares me... It scares me that I could be homeless...it scares me that I won't be able to pay my bills."

ANGELA, DUKE CUSTOMER.[58]

Duke Energy is one of the largest investor-owned utilities in the country with more than 4.1 million customers in seven southeastern states.[59] As the country's third-largest corporate greenhouse gas polluter, Duke routinely fights laws and regulations that would rein in the utility industry and hold it accountable for rampant pollution and greenhouse gas emissions.[60]

In December 2024 the town of Carrboro, N.C., sued Duke Energy for deceiving the public for decades about the dangers of climate change and fossil fuel consumption, marking the country's first climate deception lawsuit against an electric utility.[61] Duke's rising power disconnections, methane gas expansions, distributed solar energy obstruction, and $1 billion in recent rate hikes intensify the climate and environmental injustices its customers are suffering.

TABLE 4

Duke's Shutoffs and Profiteering Data (2022 through September 2024)

Utility	Year	Shutoffs	Shareholder Dividends ($)	% of Shareholder Dividends to Prevent Disconnections	Net Income ($)
Duke	2022	100,990	3,179,000,000	0.4	3,191,000,000
	2023	173,157	3,244,000,000	0.7	3,111,000,000
	2024 (through September)	135,028	2,411,000,000	0.9	3,259,000,000

Predatory Collection Practices Punish Customers

Duke Energy has become one of the worst utility shutoff offenders in our report, drastically ramping up its shutoffs after an anomalous dip in 2022.[62] Duke's over 135,000 shutoffs for nonpayment from January through September 2024 represent a 19% increase from the same period in 2023.[63]

During the sweltering summer months, Duke took full advantage of North and South Carolina's lack of heat-based restrictions on shutoffs and disconnected its customers almost 95,000 times. In North Carolina, Duke's more than 64,000 shutoffs from May to September 2024 were 22.5% higher than the same period in 2023.

Shutoffs have spiked during the summer for three years in a row. In South Carolina, Duke's almost 20,000 shutoffs in the same period were more than 28% higher than 2023.

Ongoing inflation, deadly climate disasters, and Duke's unrelenting rate hikes are making utility bills increasingly unaffordable in the Carolinas and spurring this surge in utility shutoffs.

Inflation.

Households in North and South Carolina endure widespread financial hardships as the cost of living has outstripped wage growth, especially since the COVID 19 pandemic.[64] As of November 2024, the Southeast region has seen inflation rates grow by about 2.7% compared to 2023.[65]

Climate.

Climate change-fueled weather disasters, like extreme heat, hurricanes and floods, have battered families in North and South Carolina. This has forced households to spend more money keeping their homes cool and covering utility costs for grid repair and recovery passed on by Duke Energy.

The N.C. Climate Science Report projects North Carolina will see two to three additional weeks each year with maximum temperatures of 95 degrees or higher by 2040.[66] Similarly, in South Carolina, climate change caused an additional 24 days of high heat than usual — the ninth-most among all states.[67]

The Carolinas are seeing increasingly frequent and destructive hurricanes due to climate change. Several attribution studies have confirmed that Hurricane Helene's unprecedented path and associated rainfall — which killed more than 150 people in the Carolinas, left millions without power for days and caused tens of billions of dollars of damage to public infrastructure — were made more likely by climate change.[68]

Rate hikes.

The overlapping affordability and climate crises have not dissuaded Duke Energy from compounding the hardships of its North and South Carolina customers by seeking more than $1 billion in residential rate increases between 2023 and 2026.[69] The rate hikes will increase most customers' monthly bills by at least $10 and intensify the ongoing rise in shutoffs.[70]

Fossil Fuel Expansion Worsens Climate Change

Duke Energy is expanding its methane gas plants by planning to build seven new combustion units in North Carolina in the next decade, which would increase production by almost 5,800 megawatts by 2032.[71] Duke Energy falsely asserts that prioritizing methane gas is "the most reasonable, least cost, and least risk pathway…to progress the reliable and orderly transition of the Carolinas [energy] system," obscuring the profit motive driving its energy investments and planning.[72]

The current regulatory structure permits Duke Energy to force customers to pay for the price volatility of methane gas and guarantees Duke and its shareholders high returns when it invests in large, expensive methane gas infrastructure. The Environmental Defense Fund and EQ Research, an energy analytics firm, determined that "increases in fuel costs account for roughly 67% of the increases in residential retail rates since 2017" for customers in Duke Energy's North and South Carolina service territory.[73] Another EQ Research study found that Duke's gas buildout plans could cost residential ratepayers $2,100 more on their power bills by 2038.[74]

By ignoring recent federal and state climate decarbonization requirements, Duke Energy is inflating the costs of new methane gas plants that will be underutilized and forced to retire well before their 35-year lifespans end. EQ Research estimates that Duke's decision to invest heavily in methane gas despite regulatory and legislative developments will leave ratepayers on the hook for more than $8 billion in expenses for unused infrastructure.[75]

Duke Energy lobbies persistently at the state and federal level to weaken greenhouse gas emissions rules and cement a role for methane gas in the energy transition. Duke collaborated with other fossil fuel lobbyists to successfully pressure the Environmental Protection Agency to exclude existing methane gas plants from its proposed emissions reduction rule in 2023.[76] In South Carolina, Duke supported the South Carolina Energy Security Act[77] that would have limited the growth of renewable energy and encouraged the company to expand existing methane gas plants — all at the expense of captive ratepayers.

Anti-Competitive Obstruction of Distributed Renewable Energy

Duke Energy has fought tirelessly to undermine the deployment of distributed renewable energy, which threatens its bottom line. In February Duke admitted as much in an SEC filing, expressing concerns with the ways distributed renewable energy hampered its ability to recover fixed costs from customers.[78] Throughout the Carolinas it has downplayed the resiliency benefits of demand response and distributed solar and storage, attempted to reduce compensation rates for distributed solar, and designed ineffective community solar programs.

In the Carolinas rooftop solar and other distributed energy systems have regularly outperformed large, centralized utility infrastructure during climate disasters. In 2022, when methane gas infrastructure froze during winter storm Elliot and caused supply shortages and rolling blackouts throughout the Southeast, rooftop solar customers with storage were able to provide emergency power to the grid for hours and mitigate the spread of outages.[79] When Hurricane Helene washed away substations in 2024, "blew Duke's risk forecasts out of the water," and left millions without power for weeks, customers with access to solar power and storage kept their lights on.[80] Despite these benefits, Duke Energy refuses to incorporate demand flexibility into its resource plans, blocks distributed solar and storage, and limits microgrid deployments to a few remote communities on its grid.

Duke is deeply entangled in a network of utilities, fossil fuel companies, trade associations and think tanks, including the American Legislative Exchange Council and Edison Electric Institute, that are rolling back state net-metering programs around the country.[81] In North Carolina Duke lobbied heavily to pass legislation in 2017 and 2021 that would severely weaken and, in 2027, end the state's net-metering program. In 2023 the company lowered the net-metering credits for rooftop solar customers, causing new interconnections to drop by about 40% in the past year.[82]

In South Carolina Duke delayed implementing a state community solar program for three years and designed it in a manner that disincentives participation from low-income households.[83] In 2021, following the company's attempts to drastically reduce compensation rates for customers enrolled in the net-metering program, the state utility commission accepted a settlement that caused the savings to drop by about 10%.[84] Later that year the commission rejected Duke's resource plan and reprimanded it for inflating the costs of distributed solar and undervaluing its capacity to meet demand.[85]

Rampant Profiteering Drives Customer Misery

Through September 2024 Duke Energy raked in more than $3.2 billion in net income, 4.8% more than 2023. Duke CEO Lyn Good made almost $21 million in total compensation in 2023, and from January through September 2024 the company sent about $2.4 billion to its shareholders as dividends.[86]

A small fraction of the wealth Duke Energy's shareholders plundered from ratepayers could ease the suffering of tens of thousands of families in the Carolinas. Less than 9% of shareholder dividends through September 2024 could wipe out the $212.8 million residential customers owed in utility bills. Less than 1% of shareholders dividends could cover the estimated cost to prevent all 151,973 of Duke Energy's power shutoffs for nonpayment in the Carolinas from January through September 2024.[87]

AMEREN

“I live paycheck to paycheck and can barely afford food. Please don’t raise the rates anymore.”

STEVEN WEBB, AMEREN IL CUSTOMER[88]

Ameren Corporation is a major investor-owned utility with subsidiaries serving roughly 3.3 million customers in Illinois and 1.2 million customers in Missouri. For years the utility has demonstrated a firm commitment to raising corporate profits at the expense of its ratepayers.

TABLE 5

Ameren’s Shutoffs and Profiteering Data (2022 through September 2024)

Utility (States)	Year	Shutoffs	Shareholder Dividends ($)	% of Shareholder Dividends to Prevent Disconnections	Net Income ($)
Ameren (IL & MO)	2022	141,307	610,000,000	2.7	911,000,000
	2023	76,129	662,000,000	1.3	994,000,000
	2024 (through September)	123,133	535,000,000	2.7	975,000,000

Predatory Collection Practices Punish Customers

In Illinois and Missouri, Ameren continues to impose punitive power shutoffs to compel customers to pay increasingly unaffordable bills. From January through September 2024, the utility disconnected its customers’ power for nonpayment more than 123,000 times.[89] In Illinois, the 56,000-plus shutoffs are a 4.2% decrease from 2023 but a 13.5% increase from 2022. In Missouri, the more than 67,000 shutoffs between March and September (when data was available) are 15.5% higher than 2022.[90]

Ameren concentrates most of its shutoffs during the hottest months of the year, severing customers’ power nearly 88,000 times between May and September 2024. Missouri saw a 36% increase in shutoffs during this period compared to 2022. However, summertime shutoffs in Illinois were 13% fewer than 2023 and 6.3% fewer than 2022. This decrease is likely thanks to a new state law that strengthened Illinois’ heat-based shutoff restrictions. The law lowered the forecasted temperature to 90 degrees, above which utilities are prohibited from shutting off service.[91] In Missouri the threshold is still 95 degrees.[92]

Inflation.

Inflation is steadily increasing in both Illinois and Missouri compared to 2023. In 2024 Illinois saw a 4.1% increase compared to September 2023 and a 20.5% increase since January 2021.[93] In comparison, inflation in Missouri increased by 3.3% compared to last August.[94]

Climate Change.

Illinois and Missouri suffered through a plethora of climate disasters in 2024, 11 of them billion-dollar events.[95] Scientists and government officials in Illinois have found that climate change is causing the state to have about an extra week of extreme heat compared to previous years.[96] Other climate disasters, like flash floods and a record-breaking number of tornadoes in July, have pummeled residents and made utility bills more expensive as customers are on the hook for the costs to repair and reconstruct damaged energy infrastructure.[97] In Missouri, climate change led to warmer temperatures than usual in February and March and produced the state's third-warmest spring on record. Although the state isn't suffering from as much extreme heat as Illinois, temperatures have steadily increased in recent decades.[98]

Rate Hikes.

In Illinois, Ameren has sought to exponentially increase customer rates to fund expensive grid upgrades. In 2023 the Illinois Commerce Commission shocked the utility by granting a rate increase 87% below the requested $448 million.[99] The commission also rejected the utility's proposed grid plan for being unaffordable and lacking enough benefits for low-income and disadvantaged customers.[100] Unfortunately, Ameren was able to claw back $83 million after challenging the commission's decision. In December the commission approved a reduced version of Ameren's new grid plan and rate hike request to ultimately allow rates to rise by $309 million through 2027.[101]

In Missouri Ameren has been more successful in convincing state utility regulators to accept its exorbitant rate hikes. In July 2024 it asked for a $446 million rate hike to recoup investments in grid upgrades and clean energy, which would increase residential customers' bills by about $17 a month.[102] This financial burden comes a year after a $140 million increase.[103] An independent analysis showed that between 2020 and 2023 Ameren Missouri rates increased faster than inflation and wage growth, with average customer rates increasing 19.5% in summer and 21.05% in winter.[104]

Ameren

Fossil Fuel Expansion Exacerbates Climate Change

Ameren acknowledges the increased risks of climate change-induced extreme weather events and claims to be a leader in the clean energy transition.[105] Yet in Missouri the utility plans to cling to deadly, expensive fossil fuel infrastructure well into the 2060s. This would make its promised goal of net zero by 2050 impossible to meet.

Ameren is planning to replace several of its recently or soon-to-be retired coal plants with at least 2,000 megawatts of fossil-gas peaker plants that have lifespans of at least 30 years.[106] This includes the recently approved 800-megawatt Castle Bluff plant, due to come online in 2028 and costing ratepayers more than $900 million.[107] The utility claims that it can mitigate emissions at some of the plants by gradually integrating hydrogen into the fuel mix.

Ameren's decision to delay the retirement of the St. Louis-based Labadie coal power plant, the region's largest coal plant and one of the nation's worst polluters, to 2042 perpetuates grave public health harms in a predominantly Black and low-income community — a deadly act of environmental racism.[108]

Anti-Competitive Obstruction of Distributed Renewable Energy

In 2020 Ameren misconstrued language in a state law to accelerate the end of solar net metering in Illinois, despite pleas from the Illinois Commerce Commission to keep the compensation rate as is.[109] Although these efforts failed, the utility hasn't had to wait long for its wish to come true. In 2025 the state's net metering is set to end and compensation rates will be cut in half.[110]

In Missouri Ameren joined a coalition of utilities to kill a 2022 community solar bill.[111] The program would have offered customers bill savings, with a stronger incentive for low-income customers, but Ameren falsely claimed it would have deregulated the solar industry and threatened customer wellbeing.[112]

By pursuing lower compensation rates for distributed solar and opposing community solar programs, Ameren balloons energy costs for its ratepayers and hinders their access to resilient energy resources.

Rampant Profiteering Drives Customer Misery

Ameren's profits, shareholder dividends, and executive compensation continue to increase while it forces customers to bear unrelenting shutoffs, unaffordable bills, toxic emissions from fossil fuels and deadly climate disasters. From January through September 2024 the utility raked in $975 million in net income and $535 million in shareholder dividends — the latter almost an 8% increase from the same period in 2023. The Energy and Policy Institute found that Ameren's executives were "compensated lavishly" in 2023, with its CEO and CFO paid more than $19.1 million, a whopping 64% increase from 2022.[113]

A tiny portion of Ameren's shareholder dividends, let alone its profits, could drastically improve the lives of its most energy-insecure customers. Just under 3% of the $535 million Ameren sent to its shareholders as dividends through September 2024 could have covered the estimated cost to prevent all 113,718 of its shutoffs in Illinois and Missouri through September 2024.[114]

PACIFIC GAS & ELECTRIC

"As PG&E enjoys record profits for their shareholders, customers and people on fixed incomes are suffering these ever higher bills. We are turning on the heat for fewer hours, using sweatshirts and blankets, but how much more can we do. The bill each month is becoming equivalent to a rent or car payment and we have no alternative. This company is morally bankrupt."

