

C0. Introduction

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C0.1

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**(C0.1) Give a general description and introduction to your organization.**

Entergy Corporation (NYSE: ETR) is an integrated energy company engaged primarily in electric power production and retail distribution operations. Entergy owns and operates power plants with approximately 30,000 megawatts of electric generating capacity, including over 8,000 megawatts of nuclear power. Entergy delivers electricity to 2.9 million utility customers in Arkansas, Louisiana, Mississippi and Texas. Entergy has annual revenues of \$11 billion and approximately 13,600 employees.

Entergy's leadership in sustainability and environmental stewardship has been a hallmark of who we are for nearly two decades. It is a critical part of our future too. In 2002, Entergy's board of directors adopted a visionary sustainability and environmental [statement](#) to "develop and conduct our business in a responsible manner that is environmentally, socially, and economically sustainable." We demonstrate our leadership through our daily actions, such as our climate strategy, environmental stewardship, attracting and developing talent, continuous performance improvement, and initiatives that strengthen communities. Strong corporate governance ensures continued transparency, accountability, successful execution on our strategy, and alignment with the company's mission.

Public reporting of environmental, social, and governance metrics has become increasingly important to investors and customers, many of whom have established their own sustainability goals. In addition to providing full disclosure of financially material information in our Securities and Exchange Commission reporting, Entergy collects ESG metrics and supporting narratives and makes these available through annual disclosures available here:

<https://www.energy.com/sustainability/esg/>

[https://www.energy.com/investor\\_relations/annual\\_publications/](https://www.energy.com/investor_relations/annual_publications/)

Entergy uses benchmarking and interaction with internal and external experts and trade groups to refine our suite of sustainability metrics and to ensure data integrity and proper management. For example, we recently completed a preliminary comparison of Entergy's public information to the Sustainability Accounting Standards Board recommendations. Although some gaps remain, our public reporting is largely aligned with the SASB standards. Closure of these gaps, where appropriate, is a goal for 2020.

In 2019 we released our Climate Scenario Analysis and Evaluation of Risks and Opportunities, available here:

<https://www.energy.com/userfiles/content/environment/docs/EntergyClimateScenarioAnalysis.pdf>

Entergy's climate report sets forth the next decade of action toward a new greenhouse gas emissions reduction goal. By 2030, Entergy will produce 50 percent fewer carbon emissions per MWh of electricity generated than we did in 2000. The report is aligned with the Task Force for Climate-related Financial Disclosures, of which Entergy is a supporter.

C0.2

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**(C0.2) State the start and end date of the year for which you are reporting data.**

|                | Start date     | End date         | Indicate if you are providing emissions data for past reporting years | Select the number of past reporting years you will be providing emissions data for |
|----------------|----------------|------------------|---|--|
| Reporting year | January 1 2019 | December 31 2019 | Yes   | 3 years  |

C0.3

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**(C0.3) Select the countries/areas for which you will be supplying data.**

United States of America

C0.4

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**(C0.4) Select the currency used for all financial information disclosed throughout your response.**

USD

C0.5

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**(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.**

Equity share

**(C-EU0.7) Which part of the electric utilities value chain does your organization operate in? Select all that apply.**

**Row 1**

**Electric utilities value chain**

- Electricity generation
- Transmission
- Distribution

**Other divisions**

- Gas storage, transmission and distribution
- Smart grids / demand response
- Battery storage
- Micro grids

**C1. Governance**

**C1.1**

**(C1.1) Is there board-level oversight of climate-related issues within your organization?**

Yes

**C1.1a**

**(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.**

| Position of individual(s)  | Please explain  |
|--|---|
| Chief Executive Officer (CEO)  | The Chairman and CEO is the highest ranking executive in charge of the company. He chairs the Board of Directors and oversees Entergy's entire corporate structure, governance and management. He is responsible for overarching responsibility for managing risk including climate change risk, executing strategy that positions the company to prosper in a carbon constrained economy and ensuring actions are taken to meet Entergy's 10-year voluntary greenhouse gas stabilization goal. |
| Chief Financial Officer (CFO)  | The Chief Financial Officer has general responsibility for the process of ensuring that all risks are identified, evaluated and, if necessary, quantified through the Enterprise Risk Management Process. Business Function executive management is responsible for ensuring all risks are identified, evaluated and, if necessary, quantified in order to ensure that risks, including climate change risks associated with its operations are accurately represented.                         |
| Other, please specify (Audit Committee of the Board of Directors)                | Responsible for oversight of environmental compliance issues associated with climate change such as the Mandatory Reporting Rule, carbon dioxide permitting requirements, greenhouse gas release reporting requirements, etc.   |
| Other, please specify (Corporate Governance Committee of the Board of Directors) | Responsible for oversight and implementation of overall sustainability program, including Entergy's position, strategy, performance and advocacy associated with climate change.  |
| Other, please specify (Executive Vice President and General Counsel)             | Same as Row 3   |
| Other, please specify (Vice President, Environmental Strategy & Policy)          | Same as for the Audit Committee item and the Corporate Governance Committee item  |
| Other, please specify (Group President, Utility Operations)                      | Responsible for implementing carbon goals through the resource additions made by the utility.   |

**C1.1b**

**(C1.1b) Provide further details on the board’s oversight of climate-related issues.**

| Frequency with which climate-related issues are a scheduled agenda item | Governance mechanisms into which climate-related issues are integrated   | Scope of board-level oversight | Please explain   |
|---|--|--------------------------------|--|
| Scheduled – all meetings  | Reviewing and guiding strategy<br>Reviewing and guiding major plans of action<br>Reviewing and guiding risk management policies<br>Reviewing and guiding annual budgets<br>Reviewing and guiding business plans<br>Setting performance objectives<br>Monitoring implementation and performance of objectives<br>Overseeing major capital expenditures, acquisitions and divestitures<br>Monitoring and overseeing progress against goals and targets for addressing climate-related issues | <Not Applicable>               | The corporate governance committee of Entergy’s board of directors has responsibility for oversight of the company’s overall sustainability strategy, policies, and practices. They meet this responsibility by assuring that recognized sustainability risks are being addressed by the full board or an appropriate board committee. Below is a summary of board committees and their primary sustainability oversight responsibility - (1) Corporate Governance - Responsible for overall corporate sustainability strategy; corporate social responsibility; corporate governance issues; governmental, regulatory, public policy, and public relations matters; public advocacy activities; shareholder concerns. (2) Personnel - Responsible for executive compensation policy, employee and human resources issues, employee training and development, talent management, employee and contractor safety, diversity and inclusion, supplier diversity. (3) Audit - Responsible for environmental compliance and auditing and environmental policies, ethics and compliance, market and credit risks, cybersecurity risks, financial reporting processes and risks, other strategic risks, and general risk oversight. (4) Finance - Responsible for financial stability and major capital investments. (5) Nuclear - Responsible for safety risks unique to the nuclear fleet and sustainability of our nuclear plants. Within Entergy’s senior management, our executive vice president and general counsel has primary responsibility for our overall sustainability performance and for ensuring the sustainability of business practices across the company. Other members of the office of the chief executive — the chief financial officer; group president, utility operations; and chief nuclear officer — are also responsible for internal coordination of our sustainability performance and ensuring that sustainability is integrated into the company’s business model. A dedicated sustainability and environmental policy group establishes a sustainability mission and strategy for the company with goals that align with our operational objectives, industry priorities, and global actions. To effectively implement the mission and strategy, the organization established a working group of representatives from across the company that provides coordination and support on developing strategic priorities and action plans in the key areas of sustainability, including climate strategy, supply chain management, human resources, and corporate social responsibility. |

**C1.2**

**(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.**

| Name of the position(s) and/or committee(s) | Reporting line   | Responsibility  | Coverage of responsibility | Frequency of reporting to the board on climate-related issues |
|---|------------------|---|----------------------------|---|
| Chief Executive Officer (CEO)               | <Not Applicable> | Both assessing and managing climate-related risks and opportunities | <Not Applicable>           | Quarterly   |

**C1.2a**

**(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).**

The Chairman and CEO is the highest ranking executive in charge of the company. He chairs the Board of Directors and oversees Entergy’s entire corporate structure, governance and management. He is responsible for overarching responsibility for managing risk including climate change risk, executing strategy that positions the company to prosper in a carbon constrained economy and ensuring actions are taken to meet Entergy’s voluntary 2020 greenhouse gas stabilization goal and the company’s 2030 greenhouse gas emission rate reduction goal.

