Entergy's path to net-zero emissions and climate resilience

November 2022

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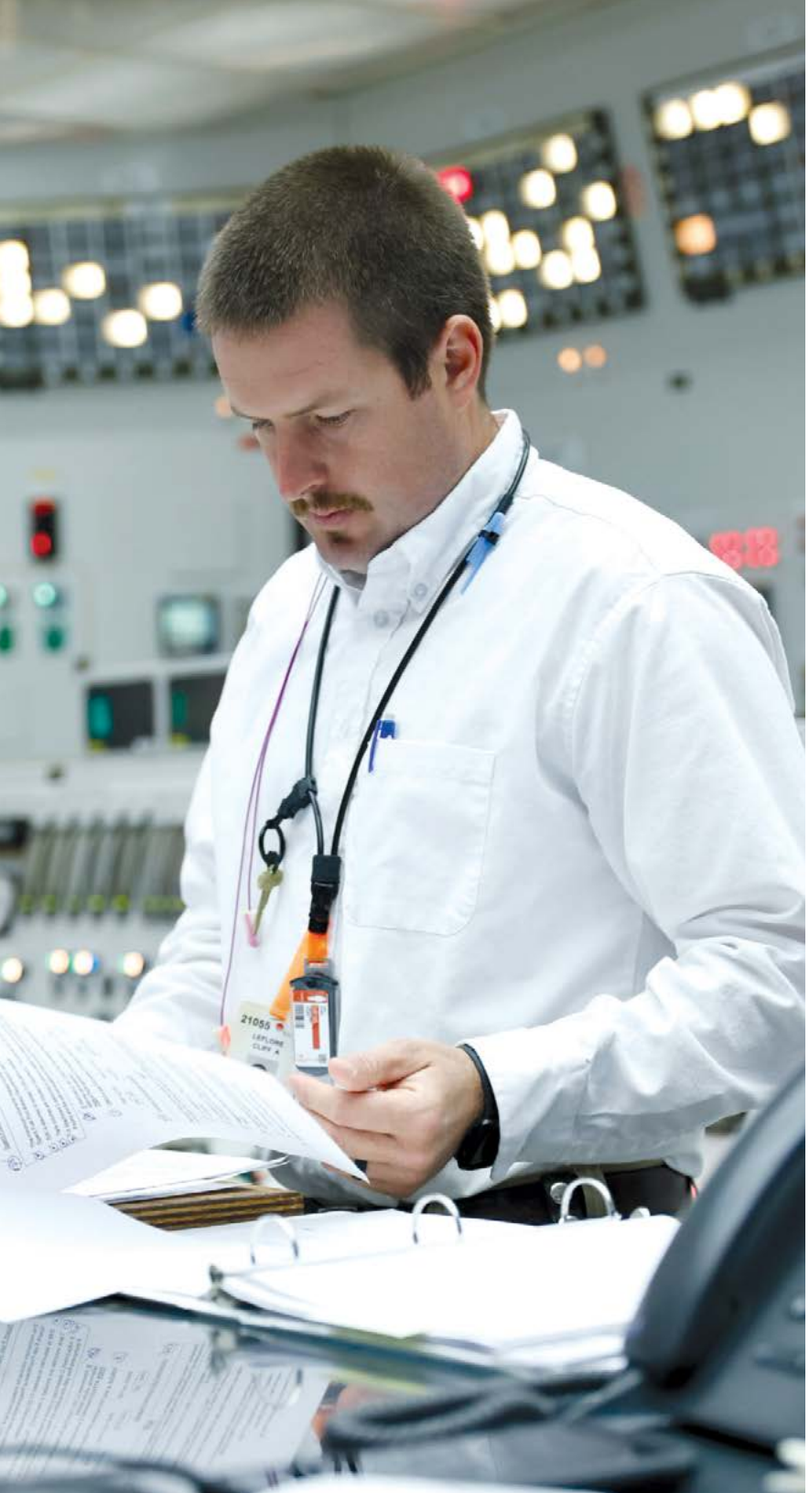


List of figures and tables

Entergy CEO Drew Marsh.

A letter from CEO Drew Marsh

The risks of climate change to our company, region and world are significant and we must take them seriously. However, it's important that we also recognize and act on the growth opportunity that climate change presents for Entergy, the electric power industry and many other sectors. In fact, a significant element of our company's growth strategy is tied directly to the role we are well positioned for in addressing climate risk. Power providers play a critical role in delivering to customers the clean energy solutions that are essential in lowering greenhouse gas emissions across the economy, without compromising affordability or service reliability. At Entergy, we are an industry leader in successfully reducing the impacts of electric generation on our environment. The recent progress we and our industry have made is substantial. Over the past 20 years, we have transformed our power generation portfolio into one of the country's cleanest among large-scale power producers.

As gratified as we are of this accomplishment, we are constantly motivated by the prospect of doing our part to achieve net-zero global greenhouse gas emissions by mid-century, while also ensuring we operate an energy grid for our customers that is more resilient to the impacts of climate change we are already seeing. A cleaner energy future is taking shape in our near- and long-term planning processes. These processes include both the expanded deployment of solar energy that is readily available today and the careful assessment of when, how and at what scale we can expect to deploy the emerging and new technologies critical for realizing the clean energy economy of tomorrow.

Our intention is not just to achieve our climate commitment but to demonstrate leadership in balancing our customers' growing demand for cleaner energy with their equally important need for affordable and reliable service.

Transparent, honest and regular communication with our stakeholders about our progress is important to our success. We are pleased to describe in this report the progress we've made since the publication of our first climate scenario analysis in 2019. More importantly, this report outlines our thoughtfully planned climate actions moving forward and our approach to addressing uncertainty where it's not yet possible or prudent to outline to a specific plan.

The urgency of climate change is real, and we are actively participating in policy and advocacy conversations to help address this threat. And we are partnering with our many stakeholders to support a lower carbon future while delivering sustainable and resilient value to our customers and communities.

Thank you for your continued commitment and engagement with us as we address these climate challenges and deliver meaningful outcomes for all our stakeholders.

Drew Marsh
Chief Executive Officer

Introduction

The purpose of this report is to update our stakeholders on our progress toward addressing the transition and physical risks and opportunities associated with climate change.

This report builds on our foundational 2019 climate report,[1] which established our 2030 emission rate goal and our 2020 addendum[2] that introduced our net-zero commitment.

This report also provides updated information on a potential pathway we see to net-zero by 2050 and a new interim carbon-free energy capacity goal.

Entergy headquarters building in New Orleans.

Entergy is uniquely positioned to accelerate the transition to a low-carbon economy by investing in low- to zero-carbon power sources and magnifying our impact by collaborating with customers and suppliers to reduce their emissions. Our regional economy and the demand for clean energy are growing. Sustainable investments by us, which are increasingly being driven by demand from our customers as well as our investors and other stakeholders, will ensure that this growth is increasingly powered by cleaner energy and results in substantial reductions in greenhouse gas emissions across the economy. This clean growth can attract jobs, enhance economic development opportunities and improve overall quality of life in our region.

This report describes the process for, and results of, our detailed resource planning, including our approach to optimizing our affordability, reliability and emission reduction objectives. Based on the analysis described in this report, we are able to (1) evaluate whether our near-term portfolio transformation strategy remains consistent with both our customers' goals of reducing emissions and the global objective of limiting atmospheric warming to well below 2-degrees Celsius and (2) expand and evolve our interim performance goals on our path to net-zero. These goals serve as key measures for holding ourselves accountable for continued progress.

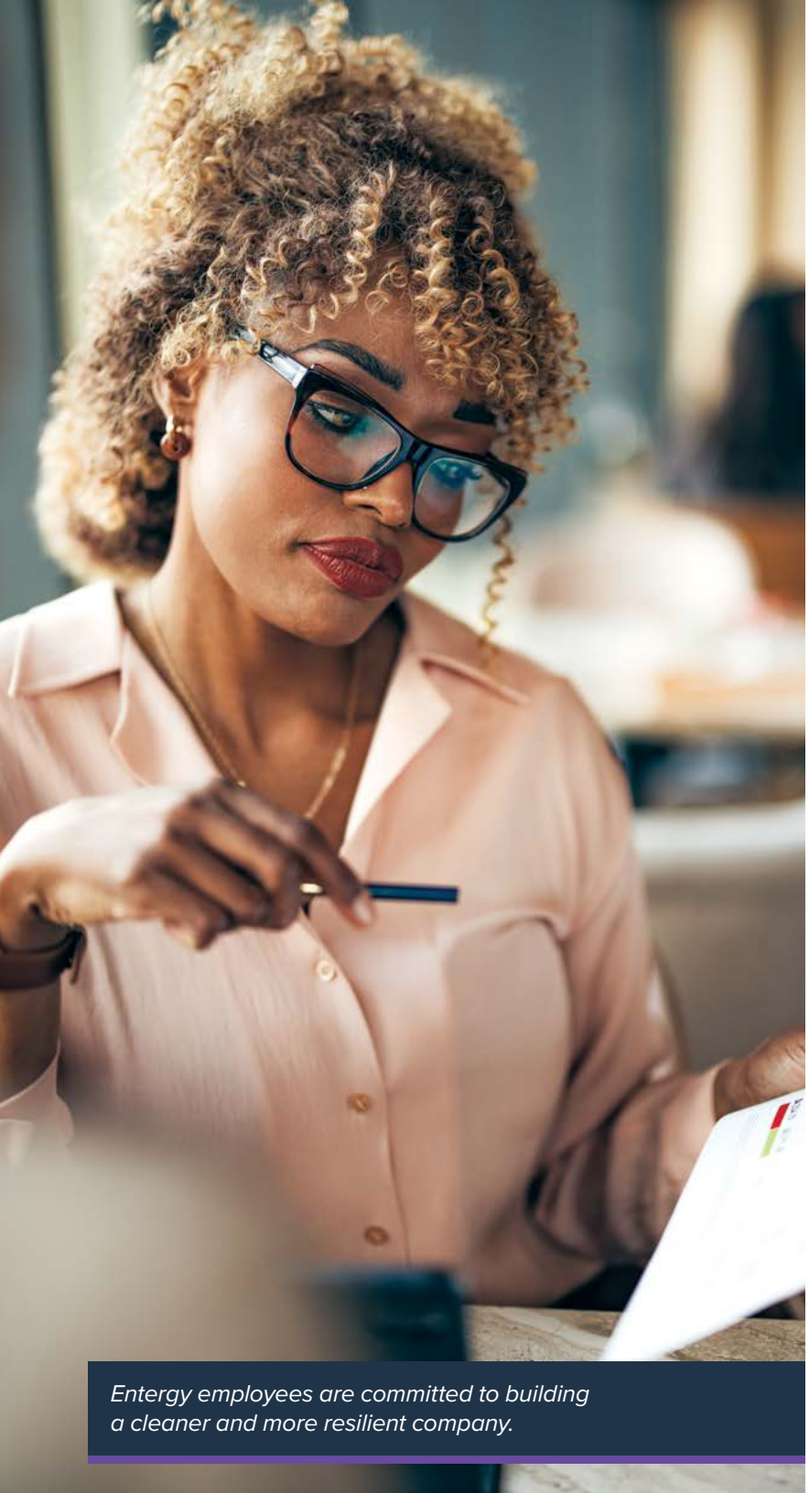
We also have an obligation to our customers to accelerate our response to the physical risks associated with climate change and to enhance the resilience of our system to the extreme weather events that we have recently experienced and are expected to continue to occur with greater frequency and intensity. This report describes our analysis process, considerations that inform our resilience strategy and our 10-year plan for proposed investments in infrastructure improvements.

This report also provides updates on other important dimensions of Entergy's response to climate change-related risks and opportunities. These range from governance practices and enterprise risk management to new products and services that offer our customers an increasing array of clean energy solutions.

Clarifying our path to net-zero and enabling emission reductions

We are updating stakeholders on a potential pathway we see to net-zero by 2050, based on our current business plan, and establishing a new interim carbon-free energy capacity goal for 2030. Beyond our own footprint, our actions to offer electrification solutions to customers could result in, based on preliminary estimates, up to 7 million tons of net emission reductions by 2030.

Our strategy as a business and our strategy to manage climate-related risks and opportunities are the same. Our growth as a company is predicated on creating a more resilient system that can serve greater demand from our customers for cleaner, lower carbon-emitting energy that is also affordable and reliable. With this report, we demonstrate that we (1) have a robust and achievable near-term plan for achieving that growth and realizing those objectives, (2) understand where achieving the long-term objectives of continued growth and net-zero GHG emissions remain subject to some uncertainty, and (3) are taking steps now to minimize future uncertainty.



Entergy employees are committed to building a cleaner and more resilient company.

About Entergy

Entergy, a Fortune 500 company headquartered in New Orleans, powers life for 3 million customers through its operating companies across Arkansas, Louisiana, Mississippi and Texas. Entergy is creating a cleaner, more resilient energy future with our diverse power generation portfolio, including increasingly carbon-free energy sources. With roots in the Gulf South region for more than a century, Entergy is a recognized leader in corporate citizenship, delivering more than $100 million in economic benefits to local communities through philanthropy and advocacy efforts annually over the last several years. Our approximately 12,000 employees are dedicated to powering life today and for future generations.

Entergy is the parent company of five vertically integrated utilities – each conducts its own respective long-term resource planning activities, including market inquiries for resources, under the oversight of its respective retail regulator and for the benefit of its respective customers. Entergy also conducts an annual systemwide planning process that represents a collection of the long-term plan for the five utilities. For purposes of this document, we will refer to the five utilities as “Entergy” and these individual planning activities collectively.

About this report

The information provided in this report is consistent with the recommendations of the Task Force on Climate-related Financial Disclosures[3] – a cross-reference is included at the end of this report. The focus of this report is Entergy’s climate transition and resilience plans and actions, which are a key part of our overall business strategy. The success of this strategy is dependent on the success of our broader company sustainability efforts, including our ability not only to execute this strategy, but also to find, develop and retain the talent needed to address future risks and opportunities. For additional information regarding our overall sustainability strategy and progress, please refer to Entergy’s latest Integrated Report.

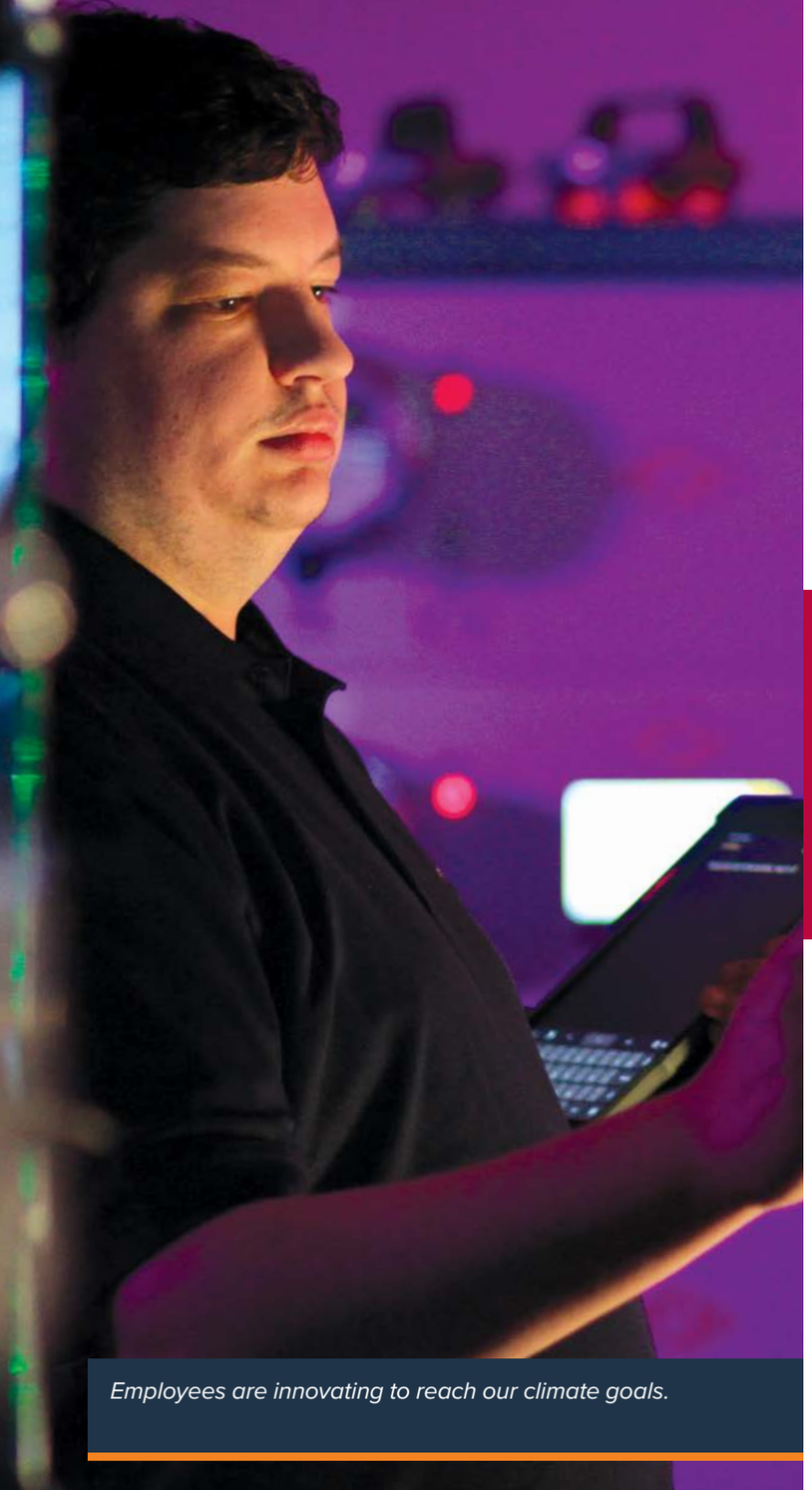
This report includes forward-looking statements of our goals, plans, beliefs and expectations. For additional information about these forward-looking statements, see “Cautionary Statement Regarding Forward-Looking Information” on page 50.