DIANE ESTENS, PG&E CUSTOMER[115]

Pacific Gas & Electric (PG&E), one of California's largest investor-owned utilities serving more than 5.6 million customers across the state, negligently manages its energy infrastructure, charges expensive energy bills, relies heavily on false climate solutions and tenaciously opposes rooftop and community solar.

TABLE 6

PG&E's Shutoffs and Profiteering Data (2022 through September 2024)

Utility	Year	Shutoffs	Shareholder Dividends ($)	% of Shareholder Dividends to Prevent Disconnections	Net Income ($)
PG&E	2022	5,230	1,275,000,000	0.1	1,297,000,000
	2023	63,306	1,775,000,000	0.6	1,333,000,000
	2024 (through September)	45,783	1,450,000,000	0.5	1,838,000,000

Predatory Collection Practices Punish Customers

Following one of the longest pandemic-era utility shutoff moratoria — from March 2020 through August 2022 — PG&E began increasing shutoffs. From January through September 2024, the utility disconnected its residential customers for nonpayment almost 46,000 times. Although this is 9.5% less than the total from the same period in 2023, it's a 32.7% increase from 2019.[116]

A similar trend persisted with summertime shutoffs, between May and September 2024. California prohibits shutoffs when the National Weather Service predicts temperatures above 100 degrees or below 32 degrees.[117] However, this summer the utility disconnected customers' power more than 30,000 times — about 24% less than in 2023 but almost 40% higher than in 2019. Over the past two years the state's temperature-based ban has failed to prevent shutoffs from peaking during the summer months.

Customer debt has also soared since 2019. By September 2024 more than 1 in 5 customers were behind on their bills, almost 8% more than in 2023 and almost 18.5% more than in 2019.[118] Collectively these customers owed more than $743 million, 1% less than in 2024 but more than triple what was owed in 2019.

Utilities blame the rise in arrearages on the pandemic era shutoff moratorium. But several other factors — including inflation, climate change-driven extreme heat and wildfires, and rate increases — account for the jump in arrearages and shutoffs.

Inflation.
Since October 2024 inflation in the state is up 2.4%.[119] Although the pace of inflation is slightly lower than its peak two years ago, the cost of living in California is still on the rise since the onset of COVID-19 in 2020.[120]

Climate Change.
The climate catastrophe created the conditions for January's devastating fires in and around Los Angeles, which killed dozens of people, destroyed more than 15,000 homes, schools, restaurants and other buildings across 40,000 acres, led to the evacuation of more than 180,000 Angelenos and are likely the costliest in U.S. history with damages estimated at $250 billion. Global heating also brought the hottest summer California has seen in the last 130 years, and heat waves have persisted through September and October.[121]

The intensity and frequency of wildfires — now the biggest driver of utility rate increases in California — are growing due to climate change. Negligent management of faulty transmission lines by PG&E and other investor-owned utilities often triggers and intensifies deadly wildfires.[122] In 2024 California wildfires burned more than 1 million acres, three times the acreage burned in 2023.[123] According to the California Public Utilities Commission, the state's three major corporate utilities recovered $5.5 billion a year from customers in wildfire-related costs, accounting for nearly all the growth in electricity revenue.[124]

Rate Increases.
Californians have regularly endured some of the highest utility rates in the country and PG&E leads the pack when it comes to imposing crippling rates on captive customers. The California Public Utility Commission's (CPUC) consumer advocate found that PG&E's customers have seen their rates more than double in the last

decade.[125] In cities like Roseville, PG&E customers have summer bills that are 46% higher than neighbors serviced by a publicly owned utility, Roseville Electric.[126]

Through the fall of 2024, PG&E customers faced four rate hikes that could raise most customers' monthly electric bills by almost $68 compared to 2023.[127] The utility's general rate case, covering adjustments between 2023 and 2026, will collect almost $29 billion from ratepayers to recoup the cost of projected electric distribution and generation expenses.[128] To make matters worse, the CPUC just approved two more of PG&E's rate increases in mid-December.[129] This follows a year where the utility's Bay Area customers saw their combined electric and gas bills rise eight times faster than the rate of inflation in the region.[130] The majority of 2024 increases are to cover skyrocketing wildfire mitigation costs as well as grid modernization efforts in response to winter storms in 2022 and 2023. California regulators found that PG&E's wildfire-related costs increased by about 117% between January 2023 and April 2024. These expenses make up about a quarter of the utility's total rate increase.[131]

Fossil Fuel Expansion Exacerbates Climate Change

PG&E isn't planning to expand its methane gas infrastructure, but the utility is still extending the lifeline — and thus the inequitable climate and public health costs — of methane gas in California. The utility is increasing its procurement of methane fuels, lobbying federal agencies to maintain a long-term role for methane gas and supporting false solutions, like CCS, hydrogen and biofuels, that deepen the state's reliance on methane gas infrastructure.

PG&E's 2022 long-term resource plan details a significant increase in the amount of methane gas it will buy from gas-fired generators and peaker plants in its service area. The proportion of gas remains steady around 40% through 2035.[132] It has worked with other corporate utilities and methane fuel-friendly trade associations to encourage the federal government to increase research and development funding for methane gas and loosen power plant rules to facilitate the deployment of CCS and hydrogen at gas plants.[133]

PG&E continues to invest in other false solutions, like biofuels, to delay the transition away from methane gas and protect its ability to profit from capital-intensive, fossil fuel infrastructure. Biofuels pose serious threats to the climate, environment and public health while also perpetuating grave environmental injustices.[134] But the utility's long-range plan projects small yet persistent amounts of biomass and biogas.[135] PG&E forecasts that 10 to 15% of the gas in its network over the next decade will be met by biofuels, using methane from dairies, landfills and other waste.[136]

Anti-Competitive Obstruction of Distributed Renewable Energy

The harm from California's concessions to methane gas are compounded by PG&E's war against distributed renewable energy resources. These are the very resources that can facilitate the retirement of methane gas plants, relieve grid stress, protect customers from climate disasters and spur local economic development. PG&E has worked diligently with other corporate utilities and the CPUC to put distributed solar and storage further out of reach for its ratepayers.

In 2020 PG&E joined other major investor-owned utilities in the state to put $1.7 million toward forming Affordable Clean Energy for All, a front group that lobbied against rooftop solar.[137] The group helped craft the building blocks of the plan that gutted California's longstanding net-metering program. The plan, approved by state regulators in 2023, decimated California's rooftop solar market by cutting compensation rates by about 75% and leaving little to no incentive for new customers. As a result, solar installations cratered by up to 83% by the end of 2023 and the industry laid off 17,000 workers in California.[138] Since then PG&E has opposed several bills to restore incentives for distributed solar.[139]

PG&E has also blocked the equitable growth of community solar. In March 2024 it convinced the CPUC to reject a community solar plan that would have required more community solar deployment, incentivized storage with solar units, and instituted guaranteed savings for low-income customers.[140] The utility continues pushing its own microgrid and storage programs as alternatives to customer-owned and sited distributed renewable energy. It recently persuaded state regulators to reject a proposal that would have promoted nonutility-owned and operated microgrids.[141]

Rampant Profiteering Drives Customer Misery

Through September 2024, PG&E boasted a net income of nearly $1.84 billion, about 38% higher than the same period in 2023.[142] CEO Patti Poppe's almost $17 million pay package in 2023 was a 20% increase from 2022.[143]

Less than 1% of the $1.45 billion PG&E sent to shareholders as dividends from January through September 2024 could have covered the estimated cost to prevent all 45,783 shutoffs for nonpayment in that period.[144] PG&E's obstruction of equitably deployed distributed renewable energy robs its customers of resources that could displace dirty peaker plants, reduce the risk of wildfires by minimizing the need for transmission lines, protect households from power outages, and make their bills far more affordable.

ARIZONA PUBLIC SERVICE

“We are retired, living on a fixed income, and have seen our bills double or more in recent years. This is not only unreasonable, but also offensive at a time when most APS customers are hurting. It would be nice if the millions of dollars APS spends on elections would instead be applied to some of these needs they seem to have.”

JONEE BOCKELMAN, APS CUSTOMER[145]

Arizona Public Service (APS) is an investor-owned utility serving 1.4 million customers in the Phoenix metropolitan area and surrounding counties. Utility shutoff restrictions significantly improved after the 2018 death of a 72-year-old woman whose power was disconnected over a $51 bill when the temperature reached 107 degrees.[146] Though APS’s shutoff rates are relatively low compared to its peers, it still compromises customer safety and bill affordability through profiteering, expanding methane gas infrastructure, and gutting distributed solar programs and incentives.

TABLE 7

APS’s Shutoffs and Profiteering Data (2022 through September 2024)

Utility	Year	Shutoffs	Shareholder Dividends ($)	% of Shareholder Dividends to Prevent Disconnections	Net Income ($)
APS	2022	16,957	385,800,000	0.6	507,594,000
	2023	31,349	393,600,000	1.2	501,580,000
	2024 (through September)	20,456	294,589,000	1.1	615,633,000

Predatory Collection Practices Punish Customers

APS’s shutoffs have been gradually increasing over the past two years, even in the early summer, despite boasting a relatively low shutoff rate and a long, date-based shutoff moratorium from June 1 to October 15.[147] The utility disconnected its residential customers for nonpayment 20,456 times through June 2024, a 3% increase from 2023 and an almost 25% increase from 2022.[148] Although most summer-time shutoffs are prohibited, the utility’s 2,200 shutoffs in May 2024 were 17% higher than the previous year.

Despite a slight drop in arrearages in 2024, utility assistance organizations have been overwhelmed with requests for bill support. In June 2024 — the hottest June in Phoenix in recorded history — the Salvation Army's hotline received more than 500 calls in the first week of the month and closed the hotline after only a week because it ran out of funding.[149]

Inflation.
Through August 2024 the price of consumer goods and services rose by about 2.3%.[150] Although Arizona's price increases are slightly lower than the rest of the country, cumulative price hikes since 2021 are among the nation's largest.[151]

Climate Change.
Record-breaking heat battered the Phoenix metropolitan area for much of the year and forced APS customers to use more power to keep their homes cool. This summer was the hottest ever recorded and extreme heat arrived earlier and lasted longer.[152] Phoenix hit triple digits in April, about a week and a half earlier than usual and almost two months before the shutoff moratorium kicks in. The city tied or broke daily temperature records every day through the first few weeks of October.[153]

Rate Hikes.
Like its peers APS routinely seeks increasingly expensive rate hikes. The Arizona Corporation Commission gave the utility a $253 million increase in 2023 that raised monthly bills by about $10.50 and approved a nearly $492 million increase in 2024, which increased monthly bills an additional $10 to $12. However, the Commission is in the midst of rehearing its decision on the latest increase. Some estimates show that Arizonans paid nearly $100 more each month during summer 2024, almost triple the national average for that period.[154]

APS also got state regulators to greenlight a new mechanism to accelerate cost recovery through "small" and rapid rate increases. This allows the company to automatically recover costs, capped at 3% per rate hike, for new, utility-owned generation resources up to five times before filing for another rate case. In an earnings call, the utility explicitly named the Sundance and Redhawk methane gas expansion projects as possible candidates for achieving rapid cost recovery with this new mechanism.[155]

Fossil Fuel Expansion Exacerbates Climate Change

Although APS has significantly increased its investments into utility-scale renewable energy projects, it still insists on expanding methane gas infrastructure, integrating hydrogen and delaying coal retirement. As a result it will intensify its customers' energy burdens and boost toxic and climate-warming emissions for decades to come.

APS's long-term plan delays the retirement of large coal plants for several years, calls for thousands of megawatts of more methane gas, and maintains the fuel's share in its generation mix at or above 20% through 2038.[156] Also, hydrogen plays a critical role in APS's vision for future methane gas buildout.

Anti-Competitive Obstruction of Distributed Renewable Energy

In February, in the same rate case that would cause a $10 to $12 monthly increase in customers' bills, APS received initial approval for a grid-access charge that would further hike rates for solar customers.[157] Solar customers already pay on average about $80 a month to stay connected to the grid and solar companies expect the new rate structure to increase the average monthly amount to almost $120.[158] Similar to some of the recent gas plant expansions, the fee was adopted in a rushed and undemocratic manner with no opportunity for public comment.[159] The state's attorney general denounced the fee's discriminatory nature and called for a rehearing. However, recent restrictions on the hearing have led many stakeholders to believe APS will prevail.[160]

Before pursuing the discriminatory grid access charge, APS successfully slashed the compensation rate for customer-owned solar power sent back to the grid.[161] This decimated the state's community solar program and doomed a distributed storage compensation pilot.[162]

Rampant Profiteering Drives Customer Misery

APS's profits are surging, and the utility credits its growing wealth to a mixture of recent rate increases and record-breaking heat. From January through September 2024, APS parent company Pinnacle West Capital Corp. reported a net income of $615.5 million — almost 23% higher than 2023.[163] In 2023, APS CEO Jeff Guldner saw his compensation jump by more than 15% to $10.9 million.[164]

APS could easily use a small fraction of its shareholder dividends to protect their customers' access to life-saving power, especially as climate change extends their exposure to deadly extreme heat. About 1% of the nearly $295 million APS spent on shareholder dividends from January through September 2024 could have covered the estimated cost to prevent all 20,456 of its shutoffs in the same period.[165]

ANNEX I: POLICY RECOMMENDATIONS

In light of a new Trump administration that is unlikely to hold corporate utilities accountable, state regulators and lawmakers can address the unjust practices of investor-owned utilities and protect customers captured by these monopolies. Here are some key policy avenues to begin improving the electricity utility sector.