Climate-related issues or risks in sensitive areas, such as coastal wetlands, are monitored at the asset, regional and business level on an ongoing basis. At the corporate level, emergent climate-related issues are monitored at least quarterly through the ERM review and certification process.

**C1.3**

**(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?**

|       | Provide incentives for the management of climate-related issues | Comment   |
|-------|---|---|
| Row 1 | Yes   | Climate and environmental risk management protects Entergy's physical assets, financial performance and total shareholder return. Entergy's compensation programs for executive officers are based on a philosophy of pay-for-performance which is embodied in the design of our annual and long-term incentive plans. Our annual and long-term incentive compensation awards reward the achievement of shareholder value using metrics that are deemed by the Board to be consistent with the overall goals and strategic direction that the Board has set for the company. Achievement of the Company's sustainability objectives influences long-term shareholder value and correspondingly the equity awarded each year under the long-term incentive programs. Within the applicable business units, individual awards under our annual incentive plan are directly tied to a variety of sustainability business objectives, including performance under the company's climate commitment and goals. |

**C1.3a**

**(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).**

| Entitled to incentive              | Type of incentive   | Activity incentivized   | Comment  |
|------------------------------------|---------------------|---|--|
| Corporate executive team           | Monetary reward     | Emissions reduction project<br>Emissions reduction target<br>Energy reduction project<br>Energy reduction target<br>Efficiency project<br>Efficiency target                 | Our annual and long-term incentive compensation elements incentivize and reward the achievement of business objectives. Entergy believes that effectively managing climate risks is important for creating sustainable shareholder value. Continuous ESG stakeholder engagement and mitigation of climate risks helps achieve performance results while enhancing our ability to maintain low rates and deliver clean, reliable power. These are not direct and separate compensation incentives. ESG is integrated into our compensation system as a critical component of total shareholder return and overall corporate governance and risk management. Entergy has committed to voluntarily maintain our CO2 emissions at 20% below 2000 levels through 2020 and to reduce our CO2 emission rate to half of what it was in 2000 by 2030.   |
| Environment/Sustainability manager | Monetary reward     | Emissions reduction project<br>Emissions reduction target<br>Energy reduction project<br>Energy reduction target<br>Efficiency project<br>Behavior change related indicator | Through the company's Annual Planning, Performance and Review (PP&R) process and the Management/Employee Incentive Plans, environmental/sustainability managers and staff are systematically held accountable for various objectives and measurable targets related to climate change. These include climate change position advocacy; adaptation position advocacy; communicating climate change issues and GHG accounting/verification efforts. These employees work directly on Entergy's climate change/sustainability position, carbon accounting/inventory/verification, stakeholder engagement and advocacy. These employees have specific performance goals regarding these climate change activities and receive incentives commensurate with successful completion of these goals. Impact Awards (monetary bonus) and Community Connector Grants (monetary grant to non-profit) are awarded as deemed appropriate by supervisors for employee activities in the climate change and environmental area. Moreover, each year, when determining the Entergy Achievement Multiplier, the annual incentive plan's funding mechanism, and setting individual awards, the Personnel Committee reviews accomplishments and performance across the full range of the Company's strategic objectives and has the authority to adjust the Entergy Achievement Multiplier accordingly. |
| All employees                      | Non-monetary reward | Behavior change related indicator   | Entergy recognizes employees for participation in climate-related activities including climate/adaptation issue advocacy, communicating climate change issues and participation in climate-related volunteerism.   |
| All employees                      | Monetary reward     | Behavior change related indicator   | Impact Awards (monetary bonus) and Community Connector Grants (monetary grant to non-profit) are awarded as deemed appropriate by supervisors for employee activities in the climate change and environmental area.  |

**C2. Risks and opportunities**

**C2.1**

**(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?**

Yes

**C2.1a**

**(C2.1a) How does your organization define short-, medium- and long-term time horizons?**

|             | From (years) | To (years) | Comment |
|-------------|--------------|------------|---------|
| Short-term  | 0            | 3          |         |
| Medium-term | 3            | 10         |         |
| Long-term   | 10           | 30         |         |

**C2.1b**

**(C2.1b) How does your organization define substantive financial or strategic impact on your business?**

Materiality criteria: At the corporate level, Entergy's ERM process evaluates and prioritizes materiality based on the likelihood/severity of a risk. At the operating company level, each business has a materiality threshold that depends on its valuation and proportion of the company's overall valuation. Entergy reviews significant business risks annually. In 2019 the most significant risk from climate change is in the form of increased operational cost due to current and future carbon regulation including potential risks from: operational restrictions resulting from international agreements, cap/trade schemes, air pollution limits, fuel/energy taxes and carbon taxes. Entergy manages this risk through integrated resource planning, portfolio transformation, renewable energy integration, nuclear uprates/maintaining existing nuclear capacity, energy efficiency investments, grid modernization, voluntary GHG stabilization commitment (through 2020) and goal (through 2030), hedging techniques to mitigate market risks and policy tracking and advocacy. Entergy maintains a CO2 point of view (forward price curve) in its Investment Approval Process and integrated resource planning to test the risk of future carbon prices on investments.

**C2.2**

**(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.**

**Value chain stage(s) covered**

Direct operations  
Upstream  
Downstream

**Risk management process**

Integrated into multi-disciplinary company-wide risk management process

**Frequency of assessment**

More than once a year

**Time horizon(s) covered**

Short-term  
Medium-term  
Long-term

**Description of process**

Entergy's ERM process and investment approval process (IAP) are company-wide processes used to identify material issues and strategic imperatives and to analyze and prioritize environmental, weather and climate risks and opportunities for all businesses. The scope of the analysis includes evaluation of climate change policy proposals, adaptation issues, customer impacts, physical risks, economic impacts and litigation issues. The internal audit function facilitates risk analysis and overall enterprise risk management, including climate change. Risks are evaluated and scored based on probability of occurrence and severity of outcome. Controls are established for priority items and testing conducted to ensure priorities are addressed. Entergy's IAP requires projects of sufficient materiality to include scenarios reflecting the costs and/or benefits of carbon regulation using the company's CO2 point of view. This includes a range of estimates of the future cost of carbon policy and uses outside forecasts that are updated at least annually. Capital project evaluations include this POV in the financial projections, for example, the potential build-own-transfer transaction regarding the Sunflower Solar Plant in Mississippi recently was assessed for the avoided future cost of carbon. On the asset level, Entergy's service territory is in a hurricane prone area that is also at risk of sea-level rise, coastal erosion, and subsidence. Entergy is assessing physical risks that include an increase in sea-level rise, coastal erosion, subsidence and changes in weather conditions. Entergy's keys to managing these risks and building greater resilience are: (1) Prepare using robust emergency response drills and business continuity planning; (2) Invest in transmission and distribution asset hardening and grid modernization to better stand up against extreme weather events; (3) Continued engagement with the DOE Partnership for Energy Sector Climate Resilience, an initiative to enhance U.S. energy security by improving the resilience of energy infrastructure to extreme weather and climate impacts. (4) Engage with our customers and communities to prioritize our investment in ways that complement what others are doing, reduces vulnerability and minimizes the economic impacts of business interruption losses. (5) The company participates in/funds research in adaptation responses and works collaboratively with stakeholders and affected communities in developing these responses. Risks in sensitive areas, such as coastal wetlands, are monitored at the asset, regional and business level on an ongoing basis. At the company level, results of risk evaluations are summarized on a quarterly basis and presented to executive management and the Audit Committee of the Board Of Directors via the SEC reporting process. Entergy evaluates risks to its facilities and customer base on multiple time horizons from short term severe weather impacts to longer term (>50 yrs.) physical risks of climate change associated with flooding and sea level rise on the Gulf Coast of the U.S.