Core elements of recommended climate-related financial disclosures, see page 49.

Our strategy to achieve net-zero by 2050

Entergy is committed to achieving net-zero greenhouse gas emissions by 2050 and enabling customer emission reductions across all sectors.

The boundary of our own net-zero commitment is clear and inclusive – all businesses, all applicable greenhouse gases and all scopes of emissions.



Employees are innovating to reach our climate goals.

We are taking action to achieve what we stated in our earlier reporting – to reduce our emissions as low as possible and minimize our need to neutralize any residual emissions while still maintaining the reliability and affordability of our products, even as our customer base and demand for clean energy grows. Due to the large proportion of our footprint being associated with our electrical power generation, this analysis and report focuses on this part of our business. However, as discussed later in this report, we are taking action to reduce emissions across all categories of our GHG inventory, including our gas distribution operations.

What is included in Entergy's net-zero commitment?

All businesses	All applicable greenhouse gases	All emission scopes
Utility – Electrical	Carbon dioxide	Scope 1
Utility – Gas Operations	Methane	Scope 2
	Nitrous oxide	Scope 3
	Sulfur hexafluoride	
	Hydrofluorocarbons	

The primary strategy for achieving our commitment remains our portfolio transformation strategy. This approach involves investing in modern, efficient low- to zero-carbon emitting power generation facilities and retiring older, less efficient units as we are able. Additionally, we are deploying and working to further develop low- and zero-carbon technologies necessary to transform our portfolio beyond those that are commercially viable today.

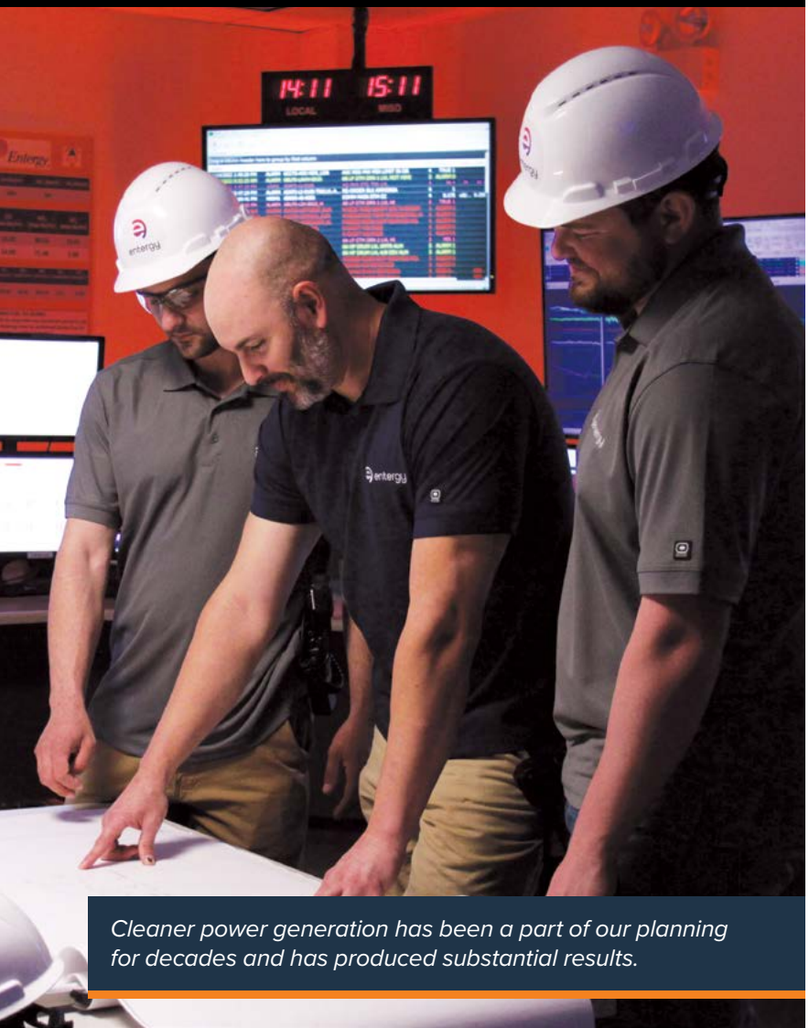
The interim goal established in 2019 of reducing our electric utility carbon emission rate to 50% of our 2000 emission rate by 2030 is driving near-term action on our largest Scope 1 category – utility-owned power generation. Our current planning models now indicate that we will outperform this goal several years early. We are adding a carbon-free energy capacity goal and evolving our emission rate goal to include purchased power. See Figure 1 and more detail on our climate goals in the 'Metrics and Targets' section of this report. Our ability to achieve these goals and our net-zero by 2050 commitment is dependent on constructive and enabling policies, timely advancement of cost-effective technology, supply availability, ability to balance affordability and reliability, regulatory support, and permitting and siting approvals. See the "Risks and Uncertainties" section of this report for more information.

These goals are expected to continue to drive near- and medium-term action on our largest Scope 1 and Scope 3 emission categories, power generation and purchased power, which in 2021 represented approximately 84% of our total GHG inventory. As we report on our progress toward meeting these interim goals, we will continue to evaluate opportunities to expand them to match the broad, inclusive boundary of our net-zero commitment.

We continue to work on integrating and embedding the internal expertise necessary to develop and refine our path to net-zero. This includes ensuring we have the knowledge and skills necessary to integrate these climate goals into our resource planning processes and understand how this path compares to the latest climate science and the broad universe of climate scenarios.

Figure 1 – Entergy's updated goals on our path to net-zero by 2050

- Achieve 50% carbon-free energy generating capacity by 2030.
- Reduce our CO_2 emission rate by 50% by 2030.
- Achieve net-zero emissions by 2050.



Cleaner power generation has been a part of our planning for decades and has produced substantial results.

Enabling customer emission reductions

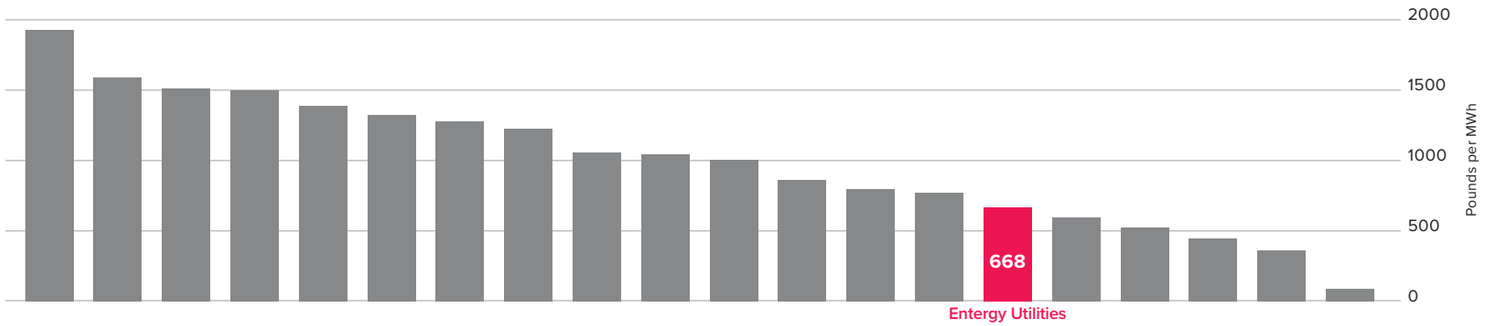
Our customers continue to benefit from our operation of one of the lowest emission-rate power generation fleets in the country. A September 2022 benchmarking report[4] shows that we have the seventh largest generation of investor- and privately-owned power producers in the United States, but have the sixth lowest emission rate – see Figure 2.

Based on direct customer engagement and the expected load growth resulting from customer electrification and clean growth, our increasingly clean electrical energy is enabling customers to reduce and avoid both Scope 1 and 2 emissions.

When a customer that is using a fossil fuel-fired system to serve a current energy need converts to using electricity we produce to meet that energy need, this can result in a direct Scope 1 emission reduction for that customer, and an overall net reduction in CO_2 emissions. Engaging with our customers to support deployment of electrification solutions could result in a reduction of nearly 9 million tons of customer Scope 1 CO_2 emissions, representing approximately 7 million tons of net emission reductions by 2030, taking into account the electricity required to meet that energy need.

Our investment in clean energy enables our expected load growth by opening opportunities to serve new customers. An example of this would be customers that would normally meet their energy needs using on-site fossil-fired resources, instead choosing to use Entergy's electricity due to our lower carbon emission rate. The emission reduction estimate presented above does not include this clean growth, but we do recognize that our energy transition and advancements in electric technology is improving the business case for customers to use electricity we produce rather than on-site fossil fuel-fired resources to serve future energy needs. Additional details of customer decarbonization opportunities are provided in the 'Metrics and Targets' and 'Opportunities' sections of this report.

Figure 2 – CO_2 emission rate of top 20 investor- and privately-owned power producers



Based on 2020 data in the September 2022 ERM Report: Benchmarking Air Emissions of the 100 Largest Electric Power Producers in the United States.

We power life for customers and communities with increasingly cleaner power.

Transition planning and analysis

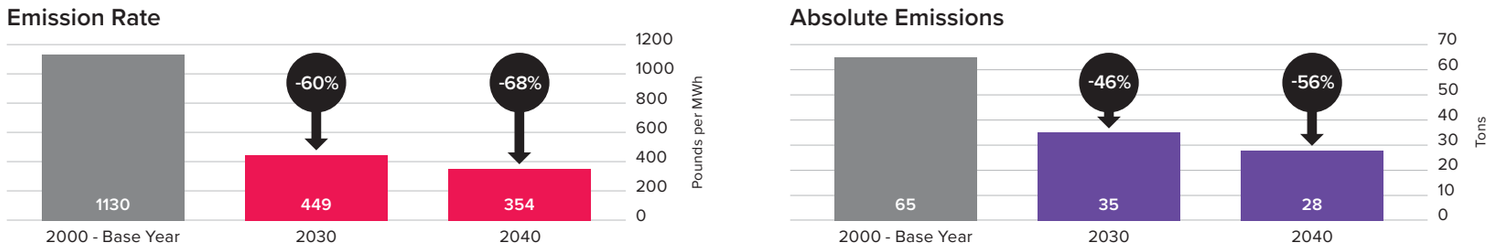
This updated analysis is intended to provide our stakeholders with an illustrative net-zero pathway. Technological advancement and breakthroughs will continue to be key to reducing emissions while meeting customers' energy needs efficiently, reliably, and affordably. Moreover, these new technologies will provide increased opportunities to partner and collaborate with customers and suppliers to accomplish those shared objectives.

Since 2000, our portfolio transformation and investments in a cleaner generation fleet have resulted in a 39% reduction in our CO_2 emission rate and a 26% reduction in our absolute CO_2 emissions. We now expect to reach our current 2030 interim goal of reducing our CO_2 emission rate by 50% from our 2000 baseline several years early and are evolving this goal to include purchased power. As we execute our portfolio transformation strategy, we expect continued decline in our GHG emissions on a trajectory that is consistent with achieving our net-zero commitment. The emission rate and absolute emission results of this illustrative case are presented in Figure 3.

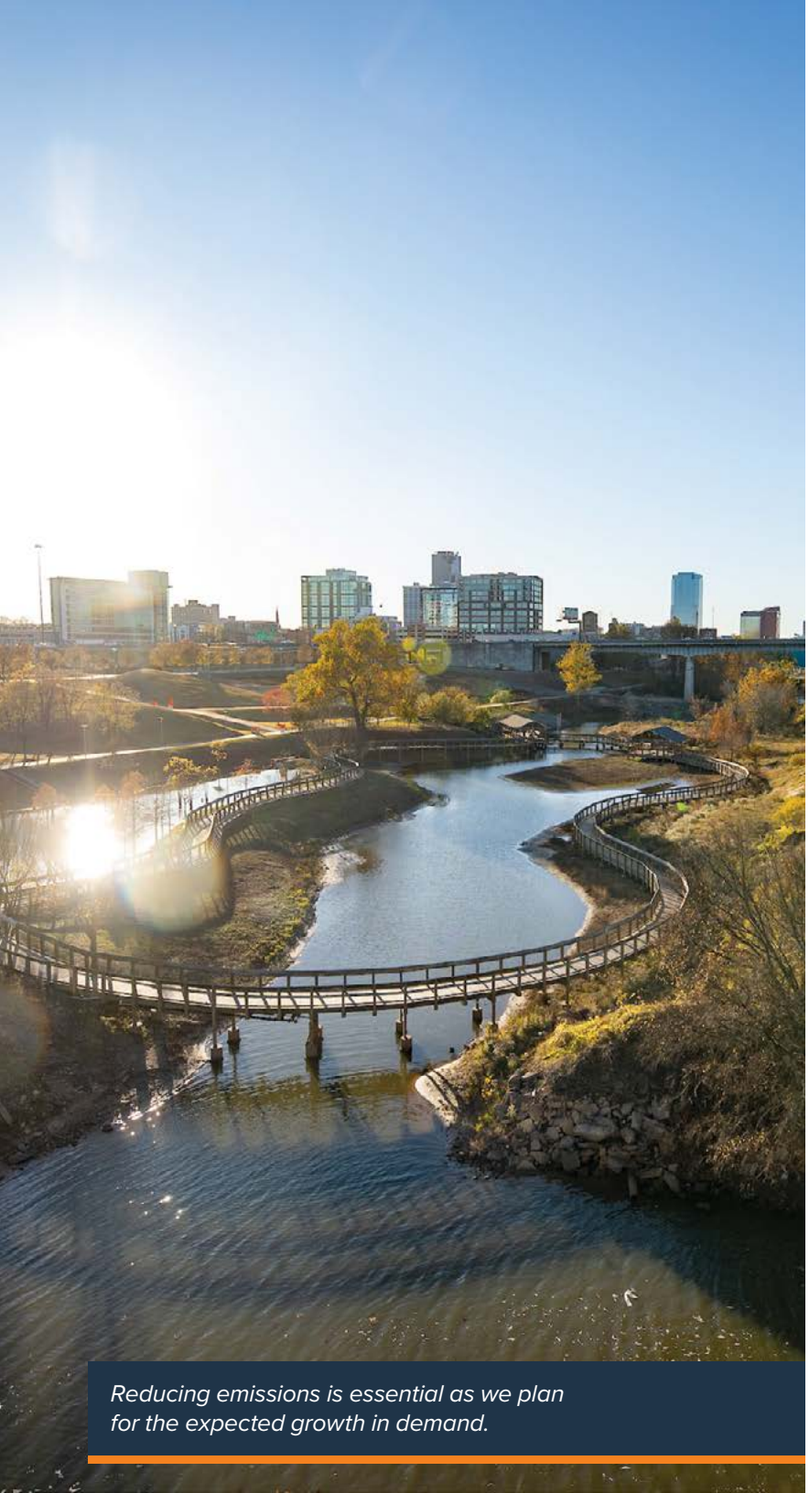
Actions taken to achieve this goal will continue to be developed and enhanced through our planning principles based on continual review of economic feasibility, technology development and cost, reliability and the perspectives of our local, state and federal regulators, as appropriate.

This report includes an analysis of a pathway we believe we can take to achieve net-zero emissions by 2050, with projected 2030, 2040 and 2050 generation mixes to meet the expected demand. We forecast that by 2030 half of our customers' energy needs will be met by carbon-free energy provided by nuclear, solar, wind, and hydro, some accompanied by energy storage. The path to 2050 will depend on the commercial viability of dispatchable zero carbon emitting resources such as advanced nuclear, clean hydrogen co-firing and long duration storage. These types of clean, dispatchable technologies are expected to allow greater integration of intermittent renewable resources and may become commercially viable after 2035. This analysis projects that by 2050 ZCERs would account for both 8% of our capacity mix and 23% of the energy we produce.

Figure 3 – Illustrative pathway emission rate and emissions of owned and purchased power



The emission results shown are illustrative and may not represent the actual emission rate of the power delivered to customers. These illustrative results are focused on Entergy's Scope 1 and Scope 3 emissions. From a customer emission accounting perspective, their Scope 2 emission rate will depend on their participation or non-participation in various green tariff and pricing programs.



Reducing emissions is essential as we plan for the expected growth in demand.

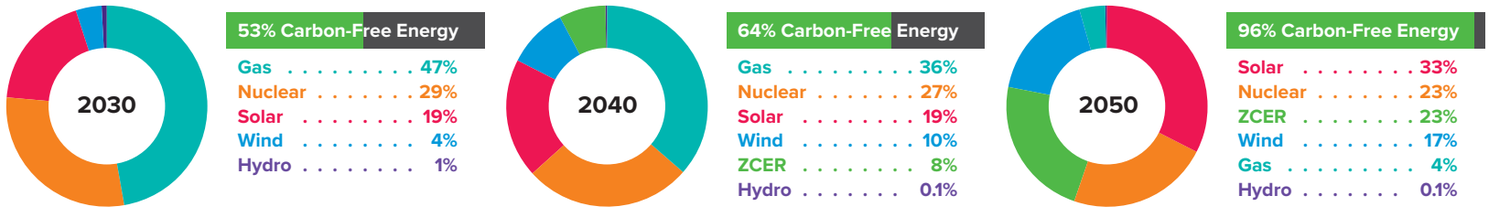
We believe a diverse mix of energy sources is critical to managing risk and achieving our planning objectives of reliability, affordability and environmental stewardship.