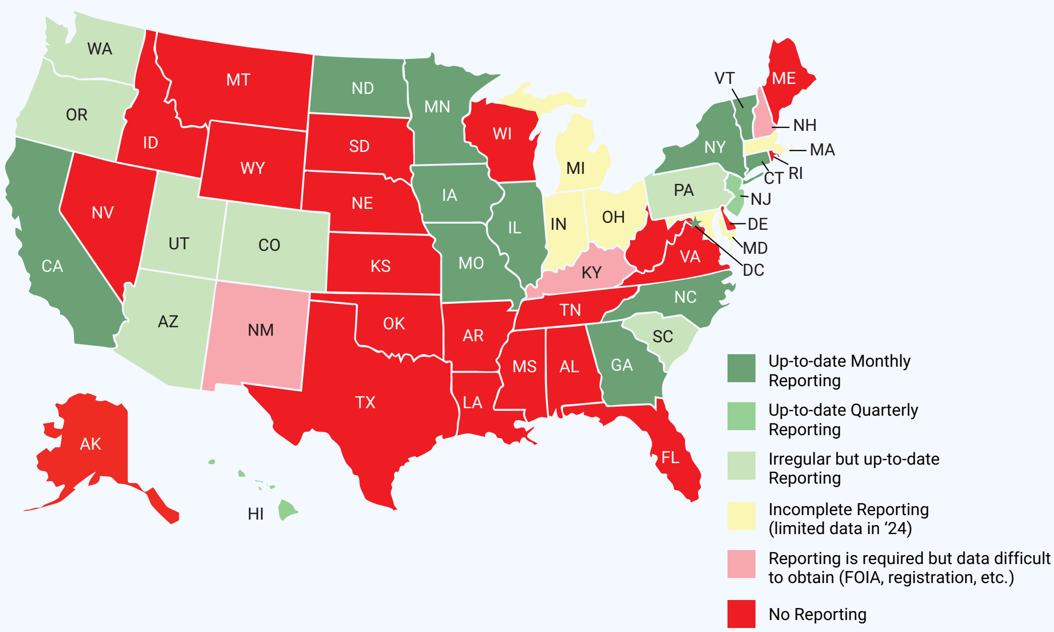
MINIMIZE PREDATORY COLLECTION PRACTICES

Data Transparency

A lack of data transparency makes it impossible to understand the true magnitude of the utility shutoff crisis and more difficult to pursue and achieve solutions that meet the scale of the problem. Twenty-two states (44%) fail to require their investor-owned utilities to disclose data on residential power shutoffs for nonpayment. Even among the 28 states (56%) that do require disclosures, only 20 states and Washington, D.C., make clear and current data available.

FIGURE 7

Map of State-by-State Power Utility Shutoff Disclosure Requirements and Data Availability



Federal and state utility shutoff databases should aggregate their data by ZIP code and include utility debt data. Model states to emulate include California and Illinois.[166]

Governors and public utility commissions that lack disclosure requirements or have irregular, delayed or unclear disclosure requirements should require their utilities to publicly report utility shutoff and debt data at least once a month.

Shutoff Bans

Many states recognize that access to utilities is especially vital when temperatures are extremely hot or cold. As a result 42 states have implemented shutoff bans during periods of extreme cold. However, only 23 states have done the same during periods of extreme heat, even though heat is currently the most lethal of all climate disasters. States with weather-based protections still allow many customers to slip through the cracks.[167]

States should adopt year-round utility shutoff bans for nonpayment, at least for particularly vulnerable customers. All shutoff restrictions must require the automatic reconnection of eligible, previously disconnected households. Alternatively, if states only adopt weather-based restrictions, they should pair date-based and temperature-based criteria to broaden the periods during which customers are protected.

Energy Affordability for All

The debilitating strains of energy insecurity and economic precarity are felt unequally and long before a household is disconnected. The National Energy Assistance Directors Association estimates that residential utility debt in August 2024 is almost $17.4 billion, about an 8.4% increase since December 2023.[168] Utility debt and inequitable energy burdens can be mitigated with the following policies:

- State policymakers and public utility commissions should institute income-based payment plans with adequately long pay-back periods to cap monthly utility expenses for low-income households and sustainably reduce past-due balances.
- Public utility commissions should ban prepayment plans that are often ineffective and unjust and sometimes allow utilities to disconnect customers without reporting it.[169] State utility regulators should also establish customer safeguards against predatory, alternative energy suppliers who often deceive low-income customers into paying more for electricity.[170]
- Policymakers and public utility commissions must consider environmental and public health burdens, energy burdens, energy insecurity, energy poverty and other related social and environmental factors and costs when determining if utility rates are "just and reasonable."[171]

MITIGATING CLIMATE WARMING AND ANTI-COMPETITIVE TACTICS

- State policymakers must require and publicly finance deployment of distributed renewable energy resources in low-income communities, communities of color, energy poor communities and environmental justice communities. They should also incentivize or require pathways to ownership for these households, where possible.
- State policymakers and public utility commission must preserve and, where necessary, expand net-metering and community solar programs[172] and prohibit utilities from imposing discriminatory fees and charges on solar customers. They should consider the social and nonenergy benefits of rooftop solar, batteries and other unwired alternatives when evaluating utilities' integrated resource plans, rate cases, and any other filings and proceedings that may affect customer rates and energy infrastructure.[173] In addition, they should establish policies that standardize and ease the interconnection process for rooftop and community solar, prohibiting utilities from using onerous connection times, insurance requirements, permitting, fees, unsupported upgrade charges, and additional inspection requirements to delay interconnection.[174]

REINING IN UTILITY PROFITEERING

Structural overhauls of local and state utility energy systems — where corporate utilities are taken under state, municipality or local control and no longer operate to maximize profits[175]— are well warranted but extremely difficult to implement. In the meantime, as stakeholders work toward that transformative goal, state policymakers and regulators can pursue other policies to begin curbing utility greed and developing true accountability to the public:

- Tax utility profits, executive payouts and shareholder dividends to fund the expansion of utility shutoff protections, equitable debt forgiveness programs, distributed renewable energy incentives and targeted installations, and other related efforts to remedy energy injustices.
- Establish performance-based ratemaking that uses financial rewards and penalties to tie utility profits to the fulfillment of community-defined resilience, energy, economic and environmental justice outcomes.[176]
- Eliminate fuel riders and force utilities to absorb the cost of methane gas price volatility rather than passing it on to their ratepayers.
- Democratize public utility commissions by adopting reforms that hold them accountable to the "will and interests of the public," as outlined by the Chisholm Legacy Project.[177]

ANNEX II: METHODOLOGY

Dataset

To compile the data for this report, the authors reviewed available disconnection data for all six utility companies and the primary states they operate in. Cumulative data were compiled by combining 2024 findings with data from our earlier reports in this series. This included Georgia, Michigan, North and South Carolina, Illinois, Missouri, California, and Arizona. Duke Energy's shutoff data in Ohio, Indiana, Florida, and Kentucky were excluded because they are less accessible and, according to our previous report, the majority of the utility companies' shutoffs occur in the Carolinas.[178] Disconnection data was retrieved by reviewing state utility dockets and, for DTE in Michigan, submitting public information requests.

See the full set of data here.

Adjustment to Exclude Rapid Reconnections

California and North Carolina were the only states that included data on rapid reconnections under 24 hours. For PG&E and Duke Energy's shutoffs that were followed by reconnections under 24 hours in these states, we subtracted the rapid reconnections from the utilities' disconnect totals in those months. We deemed reconnections within 24 hours adequate to mitigate the worst impacts of a disconnection but considered longer periods without service too harmful to be excluded. Being without electricity for more than 24 hours can render homes uninhabitable and prove life-threatening due to inoperability of lifesaving medical equipment, temperature extremes, and similar outcomes. However, even a few hours of power loss can be harmful for particularly vulnerable customers in low-income households, households with seniors, youth, pregnant or postpartum individuals, individuals with a disability, or individuals with a serious illness.

Where possible reconnections with no specified time frame were recorded and not subtracted from disconnection totals.

Utility Service Type

The disconnection data set specifically focuses on electric service. Most of the utilities covered separate electric and gas disconnections in their docket compliance filings. However, PG&E does not. Many of its customers receive both electric and gas service. We erred on the side of over-inclusion and treated their shutoffs as electric disconnections.

Customer Class

Although our data is focused on tracking residential utility disconnections, DTE Energy is the only utility company in our report that does not distinguish between residential and commercial customer classes in its filings. Since most of its customers are residential, we erred on the side of over-inclusion and used values that may include some nonresidential disconnections. The other five utility companies distinguish their residential shutoffs for nonpayment.

Year-Over-Year Comparisons

For this report we collected new data from November 2022 through September 2024. For earlier iterations of the report, we had most of 2022 (covering January through October 2022), and full-year data sets for 2020 and 2021. To ensure accurate apples-to-apples comparisons of year-over-year data, we compared datasets during the same time periods across years. Specifically, we compared shutoffs that occurred from January through September of 2024 to those that occurred during that same period of months in 2023 and 2022.

Financial Data

As a proxy for the average cost to cover a customer's unpaid bill, we used the average monthly residential electric utility payment for the respective states each utility company operates in, according to SaveOnEnergy's monthly Electricity Bill Reports.[179] The utility industry standard is to initiate shutoff procedures after one month of nonpayment. Corporate financial data for each utility company, including profits, dividends, and executive compensation, were pulled from publicly available 10-Q and DEF 14A filings retrieved from their respective SEC filings sites.

ENDNOTES

1 Selah Goodson Bell, Jean Su, et. al., *Powerless in the United States: How Utilities Drive Shutoffs and Energy Injustice*, Center for Biological Diversity, Energy and Policy Institute, Bailout Watch (Jan. 2023), https://www.biologicaldiversity.org/programs/energy-justice/pdfs/Powerless- in-the-US_Report.pdf; Su, Jean & Christopher Kuveke, Powerless in the Pandemic 2.0, Center for Biological Diversity, BailoutWatch & Tiger Moth LLC (April 2022), https://bailout.cdn.prismic. io/bailout/ddebd6e2-b136-4dc8-a1da-f6d4583b4c24_Powerless_Report2022_ final.pdf; Su, Jean & Christopher Kuveke, Powerless in the Pandemic, Center for Biological Diversity & BailoutWatch (September 2021),https://bailout.cdn.prismic. io/bailout/973caeea-9a3f-4b46-bc1c-68eb8cf63b33_Powerless_Report_v5.pdf; Ryan, Greer, Power Crisis, Center for Biological Diversity (June 2021), https://www.biologicaldiversity.org/programs/energy-justice/pdfs/Power-Crisis-Report-June-2021.pdf

2 The latest report from the Lawrence Berkeley National Lab found that "U.S. average retail electricity prices increased 4.8% per year from 2019 to 2023 on a nominal basis" and utilities' distribution capital expenditures grew by 50%—more than double the rate of inflation." Sydney Forrester, Andrew Satchwell et. al., Retail Electricity Price and Cost Trends 2024 Update, Lawrence Berkeley National Lab (Dec. 2024). https://eta-publications.lbl.gov/sites/default/files/2025-01/retail_price_and_cost_trends_2024_update_final_v2.pdf.

3 2023 Financial Review Annual Report of the U.S. Investor-Owned Electric Utility Industry, Edison Electric Institute (2023) https://www.eei.org/-/media/Project/EEI/Documents/Issues-and-Policy/Finance-And-Tax/Financial_Review/FinancialReview_2023.pdf. *See also* Brendan Pierpont, Clean Energy Isn't Driving Power Price Spikes, Energy Innovation (July 9, 2024). https://energyinnovation.org/wp-content/uploads/Clean-Energy-Isnt-Driving-Power-Price-Spikes.pdf.

4 Jamal Lewis, Diana Hernández & Arline T. Geronimus, Energy efficiency as energy justice: addressing racial inequities through investments in people and places, 13 Energy Efficiency 419–432 (2020), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7966972/pdf/nihms-1541921.pdf. *See also* Kathiann M. Kowalski, Racial disparities persist in electric service. Is 'willful blindness' to blame?, Energy News Network (July 1, 2020). https://energynews.us/2020/07/01/racial-disparities-persist-in-electric-service-is-willful- blindness-to-blame/.

5 The Dirty Truth About Utility Climate Pledges, Sierra Club (October 2024), https://coal.sierraclub.org/sites/nat-coal/files/DirtyTruth_Report_2024.pdf?utm_source=sierraclub&utm_medium=web&utm_id=dirty-truth&utm_content=page.

6 These projects include new methane gas plants as well as the addition of new combustion turbines at existing plants to increase their capacity. Ameren is constructing two new plants by 2033, and DTE is building one new plant by 2026. Duke is installing 7 new combustion turbine units by 2032, Georgia Power is installing 3 by 2027, and APS is installing 10 by 2028. *See* each utility's fossil fuel expansion section for more details and references about each of these projects.

7 Associated Press, Hearings Begin on Georgia Power Proposal to Raise Rates 12%, U.S. News (Sept. 27, 2022) https://www.usnews.com/news/best-states/georgia/articles/2022-09-27/hearings-begin-on-georgia-power-proposal-to-raise-rates-12.

8 Bell & Su *supra* note 1.

9 *See* Annex II for shutoff data and sources.

10 Residential Electric Utility Service Disconnection, Georgia Public Service Commission. https://psc.ga.gov/about-the-psc/consumer-corner/electric/consumer-rights/electric-disconnection/#:~:text=When%20Can%20A%20Company%20Disconnect,days%20from%20the%20statement%20date.

11 Georgia Inflation Update, Joint Economic Committee (Nov. 2024). https://www.jec.senate.gov/public/index.cfm/republicans/georgia-inflation-report/.

12 Drew Kann, Why the rest of 2024 is likely to be hotter than normal in Georgia, The Atlanta Journal-Constitution (Sept. 20 2024). https://www.ajc.com/atlanta-weather/why-fall-2024-is-likely-to-be-hotter-than-normal-in-georgia/M6JRT44S7VAIXKLVWIADKFNYEI/#:~:text=The%20first%20eight%20months%20of%202024%20have,have%20continued%20to%20be%20off%20the%20charts. *See also* Climate at a Glance Statewide Time Series, National Centers for Environmental Information, National Oceanic and Atmospheric Administration (2024). https://www.ncei.noaa.gov/access/monitoring/climate-at-a-glance/statewide/time-series/9/tavg/8/8/1895-2024?base_prd=true&begbaseyear=1991&endbaseyear=2020&trend=true&trend_base=10&begtrendyear=1970&endtrendyear=2024&filter=true&filterType=loess.

13 Ben Clarke, Clair Barnes, et. al., Climate change key driver of catastrophic impacts of Hurricane Helene that devastated both coastal and inland communities, Imperial College London, Grantham Institute for Climate Change (Oct. 9, 2024). https://spiral.imperial.ac.uk/handle/10044/1/115024.