**C2.2a**

**(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?**

|                     | Relevance & inclusion     | Please explain  |
|---------------------|---------------------------|---|
| Current regulation  | Relevant, always included | Implementation of federal, state or local climate change mitigation policies could pose a risk to the company, depending on the design. Existing policies include: a. International Policy - The Paris Climate Agreement provides a framework for the international community to reduce greenhouse gas emissions globally. The agreement set a goal of limiting global warming to "well below two degrees Celsius above pre-industrial levels." The agreement applies to nations, not companies. Nations are asked to determine their contributions to global emission reductions. In June 2017, President Trump announced his intention to withdraw the United States from the agreement in 2020. b. National Policy - In June 2019, the United States Environmental Protection Agency repealed the Clean Power Plan and replaced it with the Affordable Clean Energy rule. The ACE rule is based on efficiency improvements within individual generating facilities, rather than the system-wide reductions required under the Clean Power Plan. The impacts of ACE rule requirements are still being evaluated and are accounted for in the sensitivities included in Entergy's carbon pricing POV. The creation of a carbon emission tax by Congress is another policy option that is being monitored and evaluated by Entergy. c. Regional/State/Local Policy - There currently is no carbon emission regulation in Entergy's four-state utility service territory; however, Texas has adopted a renewable portfolio standard and the City of New Orleans has published a climate action plan. In April 2020, the New Orleans City Council voted to adopt a Renewable and Clean Portfolio Standard, mandating net-zero carbon emissions by 2040, and a zero-carbon energy portfolio by 2050. Entergy is working with the New Orleans City Council on increasing clean technologies, adding rooftop solar to commercial structures and homes owned by low-income residential customers, constructing utility-scale solar, increasing energy efficiency, electrifying local infrastructure, and continuing use of emission-free nuclear energy, to meet these 2040 and 2050 targets. See Entergy's plan at the Entergy Clean Energy Blitz Website: <a href="https://www.entergy-neworleans.com/cleanenergy/#:~:text=Vision%202030%20and%20the%20Clean,of%20emission%20free%20nuclear%20energy">https://www.entergy-neworleans.com/cleanenergy/#:~:text=Vision%202030%20and%20the%20Clean,of%20emission%20free%20nuclear%20energy</a> |
| Emerging regulation | Relevant, always included | Future changes in environmental regulation governing the emission of CO2 and other greenhouse gases or mix of generation sources could (i) result in significant additional costs to Entergy's utility operating companies, their suppliers or customers, (ii) make some of Entergy's electric generating units uneconomical to maintain or operate, (iii) result in the early retirement of generation facilities and stranded costs if Entergy's utility operating companies are unable to fully recover the costs and investment in generation and (iv) could increase the difficulty that Entergy and its utility operating companies have with obtaining or maintaining required environmental regulatory approvals, each of which could materially affect the financial condition, results of operations and liquidity of Entergy and its subsidiaries. In August 2020, the Governor of Louisiana announced the creation of a Climate Initiatives Task Force and established a goal of net-zero emissions by 2050 for the state. See more info here <a href="https://gov.louisiana.gov/index.cfm/newsroom/detail/2647">https://gov.louisiana.gov/index.cfm/newsroom/detail/2647</a>   |
| Technology          | Relevant, always included | As technologies continue to develop and mature, Entergy – like all regulated utilities – will be challenged to integrate technological improvements effectively and timely, in part because of regulatory rules that require approvals and/or tariffs to integrate new technologies and offer new customer products and services. At the same time, Entergy will have opportunities to invest in and integrate more distributed generation, renewable generation, energy storage assets and other advanced technologies and can offer its customers universal access to these technologies. . Deployment of renewables is occurring already across Entergy's utility service area, and other technologies are under evaluation. These and other technology advancements and investments will be necessary to limit future warming to two degrees Celsius. Customers not only expect reliability at reasonable rates, but also are increasingly looking for integration of new technologies that are environmentally friendly and easy to use. A transition from provider to partner is key to meeting these evolving customer expectations. Partnering with our customers in new ways includes working with them to improve reliability, save money, integrate new technology, reduce their environmental footprint and enable easy-to-use management system. We expect our customers' expectations to continue evolving as technology advances and believe this represents both a challenge and an opportunity to continue developing innovative products and services.  |
| Legal               | Relevant, always included | Planning to meet environmental requirements can be negatively affected by changing requirements, and costs may increase to the extent laws and regulations continue to evolve. Violations of new environmental requirements may subject Entergy to enforcement actions, capital expenditures to bring existing facilities into compliance, additional operating costs or operating restrictions to achieve compliance, civil penalties, and exposure to third parties' claims for alleged health or property damages or for violations of applicable permits or standards. In addition, lawsuits have occurred or are reasonably expected against emitters of greenhouse gases alleging that these companies are liable for personal injuries and property damage caused by climate change. These lawsuits may seek injunctive relief, monetary compensation, and punitive damages.   |
| Market              | Relevant, always included | Financial and operational risks to Entergy could include changes in the supply or demand for electric utility services. For example, climate change concerns have played a key role in driving interest in customer-owned distributed renewable generation resources. The integration of decentralized grid assets and operation of these assets represent a change in the industry paradigm that could lead to a reduction in demand to the extent these assets are not utility-owned. Alternatively, Entergy could experience load growth due to continued economic development activity, electrification of customer loads or increased surface temperatures, which could result in a needed supply increase. An inability to meet demand could negatively impact the company, local or regional economies or economic development. Entergy partners with existing or potential customers in different ways to help grow the local and regional economies, while simultaneously reducing societal greenhouse gas emissions through electrification initiatives, energy efficiency offerings and distributed generation resource development.   |
| Reputation          | Relevant, always included | Entergy may experience a negative perception by its customers and suppliers around its carbon performance and/or ability to provide reliable service in the face of extreme weather events. Financial implications of this risk include loss of goodwill and negative publicity, both of which could negatively affect the company's stock price and overall valuation. Entergy has long been recognized as a strong community partner and good corporate citizen. Entergy's success is linked inextricably to the success of the communities it serves. We live and work in the communities we serve; therefore, the company's reputation is an important asset.   |
| Acute physical      | Relevant, always included | Some of the territories and communities in which Entergy operates face significant acute physical risks as the result of increases in global average temperature. While various impacts are predicted throughout the company's service territory, they are especially pronounced in coastal Louisiana and Texas. These service territories have been tested by devastating hurricanes over the last few decades and are facing increasing risks from flooding, storm surge and increased winds resulting from extreme weather. Inland areas are not immune to the impacts of climate change. Increasingly severe tropical systems carry flood and tornado risk well into the interior of Entergy's utility service area. Additionally, increases in air surface temperatures can result in more severe summer thunderstorms. Extreme heat in the summer and milder winters are predicted to change the environmental conditions in all of Entergy's service area, potentially resulting in changes to agricultural production and vegetation distribution.  |
| Chronic physical    | Relevant, always included | The physical threats from tropical weather systems for our coastal service territory could be exacerbated significantly by ongoing coastal erosion/land loss and sea level rise. Coastal marshes act as barriers from the full force of tropical weather systems for communities in Texas and Louisiana. The loss of these wetlands means coastal communities are closer geographically to the coast and exposed to greater risks from increasingly severe effects of tropical weather systems.   |