The emission results and capacity and generation mix shown below and throughout this report are intended to provide a companywide view and directional illustration of the impacts of changes in our generation resources. While not specifying a supply plan, this scenario analysis illustrates how we believe our 2050 net-zero commitment could be achieved while meeting all energy and capacity requirements. These scenarios do not represent definitive supply plans but rather indicate results consistent with our current long-range business plan, which will likely change over time as new information becomes available, including information around assumptions and other risks. Actual results could be materially different from this scenario. While we are working toward the illustrative pathway's capacity, generation mix and emission performance, our goal setting for 2030 is based on a conservative case.

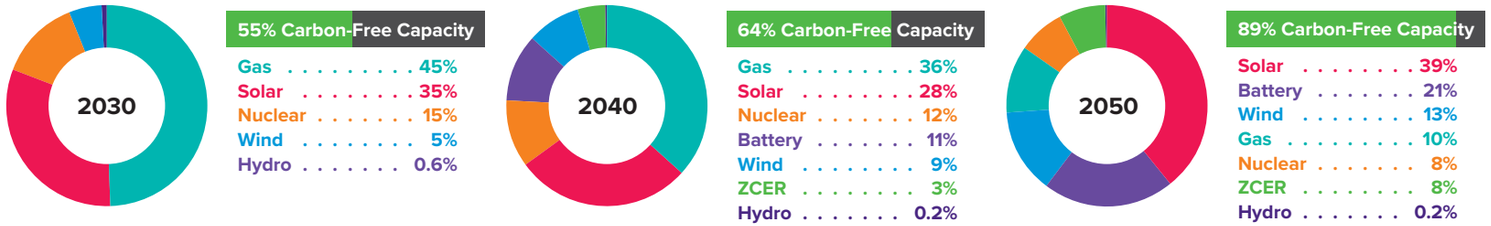
Each of our operating companies develops a specific resource plan through a defined process in coordination with our regulators that also includes significant engagement with customers and other stakeholders. Operating company resource plans are subject to regulatory review and approval consistent with our legal obligation to provide affordable and reliable energy.

Figure 4 – Illustrative pathway generation and capacity mix

Utility generation mix percentages



Utility capacity mix percentages



Please note: Numbers may not foot due to rounding.

We periodically revise our resource plans based on an updated load forecast and technology assessment.

Planning process and principles

The illustrative case presented reflects our robust, iterative, planning process that informs and refines our long-term resource plan and path to net-zero by 2050. This process includes an updated load forecast, technology assessment, generation portfolio design and unit-level energy production modeling. An annual company resource plan is aligned with each of the operating company resource plans. Since publishing our 2019 climate analysis, which established our 2030 CO_2 emission rate goal and later announcing our commitment to achieve net-zero emissions by 2050, we have conducted several planning cycles, both at the systemwide and operating company levels.

Entergy's resource planning process is based on a set of principles designed to reliably meet customer power needs at the lowest reasonable cost while reducing carbon emissions, considering other environmental impacts, improving reliability and resilience performance and minimizing customer risk exposure. While the landscape within the electric utility industry is changing, these principles remain the consistent factors underpinning our long-term planning strategy.

The generation and CO_2 projections in this report rely on hourly energy market simulations performed using the AURORA production cost model, which is the same tool we use for long-term planning evaluations. These projections require assumptions regarding many variables over the evaluation time frame, including natural gas prices, CO_2 prices, demand growth, unit performance and resource additions.

Consistent with our long-term resource planning processes, several cases were modeled and evaluated, factoring in changes to the assumptions regarding these key variables and the supply resources needed in each case. This process helps us understand the sensitivity of changes, including expected operation of our generation fleet over time and how that performance changes with higher renewable energy penetration. Results from these sensitivities are factored into the planning processes to ensure consistency with our planning principles.

The modeling in this report does not include transmission and distribution factors, which would be required to assess the technical feasibility and interconnection costs related to significant quantities of renewable integration. However, long-term transmission planning and a continued focus on grid resiliency integrated with our long-term resource planning process helps to ensure that Entergy is continuing to invest efficiently on behalf of customers. With the increase in frequency and intensity of severe weather events, Entergy evaluates the physical risk on company assets from these events and determines steps we intend to take to make the grid more resilient. Additionally, Entergy prioritizes evaluating and accelerating infrastructure investments that will enhance grid resilience. The expected benefits to customers include significant reduction in future storm damage, customer interruption time and restoration costs.

Customers across our service area are eager for clean-energy solutions for their homes and businesses.

Planning scenario development

Instead of analyzing and planning for one set of outcomes for uncertainties, our planning approach uses scenario planning to evaluate alternatives across a broad range of potential future conditions. Scenarios are created using different combinations of assumptions that we believe could plausibly coexist together to study and plan for a range of market outcomes. This is done because long-term outcomes can be impacted by a variety of input assumptions, and we believe that prudent planning requires us to be able to anticipate and adapt to changing conditions.

Potential impact of IIJA and IRA funding on our path to net-zero

The Infrastructure Investment and Jobs Act and the Inflation Reduction Act, both passed by the U.S. Congress and signed into law during 2022, provide funding opportunities for some of the technologies that we believe pave the power sector's path to reducing carbon emissions. Various funding mechanisms and opportunities are expected to flow from these laws to help support clean energy technologies such as renewables and existing nuclear, while also reducing the costs of emerging decarbonization technologies such as low- to zero-carbon hydrogen, carbon capture and advanced nuclear. While modeling for this report was completed before their passage and does not include impacts of IIJA and IRA, both are expected to help us define our path to net-zero with more certainty, as well as enabling new and innovative solutions for our customers and communities.

Risks and uncertainties

We update our planning scenarios on an iterative basis as we continue to be informed by new insights into market drivers, customer demand, fleet performance and other factors. At various points in time, we take snapshots of these planning scenarios and share scenarios that we believe are informative at a given time. These snapshots can be found in our annual resource plan, our utility resource plans and in information we share with other stakeholders in public forums. The robustness of our approach to scenario planning gives us confidence that we have a prudent plan that can meet a range of circumstances in an ever-changing environment.

However, several risks exist that may affect our ability to achieve the illustrative case presented herein. We have experienced several of these risks over the last few years, such as geopolitical turmoil, volatile fuel prices (in particular, recent fuel price inflation) and supply chain constraints. We continue to monitor the landscape to identify new risks that become apparent and work to manage them accordingly. A description of the factors we have identified to date is presented in Table 1, along with a brief description and the potential impact on our business plan and how we mitigate these risks.

Assumptions and forecasts for each of the variables considered by our scenario analysis, which do not capture all of the risks to achieving our goals, are developed and considered for a range of outcomes, such as low, medium and high. The variance and uncertainty across the range of outcomes for a given variable typically increase with time horizon. Unexpected changes to these variables and results that are inconsistent with our modeling assumptions may result in us being unable to deploy clean energy sufficient to meet our goal or reduce our emission rate.

Table 1 – Risks and uncertainties associated with the illustrative scenario

Risk or uncertainty	Description of potential impacts	How we help mitigate
Resource plan execution	Along with regulatory review and approval, our ability to acquire sufficient land, site, permit, build and commission generation resources may impact our long-term plan. Additionally, inability to interconnect these resources to the bulk electric system may impede their deployment.	We partner with local development partners, industry technology leaders and suppliers to ensure that our origination and development process is well structured and executed.
Energy demand and peak load growth	Higher than expected demand for energy, especially from our industrial and commercial customers, and our forecasted peak load may result in the need for additional dispatchable, load-following resources or peaking resources. Lower than expected demand for clean energy may result in low participation in green pricing and tariff programs, eroding the support for the need to invest in these resources.	We regularly update our load forecast and engage with customers to understand their growth plans and sustainability goals.
Regulatory approvals	Our long-term resource plan and associated investments are subject to regulatory review and approval. Lack of support for these investments could result in a different outcome.	We engage and work with our regulators on our long-term resource plan and build strong business cases for our investments based on our planning principles.
Fuel and commodity prices	Higher than expected fuel prices may improve the comparative economics of renewable energy resources, while lower-than-expected prices may have the opposite effect.	We closely monitor fuel and commodity markets, include multiple projections and sensitivities in our forecast. We also have multiple sources of fuel and use storage facilities to hedge against high fuel prices.
Technology advancements, performance and life	Slower than expected technology advancements may result in continued use of proven technologies, use of other emerging technologies or investing in technology that is later replaced by other technological breakthroughs. Existing generation units may not perform to expectations or last their intended life. In some cases, these units may be used longer than expected.	We closely monitor advancements in several technologies and engage with industry leaders developing these technologies. We regularly refine our technology assessment, focusing on performance, capital requirements and operations/maintenance costs.
Carbon policy and regulation	International, national, state and local policy and regulation of carbon or certain types of generation may affect our ability to execute on our long-term plan and may increase the cost of operating existing fossil units. A stringent carbon policy or regulation may improve the business case for low- and zero-carbon resources, while lack of a carbon policy or regulation may have the opposite effect.	We engage with policymakers and regulators at all levels of government to advocate for carbon policy consistent with our principles. We integrate the current policy landscape and include a carbon price forecast into resource planning and discrete investment decisions.
Infrastructure availability	Some of the technologies included in our current long-term resource plan may require ancillary infrastructure, such as low- to zero-carbon hydrogen production facilities, pipelines (both hydrogen and CO_2) and additional transmission infrastructure. Lack of availability of this infrastructure may impede our ability to deploy these resources.	We monitor market and technology infrastructure developments. In some cases, we engage with industry partners on technologies and infrastructure needed to accomplish our long-term resource plan.
Workforce development	Skilled labor is required to develop, construct and operate the technologies included in our long-term resource plan. If these skills are not integrated into the workforce in a sufficient manner, this may impede our ability to deploy these technologies.	We work across our region with workforce development advocates, academic institutions and economic development organizations on development of skilled labor and evaluate opportunities to reskill our current workforce.
Access to affordable capital	Inability to secure financing at reasonable rates to fund the technologies and projects included in our plan may impede our ability to build the resources needed to meet our goals.	We published a sustainable financing framework designed to support these investments and issued our first green bond in 2022.
Global events and conflict	Conflicts, inflation and health crises such as the pandemic can raise prices for fuel, commodities and capital goods necessary to execute our long-term resource plan.	We monitor and manage these risks through our enterprise risk management framework and processes.
Supply chain constraints	Limited availability and increased prices of materials, supplies and capital goods necessary to successfully execute our strategy may impede our ability to make the necessary investments for our transition.	We monitor global supply chain trends and constraints, while engaging with suppliers to secure the needed materials, supplies and capital goods.

Residential rooftop solar is one of the ways we are helping our customers participate in clean power generation.

Growth assumptions

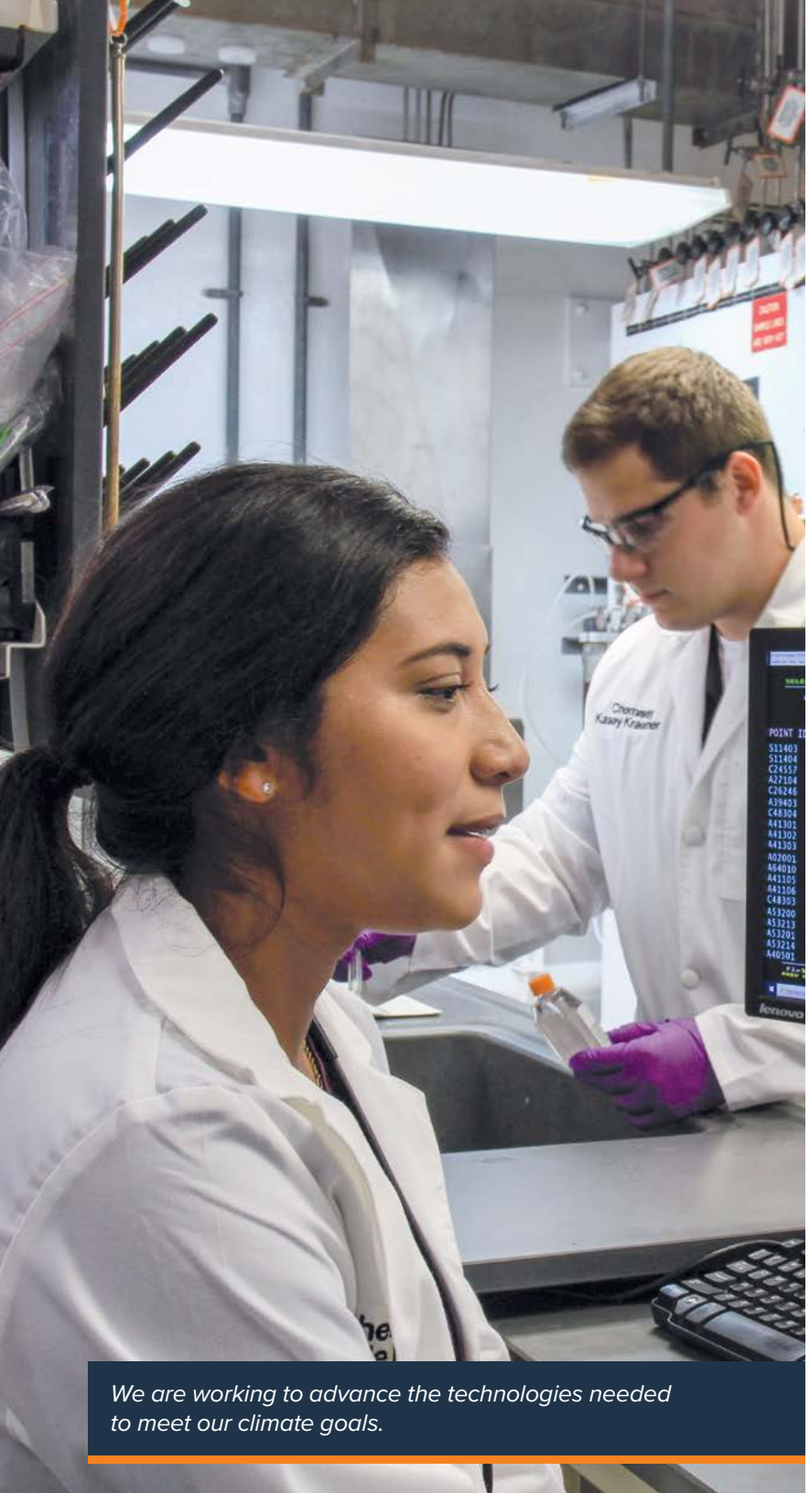
We believe we are poised to experience significant load growth over the planning horizon, driven in large part by customer decarbonization initiatives and the favorable geography and infrastructure of the areas we serve, particularly the industrial corridor along the Gulf Coast. The demand forecasts in the cases analyzed include a range of outcomes based on the impact of commercial and industrial electrification, adoption of EVs and increases in energy efficiency measures. This growth presents both an opportunity and a challenge. It presents an opportunity to meet increasing customer needs reliably and cost-effectively while decarbonizing the region. It also presents a challenge because electrification of the economy increases the demand for electricity, which reduces net emissions but also puts upward pressure on our absolute emissions as we transition to cleaner energy.

A significant portion of our customer demand comes from energy-intensive industrial sectors such as refineries, petrochemicals, primary metals, agricultural chemicals, pulp and paper, steel and others. The industrial sectors in our region emit a significant portion of the overall regional GHG emissions. As we transition to a low-carbon economy, these industries are actively looking for ways to reduce emissions and we are engaging them to understand their goals. Broader electrification of processes, transportation electrification, carbon capture and green hydrogen are some of the strategies being considered. The majority of these applications create more electric demand. The exact timing and magnitude of this transition is uncertain. However, considering the size of the industrial sector in our region, we believe the range of potential incremental electric demand from transitioning to a low-carbon economy could be in the tens of thousands of gigawatt hours over the next few decades. This dynamic is a driver of our net-zero commitment as these industries are looking to us for low- or zero-emission electric energy.

While electrification offers greater efficiencies and emission reductions for historically emissions-intensive processes, it also places unprecedented demands on our industry to rapidly deploy clean energy resources. With the expected increase in demand, change in customer expectations and advancement in technologies, we use an ongoing, cross-functional process to monitor and assess the cost and performance of various conventional, renewable, and energy storage supply-side alternatives. In this process, a dedicated team is tasked with developing long-term cost and performance estimates to inform long-term resource planning. To develop these estimates, we rely on a combination of internal sources, third-party consultants and reputable publicly-available information.

Policy assumptions

As part of an ongoing process to evaluate technology cost, we continually monitor the global, national and state policy landscape to assess potential impacts on long-term planning. For example, tax credits within the IRA enhance the economics of renewable and clean energy resource additions for our retail customers in both the near- and long-term. State and local carbon and clean energy policy can also affect our transition pathway. For example, Texas has adopted a Renewable Portfolio Standard, Louisiana has established a Climate Action Plan and the City of New Orleans passed and is implementing a Renewable and Clean Portfolio Standard. Future carbon policy uncertainties are accounted for by our process to develop a long-term point-of-view on carbon pricing, which continues to provide a key input to our resource planning processes and discrete asset investment decisions.