14 A storm of unprecedented magnitude—Southern Company's response to Hurricane Helene, Southern Company (October 17 2024). https://www.southerncompany.com/newsroom/business-leadership/a-storm-of-unprecedent-magnitude-southern-companys-response-to-h.html#:~:text=The%20damage%20was%20so%20severe,of%20power%20lines%20were%20restored.

15 Stanley Dunlap, Georgia Power argues new rate hike request this week ahead of summer peak electricity demand, Georgia Recorder (May 2023). https://georgiarecorder.com/2023/05/01/georgia-power-argues-new-rate-hike-request-this-week-ahead-of-summer-peak-electricity-demand/; Order Approving Updated Tariffs in the 2022 Rate Case Docket No. 44280, Georgia Public Service Commission (Dec. 20 2024). https://psc.ga.gov/search/facts-document/?documentId=220776.

16 Cary Ritzler, High Electric Bills? It's Not You, It's Them!, Southern Alliance for Clean Energy (June 2024). https://www.cleanenergy.org/blog/high-electric-bills-its-not-you-its-them/; Sam Worley, Georgia's coal ash cleanup controversies, explained, Grist (July 29 2024). https://grist.org/georgia-psc/georgias-coal-ash-cleanup-controversies-explained/.

17 Stanley Dunlap, State utility regulators approve Georgia Power plan to use fossil fuels to power data centers, Georgia Recorder, (April 16 2024). https://georgiarecorder.com/2024/04/16/state-utility-regulators-approve-georgia-power-plan-to-use-fossil-fuels-to-power-data-centers/; Diana DiGangi, Georgia Power receives approval to add 1.4 GW of natural gas generation, Utility Dive (April 17 2024). https://www.utilitydive.com/news/georgia-power-approval-plant-yates-irp/713404/. To view the PSC stipulation in question, *see* Order Adopting Stipulated Agreement re: Georgia Power Company's 2023 Integrated Resource Plan Update, Georgia Public Service Commission, Docket No. 55378 (April 26 2024). https://psc.ga.gov/search/facts-document/?documentId=218484.

18 Stanley Dunlap, Kemp says state's Helene death toll now 33 as Biden tours storm's south Georgia devastation, Georgia Recorder (Oct. 3 2024). https://georgiarecorder.com/2024/10/03/kemp-says-states-helene-death-toll-now-33-as-biden-tours-storms-south-georgia-devastation/.

19 Mark Risser, Joshua North, Michael Wehner, Climate change may have caused as much as 50% more rainfall during Hurricane: A provisional Hurricane Helene rainfall climate change attribution statement, Lawrence Berkeley National Laboratory (October 2024). https://drive.google.com/file/d/14oq65lavZ7ho3-gdxE-tutDEcsxSHfUj/view.

20 Ryan Kennedy, Georgia utility "adamantly opposed" to community solar, PV Magazine (Feb. 21 2024). https://pv-magazine-usa.com/2024/02/21/georgia-utility-adamantly-opposed-to-community-solar/#:~:text=Georgia%20Power%20is%20%E2%80%9Cadamantly%20opposed,in%20rooftop%20and%20distributed%20solar.

21 Net Metering, DSIRE NC Clean Energy Technology Center (Jan. 5 2024). https://programs.dsireusa.org/system/program/detail/574#:~:text=Note%3A%20A%20decision%20filed%20by,cap%20was%20met%20in%202021. *See also* Bryan Jacob, Georgia PSC Grinches Deny Tricycles, Southern Alliance for Clean Energy (Dec. 26, 2022). https://www.cleanenergy.org/blog/georgia-psc-grinches-deny-tricycles/.

22 Order Adopting Settlement Agreement as Modified re: Georgia Power Company's 2022 Rate Case, Georgia Public Service Commission Docket No. 44280 (Nov. 30 2022). https://psc.ga.gov/search/facts-document/?documentId=192550. *See also* Anne Fischer, Georgia commission fails to expand solar net metering program, PV Magazine (Dec. 21, 2022). https://pv-magazine-usa.com/2022/12/21/georgia-commission-fails-to-expand-solar-net-metering-program/.

23 Ibid. *See also* HB 1152 The Georgia Homegrown Solar Act of 2024, Georgia General Assembly (Feb. 2024). https://www.legis.ga.gov/legislation/66711.

24 Southern Company reports second-quarter 2024 earnings, Southern Company (Aug. 1 2024). https://s27.q4cdn.com/273397814/files/doc_financials/2024/q2/SO-Earnings-Release-Q2-2024.pdf.

25 Drew Kann, Southern Company profits soar 43% as customers feel pain of rate hikes, The Atlanta Journal Constitution (Aug. 2, 2024). https://www.ajc.com/news/business/profits-at-georgia-power-parent-southern-company-soar-as-ratepayers-feel-pain-of-rate-hikes/C5LYWKQOHBB4FITIVSR3TXVS3Y/.

26 2024 Notice of Annual Meeting of Stockholders & Proxy Statement, Southern Company (2024). https://d18rn0p25nwr6d.cloudfront.net/CIK-0000092122/0c307389-d6ab-4129-9b6b-e068912e2b0a.pdf.

27 Through September 2024, Georgia Power sent about $1.54 billion to its shareholders as dividends. *See* Form 10-Q Quarterly Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934, United States Securities Exchange Commission, Southern Company (Oct. 31 2024). https://d18rn0p25nwr6d.cloudfront.net/CIK-0000041091/8006f155-bdc2-49e4-a193-a29d281eaa44.pdf. The average monthly electricity bill in Georgia is about $164. *See* Electricity Bill Report: December 2024, Save on Energy (Dec. 2 2024). https://www.saveonenergy.com/resources/electricity-bills-by-state/ . Assuming the monthly bill is the cost to prevent a shutoff for nonpayment, just 2%, about $30.64 million, of the money Georgia Power spent on shareholder dividends could cover the estimated cost to prevent all 186,858 residential shutoffs for nonpayment through September.

28 Public Hearing Before Administrative Law Judge Lesley Carr Fairrow in the Matter of the Application of DTE Electric Company for Authority to Increase Its Rates, Amend Its Rate Schedules and Rules Governing the Distribution and Supply of Electric Energy, and for Miscellaneous Accounting Authority Case No. U-21534, Michigan Public Service Commission (Sept. 18 2024). https://mi-psc.my.site.com/sfc/servlet.shepherd/version/download/068cs00000L2VwYAAV.

29 Goodson Bell & Su *supra* note 1.

30 *See* Annex II for shutoff data and sources.

31 Testimony of Richard Bunch on Behalf of the Michigan Municipal Association for Utility Issues, MPSC Case No. U-21534: In the matter of the Application of DTE Electric Company for authority to increase its rates, amend its rate schedules and rules governing the distribution and supply of electric energy, and for miscellaneous accounting authority (July 26 2024). https://www.documentcloud.org/documents/25045418-mi-maui-testimony-and-exhibits-in-dte-rate-case/. *See also* Lucas Smolcic Larson, '12 months of inconvenience': DTE forces thousands to pay power bills only in cash, MLive (Aug. 17 2024). https://www.mlive.com/environment/2024/08/12-months-of-inconvenience-dte-forces-thousands-to-pay-power-bills-only-in-cash.html.

32 Mich. Admin. Code R. 460.134 - Extreme weather condition policy, Michigan Administrative Code (Dec. 2017). https://www.law.cornell.edu/regulations/michigan/Mich-Admin-Code-R-460-134.

33 Reima Nasser, Hailey Barrus, Prices in the Detroit Metro Area Rose 3.5 Percent Over the Year (Oct. 7, 2024). https://www.michigan.gov/mcda/labor-market-information/michigans-labor-market-news/2024/10/07/inflation-aug-2024.

34 Kiara Patterson, New ALICE Report notes struggling households continue to increase year after year (June 3 2024). https://www.wzzm13.com/article/money/alice-report-struggling-michigan-households/69-e07e946e-112f-4d2a-8716-8bd049a121dd. *See also* Nearly 40% of Michigan Residents Struggling Financialy Before Pandemic, Michigan Association of United Ways (March 25 2024). https://www.uwmich.org/pressroom/vhe3rcl733xeza08vzhjdkktakig1c.

35 Carmela Guaglianone, It's not been record-setting, but metro Detroit's summer has been a hot one, Detroit Free Press (July 27 2024). https://www.freep.com/story/news/local/michigan/2024/07/27/metro-detroit-summer-2024-temperature-records/74524137007/.

36 House Bill No. 5221, Representatives Neely and Scott, Michigan Legislature (October 24 2023). https://www.legislature.mi.gov/documents/2023-2024/billintroduced/House/pdf/2023-HIB-5221.pdf. House Bil No. 5216, Representatives Neely and Scott, Michigan Legislature (October 24 2023). https://www.legislature.mi.gov/documents/2023-2024/billintroduced/House/pdf/2023-HIB-5216.pdf; *See also* Kyle Davidson, DTE, Consumers Energy face audits due to outages and safety concerns, Michigan Advance (Oct. 7 2022). https://michiganadvance.com/2023/03/15/at-house-hearing-dte-and-consumers-energy-urged-to-address-unacceptable-electrical-reliability/dte; Brian Allnutt, The battle against Michigan power outages yields little accountability, Planet Detroit (March 1 2024). https://planetdetroit.org/2024/03/dte-power-outages/. https://www.cbsnews.com/detroit/news/legislators-grill-utility-dte-consumers-energy-over-power-outage-response/; https://planetdetroit.org/2024/03/dte-power-outages/

37 Table 5.6.A. Average Price of Electricity to Ultimate Customers by End-Use Sector, Electric Power Monthly, Energy Information Administration (October 2024), https://www.eia.gov/electricity/monthly/epm_table_grapher.php?t=epmt_5_6_a. *See also* Mike Wilkinson, Michigan near tops in nation for outages. Utilities want to raise rates, Bridge Michigan (May 28 2024). https://www.bridgemi.com/quality-life/michigan-near-tops-nation-outages-utilities-want-raise-rates.

38 Dana Nessel, Attorney General's Initial Brief, MPSC Case No. U-21534 In the matter of the application of DTE electric company for authority to increase its rates, amend its rate schedules and rules governing the distribution and supply of electric energy,

and for miscellaneous accounting authority, Michigan Public Service Commission (Oct. 3 2024). https://s3.documentcloud.org/documents/25260105/michigan-ag-brief-in-dte-electric-rate-case.pdf.

39 Alex B. Hill, Bridget Vial, Aly Shaw et. al. The Public's Case Against DTE Energy: Extracting Profits, inducing health harms, and damaging democracy, Wayne State University Urban Studies and Planning, We the People Michigan (June 13 2022).

40 In December '23, the Michigan PSC rejected DTE's request of $622 million, the largest ask the Michigan PSC has ever received from a regulated utility, and instead approved a $368 million increase from December 2023 to November 2024. This will cause the average customer's bill to jump by about $6.51 per month. Matt Helms, MPSC approves $368M rate increase for DTE Electric Co. to fund utility's reliability upgrades, Michigan Public Service Commission (Dec. 1 2023). https://www.michigan.gov/mpsc/commission/news-releases/2023/12/01/mpsc-approves-368m-rate-increase-for-dte. Janelle D. James, DTE monthly rates to jump by 6.4% on Dec. 15 to fund clean energy , Bridge Michigan (Dec. 1 2023). https://www.bridgemi.com/michigan-government/dte-monthly-rates-jump-64-dec-15-fund-clean-energy. The ask also comes on the heels of a ~$30.6 million rate hike in November of 2022 through 2024, 90% less than the $388 million DTE requested. Matt Helms, MPSC approves $368M rate increase for DTE Electric Co. to fund utility's reliability upgrades, Michigan Public Service Commission (Dec 1, 2023). https://www.michigan.gov/mpsc/commission/news-releases/2023/12/01/mpsc-approves-368m-rate-increase-for-dte#:~:text=DTE%20Electric's%20last%20rate%20increase,annual%20inflation%20rate%20averaged%206.4%25..

41 Application, In the matter of the Application of DTE ELECTRIC COMPANY for authority to increase its rates, amend its rate schedules and rules governing the distribution and supply of electric energy, and for miscellaneous accounting authority MPSC Case No. U-21534, Michigan Public Service Commission (March 28 2024). https://mi-psc.my.site.com/sfc/servlet.shepherd/version/download/0688y00000CkO89AAF.

42 DTE Energy, Electric Pricing Options (2024). https://www.dteenergy.com/us/en/residential/service-request/pricing/rate-options/residential-pricing-options.html; Jack Nissen, DTE peak-summer rate increase kick in June 1st, Fox 2 Detroit (May 31 2024). https://www.fox2detroit.com/news/dte-peak-summer-rate-increases-kick-june-1st; Justin Schott, Optimizing $4 Billion of Low-Income Home Energy Assistance Program Funding To Protect the Most Vulnerable Households From Extreme Heat, Federation of American Scientists (April 4 2024). https://fas.org/publication/liheap-extreme-heat/.

43 Sintov, Nicole D. (2019). Health and financial impacts of demand-side response measures differ across sociodemographic groups. Nature Energy, https://www.nature.com/articles/s41560-019-0507-y.

44 Jerry Norcia of DTE Energy Elected Chair of AGA Board of Directors, American Gas Association (Oct. 10 2023). https://www.aga.org/news/news-releases/jerry-norcia-of-dte-energy-elected-chair-of-aga-board-of-directors/.

45 In July 2023, the utility reached a settlement over its latest IRP that requires it to retire two of its diesel fueled peaker plants in 2024 but also allows it to use $125 million of ratepayer money to convert its Belle River Power plant from a coal-fired baseload unit to a methane gas peaker plant. Matt Helms, Commission approves settlement agreement on DTE Electric Co.'s integrated resource plan, Michigan Public Service Commission (July 26 2023). https://www.michigan.gov/mpsc/commission/news-releases/2023/07/26/commission-approves-settlement-agreement-on-dte-electric-co-integrated-resource-plan. *See also* Michigan's Clean Energy Future, DTE Energy (2022). https://dtecleanenergy.com/.

46 Natural Gas Should Have No Place in Our Clean Energy Future, Michigan League of Conservation of Voters (Jan. 11, 2024). https://www.michiganlcv.org/natural-gas-should-have-no-place-in-our-clean-energy-future/.