**C2.3**

**(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?**

Yes

**C2.3a**

**(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.**

**Identifier**

Risk 1

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type & Primary climate-related risk driver**

|                     |                           |
|---------------------|---------------------------|
| Emerging regulation | Carbon pricing mechanisms |
|---------------------|---------------------------|

**Primary potential financial impact**

Increased direct costs

**Climate risk type mapped to traditional financial services industry risk classification**

<Not Applicable>

**Company-specific description**

The most significant risk from climate change is in the form of increased operational cost due to current and future carbon regulation including potential risks from: operational restrictions resulting from international agreements, cap/trade schemes, air pollution limits, fuel/energy taxes and carbon taxes - estimated below for 2030 as a representative future year. Significant discussion has taken place in recent years in an effort to gain bi-partisan support in Congress for the creation of a direct federal price on carbon. Entergy conducted a carbon tax analysis, as further discussed in the 'Climate Scenario Analysis and Evaluation of Risks and Opportunities' published in March 2019, because Entergy sees the creation of a direct carbon price through a tax as the most likely policy option to be adopted on the federal level. In this analysis, Entergy examines a carbon tax at three levels (\$ per ton of expected emissions) beginning in 2022 and escalating at different rates over the next several decades. The prices examined for this tax range from approximately \$12 to \$56 per ton through 2030 and are based on various carbon fee and tax proposals. Entergy manages this risk through integrated resource planning, portfolio transformation, renewable energy integration, voluntary GHG stabilization commitment (through 2020) and goal (through 2030) hedging techniques to mitigate market risks and policy tracking and advocacy. Entergy maintains a CO2 point of view (forward price curve) in its Investment Approval Process and integrated resource planning to test the risk of future carbon prices on investments.

**Time horizon**

Long-term

**Likelihood**

Very likely

**Magnitude of impact**

Medium-high

**Are you able to provide a potential financial impact figure?**

No, we do not have this figure

**Potential financial impact figure (currency)**

<Not Applicable>

**Potential financial impact figure – minimum (currency)**

<Not Applicable>

**Potential financial impact figure – maximum (currency)**

<Not Applicable>

**Explanation of financial impact figure**

The value represented for this risk represents Entergy's expected high case costs between 2019 and 2030 under the company's current CO2 POV compared to the probability weighted, reference case for a carbon price over the same time period. In the carbon tax analysis, Entergy examines a carbon tax at three levels (\$ per ton of expected emissions) beginning in 2022 and escalating at different rates over the next several decades. The prices examined for this tax range from approximately \$12 to \$56 per ton through 2030 and are based on various carbon fee and tax proposals. The high case starts in 2022 at \$48 per ton and escalates two percent annually to \$56 per ton in 2030.

**Cost of response to risk**

0

**Description of response and explanation of cost calculation**

Though not quantified, expected costs associated with managing this risk include - (1) Manpower costs associated with monitoring legislative/regulatory potential operational and cost implications; (2) Entergy's continuing efforts in reducing carbon emissions through ongoing portfolio transformation, investments in existing nuclear, renewable integration and the development and integration of new grid and generation technologies.

**Comment**

**Identifier**

Risk 2

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type & Primary climate-related risk driver**

|                    |  |
|--------------------|--|
| Current regulation | Enhanced emissions-reporting obligations |
|--------------------|--|

**Primary potential financial impact**

Increased indirect (operating) costs

**Climate risk type mapped to traditional financial services industry risk classification**

<Not Applicable>

**Company-specific description**

In 2011, Entergy began reporting various categories of its GHG emissions under EPA's Mandatory GHG Reporting Rule, additional categories were added in 2012. These increased reporting programs increased the company's operational cost. Entergy has reported its GHG emissions voluntarily for over 20 years through various programs such as EPA Climate Leaders and through the American Carbon Registry (ACR). The ACR maintains and verifies Entergy's carbon emissions offsets. (<https://americancarbonregistry.org/how-it-works/registry-reports>) Additionally, Entergy voluntarily commissions a third-party verification audit of its GHG Inventory under ISO 14064.1-3.

**Time horizon**

Long-term

**Likelihood**

Virtually certain

**Magnitude of impact**

Low

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

0

**Potential financial impact figure – minimum (currency)**

<Not Applicable>

**Potential financial impact figure – maximum (currency)**

<Not Applicable>

**Explanation of financial impact figure**

The financial implications of increased and mandatory reporting are expected to be \$0 to minimal in the near term because existing staff and budgets will handle this reporting.

**Cost of response to risk**

150000

**Description of response and explanation of cost calculation**

The methods that Entergy is using to manage this risk include voluntary GHG reporting for over a decade, a commitment to continuous improvement of our GHG inventory, and conducting independent assurance. In addition, the company continuously improves its calculation methodology to more accurately reflect its business model. Entergy spends from \$50 - \$100 k on emissions verification annually (on average \$75K), and 0.5 FTE which is approximately \$75K per year. These give a total estimated cost of \$150K per year.

**Comment**

**Identifier**

Risk 3

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type & Primary climate-related risk driver**

|                     |  |
|---------------------|--|
| Emerging regulation | Mandates on and regulation of existing products and services |
|---------------------|--|

**Primary potential financial impact**

Increased direct costs

**Climate risk type mapped to traditional financial services industry risk classification**

<Not Applicable>

**Company-specific description**

To address climate change concerns, some federal, state, and local authorities are calling for additional laws and regulations aimed at known or suspected causes of climate change. For example, in response to the United States Supreme Court's 2007 decision holding that the EPA has authority to regulate emissions of CO2 and other "greenhouse gases" under the Clean Air Act, the EPA, various environmental interest groups, and other organizations focused considerable attention on CO2 emissions from power generation facilities and their potential role in climate change. In 2010, the EPA promulgated its first regulations controlling greenhouse gas emissions from certain vehicles and from new and significantly modified stationary sources of emissions, including electric generating units. During 2012 and 2014, the EPA proposed CO2 emission standards for new and existing sources. The EPA finalized these standards in 2015; however, in June 2019, the EPA repealed and replaced certain aspects of those regulations. As examples of state action, in the Northeast, the Regional Greenhouse Gas Initiative establishes a cap on CO2 emissions from electric power plants and requires generators to purchase emission permits to cover their CO2 emissions, and a similar program has been developed in California. The impact that continued changes in the governmental response to climate change risk will have on existing and pending environmental laws and regulations related to greenhouse gas emissions is currently unclear. Future changes in environmental regulation governing the emission of CO2 and other greenhouse gases or mix of generation sources could (i) result in significant additional costs to Entergy's utility operating companies, their suppliers or customers, (ii) make some of Entergy's electric generating units uneconomical to maintain or operate, (iii) result in the early retirement of generation facilities and stranded costs if Entergy's utility operating companies are unable to fully recover the costs and investment in generation and (iv) could increase the difficulty that Entergy and its utility operating companies have with obtaining or maintaining required environmental regulatory approvals, each of which could materially affect the financial condition, results of operations and liquidity of Entergy and its subsidiaries.