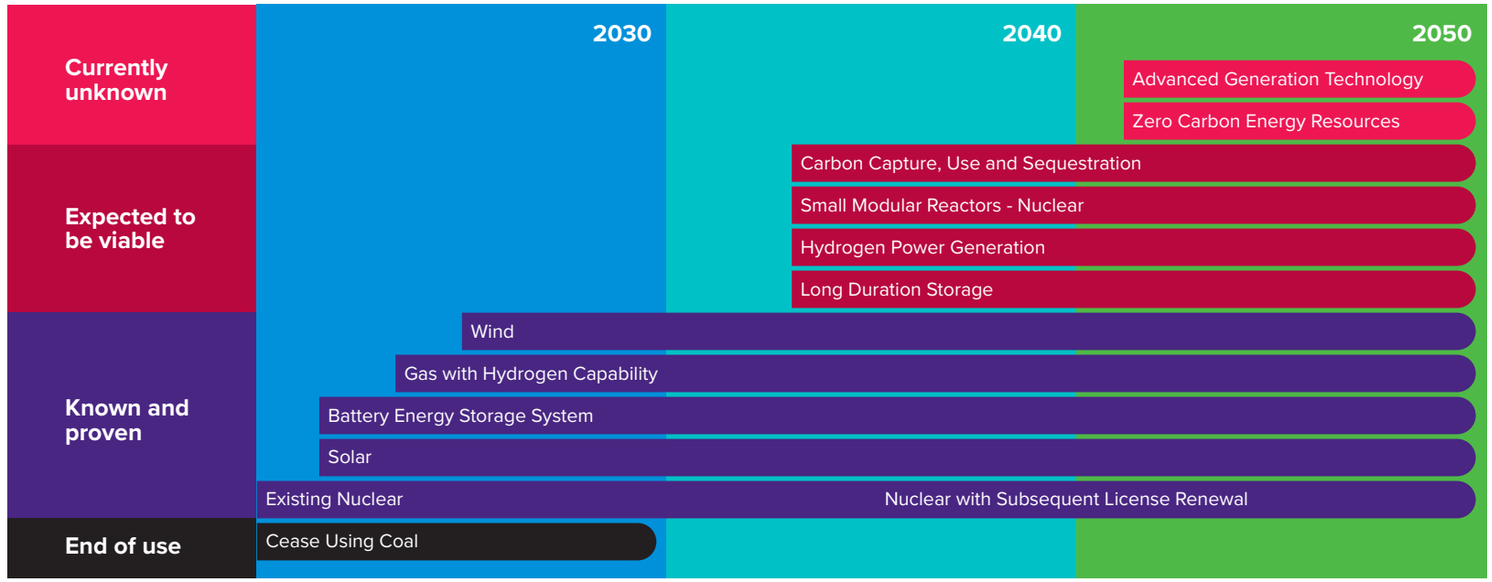
We are working to advance the technologies needed to meet our climate goals.

Technology assumptions

Similar to the industry, Entergy is transitioning to cleaner, low- to zero-emitting technologies ranging from those that exist today to those that have yet to mature. Our transformation sets us on a path to achieve net-zero by 2050 and encompasses decarbonization of energy generating assets, implementation of new solutions and technologies in transmission and distribution and support of energy efficient solutions for our customers.

Near-term (now through 2030) – Our near-term decarbonization focus is on retiring all coal-powered capacity by the end of 2030, continuing to operate existing nuclear plants and transforming our natural gas generation fleet to hydrogen-capable, modern, efficient units. Current resource procurement strategies are focused on solar, wind and short-duration lithium-ion battery storage technology. Our strategy leverages proven, mature technologies, guided by economics. We expect that significant quantities of economic solar and wind additions can be integrated into our resource portfolio without increasing operational and reliability risk or integration costs, currently targeting at least 11 GW by 2030. We also expect distributed energy resource solutions will play an important role in maintaining system reliability as we continue to evolve our generation and supply portfolio. Moreover, we are prudently exploring advanced technologies to deploy in the medium-term, including new, advanced nuclear

Figure 5 – Technology evolution and integration into our illustrative pathway



Solar power generation is being deployed across our service area.

technology and carbon capture, use and sequestration. We continually monitor costs for such technologies, tracking industry developments and looking for ways to partner with industry innovators and with our customers to help meet shared decarbonization goals.

Medium-term (2030 to 2040) – As the benefits of newer, market-ready technologies to customers are proven, medium-term strategies will include an increased focus on expanding low- to zero-carbon generation technology. These may include clean hydrogen-generated power; enabling more renewable projects, including offshore wind with long-term storage solutions; extending operation of our existing nuclear fleet through subsequent license renewal; and deploying advanced nuclear technologies, like small modular reactors. Meanwhile, we will continue monitoring technological ideation, break-through discoveries and advances that may become commercially viable beyond 2040.

Long-term (2040 to 2050) – In the long-term and in response to customer demands, technological advancement and breakthroughs in low-carbon resources and ZCER will be critical to meeting our net-zero commitment by 2050. We understand that technology achievements in all aspects of existing and future power generation technology have the potential to impact these near- and long-term strategies

Technology paves our path to net-zero – presented below are brief discussions of the role we currently envision each generation technology would or could play in our climate transition to net-zero:

- **Coal** – We are committed to cease all coal operations by the end of 2030. As we transition away from coal-powered capacity, we believe that sustaining economic development and growth is essential to our customers and communities. See more regarding our Just Transition later in this report.

Does natural gas continue to play a role in a decarbonizing economy?

Yes, we believe that natural gas must play a role as a bridge fuel as we continue to build out a substantial amount of renewable energy resources and explore other low- to zero-carbon generation technologies. In addition, as the gas supply is decarbonized over time through the integration of renewable natural gas and low- to zero-carbon hydrogen, this resource will allow the power sector to balance the intermittency of the renewable resources available in our region and meet the high demand for power from industrial activity in our region. We believe continued use of gas in the near- to medium-term is consistent with a net-zero future because it enables efficient deployment of renewables and the assets that use natural gas today and can be transitioned into decarbonized gases in the future.

- **Hydroelectric** – The 463 megawatts of hydroelectric generation resources in Arkansas and Louisiana will continue to be leveraged. We directly operate approximately 73 MW of hydro capacity at two plants in Arkansas. We also purchase hydro power from two hydro facilities in Louisiana. Despite the benefits of hydro powered generation, there has been limited development of plants that require new dams and impoundments. We are unlikely to pursue any new large

Cleaner power generation protects treasured places for future generations.

hydro projects due to relative high capital costs and development difficulties.

- **Nuclear** – We continue to invest in our five utility regulated nuclear assets to ensure safety and reliability. The carbon-free power provided by these assets is critical to meeting our climate commitments. We are evaluating subsequent license renewals for all of these units, which would extend each unit's license to operate to a total of 80 years. This evaluation process will emphasize the paramount importance of continued safe and reliable operation of these units.

- **Natural gas** – We plan to continue operating our existing dispatchable gas generation fleet and seek to deploy hydrogen co-firing capabilities at any future units. As we integrate renewables into our generation portfolio, enabling hydrogen co-firing capability will support emission reductions, provide system flexibility and maintain reliability standards. We also are developing a decarbonization roadmap for our gas distribution operations, evaluating opportunities such as renewable natural gas and hydrogen blending.

- **Solar** – In the last decade, the solar energy industry has undergone substantial and rapid growth, driven by technology improvements and sharp cost declines, as well as actions by policymakers, industry and customers to accelerate reduction of carbon emissions. Since the publication of our 2019 climate report, we have significantly increased our current and planned deployment of solar generation resources.

We are working to add at least 11 GW of renewable capacity by 2030 across our service area. As our customers evaluate opportunities for growth and decarbonization, we believe the resulting demand for clean energy may drive this investment even higher. Our renewable energy facilities, including those operational, under construction and announced, can be viewed on the Renewable Energy section of our website.

Entergy and Diamond Offshore Wind focused on offshore wind development in the Gulf of Mexico

Entergy Louisiana, Entergy New Orleans and Diamond Offshore Wind signed a memorandum of understanding regarding the evaluation and potential early development of wind power generation in the Gulf of Mexico. The agreement could position Entergy to deliver another source of clean power to our customers while also strengthening the region's economic development.

The MOU provides a legal framework for Entergy and Diamond Offshore Wind to work toward the development of potential offshore wind demonstration projects located in Louisiana state waters and will focus in the near-term on the evaluation of grid interconnection to determine the optimal size and locations of future offshore wind development.

- **Onshore wind** – We are actively evaluating cost-effective ways to integrate wind resources into our portfolio. Although wind as a resource is not as favorable for our region as it is for much of the country, our options include deploying some local wind and importing wind energy from

Evaluating and testing newer technologies as they are reaching viability is on ongoing process.

nearby regions with stronger wind resources. The daily and seasonal output profile of wind complements solar energy resources with energy production during the non-daylight hours and supports building a balanced renewable portfolio. We are considering the reliability, cost and implementation tradeoffs between local wind, wind from neighboring markets and offshore wind.

- **Offshore wind** – Introducing resource diversity through deployment of offshore wind resources has the potential to bring additional benefits to customers in the Gulf South region. Entergy operates in areas ideally situated to accommodate delivery of offshore wind energy production and while also supporting advances in green hydrogen production. However, the Gulf of Mexico is prone to frequent hurricanes. Development of offshore wind resources in this area will depend, in part, on advancing the capability of wind energy generation equipment and transmission infrastructure to withstand sustained hurricane force winds. Our long-term transmission and supply planning models do not currently forecast deployment of offshore wind technology due to its current projected economics. Entergy is optimistic that with additional development of offshore wind projects in the northeast United States, operational and cost improvements will continue. However, for offshore wind resources in the Gulf of Mexico to be included in our longer-term transmission and supply planning, these resource cost projections will need to demonstrate a net-benefit for our key stakeholders.

- **Battery energy storage systems** – Services provided by BESS can support deployment of additional renewable capacity, grid enhancement, resilience and customer electrification efforts. Current use cases of lithium-ion battery technology are predominantly applied to discharge times that are four-hours or less to provide peak shaving capabilities and voltage support. When paired with solar, BESS can shift some solar energy production to late afternoon hours, mitigating the ramping requirement created by the decline in solar energy production as the sun sets. When efficiently integrated into the electric grid, BESS has the potential to provide transmission and distribution grid benefits by avoiding or delaying investments that would be required to address line overloads that occur under peak conditions.

  Earlier this year, Entergy commissioned the Searcy Solar Energy Center in Arkansas, a 100 MW solar plant that includes 10 MW of lithium-ion battery storage. We now are evaluating additional battery storage technologies and use cases across our system at both utility-scale and at the distribution-level.

- **Hydrogen** – Entergy is evaluating options for using hydrogen as an alternative fuel source in our modern natural gas power plants and gas distribution system. Increasingly, it appears that low- to zero-carbon hydrogen represents one of the technology evolutions that may be needed to continue the transformation of our portfolio toward net-zero. As a consequence of the industry located in our region, we already have the demand and foundational infrastructure to enable clean hydrogen production. Clean hydrogen provides diverse reliability and sustainability benefits through its applications as a dual fuel paired with natural gas and by providing long-duration clean energy storage. It also provides a key pathway to ensure that highly flexible, load-following power generation resources have a line of sight into operations in a net-zero world. Hydrogen derived from steam-methane reformation and carbon capture represents a medium-term solution, but zero-carbon hydrogen appears to be a long-term component of a decarbonized economy. We are well-positioned to play a key role in the transition as

We are deeply committed to providing our customers and communities with clean, sustainable, resilient solutions.

we are in the heart of much of the existing hydrogen infrastructure. Clean hydrogen investments by customers in or near Entergy's service area, which we believe will be accelerated by the tax credits provided in the IRA, support this value proposition.

Entergy also owns several storage caverns in Southeast Texas that may have the potential to be used for hydrogen storage. While Entergy is not relying solely on hydrogen technology to meet our climate commitments, we do believe it will play an important role in creating a carbon-free, clean energy future.

- **Carbon capture, use and sequestration** – Entergy is evaluating deployment of CCUS technology for our existing and future fleet to support decarbonization objectives. CCUS can serve as a decarbonization solution in our existing natural gas fleet and as a complement to our low- to zero-carbon hydrogen strategy. Geologic formations capable of storing large amounts of carbon and existing carbon pipeline infrastructure in the southeast Texas and south Louisiana portions of our service area mean that our region is well-suited to deployment of CCUS technology and support incurring reduced costs associated with CO_2 transportation and storage. While the technology is still maturing, advanced fossil-fuel technologies coupled with CCUS may present Entergy with the opportunity to generate cost-effective lower carbon electricity.

Entergy partners with Holtec in advancing a plan for small modular reactors

To further explore advanced nuclear technology, Entergy entered into a memorandum of agreement with Holtec International for an evaluation of the potential installation of one or more SMRs in our service area. Through this agreement, Entergy will evaluate the potential for Holtec's SMR-160 system to help meet our net-zero commitment through its inherent safety, modularity, operational simplicity, small footprint and proven light water reactor technology.

- **Advanced nuclear technology and small modular reactors** – Nuclear energy is a key component of our long-term sustainability goals. We will continue to observe industry developments in advanced nuclear technology and SMRs to meet customer needs. SMRs offer an attractive option to help us meet our 2050 net-zero emissions commitment. SMRs offer several benefits, featuring reduced capital costs and opportunities for incremental power additions, as well as supplying base load or load-following electricity. In addition, SMRs generally rely on passive safety systems, requiring no manual intervention or externally applied forces to safely shut down. They also are physically smaller and pairing SMRs with renewable resources would provide complementary technology that does not depend on natural resource availability or time of day. Entergy is engaging with industry non-profit organizations to investigate SMRs for energy uses beyond electricity (e.g., industrial process heat by generating steam), which could support an even larger decarbonization potential for our customers.

Careful planning across the company is necessary to properly align our efforts to reach our goals.

- **Other technologies and strategies** – In response to customer demand, we are working toward reducing emissions in our utility operating companies across all emission scopes and categories.

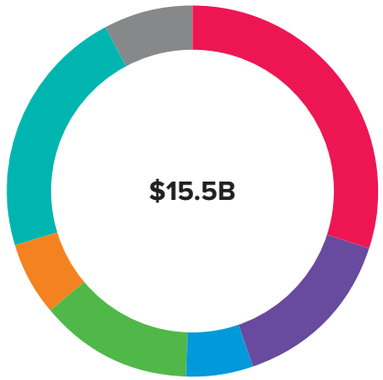
We continue to develop and manage customer energy efficiency and demand response programs to reduce consumption, and balancing energy supply and demand during peak hours. In addition to our actions to reduce our own plant emissions and those of our customers, we are also taking action to decarbonize our internal operations. Examples are electrification of a portion of our vehicle fleet and reducing fugitive methane emissions from our gas distribution operations.

Capital plan alignment

Our three-year capital plan is aligned with the near-term actions discussed in the transition analysis presented above. From 2023 to 2025, our preliminary capital plan is to invest $15.5 billion for the benefit of customers. We will continue to make our utility generation portfolio cleaner, improve the reliability and resilience of our systems and expand innovative services to customers. This plan (Figure 6 below) is supportive and aligned with the strategy of continued evolution of our portfolio transformation and accelerated climate resilience as described in this report.

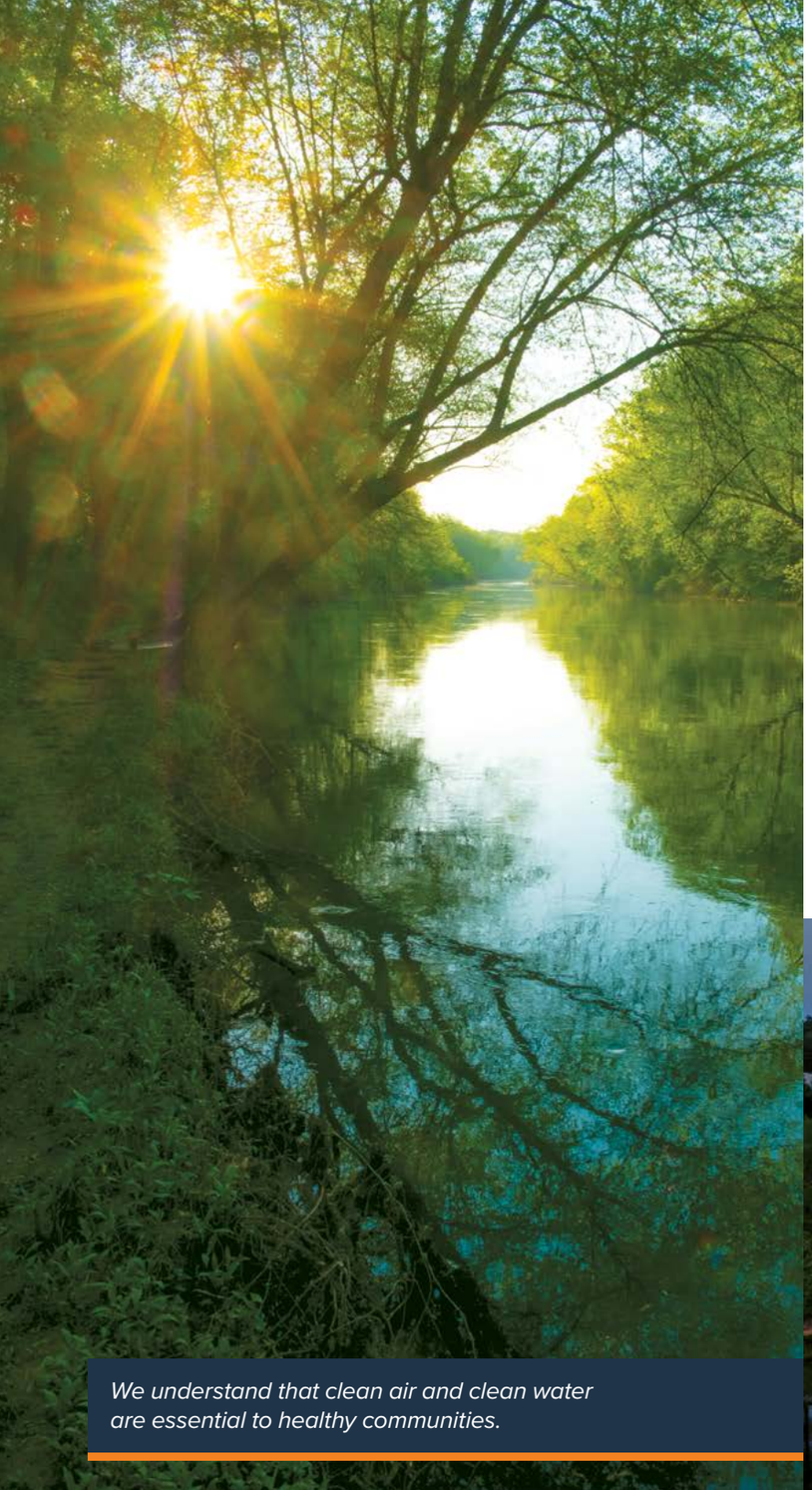
Additionally, in 2022 we published a sustainable financing framework in alignment with our strategic business priorities that aspires to deliver continued positive environmental and social impact, and Entergy Louisiana issued its inaugural green bond. This framework guides Entergy's future green, social and sustainability financings in support of our commitment to achieving a broad range of sustainability outcomes and is also consistent with several global outcomes envisioned by the United Nations' Sustainable Development Goals.