47 Hill, Vial, and Shaw *supra* note 38; *See also* Bruce Robertson, Christina Ng, Michael Salt, Carbon capture remains a risky investment for achieving decarbonization, Institute for Energy Economics and Financial Analysis (Sept. 2 2022). https://ieefa.org/resources/carbon-capture-remains-risky-investment-achieving-decarbonisation; Nadia Steinzor, Dirty Steel, Dangerous Air: The Health Harms of Coal-Based Steelmaking, Industrious Labs (Oct. 2024). https://cdn.sanity.io/files/xdjws328/production/71057afa03f9784a6599a762149bd87fe735c06a.pdf. Maninder P. S. Thind, Christopher W. Tessum, Inês L. Azevedo, et. al. Fine Particulate Air Pollution from Electricity Generation in the US: Health Impacts by Race, Income, and Geography, Environmental Science & Technology (53) (23) (2019). https://pubs.acs.org/doi/10.1021/acs.est.9b02527.

48 Senate Bills 152 and 153, Bill analysis, Michigan Senate Fiscal Agency (June 12 2024). https://www.legislature.mi.gov/documents/2023-2024/billanalysis/Senate/pdf/2023-SFA-0152-G.pdf. Joint Letter Senate Bills 152 and 153, Senate Energy Committee (June 13 2024). https://www.documentcloud.org/documents/24767023-joint-letter_senate-bills-152-and-153_senate-energy-committee_06132024_final/?responsive=1&title=1.

49 Steven R. Miller, William Knudson, Michigan Community Solar: An Economic Assessment, Michigan State University (Oct. 14, 2021). https://www.canr.msu.edu/cea/uploads/files/Com%20Solar%20Report%20Final%20Edits.pdf.

50 Tom Perkins, Michigan solar supporters make new push to eliminate rooftop solar caps, Energy News Network (April 12 2021). https://energynews.us/2021/04/12/michigan-solar-supporters-make-new-push-to-eliminate-rooftop-solar-caps/.

51 In the matter of the application of DTE Electric Company for authority to increase its rates, amend its rate schedules and rules governing the distribution and supply of electric energy, and for miscellaneous accounting authority, Case No. U-20836, Michigan Public Service Commission (Nov. 18 2022). https://mi-psc.my.site.com/sfc/servlet.shepherd/version/download/0688y0000058iIbAAI. *See also* Nina Misuraca Ignaczak, Regulators reject 90% of DTE's rate increase request after intense public pushback, Planet Detroit (Nov. 21 2022). https://planetdetroit.org/2022/11/regulators-reject-90-of-dtes-rate-increase-request-after-intense-public-pushback/.

52 AGA files brief in ongoing challenge against DOE appliance rules, American Gas Association (April 9 2024). https://www.aga.org/news/news-releases/aga-files-brief-in-ongoing-challenge-against-doe-appliance-rules/; DOE Finalizes Energy Efficiency Standards for Residential Furnaces to Save Americans $1.5 Billion In Annual Utility Bills, Department of Energy (Sept. 29 2023). https://www.energy.gov/articles/doe-finalizes-energy-efficiency-standards-residential-furnaces-save-americans-15-billion; Nico Portuondo, Markey, Whitehouse launch campaign against gas group, E&E News (April 10 2024). https://www.eenews.net/articles/markey-whitehouse-launch-campaign-against-gas-group/.

53 Matt Helms, MPSC releases utility audit results of state's two largest electric utilities, data that will help improve reliability in Michigan, Michigan Public Service Commission (Sept. 23 2024). https://www.michigan.gov/mpsc/commission/news-releases/2024/09/23/mpsc-releases-utility-audit-results-of-states-two-largest-electric-utilities.

54 Surging Power Outages and Climate Change, Climate Central (Sept. 14 2022). https://assets.ctfassets.net/cxgxgstp8r5d/73igUswSfOhdo7DUDVLwK7/bb0a4e95e1d04457e56106355a1f74b9/2022PowerOutages.pdf; Utility Performance Report Ranking Michigan Among the States, Citizens Utility Board (2023). https://cubofmichigan.org/wp-content/uploads/2024/04/2023_CUB-MI_UtilityPerformanceReport.pdf.

55 DTE Energy reports third quarter 2024 accomplishments, earnings and investments in improving energy infrastructure, DTE Energy News release (Oct. 24 2024). https://s24.q4cdn.com/970999156/files/doc_financials/2024/q3/1-Earnings-Release-final-10-23-24.pdf.

56 We estimate that the cost to prevent a single shutoff for nonpayment is the average monthly electricity bill. This is equal to $120 in Michigan in September according to SaveonEnergy's monthly electricity bill report. Electricity Bill Report: December 2024, Saveonenergy (Dec. 12 2024). https://www.saveonenergy.com/resources/electricity-bills-by-state/. We then multiply $120 by the 151,871 shutoffs that occurred to get a total of $18,255,391. This is the estimated cost to prevent all of DTE's shutoffs for nonpayment from January through September 2024. In that same period, DTE sent $607 million to its shareholders ad dividends, 3% of which would cover the cost to prevent shutoffs. Form 10-Q Quarterly Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934, DTE Energy, United States Securities Exchange Commission (Oct. 24 2024). https://d18rn0p25nwr6d.cloudfront.net/CIK-0000936340/c0e0eee8-c499-4ab2-9568-8430868b4968.pdf.

57 Schedule 14A Proxy Statement Pursuant to Section (14a) of the Securities Exchange Act of 1934, United States Securities Exchange Commission, DTE Energy (March 7 2024). https://d18rn0p25nwr6d.cloudfront.net/CIK-0000936340/5fa9bcc2-378b-4587-8a6d-e24d026e85d1.pdf. *See also* Lucas Smolcic Larson, Michigan utilities criticized for handing out executive bonuses while outages persisted, Michigan Live, (Oct. 9 2024). https://www.mlive.com/environment/2024/10/michigan-utilities-criticized-for-handing-out-executive-bonuses-while-outages-persisted.html.

58 Chloe Salsameda, 'It scares me' — Duke Energy customers explain how proposed rate increase would impact them, WSP A 7 News (April 11 2024). https://www.wspa.com/news/local-news/it-scares-me-duke-energy-customers-explain-how-proposed-rate-increase-would-impact-them/.

59 Duke Energy's service territory also extends to Ohio, Indiana, Florida, and Kentucky but data is less available in these states and, according to our previous report, the majority of the utility company's shutoffs occur in the Carolinas (about 75%). *See* Goodson Bell & Su *supra* note 1.

60 Greenhouse 100 Polluters Index, Political Economy Research Institute, University of Massachusetts (2024). https://peri.umass.edu/greenhouse-100-polluters-index-current.

61 The lawsuit followed a groundbreaking report from the Energy and Policy Institute. *See* David Anderson, Sue Sturgis, Duke Energy Knew Documenting Duke Energy's Early Knowledge and Ongoing Deception About Climate Change, Energy and Policy Institute (Nov 2024). https://energyandpolicy.org/wp-content/uploads/2024/11/duke-knew-epi-final.pdf. .

62 Our previous report found that Duke Energy was one of the worst shutoff offenders in the country in 2020 and 2021, but in 2022 its totals decreased as shutoffs for nonpayment were temporarily suspended in North Carolina while the utility implemented a new billing system. Shutoffs skyrocketed as soon as the temporary

ban was lifted in the summer of 2022 and the trend has persisted ever since. *See* Goodson Bell & Su *supra* note 1.

63 *See* Annex II for shutoff data and sources.

64 Laura Feiveson, Arik Levinson, Sydney Schreiner Wertz, Rent, House Prices, and Demographics, U.S. Department of Treasury (June 24 2024). https://home.treasury.gov/news/featured-stories/rent-house-prices-and-demographics.

65 Southeast Consumer Price Index Card, U.S. Bureau of Labor Statistics (Nov. 2024). https://www.bls.gov/regions/southeast/cpi-summary/ro4xg01a.htm.

66 Kenneth E. Kunkel, David R. Easterling, Andrew Ballinger et. al., North Carolina Climate Science Report, North Carolina Institute for Climate Studies (Sept. 2020). https://ncics.org/wp-content/uploads/2020/10/NC_Climate_Science_Report_FullReport_Final_revised_September2020.pdf. *See also* Gareth McGrath, Extreme heat days are becoming more common. Is Wilmington ready?, Star News Online (Aug. 26, 2024). https://www.starnewsonline.com/story/news/local/2024/08/26/nc-communities-like-wilmington-nc-need-to-be-ready-for-extreme-heat/74341003007/.

67 Risky Summer Heat Added by Climate Change, Climate Central (Sept. 18 2024). https://www.climatecentral.org/climate-matters/risky-summer-heat.

68 Emmy Ribero, Hurricane Helene Killed 49 in South Carolina's Upstate Region as Costs of Damage and Response Exceed $370 Million, Inside Climate News (Dec. 16, 2024). https://insideclimatenews.org/news/16122024/south-carolina-hurricane-helene-damage-costs/#:~:text=In%20South%20Carolina%2C%20as%20of,the%20areas%20hit%20the%20hardest; Hurricane Helene Storm Related Fatalities, North Carolina Department of Health and Human Services (Dec. 18, 2024). https://www.ncdhhs.gov/assistance/hurricane-helene-recovery-resources/hurricane-helene-storm-related-fatalities; Christina Knauss, How did Hurricane Helene affect South Carolina's economy? Picture still emerging, Columbia Regional Business Report (Nov. 14 2024). https://columbiabusinessreport.com/how-did-hurricane-helene-affect-south-carolinas-economy-picture-still-emerging/#:~:text=One%20report%20from%20CoreLogic%20estimated,of%20damage%20represents%20uninsured%20losses; CoreLogic: Hurricane Helene Wind Storm Surge Cause an Initial Estimated $3 – $5 Billion in Insured Losses, Core Logic (Sept. 27, 2024). https://www.corelogic.com/press-releases/corelogic-hurricane-helene-wind-storm-surge-cause-an-initial-estimated-3-5-billion-in-insured-losses/. ;Climate change key driver of catastrophic impacts of Hurricane Helene that devastated both coastal and inland communities, World Weather Attribution (Oct. 9, 2024). https://www.worldweatherattribution.org/climate-change-key-driver-of-catastrophic-impacts-of-hurricane-helene-that-devastated-both-coastal-and-inland-communities/.

69 Last December, the PUC in North Carolina approved a three-year rate increase for customers of Duke Energy Carolinas that'll increase bills by 14.8% and produce $774.3 million from January 2024 through January 2026. *See* Order Accepting Stipulations, Granting Partial Rate Increase, Requiring Public Notice, and Modifying Lincoln CT CPCN Conditions, State of North Carolina Utilities Commission (Dec. 2023). https://starw1.ncuc.gov/NCUC/ViewFile.aspx?Id=7ef152c5-3a07-49fc-8099-b865f2317676. *See also* DEC Notice to Customers of Change in Rates Docket No. E-7 SUB 1276 In the Matter of Application of Duke Energy Carolinas, LLC, For Adjustment of Rates and Charges Applicable to Electric Service in North Carolina and Performance Based Regulation (Jan. 5 2024). https://starw1.ncuc.gov/NCUC/ViewFile.aspx?Id=3e85390c-4ade-409b-bd42-57b36fce2cff. Duke Energy Progress also got approval in August of 2023 to raise rates by $494 million, 11.9%, over three years. *See* Form 8-K Current Report Pursuant to Section 13 or 15(d)

of the Securities Exchange Act of 1934, United States Securities and Exchange Commission, Duke Energy (Aug. 18, 2023). https://d18rn0p25nwr6d.cloudfront.net/CIK-0001326160/4bc25879-09a6-4030-9630-2165b70eed0a.pdf. *See also* David Boraks, NC regulators cut Duke Energy rate hike for eastern NC and Asheville, WFAE 90.7 (Aug. 23 2023). https://www.wfae.org/energy-environment/2023-08-23/nc-regulators-cut-duke-energy-rate-hike-for-eastern-nc-and-asheville. In South Carolina, customers of Duke Energy Carolinas will their bills increase by 7.5% and produce a total of $312 million in revenue for the utility company between 2024 and 2026. *See* New rates approved for Duke Energy Carolinas customers in South Carolina, Duke Energy (July 8 2024). https://news.duke-energy.com/releases/new-rates-approved-for-duke-energy-carolinas-customers-in-south-carolina#:~:text=Beginning%20Aug.,customer%20using%201%2C000%20kilowatt%20hours; Order Partially Approving "Settlement Agreement," Adjusting Base Rates, and Terminating Grid Improvement Plan Cost Deferral Accounting, Order No. 2024-445, Public Service Commission of South Carolina (July 3 2024). https://dms.psc.sc.gov/Attachments/Order/2037ae16-76d0-488d-a57e-45c147f1f2c2. Duke Energy Progress' residential customers will *see* an increase of 5.8%, generating $107.6 million for the utility between April 2023 and December 2025. *See* Application of Duke Energy Progress, LLC for Increase in Electric Rates, Adjustments in Electric Rate Schedules and Tariffs, and Request for an Accounting Order, Docket No. 2022-254-E, The Public Service Commission of South Carolina (April 2023). https://dms.psc.sc.gov/App/EfileUpload/Index/2a2329fe-4125-46e7-8179-99d0f420b526.

70 Ibid.

71 Carolinas Resource Plan Chapter NC: 2023-2024 CPIRP Update. Duke Energy (2024). https://www.duke-energy.com/-/media/pdfs/our-company/carolinas-resource-plan/january-24-fact-sheet.pdf?_ga=2.236157637.511166904.1735003737-1329221697.1730310042&_gl=1*ox7fp*_gcl_au*OTk4NTcxMzY5LjE3MzAzMTIzOTY.*_ga*MTMyOTIyMTY5Ny4xNzMwMzEwMDQy*_ga_HB58MJRNTY*MTczNTAwMzczOC4xOC4xLjE3MzUwMDQ3NDkuMC4wLjA.

72 Verified Amended Petition for Approval of 2023-2024 Carbon Plan and Integrated Resource Plans of Duke Energy Carolinas, LLC and Duke Energy Progress, LLC, Docket No. E-100, Sub 190, State of North Carolina Utilities Commission, https://starw1.ncuc.gov/NCUC/ViewFile.aspx?Id=6ca06ddb-b10a-4620-b69f-a718ccf9c9c1.

73 Issue Brief: The Role of Fuel Costs in Duke Energy's North Carolina's Retail Rates From 2017 Through March 2024, EQ Research LLC, The Environmental Defense Fund (April 22 2024). https://www.edf.org/sites/default/files/documents/Issue_Brief_Narrative_4_22_24.pdf.