**Time horizon**

Long-term

**Likelihood**

Very likely

**Magnitude of impact**

High

**Are you able to provide a potential financial impact figure?**

No, we do not have this figure

**Potential financial impact figure (currency)**

<Not Applicable>

**Potential financial impact figure – minimum (currency)**

<Not Applicable>

**Potential financial impact figure – maximum (currency)**

<Not Applicable>

**Explanation of financial impact figure**

**Cost of response to risk**

**Description of response and explanation of cost calculation**

The methods that Entergy used to manage this risk include: integrated resource planning, portfolio management, maintaining the nuclear option, participation in MISO, voluntary GHG stabilization commitments. Entergy is also actively engaged in the rulemaking process. While Entergy already operates one of the cleanest large-scale power generation fleets in the country, in 2019 we further intensified our efforts to address climate risks by setting a new commitment to reduce our carbon emission rate to 50 percent below year-2000 levels by 2030. These methods/activities reduce both the likelihood and magnitude of the risks occurring 2019-2030 by informing Entergy's planning, rate negotiation process, pace of electric generation portfolio management, and by avoiding/reducing CO2 emissions.

**Comment**



**Identifier**

Risk 4

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type & Primary climate-related risk driver**

|                |  |
|----------------|--|
| Acute physical | Increased severity and frequency of extreme weather events such as cyclones and floods |
|----------------|--|

**Primary potential financial impact**

Increased direct costs

**Climate risk type mapped to traditional financial services industry risk classification**

&lt;Not Applicable&gt;

**Company-specific description**

Potential business risks include damage to Entergy's generation fleet and infrastructure and the impact to Entergy's customers from sea level rise, storm surge and intense winds. The impact to the business includes: increased operational and capital cost due to infrastructure damage, loss of sales during power outages and loss of economic productivity to Entergy's customer base. Risks of losses from these hazards grow with growth in the economy, subsidence, loss of coastal wetlands protection and future climate change. Methods to Manage Risk: Entergy manage extreme weather risks by (1) Preparing for storm recovery through annual drills; (2) Hardening our T&D system to better withstand intense winds and flooding; and (3) reaching out to our customers and communities to prioritize investments and identify cost effective methods to build resilience and minimize economic losses from business interruption.

**Time horizon**

Short-term

**Likelihood**

Very likely

**Magnitude of impact**

High

**Are you able to provide a potential financial impact figure?**

No, we do not have this figure

**Potential financial impact figure (currency)**

&lt;Not Applicable&gt;

**Potential financial impact figure – minimum (currency)**

&lt;Not Applicable&gt;

**Potential financial impact figure – maximum (currency)**

&lt;Not Applicable&gt;

**Explanation of financial impact figure****Cost of response to risk**

450000000

**Description of response and explanation of cost calculation**

The cost presented above for physical risks estimates Entergy's average proactive hardening costs on an annual basis that the company is implementing over the that same time period, which include - 1. Prepare using robust emergency response drills and business continuity planning; 2. Invest in transmission asset hardening to better stand up against extreme weather events. This includes substation elevations to mitigate flooding, new or upgraded transmission lines that exceed NESC standards, structure replacements, and breaker installations that will increase sectionalisation and reduce switching time during outage events. An example for these types of project - <https://www.tdworld.com/transmission-reliability/article/20972500/new-transmission-line-improves-grid-resiliency-in-Louisiana> 3. Invest in distribution asset hardening, such as through treatment, restoration and replacements of poles grouped by feeders out of substations and by prioritizing considerations for zones of aging or decay.

**Comment**

While not included in the direct costs above, Entergy recognizes the importance of maintaining and restoring Louisiana's barrier islands and coastal wetlands. We invest in restoration projects to promote greater resiliency in our service territory and enhance biodiversity and local ecosystems. Wetlands play a crucial role in storm protection and economic prosperity for many of our communities, as well as helping protect Entergy's assets. In addition to mangrove planting, Entergy has sponsored the development of a protocol to account for the carbon sequestration benefits of wetland restoration, which may allow private landowners to monetize the benefits and encourage ongoing restoration of natural assets. Additional details regarding Entergy's hardening can be found here: <https://www.entergy.com/userfiles/environment/docs/water.pdf>

**Identifier**

Risk 5

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type & Primary climate-related risk driver**

|                  |                   |
|------------------|-------------------|
| Chronic physical | Rising sea levels |
|------------------|-------------------|

**Primary potential financial impact**

Increased direct costs

**Climate risk type mapped to traditional financial services industry risk classification**

&lt;Not Applicable&gt;

**Company-specific description**

Entergy's utility customer base and infrastructure are in the mid-south United States – an area susceptible to storm impacts potentially made worse by the loss of coastal wetlands and sea level rise. Our utilities own or lease 25 gigawatts of generation, 15,900 circuit miles of transmission lines and 105,000 circuit miles of distribution lines in the region. This area is experiencing one of the fastest rates of wetlands loss in the world, especially along coastal Louisiana. These wetlands serve as natural protection

during severe weather events. Entergy facilities and its customers could be inundated with sea level rise resulting in increased operational and capital cost due to infrastructure damage, loss of sales during power outages and loss of economic productivity to Entergy's customer base. Entergy manages risk through storm hardening of facilities, technical conferences with customers to build greater resilience, property insurance, bonds to recover restoration costs, reserve funds, regulatory recovery mechanisms, investment in emergency preparedness, and conducting research into adaptation. These methods reduce the likelihood and magnitude of the risks now and into the longer term, >10 years through hardened facilities, preparedness, and financial mechanisms and collaboration that aims to cover damage costs. In addition, to strengthen and rebuild the coastal wetlands, Entergy partnered with Restore the Earth Foundation to help plant 5,000 acres of bald cypress trees in the Pointe-aux-Chenes area in south Louisiana, with Entergy funding 225 acres planted to date. In 2019, a grant from Entergy's Environmental Initiatives Fund further enhanced the project by funding a retrofit of flood control pumps into an innovative system that, when not needed for pumping out flood water during significant weather events, will return vital nutrients from the Mississippi River to nearby Bayou Terrebonne.

**Time horizon**

Short-term

**Likelihood**

Very likely

**Magnitude of impact**

High

**Are you able to provide a potential financial impact figure?**

No, we do not have this figure

**Potential financial impact figure (currency)**

<Not Applicable>

**Potential financial impact figure – minimum (currency)**

<Not Applicable>

**Potential financial impact figure – maximum (currency)**

<Not Applicable>

**Explanation of financial impact figure**

**Cost of response to risk**

**Description of response and explanation of cost calculation**

**Comment**

**Identifier**

Risk 6

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type & Primary climate-related risk driver**

|                  |   |
|------------------|---|
| Chronic physical | Changes in precipitation patterns and extreme variability in weather patterns |
|------------------|---|

**Primary potential financial impact**

Increased indirect (operating) costs

**Climate risk type mapped to traditional financial services industry risk classification**

<Not Applicable>

**Company-specific description**

Changes to precipitation extremes and droughts are a potential risk to Entergy because of our need for cooling water to produce electricity and discharge permit limits tied to river flows or levels, extreme precipitation can impact our ability to operate due to flooding events. Changes to precipitation patterns can impact where cooling water is available. Water is a vital natural resource that is also critical to the Utility operating companies', System Energy's, and Entergy Wholesale Commodities' business operations. Entergy's facilities use water for cooling, boiler make-up, sanitary uses, potable supply, and many other uses. Two of Entergy's Utility operating companies own and/or operate hydroelectric facilities. Accordingly, water availability and quality are critical to Entergy's business operations. Impacts to water availability or quality could negatively impact both operations and revenues. Changes to precipitation patterns can impact our ability to operate due to flooding events. Entergy manages risk through facility hardening, property insurance, water resource planning, stakeholder engagement and technical conferences with customers to build greater resilience, bonds to recover restoration costs, reserve funds, and regulatory recovery mechanisms. These methods reduce the likelihood and magnitude of the risks now and into the longer term, >10 years through hardened facilities, preparedness, and financial mechanisms and collaboration that aim to cover damage costs.