Figure 6 – 2023 to 2025 preliminary estimated capital plan by function



Distribution	$4.7B
Transmission	$2.3B
Accelerated Resilience	$0.9B
Renewables	$2.1B
Other New Generation	$1.0B
Generation Baseline	$3.4B
Utility Support/Other	$1.2B

Accelerated resilience plan that will be recommended to regulators includes ~$2.6B through 2025; Will add balance to capital plan once regulators approve plan and recovery.



We understand that clean air and clean water are essential to healthy communities.

Climate scenario comparison

Comparison of the illustrative case presented herein to climate scenarios developed by others gives some necessary context and provides our stakeholders with assurance that our plan is consistent with current climate science. The Intergovernmental Panel on Climate Change assembles and evaluates over 1,000 climate scenarios produced by various organizations. This includes hundreds of scenarios that provide a range of pathways to the outcomes the experts say is necessary to limit global warming and avoid the worst impacts of climate change.[5]

For this analysis we look to a compilation of scenarios consistent with a future limiting global warming to below 2°C and to 1.5°C.[6] This compilation provides us with a comparison of our illustrative pathway to a broad range of pathways consistent with these futures, including the IPCC and International Energy Agency[7] scenarios. Entergy's objective of lowering emissions and meeting the clean energy demand of our customers compares favorably with these pathways.

This approach not only helps to overcome uncertainty associated with global and sub-global climate modeling, but it also helps to address other uncertainties associated with translating global goals into company-specific strategies and actions. Company-specific facts, regional differences, business objectives, regulatory pressures and the need for flexibility must be considered, meaning that there are many different pathways and approaches that would be consistent with achieving global climate goals. Additionally, many of these scenarios assume geopolitical stability, global international cooperation and technology advancements that may not materialize.

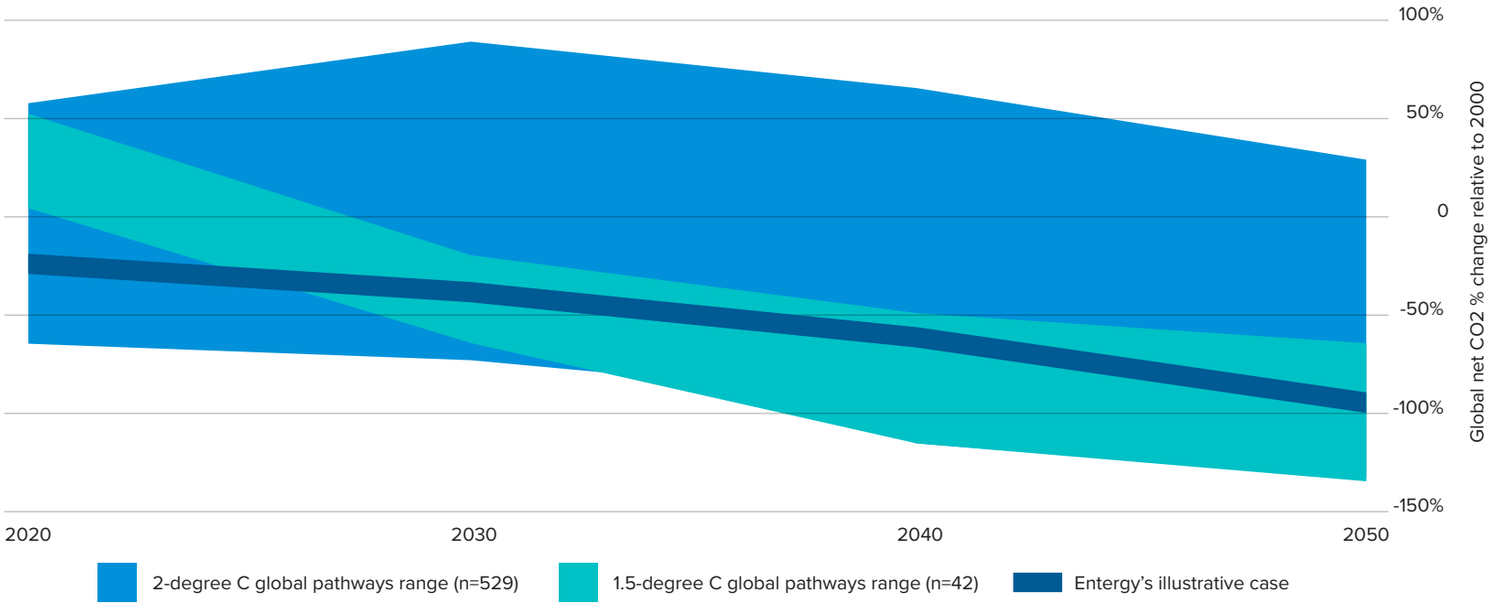
We charted the projected percent reduction in absolute emissions from 2000 levels based on our illustrative case against the compiled broad range of climate scenarios.

We closely monitor advancements in several technologies and engage with industry leaders developing them.

As displayed in Figure 7, our illustrative pathway to net-zero presented in this report is within the broad range of future emission reductions indicated by global climate scenarios that are consistent with these futures. Most climate experts and scenarios rely on the electric sector to transition earlier than other sectors to support decarbonization of the broader economy. Notably, Entergy's illustrative pathway is well within the broad range of scenarios consistent with a future that limits warming to 1.5°C and on the low end of the full set of scenarios.

Additionally, Entergy's forecasted 2030 emission rate (449 lbs per MWh) falls between the 2030 emission rate for the electric sector presented by the IEA Sustainable Development Scenario (525 lbs per MWh) and the IEA Net Zero Energy scenario (343 lbs per MWh). IEA conducts medium- to long-term energy and emission projections using an energy market simulation model – the definition and objectives of these scenarios are provided in Table 2.[8]

Figure 7 – Entergy's illustrative pathway to net-zero compared to broad range of climate scenarios



Global net CO_2 pathways consistent with limiting global average warming to 1.5°C and 2°C (% change relative to 2000). Source: Developed from Rose and Scott (2018, 2020) analyses of IPCC and IEA global emissions pathways.

Clean electrification helps our customers achieve their own climate goals.

Both of these scenarios are consistent with a future limiting warming to below 2°C. Entergy's rate is showing decarbonization progress in-line or even faster than some 1.5° to 2°C scenarios. As our transition plan evolves and climate scenarios are published, we will continue to evaluate our plan to ensure the actions we are taking are consistent with the latest climate science and scenario analyses.

Residual emissions

As described above and exhibited by our actions to reduce emissions, we believe that the optimal net-zero strategy requires reduction of our own emissions as much as possible through innovation, low- and zero-carbon technology integration and enhanced portfolio transformation, while balancing affordability and reliability. Any residual emissions would be compensated for or neutralized through various innovative strategies and projects, including natural removal/sequestration, replacement of GHGs with alternatives and electrification.

Entergy has gained valuable experience and supported innovations in the areas of reforestation/afforestation, wetland restoration and agricultural carbon offsets through our Environmental Initiatives Fund. We anticipate continuing these actions that enhance natural systems to offset any residual carbon emissions.

We recognize the variation in type and quality of carbon offsets and the critical importance of a rigorous monitoring and verification process to ensure that any offsets are real, permanent and additional. Entergy will work with stakeholders to optimize our net-zero strategies, minimize residual emissions, minimize costs to preserve affordability and maintain reliability.

Table 2 – Definitions and objectives of two IEA climate scenarios[8]

	Sustainable development scenario	Net-zero emissions by 2050 scenario
Definitions	An integrated scenario specifying a pathway aiming at: ensuring universal access to affordable, reliable, sustainable and modern energy services by 2030; substantially reducing air pollution; and taking effective action to combat climate change.	A scenario which sets out a narrow but achievable pathway for the global energy sector to achieve net-zero CO_2 emissions by 2050. It doesn't rely on emissions reductions from outside the energy sector to achieve its goals.
Objectives	To demonstrate a plausible path to concurrently achieve universal energy access, set a path towards meeting the objectives of the Paris Agreement on climate change and significantly reduce air pollution.	To show what is needed across the main sectors by various actors, and by when, for the world to achieve net-zero energy related and industrial process CO_2 emissions by 2050 while meeting other energy-related sustainable development goals.

The transition to clean energy is deeply infused with our commitments to the communities we serve.

Just Transition for all stakeholders

Our service areas encompass a major economic hub for oil and gas, heavy industry, commodities trade, commercial enterprise and recreation. Our region's transition from an economy dependent on fossil fuels to a clean energy economy already poses practical challenges. Entergy recognizes that we play a key role in sharing the benefits of our net-zero transition with workers and communities. We are committed to powering a better future by creating opportunity and ensuring equity in the places we live and work. In order to accomplish this important objective, our transition plan strives to ensure that our organization, our workforce and our communities have the skills, investments and capabilities needed to thrive.

Entergy is advancing a Just Transition for all of our stakeholders in the following ways:

- **Meaningful work pipeline** – Entergy's success relies on a workforce that has the training, tools, and direction to envision a better future and to make it a reality. That is why we're evolving how we have previously sourced talent by strengthening our partnerships with minority-serving institutions, trade schools and community colleges to prepare future talent for new utility and energy sector jobs and to ensure our industry represents our communities.

- **Empowering our workforce** – Our goal is to attract, develop and retain a high-performing workforce that reflects the rich diversity of the communities we have the privilege to serve. As we make progress on our diversity, inclusion and belonging journey, we continue to identify opportunities to enable innovation, solve problems, meet sustainability goals and instill these concepts into our company's culture.

- **Upholding human rights** – Entergy respects the human rights of all individuals. We are committed to the advancement and protection of human rights in all our operations, and we will continue to evaluate how to uphold these rights.

- **Advocating for our just transition** – Entergy recognizes our responsibility to seek to advance meaningful policy and initiatives in support of a more Just Transition, and we will continue to engage with stakeholder groups such as the Electric Power Research Institute, the Edison Electric Institute and others to partner for our shared transition.

- **Retiring fossil fuel plants with dignity for employees and communities** – Throughout our service history of over a century, Entergy has accomplished the difficult task of periodically retiring legacy assets that provided jobs to local communities for many years. We intend to continue ensuring employees affected by coal and legacy gas plant retirements will be connected to new opportunities, such as access to new opportunities at Entergy, education reimbursements and internal learning tools. We are continually evaluating additional options and best practices to better ensure our employees and communities are included in the transition.

Many Entergy employees are members of all four stakeholder groups and are actively working toward our common goals.

Stakeholder engagement

Our clean, Just Transition calls for cross-sector, collaborative solutions that are intended not only to reduce the effects of climate change, but also to uplift and repair the interrelated issues of social, economic and environmental progress. Maintaining an open and honest two-way dialogue with our stakeholders at the levels closest to the communities we serve is foundational to our approach. We will engage with our regulators through established processes to ensure our transition investments are in the public interest and that we are positioned to meet our customers' growing demand and need for renewable energy. Additionally, and building upon our history of stakeholder engagement, Entergy is committed to meeting people where they are and guiding with insight and empathy. This mission is only achievable through meaningful engagement of our four key stakeholders.

- **Customers** – As part of our transition, we will uphold the principles of energy justice, continue to work on mitigating undue energy burdens and assist our customers in managing their energy costs. These include reducing energy costs through energy efficiency initiatives and sharing the benefits of our clean energy transition with the communities across our service area. We are working to ensure that the burden of our transition is not unfairly placed primarily on the portion of our customers living at or below the poverty line through collaboration and partnership with community partners and our industrial customers, whose sustainability goals are a driving force for our transition to cleaner energy.

- **Employees** – A safe, engaged workforce that is empowered to enable our continuous improvement and allow us to develop professionally is critical to delivery of sustainable value to our stakeholders. Employee training and workforce development programs aim to ensure that we have the skills needed to accomplish our goals. We are committed to powering a better future by creating opportunity and ensuring equity in the places we live and work.

- **Communities** – We are helping build healthy, vibrant communities through financial support, volunteerism, low-income customer service initiatives, advocacy and economic development. As part of our transition, we are dedicated to empowering our communities through sustained two-way engagement, upholding local and diverse supply chain spend, meaningful partnerships like those created through our Environmental Initiatives Fund and other grant programs, and ensuring equitable treatment and involvement of our communities. For example, our internal Environmental Justice Working Group examines our practices and identifies ways to better minimize any potential adverse effects of our activities on local historically disadvantaged communities. As we diversify our generation portfolio, we will continue to engage in constructive conversations with our communities.

- **Owners** – We approach shareholder engagement as an integrated, year-round process to share our perspective and solicit feedback on our strategy and performance. Our shareholders have shown interest in our net-zero transition, interim goals, progress on renewable generation and the role of offsets and nuclear. Shareholder feedback has led to enhancements in our strategy, transparency and performance, such as adding environmental, social and governance measures to our annual incentive plans, mapping our disclosures to the standards established by the Sustainability Accounting Standards Board and adding sustainability background and qualifications to director profiles in our proxy statement. We will continue to evolve our transition strategy through strong relationships with our owners while maintaining steady and predictable earnings and dividend growth, along with strong credit and liquidity.

Our path to climate resilience

Entergy is building a cleaner, more resilient and sustainable energy future for our customers and communities.

We are transforming our company to meet new opportunities and better serve the 3 million customers who depend on us every day.

We are accelerating our work to modernize and strengthen our power delivery system in a thoughtful way that balances affordability, reliability and sustainability.

We are building stronger, more resilient infrastructure to meet the challenges of a changing climate.

One of our core planning objectives is to build and maintain a reliable and resilient system. We plan, invest, and operate in a manner that seeks reliable performance of the power delivery system under normal conditions and resilience capability for non-normal events. Resilience can be defined as the ability to plan for, adapt to and sustain service during a catastrophic event and recover from acute, non-normal events, such as hurricanes, floods, winter storms, wildfires, tornadoes and other major disruptions. Over the last few years, our region has experienced increasing frequency and intensity of these events. Accelerating resilience investments can better enable our systems to operate well within and recover quickly from the changing climate we are experiencing.

For electric utility systems, resilience relative to extreme weather events has at least three critical dimensions: (1) hardening, which involves building or improving a system in ways that will make it better able to withstand the impacts caused by severe weather events; (2) modernization, which includes adapting the system to reflect or incorporate newer technologies that can improve the system's ability to withstand non-normal events; technologies include self–healing networks, smart sensors, fault-detection technology and microgrids; and (3) recovery, which includes incorporating customer-sited generation and back-up options, and designing resources to assist with recovery after a major weather event. Such efforts should also be expected to have positive impacts on reliability and the day-to-day operations of the utility system under normal conditions.

We have successfully invested in resilience for years; however, the increasing threat of stronger and more frequent acute extreme weather events; chronic changes to the environment such as sea-level rise, coastal erosion and increasing surface temperatures; and the transition to a more electrified economy have necessitated both an examination of our planning intelligence and approach as well as a review of the timeline on which we should continue to make these investments.

Hurricanes and extreme weather (i.e., Winter Storm Uri and the 2020 and 2021 hurricanes) have caused significant damage to our service areas in recent years. Since these events, Entergy has taken action to broaden and update our climate projections and stochastic analyses necessary to address the variables and uncertainties resulting from the impact of future climate scenarios on our utility assets. We are developing probabilistic projections for hazard impacts, creating modeling inputs based on the most recent climate science and developing future projections for extreme weather across storm, coastal erosion and hydrologic variables. These projections help us develop climate hazard metrics tailored to our region and assess impact to our system over the planning horizon. We leverage this information for our planning cases as well as our sensitivity and consequence analyses.

We’ve learned to be ready for anything

More than 15 years ago, our storm response throughout the historic 2005 hurricane season, including Hurricane Katrina response, reinforced our commitment to be ready for anything. Since then, we’ve dedicated even more time, training and resources to anticipate the needs of our customers and communities before, during and after major weather events. We are prepared to get the lights back on safely and quickly when severe weather strikes. We rely on our continuous planning, preparation and training.