74 Duke Energy's 2023 NC CPIRP An Analysis of Natural Gas Buildout Risks and Impacts on Residential Customers, EQ Research, Environmental Defense Fund (July 2024). https://library.edf.org/AssetLink/ap00kql1g2q8i6f581ml4b42478386o0.pdf.

75 Ibid.

76 *See* Anderson and Sturgis *supra* note 58.

77 H. 3309 South Carolina Energy Security Act, Session 126, South Carolina Legislature (Dec. 2024). https://www.scstatehouse.gov/billsearch.php?billnumbers=3309&session=126&summary=B; Eddy Moore, SC House Passes Legislation Favoring Fossil Fuel Expansion Over Renewable Electricity, Southern Alliance for Clean Energy (April 5 2024). https://www.cleanenergy.org/blog/sc-house-passes-legislation-favoring-fossil-fuel-expansion-over-renewable-electricity/.

78 Form 10-K Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934, United States Securities Exchange Commission, Duke Energy (Jan 31, 2024). https://www.sec.gov/ix?doc=/Archives/edgar/data/0001326160/000132616024000037/duk-20231231.htm.

79 Demand response and resilience to extreme weather, Enel (Jan. 18 2023). https://www.enelnorthamerica.com/insights/blogs/demand-response-and-resilience-to-extreme-weather.

80 Duke Energy places advanced microgrid into service in Hot Springs, NC, Duke Energy News Center (Feb. 2 2023). https://news.duke-energy.com/releases/duke-energy-places-advanced-microgrid-into-service-in-hot-springs-nc; Jeff St. John, Hurricane Helene underscores need for more solar-battery microgrids, Canary Media (Oct. 18 2024). https://www.canarymedia.com/articles/distributed-energy-resources/hurricane-helene-underscores-need-for-more-solar-battery-microgrids.

81 *See* Anderson & Sturgis *supra* note 58. *See also* Howard Crystal, Roger Lin, Jean Su, Rooftop-Solar Justice Why Net Metering is Good for People and the Planet and Why Monopoly Utilities Want to Kill It, Center for Biological Diversity (March 2023). https://www.biologicaldiversity.org/programs/energy-justice/pdfs/Rooftop-Solar-Justice-Report-March-2023.pdf.

82 Elizabeth Ouzts, Home rooftop solar dips in N.C. after Duke Energy reduces payments, but many installers unfazed, Energy News Network (Nov. 5, 2024). https://energynews.us/2024/11/05/home-rooftop-solar-dips-in-n-c-after-duke-energy-reduces-payments-but-many-installers-unfazed/; House Bill 589 An Act to Reform North Carolina's Approach to Integration of Renewable Electricity Generation Through Amendment of Laws Related to Energy Policy and to Enact the Distributed Resources Access Act, General Assembly of North Carolina Session 2017 (2017). https://www.ncleg.net/Sessions/2017/Bills/House/PDF/H589v5.pdf; House Bill 951 An Act to Authorities the Utilities Commission to (I) Take All Reasonable Septs to Achieve a Seventy Percent Reduction in Emissions of Carbon Dioxide from Electric Public Utilities from 2005 Levels by the Year 2030 and Carbon Neutrality by the Year 2050, (II) Authorize Performance-Based Regulation of Electric Public Utilities, (III) Proceed with Rulemaking on Securitization of Certain Costs and Other Matters, and (IV) Allow Potential Modification of Certain Existing Power Purchase Agreements with Eligible Small Power Producers, General Assembly of North Carolina Session 2021 (2021). https://www.ncleg.gov/Sessions/2021/Bills/House/PDF/H951v6.pdf.

83 Grant Smith, Bill Walker, Tone Deaf: The Facts Behind Duke Energy's Low-Income Programs, EWG (June 3 2020). https://www.ewg.org/energy/tone-deaf-the-facts-behind-duke-energys-low-income-programs

84 Joint Application of Duke Energy Carolinas, LLC and Duke Energy Progress LLC for Approval of Solar Choice Metering Tariffs, Docket No. 2020-_-E, The Public Service Commission of South Carolina (Nov. 2020). https://dms.psc.sc.gov/Attachments/Matter/9dc8574f-5814-4466-aa0f-ca0df5eab87b.

85 John D. Burns, South Carolina Rejects Duke Energy Plan, Carolinas Clean Energy Business Association (June 23 2021). https://carolinasceba.com/south-carolina-rejects-duke-energy-plan/.

86 Duke Energy reports third quarter 2024 financial results, Duke Energy (Nov. 7 2024). https://s201.q4cdn.com/583395453/files/doc_financials/2024/q3/Q3-2024-DUK-Earnings-Release_vF.pdf; Schedule 14A Proxy Statement Pursuant to Section 14(a) of the Securities Exchange Act of 1934, United States Securities Commission, Duke Energy (March 22 2024). https://www.sec.gov/ixviewer/ix.html?doc=/Archives/edgar/data/0001326160/000110465924031707/tm2327443d7_pre14a.htm#tEXEC.

87 We estimate that the cost to prevent a single shutoff for nonpayment is the average monthly electricity bill. The average electric monthly bill in North and South Carolina combined is $152 in September according to SaveonEnergy's monthly electricity bill report. Electricity Bill Report: December 2024, Saveonenergy (Dec. 12 2024). https://www.saveonenergy.com/resources/electricity-bills-by-state/. We then multiply $152 by the 135,028 shutoffs that occurred to get a total of $20,555,312. This is the estimated cost to prevent all of Duke's shutoffs for nonpayment in North and South Carolina from January through September 2024. In that same period, Duke sent $2.4 billion to its shareholders as dividends, less than 1% of which would cover the cost to prevent shutoffs. Form 10-Q Quarterly Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934, Duke Energy Corporation, United States Securities Exchange Commission (Nov. 7 2024). https://d18rn0p25nwr6d.cloudfront.net/CIK-0001326160/eb25ed76-94a3-431d-8f1a-90879be31ef9.pdf.

88 Public Comments for 23-0082, Illinois Commerce Commission (Sept. 27 2023). https://www.icc.illinois.gov/docket/P2023-0082/public-comments.

89 *See* Annex II for shutoff data and sources.

90 MO discontinued its utility shutoff disclosure requirements at the end of 2022, so there is no data on Ameren's shutoffs for 2023. Order Ending Staff's Obligation to File Reports and Closing File, File No. AW-2020-0356. State of Missory Public Service Commission (Feb. 22 2023). https://efis.psc.mo.gov/Document/Display/28025. In the summer of 2024, the state reinstated the requirement and there is currently data from March 2024 onwards. Mo. Code Regs. Tit. 20§ 4240-13.075 Service Disconnection Reporting Requirements for Electric, Gas, Sewer, and Water Utilities, Case Text (Nov. 15 2023). https://casetext.com/regulation/missouri-administrative-code/title-20-department-of-commerce-and-insurance/division-4240-public-service-commission/chapter-13-service-and-billing-practices-for-residential-customers-of-electric-gas-sewer-and-water-utilities/section-20-csr-4240-13075-service-disconnection-reporting-requirements-for-electric-gas-sewer-and-water-utilities.

91 Public Act 103-0019 HB1541 Illinois General Assembly (Jan. 1, 2024). https://www.ilga.gov/legislation/publicacts/fulltext.asp?Name=103-0019.

92 Hot Weather Law, Missouri Public Service Commission, https://psc.mo.gov/CMSInternetData/ConsumerInformation/Hot%20Weather%20Law.pdf.

93 Consumer Price Index, Chicago-Naperville-Elgin, U.S. Bureau of Labor Statistics Midwest Information Office (Nov. 2024). https://www.bls.gov/regions/midwest/news-release/consumerpriceindex_chicago.htm; Illinois experiences lower inflation rate than national average as of September 2024, Prairie State Wire (Oct. 16, 2024). https://prairiestatewire.com/stories/665259899-illinois-experiences-lower-inflation-rate-than-national-average-as-of-september-2024.

94 Consumer Price Index, St. Louis area, U.S. Bureau of Labor Statistics Mountain-Plains Information Office (Oct. 2024). https://www.bls.gov/regions/mountain-plains/news-release/consumerpriceindex_stlouis.htm.

95 U.S. Billion-Dollar Weather and Climate Disasters, National Oceanic and Atmospheric Administration: National Centers for Environmental Information (2024). https://www.ncei.noaa.gov/access/billions/events/US/2024?disasters[]=all-disasters.

96 *See* Illinois state data linked on page 2 of the following report. Climate Change and the Escalation of Global Extreme Heat: Assessing and Addressing the Risks, Climate Central, Red Cross Red Crescent Climate Center, World Weather Attribution (May 28 2024). https://assets.ctfassets.net/cxgxgstp8r5d/5sjPWtBWuPk56xVZKuuL3g/fe050dd8d61e8b2a7e3a315a4b75b22f/Climate_Change_and_the_Escalation_of_Global_Extreme_Heat_Climate_Central.pdf.

97 Adam Harrington, Albert Ramon, David Yeomans, NWS confirms 41 tornadoes in Chicago area nights of July 14-15, CBS News Chicago (Aug. 8 2024). https://www.cbsnews.com/chicago/news/nws-confirms-29-tornado-tracks-chicago-area/. *See also* Adam Harrington, Matthew Cramer, Gov. Pritzker issues disaster proclamation for 7 Illinois counties hit hard by July storms, CBS News Chicago (Aug. 30, 2024). https://www.cbsnews.com/chicago/news/pritzker-disaster-proclamation-illinois-counties-storms/.

98 Kate Grumke, Extreme heat and floods are back in the Midwest. How does climate change play in?, NPR St. Louis Public Radio (July 5 2024). https://www.stlpr.org/health-science-environment/2024-07-05/extreme-heat-floods-midwest-climate-change.

99 Jim Chilsen, Update on cases involving ComEd, Ameren Illinois power bills, Citizens Utility Board (June 28 2024). https://www.citizensutilityboard.org/blog/2024/06/28/update-on-cases-involving-comed-ameren-illinois-power-bills/; Illinois Commerce Commission On Its Own Motion vs. Ameren Illinois Company d/b/a Ameren Illinois Order Requiring Ameren Illinois Company to file an Initial Multi-Year Integrated Grid Plan and Initiating Proceeding to Determine Whether the Plan is Reasonable and Complies with the Public Utilities Act, Illinois Commerce Commission (Dec. 14, 2023). https://icc.illinois.gov/docket/P2023-0082/documents/345318/files/602917.pdf.

100 Cayli Baker, ICC Rejects ComEd and Ameren Illinois' Multi-Year Integrated Grid Plans, Illinois Commerce Commission (Dec. 14 2023). https://icc.illinois.gov/api/web-management/documents/downloads/public/press-release/Ameren%20ComED%20MYIGP%20MYRP%20release.pdf.

101 Cayli Baker, ICC Approves Amended Ameren Grid Plan, Illinois Commerce Commission (Dec. 19 2024). https://icc.illinois.gov/api/web-management/documents/downloads/public/press-release/12-19-24%20Ameren%20grid%20plan%202024%20release%20FINAL.pdf.

102 Investments in storm hardening, grid resiliency and energy generation among key customer benefits in rate adjustment request, Ameren News Releases (July 1 2024). https://ameren.mediaroom.com/2024-07-01-Investments-in-storm-hardening,-grid-resiliency-and-energy-generation-among-key-customer-benefits-in-rate-adjustment-request; Kevin Kelly, Change in Ameren Missouri Fuel Adjustment Clause to Take Effect in June, Missouri Public Service Commission (May 22 2024). https://psc.mo.gov/Electric/Change_in_Ameren_Missouri_Fuel_Adjustment_Clause_to_Take_Effect_in_June--pr-24-129.

103 Kevin Kelly, PSC Approves Unanimous Agreement in Ameren Missouri Electric Rate Case, Missouri Public Service Commission (June 15 2023). https://psc.mo.gov/Electric/PSC_Approves_Unanimous_Agreement_in_Ameren_Missouri_Electric_Rate_Case--pr-23-193.

104 Ameren and Spire Rate Increases Exceed Recent Inflation and Wages, Consumers Council of Missouri, Strategen (May 2024). https://moconsumers.org/wp-content/uploads/Strategen-05.24-MO-IOU-Rate-Analysis_Ameren_Spire.pdf.

105 Integrated Resource Plan, Ameren Missouri (2024). https://www.ameren.com/missouri/company/environment-and-sustainability/integrated-resource-plan.

106 Ibid.

107 In the Matter of the Application of Union Electric Company, d/b/a Ameren Missouri, for Permission and Approval and Certificate of Public Convenience and Necessity Authorizing it to Construct a Simple Cycle Natural Gas Generation Facility File No.

EA-2024-0237, Public Service Commission of the State of Missouri (June 7 2024). https://efis.psc.mo.gov/Document/Display/786541.

108 2023 Integrated Resource Plan 4. Existing Supply-side Resources, Ameren Missouri (2023). https://www.ameren.com/-/media/missouri-site/files/environment/irp/2023/ch4.ashx; Daniel Prull, Out of Control The Deadly Impact of Coal Pollution, Sierra Club (Fe. 2023). https://coal.sierraclub.org/sites/nat-coal/files/Out%20of%20Control%20coal%20mortality%20report%20FINAL.pdf.

109 J. David Lippeatt, Adam Pforzheimer, Bryn Huxley-Reicher et. al. Blocking Rooftop Solar: The companies, lobbyists, and front groups undermining local clean energy, Environment America (June 2021). https://publicinterestnetwork.org/wp-content/uploads/2021/06/US-Blocking-Rooftop-Solar-Web.pdf.

110 Jim Chilsen, CUB Q&A: What 's happening to solar power in Illinois in 2025?
, Citizens Utility Board (July 1 2024). https://www.citizensutilityboard.org/blog/2024/07/01/cub-qa-whats-happening-to-solar-power-in-illinois-in-2025/.

111 SB 824, Missouri Senate (Aug. 28 2022). https://www.senate.mo.gov/22info/bts_web/Bill.aspx?SessionType=r&BillID=71259784.

112 Cameron Gerber, Missouri lawmakers consider community solar programs, News Tribune (March 3 2022). https://www.newstribune.com/news/2022/mar/03/lawmakers-consider-community-solar-programs/.

113 Schedule 14A Proxy Statement Pursuant to Section 14(a) of the Securities Exchange Act of 1934, United States Securities Commission, Ameren Corporation (March 26 2024). https://www.sec.gov/Archives/edgar/data/1002910/000110465924044320/tm242654d5_defa14a.htm.