**Time horizon**

Short-term

**Likelihood**

More likely than not

**Magnitude of impact**

High

**Are you able to provide a potential financial impact figure?**

No, we do not have this figure

**Potential financial impact figure (currency)**

<Not Applicable>

**Potential financial impact figure – minimum (currency)**

<Not Applicable>

**Potential financial impact figure – maximum (currency)**

<Not Applicable>

**Explanation of financial impact figure**

**Cost of response to risk**

**Description of response and explanation of cost calculation**

**Comment**

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C2.4

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**(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?**

Yes

C2.4a

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**(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.**

**Identifier**

Opp1

**Where in the value chain does the opportunity occur?**

Direct operations

**Opportunity type**

Energy source

**Primary climate-related opportunity driver**

Participation in carbon market

**Primary potential financial impact**

Reduced direct costs

**Company-specific description**

From a strategic perspective, we are positioning ourselves in a carbon constrained economy. Entergy operates one of the cleanest fleets in the U.S., and we believe this position, combined with expected growth, will lead to increased dispatch of our clean fleet if national carbon constraints (tax or cap-and-trade program) are developed. (See the analysis included in Entergy's 2019 climate report). Entergy has reduced enterprise-wide CO2 intensity by 41% compared to 2000. A low CO2 intensity gives the company a competitive advantage when there is a price on carbon.

**Time horizon**

Long-term

**Likelihood**

Very likely

**Magnitude of impact**

High

**Are you able to provide a potential financial impact figure?**

No, we do not have this figure

**Potential financial impact figure (currency)**

<Not Applicable>

**Potential financial impact figure – minimum (currency)**

<Not Applicable>

**Potential financial impact figure – maximum (currency)**

<Not Applicable>

**Explanation of financial impact figure**

Entergy has reduced its CO2 intensity by 41% compared to 2000 through its fleet transformation initiative, retiring legacy gas units and completing nuclear uprates. Specifically, CO2 for the entire company (including both regulated utility and wholesale operations) was 1,047 lb CO2/MWh in 2000; in 2019, the rate was 591 lb CO2/MWh. The projected generating capacity trend between 2019 and 2030 shows Entergy retiring hundreds of MW of older, less efficient capacity while adding over 6,000 MW of new, highly efficient natural gas fired CCGT capacity and around one thousand MW of solar photovoltaic generation in the next few years. Through a scenario analysis, Entergy has set a goal to reduce its emission rate to 50 percent of what it was in 2000 by 2030, further reducing exposure to a price on carbon while also realizing significant fuel cost savings and growing the utility. This expected growth takes into consideration the continued investment in energy efficiency and demand side management, the capacity reserve margin benefits of operating within MISO, and the anticipated Utility sales growth through 2030 resulting from the industrial economic activity that's driving economic development along the Gulf Coast.

**Cost to realize opportunity**

**Strategy to realize opportunity and explanation of cost calculation**

Continuously working to reduce Entergy's carbon footprint through - Investments in clean, efficient CCGTs; investments in solar PV generation; previous investments in nuclear uprates to increase Entergy's percentage of non-emitting generation and ongoing investment in our existing utility nuclear facilities; and investments in energy efficiency and demand-side management.

**Comment**

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**Identifier**

Opp2

**Where in the value chain does the opportunity occur?**

Direct operations

**Opportunity type**

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Products and services

**Primary climate-related opportunity driver**

Development of climate adaptation, resilience and insurance risk solutions

**Primary potential financial impact**

Other, please specify (Reduced economic loss from physical climate risks, wider social benefits)

**Company-specific description**

Entergy, its customers and the Gulf Coast economy stand to benefit from investments in needed infrastructure improvements to build more resilient communities, reduce losses from floods, storm surge and hurricanes and sustain the economic viability of our customer base. A large portion of Entergy's customer base and the majority of its utility infrastructure are in the Gulf Coast region. Coastal Louisiana suffers one of the fastest rates of wetland loss in the world. In such a rapidly changing physical environment, industries and communities must be resilient to survive.

**Time horizon**

Short-term

**Likelihood**

Very likely

**Magnitude of impact**

Medium-high

**Are you able to provide a potential financial impact figure?**

Yes, an estimated range

**Potential financial impact figure (currency)**

<Not Applicable>

**Potential financial impact figure – minimum (currency)**

370000000

**Potential financial impact figure – maximum (currency)**

1500000000

**Explanation of financial impact figure**

Entergy has the opportunity to protect its Gulf Coast physical infrastructure through proactive adaptation steps. Financial implications may be similar to past hurricane restoration costs of \$370 million to \$1.5 billion.

**Cost to realize opportunity**

1000000

**Strategy to realize opportunity and explanation of cost calculation**

Entergy invests \$1 million annually in environmental improvement projects while partnering with governmental and other environmental management organizations on wetlands restoration and other initiatives to promote greater resiliency and enhance biodiversity and local ecosystems. In 2010, Entergy sponsored a study, Building a Resilient Energy Gulf Coast, regarding adaptation investments and their cost-benefit ratio with regard to avoiding damage from extreme weather. Forums were conducted in 2011 and 2012 in partnership with America's WETLAND Foundation. In 2017, we engaged with The Lowlander Center to revisit the 2010 study and the recommendations of community forums that were conducted in 2011 and 2012 in partnership with the America's WETLAND Foundation. In 2018, we supported the foundation's actions to conduct follow-up community forums to gauge progress since the original Blue Ribbon Resilient Community forums.

**Comment**

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**Identifier**

Opp3

**Where in the value chain does the opportunity occur?**

Direct operations

**Opportunity type**

Markets

**Primary climate-related opportunity driver**

Other, please specify (Change in mean (average) temperature)

**Primary potential financial impact**

Increased revenues resulting from increased demand for products and services

**Company-specific description**

Entergy may increase its electricity sales, and its revenue, due to an increase in mean temperature. The company's utility business is located in the southern portion of the US, an area prone to warm weather. Changes in mean temperature and changes to severe weather patterns are predicted impacts of climate change. Weather patterns and temperature have a direct impact on electricity usage due to increased use of air conditioning.

**Time horizon**

Short-term

**Likelihood**

Likely

**Magnitude of impact**

Medium

**Are you able to provide a potential financial impact figure?**

No, we do not have this figure

**Potential financial impact figure (currency)**

<Not Applicable>

**Potential financial impact figure – minimum (currency)**

<Not Applicable>

**Potential financial impact figure – maximum (currency)**

<Not Applicable>

**Explanation of financial impact figure**

An increase in mean temperature could lead to increase in residential energy consumption, which could lead to increase in revenue for the company. The method that Entergy uses to manage this opportunity is through integrated resource planning, which assesses various market conditions and assures Entergy has sufficient generation resources to meet increased demand - the planning process includes load forecasts through 2031. These methods increase the likelihood and magnitude of the opportunity now and into the longer term.

**Cost to realize opportunity**

150000

**Strategy to realize opportunity and explanation of cost calculation**

Costs include the planning process which is a function of Entergy's system planning and operations group, are staff time and acquisition of third-party forecasts of various parameters that feed into the load forecasting process. The cost for Integrated Resource Planning (IRP) ranges from \$100 - \$200 thousand dollars.