We prepare for the worst of what Mother Nature might bring, because our customers live in areas prone to extreme weather. We know that weather impacting our region is increasing in strength and occurring with greater frequency.

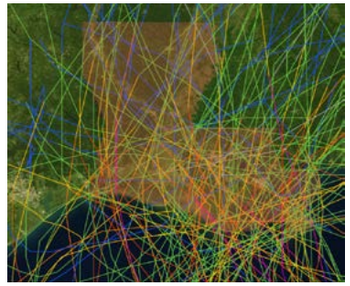
When a weather threat is confirmed, Entergy uses weather forecasts and computer models based on knowledge from past storms to predict an estimated duration and number of outages that could occur. We follow a very detailed, rehearsed plan that has worked well for us during storm recovery. Every storm is unique, so while plans are rehearsed and in place, we also adapt to ever-changing conditions brought by extreme weather.

Further, Entergy uses a resilience-based planning approach to identify and prioritize hardening investments in the transmission and distribution systems using a “Storm Resilience Model.” (See Figure 8) This model evaluates each hardening project’s ability to reduce the magnitude and/or duration of disruptive storm events. This is accomplished by employing a data-driven decision-making methodology using robust and sophisticated algorithms to calculate the resilience benefit of hardening projects. Measures include the range of reduced storm restoration costs and decrease in customer minutes interrupted.

The Major Storm Events Database contains storm probability distributions, and the range of sub-system impacts for 49 different storm types. Storm types are based on the range of storm categories, storm distance from the infrastructure, and the side of the storm impacting the infrastructure. The database organizes each Entergy utility’s service area into 50-mile by 50-mile grids to provide the granularity of the impact of all 49 storm types against the infrastructure. The database includes probabilities and impacts for all storm types for each grid.

Figure 8 – Storm resilience model overview

Major storm event database

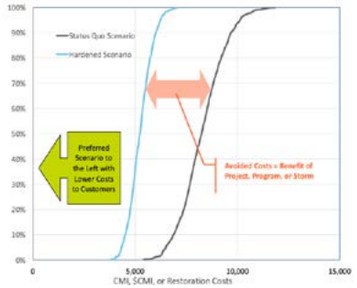


- Storm types and scenarios
- Historical analysis
- Failure-mode basis
- Sectionalize service area

Storm impact model

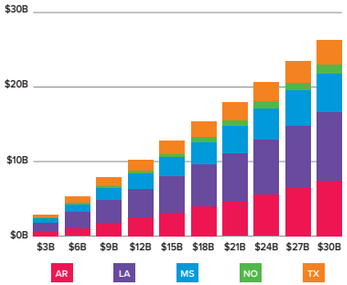
- Model impacts on Entergy system
- Calculate hardening investment benefits

Resilience benefit module

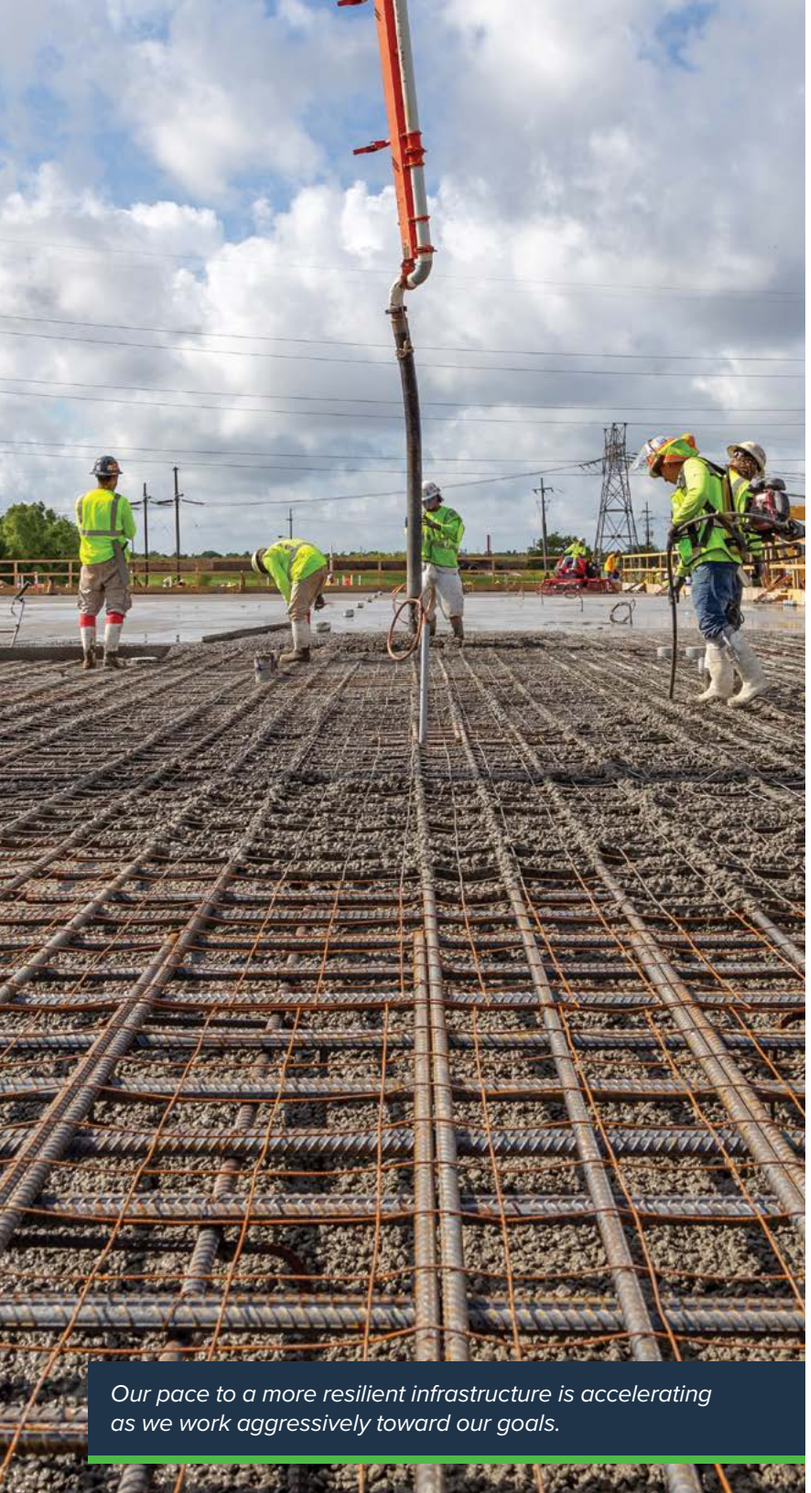


- Monte Carlo Simulation over 50 years
- Calculation of storm customer outage duration and costs
- Distribution of results by project for hardened scenarios
- Resilience benefit calculation

Budget optimization and project prioritization



- Resilience benefit cost ratio
- Investment budget scenarios
- Point of diminishing returns
- Plan development and constraints
- Project bundling



Our pace to a more resilient infrastructure is accelerating as we work aggressively toward our goals.

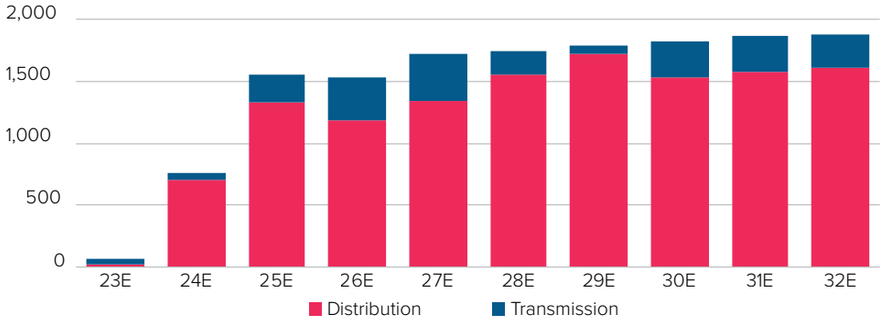
Each storm type for each grid is then modeled within the Storm Impact Model to identify which parts of the system are most likely to fail in the event of each type of storm. A stochastic model helps identify vulnerabilities. The likelihood of failure is based on the vegetation density around each conductor asset, the gap in the current wind loading capability of the asset as compared to the applicable hardened wind loading standard, and the age and condition of the asset base. The Storm Impact model then calculates the restoration costs to rebuild the system to provide service as well as the customer minutes interrupted for each project. The Storm Impact Model determines the benefits associated with each hardening project by accounting for the resulting reduction in restoration costs and CMI.

The resulting portfolio of transmission and distribution projects is expected to carry a capital cost of $15 billion and is expected to be executed over a 10-year period. Once executed, this construction plan is expected to deliver a portfolio of projects that span 32,000 line-miles of hardened distribution lines and nearly 1,700 miles of strengthened transmission line-miles. Our analysis shows that execution of the portfolio could reduce storm restoration costs for customers by up to 55% in our coastal areas.

Examples of the strategies and technologies included in the plan are distribution automation technology such as self-healing networks, undergrounding infrastructure in certain areas, upgrading distribution poles and transmission towers and flood mitigation projects. Aside from projects that enhance resilience to the electric system, Entergy also performs reliability work throughout the year. This includes trimming trees, inspecting and upgrading equipment and installing smart devices that help reduce the number of our customers that may be affected by an outage and how long the outage lasts.

Figure 9 – Proposed 10-year accelerated resilience plan

~$15B over 10-years



Proposed accelerated resilience investment; annual $M

$13B distribution

~32,000
line miles hardened

~465,000
structures hardened

~770
miles underground

$2B transmission

~1,700
line miles hardened

~8,600
structures hardened

~20
substation flood mitigation projects

Approximately $1.7 billion of the proposed resilience spending shown through 2025 is not included in our current capital plan, but is expected to be added if the plan and associated recovery are approved by regulators.

Metrics and targets

After two decades of setting and outperforming our voluntary carbon stabilization and reduction goals, Entergy established a goal to reduce by 50% its utility emission rate by 2030.

Additionally, we established a longer-term commitment to achieve net-zero carbon emissions by 2050.

These commitments complement each other and allow a more comprehensive evaluation of our glidepath of carbon emission reductions. In this report, we are adding a carbon-free energy capacity goal and evolving the boundary of our interim emission rate goal to include both power generation and purchased power.

Setting goals with achievable targets requires data-driven decision making and long-term vision.

Entergy's greenhouse gas inventory

Entergy has been measuring and reporting our GHG emissions in a comprehensive inventory since 2000. Since 2011, Entergy's GHG inventory has undergone third-party verification.[9] We provide an archive of historical inventory documentation on our website.[10]

In 2021, Entergy's Greenhouse Gas Inventory (see Table 3) primarily comprised of emissions from power generation, with supplier gas delivery and purchased power sold to customers as the next highest contributors.[11]

As Entergy continues to evolve our inventory, we update our Inventory Management Plan and Reporting Document[12] to ensure transparency and clear methodology. We also continue to conduct and enhance our third-party verification process. Additionally, we continue to evaluate and expand our estimation of Scope 3 categories as our understanding evolves and data sources become available. Base year adjustments will be made as additional interim goals are added for additional categories.

Table 3 – Entergy's third-party verified 2021 greenhouse gas inventory by scope and source

Scope	Source	Total emissions in metric tons CO_2e	Percentage of total emissions
1	**Stationary combustion** - Power generating units, small stationary combustion units, emergency generators, etc.	35,543,366	69.52%
	Mobile combustion - Vehicle fleet fuel combustion.	48,918	0.09%
	Fugitive emissions - Natural gas; electricity transmission & distribution, cooling and air-conditioning.	71,405	0.14%
2	**Purchased and consumed electricity** - Power purchased for business operations outside service area; (Please note, power consumed by the company and line losses are accounted for in Scope 1).	8,766	0.02%
3	**Purchased power** - Power purchase agreements and market purchases sold to customers.	7,118,228	13.92%
	Delivered gas (upstream) - Gas supplier emissions.	7,492,056	14.65%
	Delivered gas (downstream) - Product combustion by gas customers.	811,381	1.59%
	Business travel - Travel by air, rental car, personal vehicles and hotel stays.	3,960	0.01%
	Employee commuting - Travel by employees to and from work.	29,919	0.06%

Our employees are energized and engaged in the exciting work of transformation.

Actions across our full value chain

Building on two decades of leadership, Entergy is acting today to reduce emissions across the entire spectrum of our GHG inventory and value chain. Table 4 describes the actions we are taking to reduce emissions in each scope and category of our overall emission inventory.

The primary focus of this report is reduction of our emissions from power generation and purchased power; however, our commitment is inclusive of all scopes, so the sections below describe some of the other actions we are taking across our entire value chain.

Table 4 – Greenhouse gas inventory categories and how we are working to achieve our net-zero commitments

Direct emissions (Scope 1)

Power generation

- Exiting coal by 2030
- Retiring older, less-efficient gas-fired units
- Ensuring high nuclear performance and MOA on advanced nuclear
- Deploying at least 11 GW of renewables by 2030
- Developing hydrogen-capable power generation units
- Engaging on clean hydrogen infrastructure
- Energy-efficiency and demand response offerings

Vehicle fleet

- Integrating EVs into light-duty fleets
- Deploying EV infrastructure at company locations

Fugitive emissions

- Replacing vintage service pipe in gas distribution operations
- Examining alternatives to SF_6-filled electrical breakers[Δ]

Indirect emissions (Scope 2) *, °

Line losses and company usage

- Reducing energy usage associated with company locations
- Grid investments to reduce line losses

Value chain emissions (Scope 3)

Purchased power resold

- Integrating more renewable power purchase agreements into resource mix
- Engaging gas suppliers

Delivered gas

- Evaluating gas distribution decarbonization options

Gas used by customers

- Electrifying customer energy needs

Business travel

- Engaging business travel suppliers on carbon data and strategies
- Flexible work locations and telecommuting options for employees

Employee commuting

- Engaging suppliers of various goods and services on climate goals and actions

** These Scope 2 Emissions are already accounted for in other scope/categories, but we do acknowledge Scope 2 for the power we generate or buy.*
° For Scope 2 Emissions we account for electricity usage outside our service area; however, this will be minimal.
Δ Entergy is currently evaluating vacuum air breakers for distribution and transmission-level systems.

Engaging our supply chain partners

A key aspect of achieving our net-zero commitment is engaging and working with suppliers to understand the embedded carbon contained in the goods and services that we procure to run our business. Our supply chain organization has integrated and launched several teams to meet stakeholder expectations that embed supply chain strategies around sustainability, continuous improvement, sustainable generation, resilience and innovation. These teams are responsible for developing supply chain strategic initiatives and enabling companywide strategies for a managed spend portfolio of $5 billion to $7 billion across the company. They are engaging suppliers to understand and support their efforts to reduce carbon associated with the products they sell and the services they provide Entergy. Additionally, we are working to ensure that the economic opportunities and benefits associated with our investments in the climate transition and resilience are flowing to local and diverse suppliers.

In 2021, 57 of our key suppliers completed a sustainability assessment in partnership with Entergy and the Sustainable Supply Chain Alliance to advance our leadership in environmental, social, and governance reporting and commitments, including Scope 3 greenhouse gas emission reporting. Entergy's 2021 annual spend was represented by suppliers that completed an assessment comprised of over 21% of our total 2021 managed spend of $7.1 billion. Of the 57 participants, 30 committed to participating in opportunities to improve their year-over-year scores around commitments and net-zero targets. In 2022, we sent a letter regarding greenhouse gas emissions and engagement on reductions to 4,000 active suppliers. Through our industry engagements, we shared industry expertise and thought leadership by contributing to several workshops and presentations in 2022 around circularity, transformer repair shop best practices, renewables/traceability engagement and our resilience investments.

Additionally, our efforts to recycle and recover the value of materials results in a reduced need for raw materials that may otherwise be disposed of in landfills. For example, after hurricane Ida in 2021, we recycled approximately 850,000 pounds of metals from damaged equipment, boosting our total recycling of metals that year to over 11 million pounds recycled. In addition, over 22,000 wood poles were donated to members of our communities for reuse. Through our transformer recycling program, we recycled over 1 million gallons of transformer oil and over 27 million pounds of various metals. These actions reduce carbon emissions associated with production of equipment produced from these raw materials and equipment that we buy.

- **Scope 1** – In addition to our actions to transform our utility power generation fleet, we also are taking action to help customers reduce energy use through implementation of various energy efficiency programs and demand response offerings. These efforts reduce load requirements and emissions associated with power generation. We also are working to integrate electric technology into our fleet of light-duty service trucks and other types of on- and off-road equipment, aiming to have 50% of our light-duty fleet electrified by 2030. We also are working to reduce fugitive GHG emissions from our natural gas distribution system through a delivery pipe replacement program in Baton Rouge and New Orleans; and from electric operations by evaluating equipment alternatives that do not use SF_6 as an insulating gas in some switches.

- **Scope 2** – As an electric utility, our Scope 2 emissions are comprised of power delivery line losses and electricity usage at company facilities. We work to minimize line losses through advanced technology integration, grid upgrades and resilience investments. We also seek to minimize our own electricity usage through efficiency upgrades and office space optimization. However, when line losses occur and when we consume electricity, Entergy is either generating or purchasing the power that is necessary to make up for those losses and the power that we are consuming. Therefore, as we work to reduce emissions from our power generation (Scope 1) and power purchases (Scope 3), reductions in emissions will naturally occur in the Scope 2 category.