114 The average electric monthly bill in Illinois and Missouri combined is $127 in September according to SaveonEnergy's monthly electricity bill report. Electricity Bill Report: December 2024, Saveonenergy (Dec. 12 2024). https://www.saveonenergy.com/resources/electricity-bills-by-state/. We then multiply $127 by the 123,133 shutoffs that occurred to get a total of $ $15,637,891. This is the estimated cost to prevent all of Ameren's shutoffs for nonpayment from January through September 2024. In that same period, Ameren sent $535 million to its shareholders as dividends, just under 3% of which would cover the cost to prevent shutoffs. Form 10-Q Quarterly Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934, Ameren Corporation, United States Securities Exchange Commission (Nov. 7 2024). https://d18rn0p25nwr6d.cloudfront.net/CIK-0001002910/2962aa69-814c-4809-9b0e-aa7c45ad934c.pdf.

115 A2106021 Public Comments, California Public Utilities Commission (March 4 2024). https://apps.cpuc.ca.gov/apex/f?p=401:65

116 PG&E executed 145,841 total shutoffs for nonpayment in 2024, but customers were reconnected within 24 hours 100,058 times. Pacific Gas and Electric Company's (U-39 M) Monthly Disconnect Data Report, Public Utilities Commission of California (Oct. 21 2024). https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M543/K708/543708778.PDF. *See* our methodology in Annex II for more information about why we exclude shutoffs that are followed by rapid reconnectiosn within 24 hours.
, for past reports as well as this report, excludes shutoffs that are followed by rapid reconnections within 24 hours.

117 Phase 1 Decision Adopting Rules and Policy changes to Reduce Residential Customer Disconnections for the Larger California-Jurisdictional Energy Utilities, Order Instituting Rulemaking to Consider New Approaches to Disconnections and Reconnection to Improve Energy Access Rulemaking 18-07-005, Public

Utilities Commission of California (June 16 2020). https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M340/K648/340648092.PDF.

118 For 2024 data, *see* Pacific Gas & Electric Company's (U 39 M) Monthly Disconnect Data Report, R. 18-07005, Public Utilities Commission of the State of California (Nov. 21 2024). https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M543/K708/543708778.PDF; For 2023 data, *see* Pacific Gas & Electric Company's (U 39 M) Monthly Disconnect Data Report, R. 18-07005, Public Utilities Commission of the State of California (Nov. 20 2023). https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M520/K913/520913952.PDF. For 2019 data, *see* Energy Utility Arrearages Rulemaking 21-02-014 to Address Energy Utility Customer Bill Debt Accumulated During the COVID-19 Pandemic, Public Utilities Commission of California (2023). https://www.cpuc.ca.gov/consumer-support/consumer-programs-and-services/electrical-energy-and-energy-efficiency/energy-utility-arrearages.

119 Consumer Price Index, San Francisco Area — October 2024, U.S. Bureau of Labor Statistics Western Information Office (Nov. 13 2024). https://www.bls.gov/regions/west/news-release/consumerpriceindex_sanfrancisco.htm.

120 Alex Bentz, Inflation Tracker, Legislative Analyst's Office: The California Legislature's Nonpartisan Fiscal and Policy Advisor (Dec. 16 2024). https://lao.ca.gov/LAOEconTax/Article/Detail/766; Levi Sumagaysay, Californians face higher costs for goods and services than before the pandemic despite inflation slowing, Cal Matters (March 6 2024). https://calmatters.org/economy/2024/03/california-inflation/.

121 Heather Waldman, NOAA: Summer 2024 was California's Hottest on Record, KCRA3 (Sept. 10 2024). https://www.kcra.com/article/summer-2024-california-hottest-on-record/62144078#:~:text=Florida%20and%20Arizona.-,Sacramento%20set%20a%20record%20for%20the%20city's%20hottest%20summer%20on,summer%20temperature%20was%2079.3%20degrees; Assessing the U.S. Climate in August 2024, National Oceanic and Atmospheric Administration: National Centers for Environmental Information (Sept. 10 2024). https://www.ncei.noaa.gov/news/national-climate-202408; Mary Gilbert, Millions of Americans have never been this hot in October before as a historic heat wave hits, CNN Weather (Oct. 3 2024). https://www.cnn.com/2024/10/03/weather/west-california-heat-wave-excessive-heat-warning-climate/index.html.

122 *See* Pierpont *supra* note 2.

123 Anthony W. Haddad, California Fires Scorch Over 1 Million Acres in 2024, Destroying Nearly 1,500 Structures, GVWire (Oct. 8 2024). https://gvwire.com/2024/10/08/california-fires-scorch-over-1-million-acres-in-2024-destroying-nearly-1500-structures/. Current Emergency Incidents, The Department of Forestry and Fire Protection (2024). https://www.fire.ca.gov/.

124 2023-2024 Wildfire-Related Cost Increases of California's Three Major Investor-Owned Electric Utilities, The Public Advocates Office at the California Public Utilities Commission (June 14 2024). https://www.publicadvocates.cpuc.ca.gov/-/media/cal-advocates-website/files/press-room/reports-and-analyses/240613-public-advocates-office-electric-ious-wildfire-cost-increases.pdf.

125 Q2 2024 Electric Rates Report, The Public Advocates Office at the California Public Utilities Commission (July 22 2024). https://www.publicadvocates.cpuc.ca.gov/-/media/cal-advocates-website/files/press-room/reports-and-analyses/240722-public-advocates-office-q2-2024-electric-rates-report.pdf.

126 Elise Fisher, Between Placer County neighborhoods, residents *see* 'night and day' difference in power bills, The Sacramento Bee (Aug. 12 2024). https://www.sacbee.com/community/roseville-placer/article290662609.html.

127 In early January, PG&E implemented a 12.8% rate hike that will add a monthly average of $33 to household electricity bills. 2023 General Rate Case, PG&E (2024). https://www.pge.com/en/regulation/general-rate-case.html; Alex Formuzis, PG&E profits soar, fueled by struggling ratepayers' sky-high bills, EWG (Feb. 22 2024). https://www.ewg.org/news-insights/news-release/2024/02/pge-profits-soar-fueled-struggling-ratepayers-sky-high-bills. In April, another rate hike added about $4.68 per month to residential bills. Lucas Combos, PG&E's Latest Rate Hike Approved By CA Regulators, Patch (March 7 2024). https://patch.com/california/san-francisco/another-pg-e-rate-hike-vote-thursday. Then, in May, PG&E followed it up by adding a flat monthly fee, starting in 2026, of $24.15 for middle and high income households and either $6 or $12 for low income households. Proposed Decision of Administrative Law Judge Wang Addressing Assembly Bill 205 Requirements for Electric Utilities, Rulemaking 22-07-005 (March 27 2024). https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M528/K422/528422138.PDF. Finally, in September, the PUC approved a rate hike that amounts to about $6 per month per customer. State regulators unanimously approve PG&E's 4th rate hike for 2024, ABC 7 News (Sept. 12 2024). https://abc7news.com/post/pge-rate-hike-california-public-utilities-commission-unanimously-approves-6-monthly-increase-electricity-bills/15296646/.

128 Appendix A Track 1 (Sections 3- 14 & 16) Results of Operations Tables 1 to 53 Decision on Test Year 2023 General Rate Case for Pacific Gas and Electric Company, Public Utilities Commission of California (2023). https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M520/K905/520905633.pdf.

129 These increases are to cover vegetation maintenance and the extended use of the Diablo Canyon Nuclear Power plant. Steve Large, California regulators approve two more requests by PG&E to increase rates, CBS News (Dec. 19 2024). https://www.cbsnews.com/sacramento/news/california-regulators-approve-two-more-requests-by-pge-to-increase-rates/.

130 George Avalos, PG&E customers face monthly bill increase — a new one — in October, Silicon Valley (Sept. 13 2024). https://www.siliconvalley.com/2024/09/13/pge-bill-electric-gas-energy-power-bill-consumer-customer-economy-fire/?noamp=mobile.

131 The Public Advocates Office *supra* note 129.

132 Integrated Resource Plan, Pacific Gas & Electric Company (Nov. 1 2022). https://www.pge.com/assets/pge/docs/about/doing-business-with-pge/2022-PGE-Integrated-Resource-Plan.pdf.

133 PG&E Joint letter to the US House Committee on Appropriations, Influence Map (May 2 2022). https://content.influencemap.org/site/data/000/966/Jointletter_HAC_gasfunding_2.5.22_may2022.pdf. *See also* Comments submitted by Energy Strategy Coalition, Environmental Protection Agency (Aug. 8 2023). https://www.regulations.gov/comment/EPA-HQ-OAR-2023-0072-0672.

134 Richard Plevin, Uncertainty in estimating the climate effects of biofuels: EPA Workshop on Biofuel Greenhouse Gas Modeling (Mar. 1, 2022), https://www.epa.gov/system/files/documents/2022-03/biofuel-ghg-model-workshop-estimating-biofuel- climate-effects-2022-03-01.pdf; EPA, Biofuels and the Environment: Second Triennial Report to Congress, at 39 (June 29, 2018), https://cfpub.epa.gov/si/si_public_record_report.cfm?Lab=IO&dirEntryId=341491. UN Intergovernmental Panel on Climate Change, AR6 Synthesis Report (2023). https://report.ipcc.ch/. *See generally* Cal. Office of Env. Health Hazard Assessment, SB 535, https://oehha.ca.gov/calenviroscreen/sb535

135 In 2035, PG&E's IRP projects that the two fuels will only make up 221 MW (less than 1%) of the utility's gross capacity of baseline resources. Similarly, from 2024

through 2035, the fuels make up 386 MW (about 2.6%) of the cumulative total of baseline new resource additions. *See* Pacific Gas & Electric *supra* note 138.

136 Aaron Cantú, California's Methane Climate Solution Rewards Diary Gas. Other States Take A Harder Line, Capital and Main (April 26 2023). https://capitalandmain.com/californias-methane-climate-solution-rewards-dairy-gas-other-states-take-a-harder-line; PG&E Takes Historic Steps Toward Decarbonization as Company Announces New Production Pilot and Procurement of Renewable Natural Gas, Pacific Gas & Electric Company (Oct. 25 2023). https://investor.pgecorp.com/news-events/press-releases/press-release-details/2023/PGE-Takes-Historic-Steps-Toward-Decarbonization-as-Company-Announces-New-Production-Pilot-and-Procurement-of-Renewable-Natural-Gas/default.aspx.

137 IOU Payments to "Affordable Clean Energy for All" Coalition Members per 2020 GO-77M Report Disclosures, Protect Our Communities Foundation (Feb. 8 2022). https://www.ewg.org/sites/default/files/2022-02/IOUcontributions_0.pdf. *See also* Proposed Decision 20-08-020 Doesn't Go Far Enough to Correct Unfair Cost Burden on Customers Without Rooftop Solar, Influence Map (Feb. 1 2023). https://content.influencemap.org//site/data/000/953/Utilities_CPUC_NEMcoalitionletter_2.2.22.pdf.

138 Massive Layoffs, Business Closures, and Loss of Clean Energy Progress Since CPUC Slashed Rooftop Solar Incentives, New Analysis Shows, California Solar and Storage Association (Nov. 30 2023). https://calssa.org/press-releases/2023/11/30/massive-layoffs-business-closures-and-loss-of-clean-energy-progress-since-cpuc-slashed-rooftop-solar-incentives-new-analysis-shows; Ryan Kennedy, California rooftop solar installations drop 80% following new net metering rules, PV Magazine (Dec. 4 2023). https://www.pv-magazine.com/2023/12/04/california-rooftop-solar-installations-drop-80-following-new-net-metering-rules/.

139 The bills include AB 2619 and AB-2256. California Assembly Bill 2619 Net energy metering, California Legislature 2023-2024 Regular Session (Feb. 14 2024). https://legiscan.com/CA/text/AB2619/id/2928954; California Assembly Bill AB 2556 Net energy metering, California Legislature 2023-2024 Regular Session (March 11 2024). https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202320240AB2256; Jeff St. John, California derailed its booming rooftop solar buildout. Can it be fixed?, Canary Media (April 15 2024). https://www.canarymedia.com/articles/solar/california-derailed-its-booming-rooftop-solar-buildout-can-it-be-fixed.

140 Jeff St. John, New policy proposal dims hopes of reviving community solar in California, Canary Media (March 6 2024). https://www.canarymedia.com/articles/solar/new-policy-proposal-dims-hopes-of-reviving-community-solar-in-california; Net Value Billing Tariff, Coalition for Community Solar Access (2024). https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/net-energy-metering-nem/nemrevisit/coalition-for-community-solar-access-slides.pdf.

141 Proposed Decision of Administrative Law Judge Rizzo Adopting Implementation Rules for Multi-Property Microgrid Tariffs and Other Matters, Order Instituting Rulemaking Regarding Microgrids Pursuant to Senate Bill 1339 and Resiliency Strategies, Rulemaking 19-09-009, Public Utiltiies Commission of the State of California (Sept. 17 2024). https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M540/K719/540719737.PDF.

142 PG&E Corporation Reports Strong Third-Quarter Results; Strengthens 2024 Guidance; Initiates 2025 Guidance; Grows 5-Year Capital Plan, PG&E Corporation (Nov. 7 2024). https://s1.q4cdn.com/880135780/files/doc_financials/2024/q3/PGE-Q3-2024-Press-Release.pdf.

143 Schedule 14A, PG&E Corporation, United States Securities and Exchange Commission (April 4 2024). https://investor.pgecorp.com/financials/sec-filings/default.aspx.

144 We estimate that the cost to prevent a single shutoff for nonpayment is the average monthly electricity bill. The average electric monthly bill in California combined is $155 in September according to SaveonEnergy's monthly electricity bill report. Electricity Bill Report: December 2024, Saveonenergy (Dec. 12 2024). https://www.saveonenergy.com/resources/electricity-bills-by-state/. We then multiply $155 by the 45,783 shutoffs PG&E executed to get a total of $7,112,389.05. This is the estimated cost to prevent all of PG&E's shutoffs for nonpayment from January through September 2024. In that same period, PG&E sent $1.45 billion to its shareholders as dividends, less than 1% of which would cover the cost to prevent all of its shutoffs. Form 10-Q Quarterly Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934, Pacific Gas & electric, United States Securities Exchange Commission (Nov. 7 2024). https://d18rn0p25nwr6d.cloudfront.net/CIK-0001004980/b7a70191-b3cb-41e7-8f6e-4d5d22abd201.pdf

145 Utilities Complaint Form Docket No. E-012345A-22-0144, Arizona Corporation Commission (Feb. 13 2023). https://docket.images.azcc.gov/E000024277.pdf?i=1731596141907.