**Comment****Identifier**

Opp4

**Where in the value chain does the opportunity occur?**

Downstream

**Opportunity type**

Products and services

**Primary climate-related opportunity driver**

Development and/or expansion of low emission goods and services

**Primary potential financial impact**

Increased revenues resulting from increased demand for products and services

**Company-specific description**

Entergy recognizes that no one sector can tackle the challenges of climate change alone – an economy-wide effort involving all sectors is required. Entergy is committed to partnering with customers and other stakeholders in the transportation, industrial, commercial, residential and governmental sectors toward decarbonization of the economy. This broader strategic engagement involves actions to move toward the beneficial electrification of other sectors, the implementation of energy efficiency initiatives that help reduce the amount of energy used and the offering of innovative customer solutions for renewable resources. For example, electrification of the transportation and industrial sectors is an important strategy for climate risk mitigation, as the emission rate from the electric generating sector often is lower than that of many transportation and industrial emitters. This is especially true as the electric generating sector's emission rate continues to decline. Electrification of other sectors that traditionally use fossil fuels is not only necessary to reduce economy-wide emissions, but also represents a key opportunity for Entergy. Through the Entergy Electric Technology Program known as eTech, we partner with customers to promote the adoption of electric-powered alternatives to many applications that traditionally require fossil fuels. These efforts provide direct customer support by dedicated field representatives to Entergy customers who purchase and install select electric equipment. Electric-powered technologies offer several key benefits to end-users over existing technologies, including reduced maintenance, lower fuel consumption, increased workplace safety and efficiency, less noise and cleaner and healthier work environments. Other significant beneficial electrification (and emission reduction) opportunities include transportation fleets, ports, commercial facilities and industrial operations.

**Time horizon**

Long-term

**Likelihood**

Likely

**Magnitude of impact**

Medium

**Are you able to provide a potential financial impact figure?**

No, we do not have this figure

**Potential financial impact figure (currency)**

<Not Applicable>

**Potential financial impact figure – minimum (currency)**

<Not Applicable>

**Potential financial impact figure – maximum (currency)**

<Not Applicable>

**Explanation of financial impact figure**

Entergy believes there is an opportunity to partner actively with our customers in all sectors to electrify load, resulting in a net emissions benefit to the economy. This increase in load growth, electrification and dispatch is not quantifiable at this time. Entergy is currently working with EPRI and other parties to better understand the electrification potential in other sectors of the economy.

**Cost to realize opportunity****Strategy to realize opportunity and explanation of cost calculation**

Entergy's newly formed KeyString Labs has been working on beneficial electrification, which allows customers to realize efficiencies and environmental benefits by relying on Entergy grid power instead of fossil fuels. Electrification of marine vessels while in port is one example of a carbon-reduction strategy that yields a business opportunity for Entergy. The initiative allows marine vessels to plug into the land-based electrical power grid while at berth. Today, marine vessels at berth typically rely on diesel auxiliary engines to generate electrical power for on-board services and equipment, including communication, lighting, and ventilation. The use of diesel auxiliary engines results in significant air emissions. The use of auxiliary engines also creates vibration/noise pollution in port areas, while also causing wear-and-tear on ship-side equipment. Converting marine vessels to electrical power while at berth significantly reduces localized emissions and potentially lowers operating costs for vessel owners. We partnered with our customers to study the economic and environmental potential for shore power, as well as to identify and address potential barriers for implementation. Per vessel, shore power is expected to result in significant reductions of net emissions, estimated at as much as: 98% reduction in NOx; 48% reduction in SOx; and 42% reduction in CO2. Our first shore-power installation went into service in early 2020. We believe we have more opportunities for shore-power projects as we have 37 ports in our service area, seven of which are among the 20 largest in the United States.

**Comment**

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**Identifier**

Opp5

**Where in the value chain does the opportunity occur?**

Downstream

**Opportunity type**

Products and services

**Primary climate-related opportunity driver**

Development of climate adaptation, resilience and insurance risk solutions

**Primary potential financial impact**

Other, please specify (Reduced economic loss from physical climate risks, wider social benefits)

**Company-specific description**

Entergy supports efforts to evaluate and deploy adaptation efforts and resiliency investments to help our customers and communities become more sustainable and better able to withstand changing climate conditions. Entergy is investing billions of dollars over the next five years in grid modernization and resiliency. These investments will help prevent or mitigate system damage due to changing climate conditions and will lay the foundation for incorporating newer technologies and customer solutions, including distributed energy resources and energy storage.

**Time horizon**

Short-term

**Likelihood**

Very likely

**Magnitude of impact**

Medium-high

**Are you able to provide a potential financial impact figure?**

No, we do not have this figure

**Potential financial impact figure (currency)**

&lt;Not Applicable&gt;

**Potential financial impact figure – minimum (currency)**

&lt;Not Applicable&gt;

**Potential financial impact figure – maximum (currency)**

&lt;Not Applicable&gt;

**Explanation of financial impact figure****Cost to realize opportunity**

900000000

**Strategy to realize opportunity and explanation of cost calculation**

The company is investing billions of dollars over the next five years in grid modernization and resiliency. These investments will help prevent or mitigate system damage due to changing climate conditions and will lay the foundation for incorporating newer technologies and customer solutions, including distributed energy resources and energy storage. We also invest in focused hardening of our transmission and distribution systems to better withstand extreme weather risks. We continually look for cost-effective ways to reduce the likelihood of customer service interruption and reduce the time it takes to restore service that has been interrupted. For example, in 2018, we invested approximately \$900 million in transmission capital projects to connect our generation assets, support new industrial customers and enhance system reliability, efficiency and resiliency. This ongoing transformation represents a significant capital investment opportunity for Entergy, while enhancing reliability and resiliency for customers, improving overall efficiency, reducing our environmental footprint, enabling greater customer control and options for energy usage and keeping utility rates among the lowest in the country. In 2019 we began installing advanced meters and recently reached the milestone of our 1 millionth meter installation. Our goal is to provide advanced meters to all of our customers by the end of 2021. These meters will provide significant benefits, from faster outage restoration to enhanced customer service and cost savings. We are evaluating broader grid modernization initiatives, engaging with our stakeholders, and bringing forward proposals for innovation. We are also exploring technologies to improve grid reliability and resiliency through automation and grid hardening, as well as technologies and devices that enable distributed energy resources and microgrids.

**Comment**

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### C3. Business Strategy

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#### C3.1

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**(C3.1) Have climate-related risks and opportunities influenced your organization's strategy and/or financial planning?**

Yes, and we have developed a low-carbon transition plan

#### C3.1a

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**(C3.1a) Does your organization use climate-related scenario analysis to inform its strategy?**

Yes, qualitative and quantitative

#### C3.1b

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**(C3.1b) Provide details of your organization's use of climate-related scenario analysis.**