- **Scope 3** – We are working across the spectrum of Scope 3 emission categories to ensure our full value chain is addressed. Our largest Scope 3 emission categories are power that we purchase and sell to customers and upstream emissions associated with the gas that we

Potential for 80% clean energy by 2030

Our existing clean generation portfolio provides the foundation that supports our plans to transform our generation portfolio to achieve net-zero greenhouse gas emissions by 2050 at a pace that balances affordability and reliability for the benefit of all stakeholders. The Biden Administration has a stated goal of accomplishing 80% clean energy from the power sector by 2030 on a path to zero emissions by 2035.

Entergy analyzed a case with these parameters and found that further advancing the addition of resources using currently available zero carbon technology to achieve 80% clean energy production by 2030 is estimated to increase capital costs by at least 2.5 times current plans under current cost assumptions. Implementation would likely exceed these cost estimates and be further challenged by material and component availability such as, photovoltaic panels; availability of skilled construction labor; availability and prudent use of natural resources such as, land; permitting, interconnection and integration requirements.

There are technical challenges with integrating inverter-based resources such as wind and solar. In addition to the challenges around their intermittency, some customers have unique energy requirements such as the ability to start large industrial electric machines at any time. Many of the inverter-based resources are currently incapable of producing some of the ancillary services needed for such applications. Technologies may continue to evolve and eventually provide real alternatives to the ancillary services provided by today's large synchronous generators, but will likely come at significantly higher costs.

Entergy supports in principle this kind of aspiration, along with the technologies and policy developments necessary to achieve that outcome. We are working on the technologies necessary to accelerate our transition; however, meeting this aggressive timeline was found to be inconsistent with Entergy's planning principles. The illustrative transition case presented in this report maintains the needed balance between affordability, reliability and sustainability.

purchase for power generation. We currently are working to estimate emissions associated with purchased goods and services and expect to provide this estimate in our comprehensive GHG inventory for 2022. We are increasing the capacity of renewables on our system, both owned and through purchased power agreements. During 2022, we sought proposals for 5 GW of renewables to integrate into our resource capacity mix by 2026.[13] This action will not only reduce Scope 1 emissions (owned assets) and Scope 3 emissions (purchased power), but also will reduce gas purchases and associated upstream emissions.

Based on the illustrative pathway presented and our robust, flexible planning process described in this report, Entergy is evolving and enhancing the interim goals on our path to achieving our 2050 net-zero commitment. We are providing a clean energy capacity goal and broadening the boundary of our emission rate-based interim goal. These goals provide additional clarity regarding our path to net-zero and will continue to be evaluated, refined and enhanced as we continue our robust, iterative planning cycle.

We have outperformed our voluntary goals since setting our first over two decades ago.

Entergy's climate goals

We expect to achieve the following interim goals on our path to net-zero emissions by 2050:

Carbon-free energy capacity of 50% by 2030

- Includes nuclear and renewable capacity, both owned and purchased.
- Additional capacity is provided by some accompanying battery storage paired with renewables.

Carbon dioxide emission rate reduction of 50% by 2030

- Includes all generation, both owned and purchased.
- 2000 base year.

Other actions and results

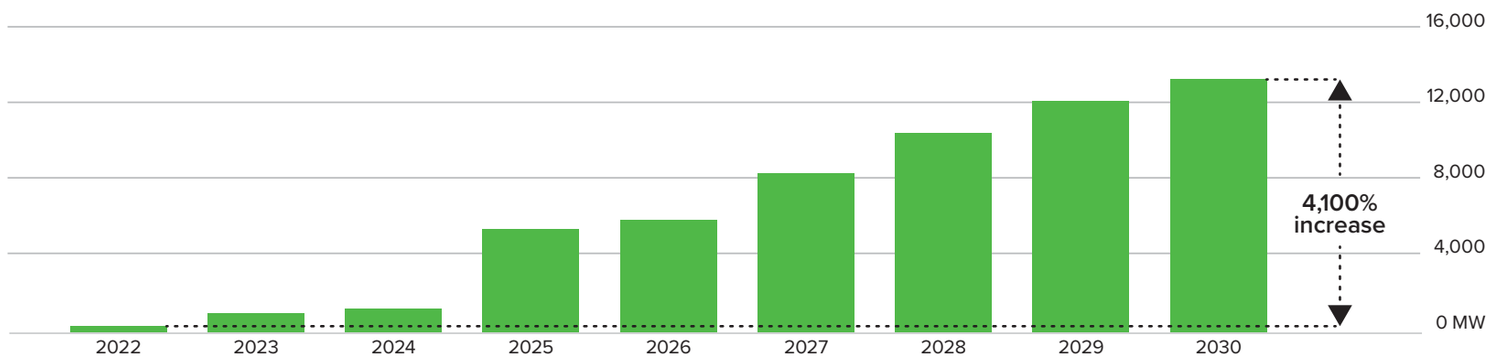
Our current business plan also calls for the following actions relevant to our climate transition and resilience:

- Retire all coal capacity by the end of 2030.
- Provide approximately 40% more power to customers when compared to 2000 by 2030, enabling an estimated 9 million tons of customer emission reductions through electrification by 2030, with additional emission avoidance resulting from clean growth.
- Invest $2.1 billion in renewable energy generation facilities by 2025.
- Invest $0.9 billion in accelerated, proactive resilience efforts focused on grid hardening by 2025, while also engaging stakeholders to consider an additional $2.6 billion as part of a full resilience investment plan of approximately $15 billion over 10 years.

If we pursue the illustrative pathway presented in this report, while successfully managing the execution risks, we project that our emissions profile metrics would continue to improve as shown below:

- Emission rate reduction of 60% by 2030 and 68% by 2040.
- Absolute emission reductions of 46% by 2030 and 56% by 2040.

Figure 10 – Illustrative pathway renewable capacity growth through 2030

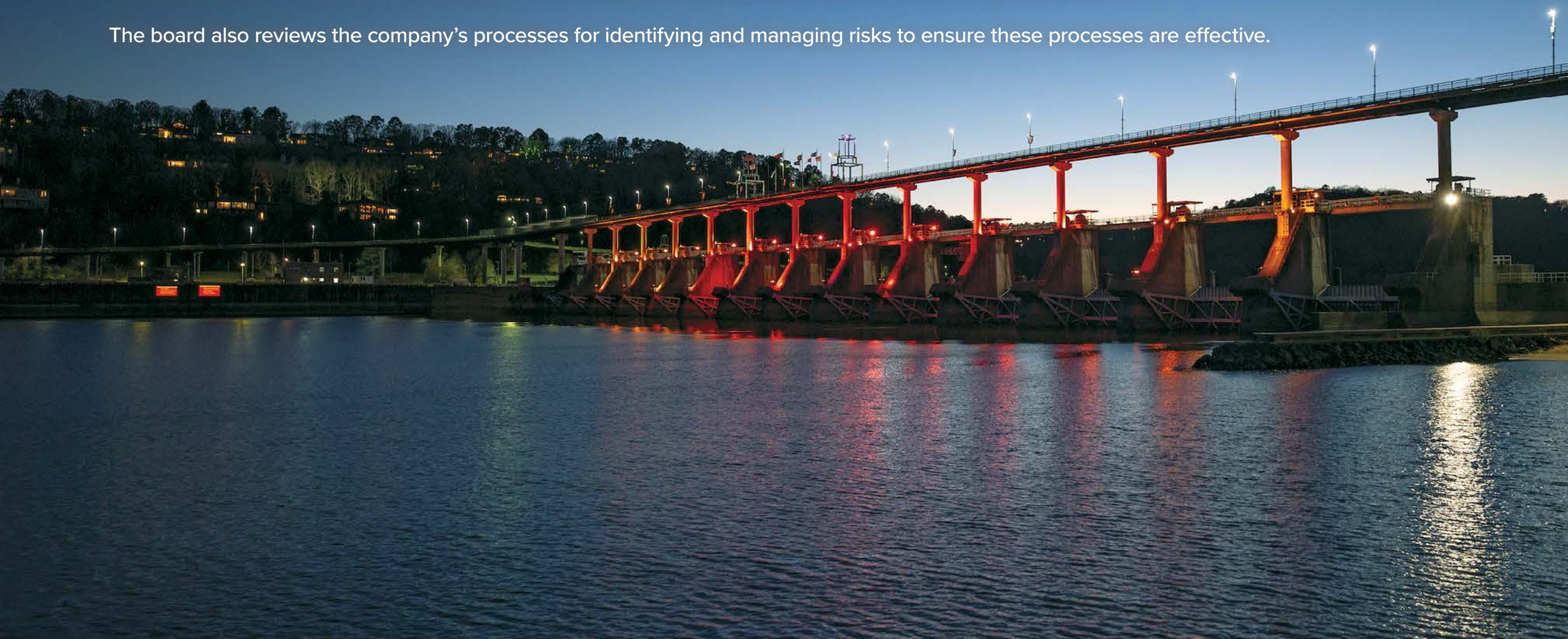


Governance

Entergy is subject to many diverse risks. These risks include climate change, other environmental issues, technology innovation and integration, other sustainability risks and the need for ongoing capital investments.

Entergy's management and board of directors provide management and oversight of these and other risks through robust risk assessment and risk management processes and through extensive reporting on risks affecting the company.

The board also reviews the company's processes for identifying and managing risks to ensure these processes are effective.



Our board is actively engaged in the meaningful work of development and oversight of our goals.

Certain of our most critical risks are of companywide significance, such as corporate strategy and capital budgeting, and therefore require the board's active oversight. Our climate strategy and current climate goals also have been developed under the board's oversight and active engagement because of their companywide significance. This report was reviewed by the board prior to publication.

The board is actively and regularly engaged in the development and oversight of Entergy's climate strategy and consideration of climate change-related risks and opportunities, due to their many implications for our overall business strategy. Recognizing that we need to increase the level of renewables in our generation portfolio to continue to deliver the outcomes desired by our key stakeholders, the board regularly engages in strategic discussions about potential paths to achieving that objective. The board also engages in discussion of emerging clean energy technologies, such as hydrogen, BESS and CCUS, as well as the climate policy landscape, such as the recently enacted IRA and IIJA, and the implications for our company and stakeholders. The board also receives regular briefings to help better understand how we benchmark against other utilities in various ESG and sustainability measures, such as carbon emissions rates, relative ownership of generation resources and net-zero carbon goals.

The board is briefed regularly on progress toward Entergy's climate goals. The board also provides valuable input and oversight in the development of our strategy to support customer demands for more sustainable service offerings and assist customers in meeting their own sustainability goals through clean expansion and electrification. In addition, the board is briefed regularly on the impacts of and recovery from extreme weather events and is overseeing the implementation of a strategy to substantially accelerate resilience investments to strengthen the ability of our transmission and distribution systems to withstand more frequent and severe major storm events.

The board leverages the expertise of its committees to review specific risks within their respective areas of responsibility, and committee meetings are scheduled to allow all board members to participate in these discussions. The board's corporate governance committee has responsibility for oversight of the company's overall sustainability program and strategy and environmental, social and governance reporting. This responsibility is met, in the first instance, by assuring that recognized sustainability risks are being addressed by the full board or an appropriate board committee. Additionally, our audit committee receives annual reports from our sustainability and environmental policy group on Entergy's greenhouse gas reduction progress and other climate-related activities. Table 5 below provides information on sustainability oversight by all of Entergy's board committees.

To reinforce Entergy's strong commitment to its ESG goals, the personnel committee decided to use ESG measures (i.e., safety; customer net promoter score; diversity, inclusion and belonging; and environmental stewardship) to more directly link executive compensation to successful execution on our ESG-related strategies, beginning in 2021. ESG considerations now determine 40% of the performance metric that is used to fund our annual incentive plans, with four separate ESG measures weighted at 10% each. The environmental stewardship measure includes an assessment of progress toward our environmental commitments through performance on key initiatives and utility CO_2 emission rate outcomes. We believe this measure reinforces our commitment to long-term sustainability and a reduced impact on the environment, as well as ensures accountability for

Our ESG goals include employee safety, net promoter scores, DIBs, and environmental stewardship.

achieving our significant external commitments to reduce carbon emissions.

Our senior management team also provides environmental and sustainability oversight and accountability. Our senior leadership team comprises diverse, experienced and dedicated executives prepared to meet the challenges of the evolving utility industry. They are closely involved and provide overall direction and oversight of our plans focused on the climate transition and resilience improvement. Along with our financial performance, our climate and resilience strategies are top-level considerations for our executive team, along with active engagement in strategic conversations with our largest customers to understand their needs and decarbonization goals.

Several business functions within the company collaborate to execute on our business strategy, including our climate strategies. Since our last climate report in 2019, we have created operations groups dedicated to ensuring we are able to affordably and reliably meet our climate commitments. These groups include a planning organization and a system resilience organization. Further, these and other groups collaborate with our sustainability and environmental policy team, system planning group, legal, regulatory, supply chain, enterprise risk management and other business units to identify and mitigate risks and capitalize on opportunities, as well as to identify ways to improve performance.

Table 5 – Sustainability oversight by the board of directors

Board committee	Primary sustainability oversight responsibility
Corporate governance	Overall corporate sustainability strategy and policies, including with respect to climate change and corporate social responsibility; corporate governance issues; governmental, regulatory, public policy and public relations matters; public advocacy activities, including memberships in trade associations that engage in lobbying activities; shareholder concerns
Personnel	Executive compensation policy and incentive plan design; employee and human resource issues; employee training and development; talent management; employee and contractor safety; organizational health; diversity, inclusion and belonging, and supplier diversity
Audit	Environmental compliance and auditing; Ethics and compliance; market and credit risks; cybersecurity risks; vendor and supply chain risks; financial reporting processes and risks; other strategic risks and general risk oversight
Finance	Financial stability; major capital investments
Nuclear	Safety risks unique to the nuclear fleet; sustainability of our nuclear plants

Risk management

Entergy has a formal Enterprise Risk Management process for identifying, assessing, mitigating, reporting and monitoring its top companywide risks.

These risks are multidimensional, complex, interrelated and affect multiple key stakeholders.

Risk management is an all-encompassing process with data-driven metrics and real-world implications.

Our risk assessment methodology considers the likelihood of occurrence, impact and velocity. We assess the inherent level of each risk prior to adjusting for management actions in place to alter its severity, and we also assess the effectiveness of our existing management actions based on defined key performance indicators. We prioritize our risks based on their residual levels, which is the difference between the inherent levels and the amount of risk controlled as determined from the assessment of risk management effectiveness. The risk assessment process also involves rating the interdependencies among the risks. This process reveals the risks that are highly active (affecting many other risks), which is useful for optimizing risk response.

Transition and physical risks are integrated into this risk assessment framework and are formally owned by a member of our executive leadership and managed by a risk manager. Entergy has an ERM Subcommittee comprised of risk owners and other subject matter experts that provides an opportunity for activities such as validating risk assessments and collaborating on risk treatment.

We are proactively managing both physical and transition risks. For example, our engagement with climate-focused industry groups and inclusion of a carbon price forecast in our planning process make our business model more resilient to climate policy and regulatory changes. Additionally, our technology evaluation process validates that we are considering the most recent operating characteristics, costs and capabilities of various generation technologies, ensuring that the overall planning process is robust and flexible to technology evolutions. Regarding resilience, integration of the latest climate science and analytical tools into our grid resilience planning process ensures that we are making cost-effective investments that will reduce outage duration and restoration costs. Lastly, our engagement with key stakeholders ensures that we can detect and adapt to market variability, customer preferences and investor outlook.

Key climate-related risks and opportunities are summarized in Table 6.