146 Docket Number RU-00000A-19-0132 Final Package of Termination of Service Rules Approved, Arizona Residential Utility Consumer Office. https://ruco.az.gov/hot-topics/disconnection-rules; Anita Snow, An Arizona woman died after her power was cut over a $51 debt. That forced utilities to change, AP News (July 24 2023). https://apnews.com/article/arizona-heat-death-legacy-3fce53af423293d9fb15d7889dee9e13.

147 Ibid.

148 *See* Annex II for shutoff data and sources.

149 Anne Ryman, Salvation Army hotline to help pay utility bills overwhelmed with calls in June, ABC15 Arizona (Jun. 27 2024). https://www.abc15.com/news/local-news/investigations/salvation-army-hotline-to-help-pay-utility-bills-overwhelmed-with-calls-in-june.

150 Consumer Price Index, Phoenix area — October 2024, U.S. Bureau of Labor Statistics Western Information Office (Nov. 13 2024). https://www.bls.gov/regions/west/news-release/consumerpriceindex_phoenix.htm.

151 Paul Davidson, The 5 states with the highest inflation and the 5 with the lowest. *See* where yours ranks., USA Today (April 9 2024). https://www.usatoday.com/story/money/2024/04/09/states-highest-lowest-inflation/73184932007/ .

152 Extreme Temperature Facts for Phoenix, Yuma, and El Centro, National Oceanic and Atmospheric Administration: National Weather Service (2024). https://www.weather.gov/psr/ExtremeTemps; Liliana Salgado, Hottest US city Phoenix smashes heat streak record, Reuters (Sept. 23 2024). https://www.reuters.com/world/us/hottest-us-city-phoenix-smashes-heat-streak-record-2024-09-23/.

153 First and Last Dates for selected Temperatures Thresholds in Phoenix, Yuma, and El Centro, National Oceanic and Atmospheric Administration: National Weather Service (2024). https://www.weather.gov/psr/FirstandLastTemperatures; Billy Goodykoontz, Phoenix hit 100 degrees. How can the glass be half-full when it's boiling over?, AZ Central (April 23 2024). https://www.azcentral.com/story/entertainment/media/2024/04/22/phoenix-reaches-100-degrees/73408028007/; Jeff Vinton, Yes, Phoenix hit 100 degrees for the first time in 2024, 12 News (April

21 2024). https://www.12news.com/article/weather/phoenix-100-degrees-2024/75-26988cbf-f248-49f9-9884-90be4311256b.

154 Rate Case: Meeting the Needs of Customers, APS (2024). https://www.aps.com/en/Utility/Regulatory-and-Legal/Rate-case; Nicole Garcia, ACC Votes on Arizona Public Service Company Rate Case, Arizona Corporate Commission (Feb. 23 2024). https://azcc.gov/news/home/2024/02/23/acc-votes-on-arizona-public-service-company-rate-case#:~:text=ACC%20VOTES%20ON%20ARIZONA%20PUBLIC%20SERVICE%20COMPANY%20RATE%20CASE,-Feb%2023%2C%202024&text=Phoenix%2C%20Ariz.,(ROE)%20of%2010.25%20percent.; In the Matter of the Application of Arizona Public Service Company for a Hearing to Determine the Fair Value of the Utility Property of the Company for Ratemaking Purposes, to Fix a Just and Reasonable Rate of Return Thereon, and the Approved Rate Schedules Designed to Develop Such Return, Decision No. 79293, Arizona Corporation Commission (March 5 2024). https://docket.images.azcc.gov/0000210704.pdf?i=1735575650432; Arizona Public Service summer rate hike sparks controversy, Arizona PBS Arizona State University (Aug. 27 2024). https://azpbs.org/horizon/2024/08/aps-summer-rate-hike-arizona-2024/.

155 Rate Regulation Summary Detailed Information On Regulatory Matters, Pinnacle West Capital Corporation (2024). https://www.pinnaclewest.com/investors/regulatory-information/default.aspx; Q4 2023 Pinnacle West Capital Corp Earnings Call, Yahoo Finance (Feb. 28 2024). https://finance.yahoo.com/news/q4-2023-pinnacle-west-capital-065912159.html?guccounter=1&guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2xlLmNvbS8&guce_referrer_sig=AQAAAFKA5SlyRG3JwyZABr8euLEmCsvvl99wfHXX4RFjJlELTbKqIpj5e7uq-jQASWOdp28VCP4fSPCfQsmtbciQU3TJo8ujfLqFTN1jIj9N_oVBuk-r46DYRdbvYId39h9U94TeNlSwjz7cR4NocPjPbg8hCdDgGP8V3SBIR2kS0C_o;Renewed, Reliable and Resilient June Investor Meetings, Pinnacle West Capital Corporation (June 2023). https://www.sec.gov/Archives/edgar/data/764622/000076462224000054/juneinvestordeck.htm.

156 2023 Integrated Resource Plan, APS (Nov. 2023). https://www.aps.com/-/media/APS/APSCOM-PDFs/About/Our-Company/Doing-business-with-us/Resource-Planning-and-Management/APS_IRP_2023_PUBLIC.ashx?la=en&hash=B0B8ED59F4698FE246386F3CD118DEC8; Sean Wolfe, Facing coal plant retirements, Arizona Public Service calls for renewables, battery storage, hydrogen-capable gas turbines, Power Engineering (Nov. 3, 2023). https://www.power-eng.com/hydrogen/facing-coal-plant-retirements-arizona-public-service-calls-for-renewables-battery-storage-hydrogen-capable-gas-turbines/#gref. APS announced plans to add eight new methane gas units to its Redhawk Power plant to begin operation by 2028 and two units to its Sundance Power plant to begin service in the summer of 2026. Redhawk Power Plant Expansion Project, APS (2024). https://www.aps.com/en/About/Construction-and-Power-Line-Siting/Reliability-upgrades/Redhawk-Expansion-Project; Sundance Project, APS (2024). https://www.aps.com/en/About/Construction-and-Power-Line-Siting/Reliability-upgrades/Sundance-Project; Amy Dominguez, ACC Approves Major Expansion of Gas-Fired Power Plant without allowing any Public Comment, Sierra Club, Public Now (Nov. 29 2023). https://www.publicnow.com/view/974BA20781111B686F526FAA42DEEE0148C035D0.

157 Decision No. 79293 *supra* note 163. *See also* Anne Ryman, What to know about the new solar fee on electric bills, ABC15 Arizona (April 15 2024). https://www.abc15.com/news/local-news/investigations/what-to-know-about-the-new-solar-fee-on-electric-bills;

158 Ryan Kennedy, Arizona approves 'discriminatory' charge for rooftop solar customers, PV Magazine (Feb. 27 2024). https://www.pv-magazine.

com/2024/02/27/arizona-approves-discriminatory-charge-for-rooftop-solar-customers/.

159 Joseph K. Giddens, State OKs APS to raise electricity rates by 8%, Journal AZ (March 7 2024). https://journalaz.com/2024/03/07/state-oks-aps-to-raise-electricity-rates-by-8/.

160 Same APS discrimination against solar customers, Arizona Solar Energy Industries Association (July 31 2024). https://www.ariseia.org/news/ariseia-pens-op-ed-about-aps-solar-customer-discrimination; Procedural Order, In the Matter of the Application of Arizona Public Service Company for a Hearing to Determine the Fair Value of the Utility Property of the Company for Ratemaking Purposes, to Fix a Just and Reasonable Rate of Return Thereon, and to Approve Rate Schedules Designed to Develop Such Return, Docket No. E-01345A-22-0144, Arizona Corporation Commission (July 24 2024). https://docket.images.azcc.gov/E000036815.pdf?i=1721864169558.

161 Decision No. 79097 In the Matter of the Application of Arizona Public Service Company for Aprpoval of its Revised Rate Rider Resources Comparison Proxy, Docket No. E-01345A-23-0110 (Sept. 11 2023). https://docket.images.azcc.gov/0000209799.pdf?i=1735581987540.

162 Maria McCoy, Arizona Adopts a Useless Community Solar Policy, Institute for Local Self-Reliance (Mar. 9 2023). https://ilsr.org/articles/arizona-useless-community-solar-policy-2023/#:~:text=On%20March%207%2C%202023%2C%20the,to%20the%20Arizona%20Corporation%20Commission; Bring-Your-Own-Device (BYOD) Battery Pilot Working Group Meeting 2024 Demand Side Management (DSM) Implementation Plan Docket No. E-01345A-23-0088, Arizona Corporation Commission (July 18 2024). https://docket.images.azcc.gov/E000036701.pdf?i=1721864169558.

163 Alan Bunnell, Amanda Ho, Pinnacle West Reports Slightly Lower 2024 Third-Quarter Results Compared to a Year Ago, Pinnacle West Capital Corporation News (Nov. 6 2024). https://s22.q4cdn.com/464697698/files/doc_financials/2024/q3/3Q-2024-Earnings-Final-11-06-24.pdf.

164 Schedule 14A Proxy Statement Pursuant to Section 14(a) of the Securities Exchange Act of 1934, United States Securities Commission, Pinnacle West Capital Corporation (April 4 2024). https://d18rn0p25nwr6d.cloudfront.net/CIK-0000764622/d2322cc6-df2e-4726-b1f6-bb8a9a68b5e5.pdf.

165 The average electric monthly bill in California combined is $158 in September according to SaveonEnergy's monthly electricity bill report. Electricity Bill Report: December 2024, Saveonenergy (Dec. 12 2024). https://www.saveonenergy.com/resources/electricity-bills-by-state/. We then multiply $158 by the 20,456 shutoffs APS executed to get a total of $$3,238,594. This is the estimated cost to prevent all of APS' shutoffs for nonpayment from January through September 2024. In that same period, APS sent $294,589,000 million to its shareholders as dividends, about 1% of which would cover the cost to prevent all of its shutoffs. Form 10-Q Quarterly Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934, Pinnacle West Capital Corporation, United States Securities Exchange Commission (Nov. 6 2024). https://d18rn0p25nwr6d.cloudfront.net/CIK-0000764622/7cd749fb-8650-4fc6-b1ae-b521eec60115.pdf

166 Pacific Gas & Electric *supra* note 122; Credit, Collections, and Arrearages Report Monthly Dashboard, Illinois Commerce Commission (2024). https://www.icc.illinois.gov/industry-reports/credit-collections-and-arrearages-reports/monthly-dashboard.

167 In some recent years, despite having heat protections, we've found that states like

Oregon, Georgia, Michigan, Illinois, Minnesota, Maryland, New Jersey, California, and Washington have seen power shutoffs peak in the summer.

168 Energy Hardship Report, National Energy Assistance Directors Association (Aug. 2024). https://neada.org/wp-content/uploads/2024/08/August-Summer-Hardship-Report-Final.pdf.

169 National Consumer Law Center, Implementing a Roadmap to Utility Service as a Human Right (Apr. 2021), https://www.nclc.org/wp-content/uploads/2022/09/IB_Utility_Bill_of_Rights.pdf; NEADA, "Resolution: Pre-Paid Residential Gas and Electric Meters" (2019), https://neada.org/wp-content/uploads/2019/09/NEADAprepayresolution.pdf

170 Marx, Elizabeth R., Testimony of Elizabeth R. Marx, Executive Director, Pennsylvania Utility Law Project: Pennsylvania's Retail Energy Markets are Broken – But HB 1789 is Not the Right Fix (June 15, 2022). https://www.legis.state.pa.us/WU01/LI/TR/Transcripts/2022_0073_0002_TSTMNY.pdf.

171 Su, Jean, Center for Biological Diversity, Climate, Environmental, and Energy Justice: Integrating Justice into Electricity System Design and Decision-Making, in Advancing Equity in Utility Regulation, U.S. Department of Energy, Report No. 12, (Nov. 2021), https://eta-publications.lbl.gov/sites/default/files/feur_12_-_advancing_equity_in_ utility_regulation.pdf.

172 Community Power Map, Institute for Local Self-Reliance (2024). https://ilsr.org/energy/community-power-map/.

173 Roger Lin, Howard Crystal, Amee Raval et. al., Petition for Rulemaking, Non Energy Benefits and Social Costs, California Energy Commission (Feb. 5 2024). https://biologicaldiversity.org/programs/energy-justice/pdfs/Center-petition-CA-Energy-Commission-Net-Energy-Benefits-02052024.pdf.

174 Petition for FTC Investigation into the Electric Utility Industry's Abusive Practices that Stifle Renewable Energy Competition and Harm Consumer Protection, Center for Biological Diversity (June 14 2022). https://www.biologicaldiversity.org/programs/energy-justice/pdfs/FTC-Petition-Re-Utilities-2022-05-16.pdf?_gl=1*1664w04*_gcl_au*MzU2NDgzODYyLjE3MjM2NTg3MzQ.

175 *See* Los Angeles, New York, France, and others. Motion to Discontinue Shut-offs as an Account Management/Collection Tol for Customers Enrolled in LADWP EZ-SAVE and Lifeline Discount Programs, Los Angeles Department of Water and Power (Nov. 15 2022). https://ladwp-jtti.s3.us-west-2.amazonaws.com/wp-content/uploads/sites/3/2022/11/15133047/N.17-Shutoffs-Motion.pdf; Akielly Hu, A year in, New York's pioneering public power law makes uneven progress, Canary Media (May 3 2024). https://canarymedia.com/articles/clean-energy/a-year-in-new-yorks-pioneering-public-power-law-makes-uneven-progress; EDF will no longer request that electricity be cut off to its residential customers, EDF (Nov. 12 2021). https://www.edf.fr/en/the-edf-group/dedicated-sections/journalists/all-press-releases/edf-will-no-longer-request-that-electricity-be-cut-off-to-its-residential-customers.

176 Kaja Rebane, Cara Goldenber, How to Restructure Utility Incentives, RMI (2024). https://rmi.org/insight/how-to-restructure-utility-incentives-four-pillars-of-comprehensive-performance-based-regulation/.

177 Jacqui Patterson and Charles Hua, "Who Holds the Power: Demystifying and Democratizing Public Utilities Commissions," The Chisholm Legacy Project, December 2022 https://tclp2dev.wpenginepowered.com/wp-content/uploads/2022/11/Who-Holds-the-Power.pdf.

178 Goodson Bell & Su *supra* note 1.

179 Electricity Bill Report: December 2024 *supra* note 26.