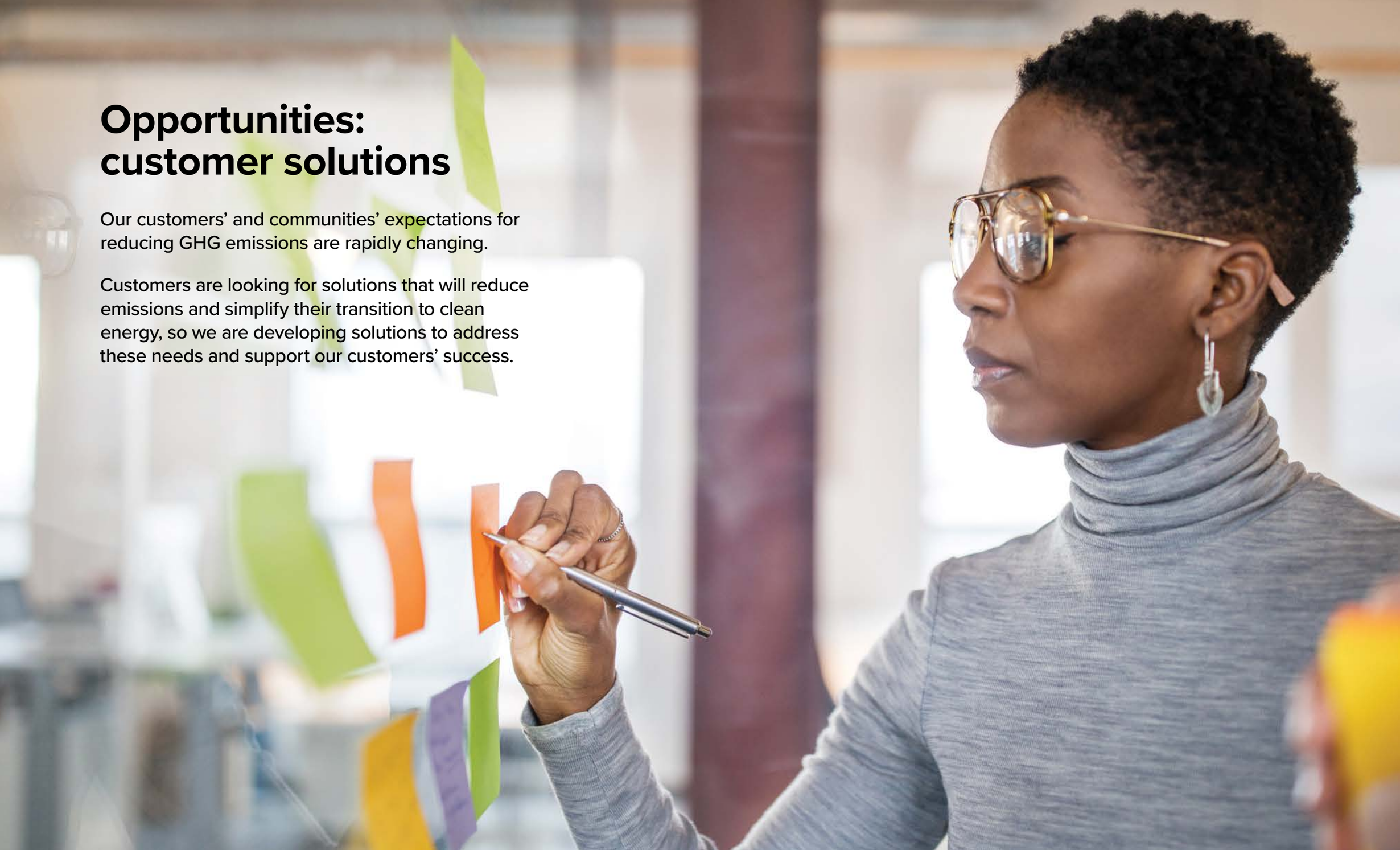
Table 6 – Key risks and strategies/opportunities

	Category	Risks	Strategies/Opportunities
Physical	Sea Level Rise	• Frequent flooding and inundation of coastal assets and communities • Accelerated loss of coastal wetlands • Changes in population distribution • Disproportionate impacts on vulnerable communities	• Proactive adaptation and accelerated resiliency investment opportunities • Investment in communities/preservation of cultural and natural assets • Advocacy for protection of vulnerable communities and low-income customers
	Coastal Erosion	• Loss of storm surge protection • Increased damage to natural coastal assets, communities and cultural assets	• Investment in natural resources such as wetlands restoration • Supporting coastal restoration efforts at the state and local level
	Extreme Weather Events	• More frequent and intense acute events such as hurricanes, flooding and extreme high/low temperature events • Increased damage to assets and communities • Increased restoration costs and customer interruptions • Reputational impacts	• Investment in transmission and distribution hardening and system resilience to reduce restoration costs and outage duration • Enhance wind-loading standards for transmission and distribution assets in coastal and vulnerable areas • Enhanced planning leveraging scenario analysis for siting of future system assets based on geographical vulnerabilities, such as coastal and flood-prone areas • Using advanced damage prediction models to plan for and respond to extreme events • Partnering with utility peers through mutual assistance program for restoration • Using advanced technology such as drones to assist with damage assessment • Upgrade outage map to improve customer experience
	Increased Surface Temperature	• Sustained high temperatures • Availability of cooling water • Heat stress to field employees	• Load growth due to increased demand for cooling and refrigeration
Transition	Climate Policy	• Increased costs of compliance with various national, state or local legislative or regulatory carbon mitigation policy • Stranded assets resulting from national, state or local carbon mitigation policy	• Engagement with policy makers to advocate for an economy-wide carbon mitigation policy consistent with Entergy's principles • Pursue federal funding made available in recently enacted infrastructure and clean energy laws • Continued investment in generation portfolio transformation • Partnerships with customers and other sectors to reduce net carbon emissions
	Economic	• Inability to adapt to changes in supply and demand for generation • Cost impacts associated with the energy transition • Customer dissatisfaction with the speed of our transition	• Electrification of other sectors pursuing decarbonization goals or affected by an economy-wide carbon policy • Additional load requirements from electrification of the transportation, commercial and industrial sectors • Continue to offer existing and develop innovative energy efficiency, demand response and distributed generation products and services to customers • Balancing affordability with the need to provide reliable and clean power
	Technology	• Failure to keep up with technology advancements • Disintermediation by third parties • Grid management challenges in the integration of new resources	• Investment in new and emerging low- and zero-carbon generation technologies to meet customer needs and deliver lower carbon energy • Innovative approaches to supply 24x7 zero-carbon power to customers • Investments in advanced smart grid technologies that enhance system reliability and resilience

Opportunities: customer solutions

Our customers' and communities' expectations for reducing GHG emissions are rapidly changing.

Customers are looking for solutions that will reduce emissions and simplify their transition to clean energy, so we are developing solutions to address these needs and support our customers' success.



The opportunities for in-demand customer solutions are an exciting part of our sustainability journey.

Also shown in Table 6 are the opportunities presented by climate factors. The opportunities associated with decarbonization investments are addressed in the 'Path to net-zero by 2050' section, while the opportunities to address these physical risks are addressed in the 'Path to Climate Resilience' section of this report. Opportunities associated with the transition to a net-zero future include enabling emission reductions in other sectors and customer solutions.

Entergy is collaborating with customers to innovate and scale products and services that create benefits for our broader customer base and the communities we serve. We are taking an integrated approach toward a carbon-free future that includes working with industry partners and customers like manufacturing, transportation and maritime industries to decarbonize some energy needs through electrification.

We collaborate with many of our top commercial and industrial customers to understand their current and planned operations and identify potential solutions to co-develop an energy roadmap that will help them to decarbonize their operations.

Entergy is developing, piloting and implementing customer offerings to gain insights and expertise across a range of potential products and opportunities. Examples of these solutions include Entergy's green tariffs, electrification incentives and programs designed to help customers use energy efficiently.

Figure 11 – Examples of customer partnerships focused on clean energy and innovative technology

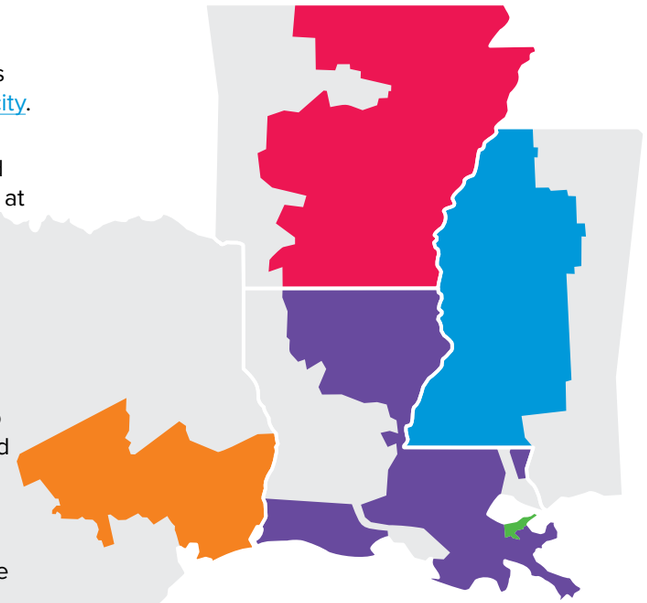
Entergy Arkansas – At the 2022 United Nations Climate Change Conference, an MOU between Entergy Arkansas and the U.S. General Services Administration was announced focused on achieving 100% carbon-free electricity.

Entergy Louisiana – Entergy Louisiana and Sempra Infrastructure announced plans to procure renewable generation resources to help power the expansion at the Cameron LNG terminal.

Entergy Mississippi – Entergy Mississippi announced the Economic Development with Green Energy plan to replace some natural gas plants with 1,000 MW of renewable energy.

Entergy Texas – Entergy Texas and New Fortress Energy announced plans to collaborate on the development of renewable energy generation resources and hydrogen infrastructure.

Entergy New Orleans – In partnership with the City of New Orleans, Entergy New Orleans launched an EV Charger Program, focused on providing equitable access to free level 2 EV charging across the city.



Thought leadership on clean energy

In partnership with the Center for Resource Solutions, Entergy is a founding member of the Clean Energy Accounting Project Advisory Committee. CEAP supports consensus decision-making on outstanding clean energy accounting questions and the Advisory Committee is tasked with scaling up efforts to resolve outstanding accounting questions, which discourage clean energy development. The CEAP Advisory Committee will help define focus areas, recommend project priorities, and review draft publications.

- **Green tariffs** – Entergy is expanding efforts to help customers in the Gulf South region achieve their sustainability commitments and targets through investments in and use of renewable energy solutions. Entergy utilities are implementing green tariff products across their service areas. Through these offerings, Entergy allocates renewable energy capacity from a portion of its renewable generation facilities to residential and nonresidential customers who choose to subscribe to the tariff. Entergy retires the renewable energy credits that are generated by the associated renewable facilities on behalf of the participating customers based on the number of kilowatts to which they subscribe. By having the RECs retired on their behalf, subscribing customers are afforded the promise of a renewable offering that is intended to help them achieve their sustainability goals at a reasonable cost.

- **Electrification** – Customer conversion of energy needs currently served by fossil fuels to electricity can result in net emission reductions. Since 2015, Entergy's eTech program has offered incentives, advisory services and grant-writing assistance to customers who purchase select electric technology. By 2020, eTech had recorded $40 million in revenue to Entergy, generating over 206 GWhs, assisting with the installation of 5,500 pieces of equipment and reducing CO_2 emissions by 73,000 metric tons.

  Innovative customer offerings focused on Shore Power, EVs and fleet electrification are in various stages of evolution and implementation.

- **Energy efficiency and demand-side management** – Entergy utilities offer a variety of programs and resources designed to help customers save energy and money. We currently have over 50 energy efficiency and demand-side management programs as ways to partner with customers to help them manage usage and cost. Partnering with customers and other stakeholder to ensure the efficient use of electricity is a critical part of our customer-focused decarbonization efforts.

- **Distributed renewable energy solutions** – Entergy continues to work with all customers to find affordable ways to participate in our path to net-zero emissions. Entergy has implemented both residential and commercial rooftop solar programs in New Orleans. These systems supply clean energy directly into the Entergy New Orleans electric distribution grid to benefit all customers.

Conclusion

Climate change presents risks that we are managing effectively and opportunities that we have integrated into our business strategy.

Entergy is positioned to play a major role in economy-wide decarbonization as we invest in our transition to low- and zero-carbon power and resilient power delivery systems, which both combine to drive clean and sustainable economic growth in the Gulf Coast.

Entergy employees are committed to building a cleaner, greener world for future generations.

Our path to net-zero enables customer emission reductions and is built on a foundation of a robust, long-term iterative resource planning process. This path is defined by technology and drives our investment strategy to the benefit of our customers and other stakeholders. We monitor and engage in technology developments to ensure our customers will receive affordable, reliable and sustainable power. Customer solutions and supply chain engagement provide us with an opportunity to magnify our impact across our entire value chain.

We are working to reduce emissions across all categories of our GHG inventory and have established interim goals for the most impactful strategies and metrics of our transition: clean energy deployment and emission rate reduction. Our illustrative path is in-line with a broad range of climate scenarios consistent with limiting warming to well below 2°C and 1.5°C.

We strive to build and maintain a more reliable and resilient system. In response to the increased frequency in extreme weather events, we have broadened and updated our climate science-based analysis process. Based on this analysis, we are proactively accelerating our investments in resilience, especially in vulnerable areas.

Opportunities to develop and deploy customer decarbonization solutions enable emission reductions across economic sectors, while transforming our portfolio and investing in a resilient system. Our governance process and risk management structure integrate climate transition and physical risk considerations. We also engage stakeholders on our transition and recognize that it must be just, addressing environmental and energy equity.

Entergy will continue to evaluate, engage and report on climate change risks and opportunities. We also will continue to use both our transition and resilience planning processes to refine our strategy and plan, and update stakeholders on a regular basis on this plan.

Table 7 – TCFD recommendation cross-reference

TCFD recommendation	Disclosure	Location
Governance Disclose the organization's governance around potential climate-related risks and opportunities.	(a) Describe the organization's governance around potential climate-related risks and opportunities.	Pages 38-40
	(b) Describe management's role in assessing and managing potential climate-related risks and opportunities.	Pages 38-40
Strategy Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's business, strategy and financial planning where such information is material.	(a) Describe the potential climate-related risks and opportunities the organization has identified over the short, medium and long terms.	Pages 28-31; 43; 44-46
	(b) Describe the impact of potential climate-related risks and opportunities on the organization's businesses, strategy and financial planning.	Pages 11-22; 28-31; 43
	(c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	Pages 23-25
Risk management Disclose how the organization identifies, assesses and manages potential climate-related risks.	(a) Describe the organization's processes for identifying and assessing potential climate-related risks.	Pages 41-43
	(b) Describe the organization's processes for managing potential climate-related risks.	Pages 41-43
	(c) Describe how processes for identifying, assessing, and managing potential climate-related risks are integrated into the organization's overall risk management.	Pages 41-43
Metrics and targets Disclose the metrics and targets used to assess and manage potential climate-related risks and opportunities where such information is material.	(a) Disclose the metrics used by the organization to assess potential climate-related risks and opportunities in line with its strategy and risk management process.	Pages 37; 39
	(b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 GHG emissions estimates and the potential related risks.	Pages 32-36
	(c) Describe the targets used by the organization to manage potential climate-related risks and opportunities and performance against targets.	Page 37

Note: The term "material," as used in this context, does not have the same meaning as it has under securities laws in the United States or other jurisdictions, nor does Entergy necessarily consider these disclosures or others in this report to be material for such other purposes.

J. Wayne Leonard Power Generation Facility.

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In this report, and from time to time, Entergy Corporation makes certain "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Such forward-looking statements include, among other things, statements regarding Entergy's operational outlooks and capital plan; statements regarding its climate transition and resilience plans, goals, beliefs, assumptions and expectations, including the illustrative pathway presented in this report, statements regarding its carbon-free energy capacity, GHG reduction goals and strategies and statements regarding the planned addition of renewable generation, potential technological advances such as hydrogen or advanced nuclear, legacy asset retirements, nuclear license extensions, offsets and other potential means of achieving its environmental goals; statements regarding opportunities to partner with customers and others to advance technology development or reduce societal emissions; and other statements of Entergy's plans, beliefs, or expectations included in this presentation. Readers are cautioned not to place undue reliance on these forward-looking statements, which apply only as of the date of this presentation. Except to the extent required by the federal securities laws, Entergy undertakes no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events, or otherwise.

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Abbreviations and definitions

Abbreviation	Definition
°C	Degrees Celsius
BESS	Battery energy storage systems
CCUS	Carbon capture, use and sequestration
CEAP	Clean Energy Account Project
CH_4	Methane
CMI	Customer minutes interrupted
CO_2	Carbon dioxide
EPRI	Electric Power Research Institute
ERM	Enterprise Risk Management
ESG	Environmental, social and governance
EV	Electric vehicle
GHG	Greenhouse gases
GW	Gigawatt
GWh	Gigawatt hours
H_2	Hydrogen
HFC	Hydrofluorocarbon
IEA	International Energy Agency
IIJA	Infrastructure Investment and Jobs Act

Abbreviation	Definition
IPCC	Intergovernmental Panel on Climate Change
IRA	Inflation Reduction Act
Lbs	Pounds
LDC	Local distribution company
NZE	Net Zero Emissions Scenario
MOA	Memorandum of agreement
MOU	Memorandum of understanding
MW	Megawatt
MWh	Megawatt hours
N_20	Nitrous oxide
NGSC	Natural Gas Supply Collaborative
REC	Renewable energy credit
SDS	Sustainable Development Scenario
SF_6	Sulfur hexafluoride
SMR	Small modular reactors
TCFD	Task Force on Climate-related Disclosures
ZCER	Zero-carbon emitting resource

Endnotes

1. Entergy Climate Scenario Analysis and Evaluation of Risks and Opportunities: March 2019
2. Entergy's Commitment to Achieving Net-Zero Emissions by 2050: December 2020
3. Recommendations of the Task Force on Climate-related Financial Disclosures – June 2017
4. Benchmarking Air Emissions of the 100 Largest Electric Power Producers in the United States, ERM. September 2022
5. Climate Change 2022: Mitigation of Climate Change - Summary for Policymakers. Intergovernmental Panel on Climate Change, 2022
6. Developed from Rose and Scott (2020) and Rose and Scott (2018) assessment of IPCC and IEA scenarios:

   Rose, S., M. Scott, 2020.Review of 1.5°C and Other Newer Global Emissions Scenarios: Insights for Company and Financial Climate Low-Carbon Transition Risk Assessment and Greenhouse Gas Goal Setting. EPRI, Palo Alto, CA. 3002018053

   Rose, S. and M. Scott, 2018. Grounding Decisions: A Scientific Foundation for Companies Considering Global Climate Scenarios and Greenhouse Gases. EPRI, Palo Alto, CA. 3002014510. Global net CO2 without negative emissions results assembled by Steven Rose separately from IAMC (2014).
7. IEA Net Zero by 2050 Scenario and IEA Scenario Trajectories and Temperature Outcomes
8. World Energy Outlook 2021. International Energy Agency
9. Entergy GHG Inventory Management Plan and Reporting Document 2021
10. Entergy Greenhouse Gas Inventory Verification 2021
11. Entergy Previous GHG Documentation
12. Entergy Corporate GHG Emissions Inventory 2021
13. Entergy Renewable Energy website