| Climate-related scenarios and models applied   | Details  |
|--|--|
| 2DS<br>IEA<br>Sustainable development scenario | In the Climate Scenario Analysis published by Entergy in March 2019, Entergy prepared a detailed analysis of several potential carbon abatement scenarios. The scenarios are driven by selected emission rate or tonnage reduction goals and vary primarily in terms of the carbon policy implemented and goals ascribed. The quantitative analytics include projections of consolidated generation (in MW hours), CO2 emissions (in tons), emission rate (in pounds per MWh) and the generation mix in 2030. Entergy CO2 POV Reference Scenario - Entergy conducts periodic business planning exercises that extend out 20 years. Entergy's CO2 POV is based on a range of potential policies and timing dependent on federal and major state policy actions, as well as potential longer term trends and policies to limit CO2 emissions. The impact of these policies on the power sector is modelled using ICF's Integrated Planning Model platform, including the development of a CO2 allowance price (\$ per ton). Entergy's reference projection uses a probability-weighted reference carbon price but no other carbon constraint. Based on the reference carbon price forecast, the model predicts an approximate 19 percent reduction in absolute CO2 emissions and an approximate 44 percent reduction in CO2 emission rate from the 2000 baseline year. Two Degree Scenarios - Entergy presents information regarding the IEA Sustainable Development Scenario in two formats: first as applied in a global emission rate, and second as applied through a 50 percent reduction in absolute emissions. The 50 percent reduction case, in turn, results in an emission rate similar to the rate used by the IEA SDS as applicable specifically to the United States. According to IEA: "The SDS is fully aligned with the Paris Agreement's goal of 'holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C.'" To evaluate the IEA SDS global perspective, we used the required global emission rate as the driving factor and adjusted our supply plan to meet that goal. To evaluate a required 50 percent reduction in absolute emissions, we iteratively adjusted Entergy's supply plan from the reference scenario until a 2030 absolute emissions (tonnage) reduction of 50 percent from 2000 levels was achieved (24.6 million short tons). Results for both the Global Emission Rate Scenario and the 50% Absolute Emissions Reduction Scenario require supply plan adjustments that replace fossil-fuel resources by non-emitting solar. These supply plan adjustments, as further detailed in the March 2019 analysis, are not realistic goals given current and expected market, technology and regulatory conditions. Carbon Tax Analysis - In this analysis, Entergy examines a carbon tax at three levels (\$ per ton of expected emissions) beginning in 2022 and escalating at different rates over the next several decades. The prices examined for this tax range from approximately \$12 to \$56 per ton through 2030 and are based on various carbon fee and tax proposals. Imposing the carbon tax in this analysis results in CO2 emissions from Entergy's utility operating companies increasing the first year (2022) and then remaining relatively flat through 2030, while CO2 emissions from MISO South decrease by an estimated 6 percent to 10 percent, depending on the amount of the carbon tax. Beyond 2030, Entergy predicts that a carbon tax would cause our emissions to increase as Entergy's cleaner generating resources are dispatched more frequently. The scenarios analysed in the March 2019 report serve as a stress test to Entergy's business plans in a more carbon-constrained economy over the next three decades. The scenario analysis was also used to inform Entergy's new 2030 CO2 emissions and climate goal. Source: <a href="https://www.entergy.com/userfiles/content/environmental/docs/EntergyClimateScenarioAnalysis.pdf">https://www.entergy.com/userfiles/content/environmental/docs/EntergyClimateScenarioAnalysis.pdf</a> |

**C3.1d**

**(C3.1d) Describe where and how climate-related risks and opportunities have influenced your strategy.**

|                                 | Have climate-related risks and opportunities influenced your strategy in this area? | Description of influence  |
|---------------------------------|---|---|
| Products and services           | Yes   | Entergy recognizes that our customers increasingly seek more control of their energy decisions and more renewable energy solutions. Working with our regulators, Entergy is expanding and customizing our portfolio of energy solutions. In 2019, Entergy continued expanding the range of products and services available to customers, including renewable energy options such as community solar, increased investments in demand-side management and new efforts involving distributed energy resources. For example, Entergy New Orleans continued construction on 5 MW of distributed-scale solar resources through its commercial rooftop solar program. The program leases commercial building rooftops to install utility-owned solar that will capture the power of the sun and put clean energy directly onto the electric distribution grid for the benefit of all customers. Installations are expected to be completed in 2020. In 2019, Entergy New Orleans also began a pilot project for company-owned residential rooftop solar, completing 64 of 100 installations.  |
| Supply chain and/or value chain | Yes   | Our management approach to utility integrated resource planning includes issuing requests for proposals to procure supply-side resources for our utilities to meet region-specific needs. In addition, a future cost of carbon is used in any capital investment and/or material energy purchase decision. Future cost of carbon considered in controllable purchase decisions to help ensure Entergy's voluntary GHG stabilization goals are cost effectively achieved and to help ensure there is no leakage employed to meet these goals. For customers, Entergy utilities are committed to pursuing cost-effective energy efficiency and DSM programs; we currently offer more than 40 energy efficiency and demand response options with a stated goal of 990 MW of peak load reduction through 2031. These investments for our customers not only save money but also reduce CO2 emissions. To further increase the efficient dispatch of its generation resources, in 2014, Entergy joined the Midcontinent Independent System Operator (MISO). MISO provides services that help ensure reliable, least-cost delivered energy for all electricity consumers, which allowed Entergy to realize more efficient dispatch, a reduction in emissions and customer cost savings. In addition, Entergy also is a founding member of the Electric Utility Industry Sustainable Supply Chain Alliance (EUISSCA), focusing its work on several areas including energy efficiency which lowers air emissions (including GHG emissions). Entergy participates in the EUISSCA, which is known as the leader in establishing a robust and sustainable electric utility industry supply chain. Entergy is very active in the Alliance, as a member of the Executive Committee as well serving on key subcommittees. Focusing on non-fuel suppliers, the Alliance's goal is to work with industry suppliers and other interested parties to improve environmental performance and advance sustainable business practices. By working as a group, member companies expect to more effectively and efficiently engage suppliers to improve impacts on air emissions, water consumption, waste disposal and energy efficiency.  |
| Investment in R&D               | Yes   | Technology innovation holds tremendous potential for addressing climate change and carbon emissions. Entergy monitors and assesses technology trends in our planning processes. Our goal is to create a portfolio of resources that will meet our customers' needs at the lowest reasonable cost, while maintaining reliability and mitigating potential risks. In pursuit of this objective, Entergy has been piloting solar energy and battery storage projects within our service territory, such as the installation of solar PV projects in Mississippi and New Orleans. The New Orleans project also includes advanced lithium ion battery storage. Entergy expects energy storage to be further integrated into our system. Energy storage technology has applications for generation, transmission and distribution assets and systems. Entergy will continue to monitor storage technology development as well as expected cost reductions. In addition, the company is investing substantially over the next five years in grid modernization and resiliency. In 2019 we began installing advanced meters and recently reached the milestone of our 1 millionth meter installation. Our goal is to provide advanced meters to all of our customers by the end of 2021. These meters will provide significant benefits, from faster outage restoration to enhanced customer service and cost savings. Advanced meters also lay the foundation for the next generation of grid technologies for customers. We are evaluating broader grid modernization initiatives, engaging with our stakeholders, and bringing forward proposals for innovation. We are also exploring technologies to improve grid reliability and resiliency through automation and grid hardening, as well as technologies and devices that enable distributed energy resources and microgrids. Our goal is to enhance our infrastructure, deploy new technologies and advanced analytics, and develop tailored solutions that anticipate customers' expectations while managing the required investments to maintain high reliability and reasonable rates. The company also is monitoring technological developments related to carbon capture and storage on gas generation and advanced generation technology, which facilitates greater integration of carbon capture. |
| Operations                      | Yes   | While Entergy already operates one of the cleanest large-scale power generation fleets in the country, in 2019 we further intensified our efforts to address climate risks by setting a new commitment to reduce our carbon emission rate to 50 percent below year-2000 levels by 2030. Initiated in 2002, Entergy's portfolio transformation strategy incorporates cleaner, more efficient generation sources, allowing the retirement of older, less efficient legacy units. Due to this strategy, we have replaced nearly 30 percent of our older generation with cleaner, more efficient resources, and natural gas now represents approximately 60 percent of our current utility generation capacity. Entergy also works to preserve our nuclear assets. Finally, as an effort to achieve the 2030 carbon emissions reduction target, Entergy has set a goal of integrating approximately 2,000 MW of renewable energy sources into our utilities' respective generation supply portfolios over the next several years, further reducing the company's already low CO2 emission rate.   |

**C3.1e**

**(C3.1e) Describe where and how climate-related risks and opportunities have influenced your financial planning.**

|       | Financial planning elements that have been influenced  | Description of influence  |
|-------|--|---|
| Row 1 | Revenues<br>Direct costs<br>Indirect costs<br>Capital expenditures<br>Acquisitions and divestments | <p>Entergy's Internal Approval Process (IAP) requires projects of sufficient materiality to include scenarios reflecting the costs and/or benefits of carbon regulation using the company's CO2 point of view. This includes a range of estimates of the future cost of carbon policy and uses outside forecasts that are updated at least annually. Capital project evaluations include this POV in the financial projections, for example, the build-own-transfer transaction regarding the Sunflower Solar Plant in Mississippi recently was assessed for the avoided future cost of carbon. Additionally, Entergy continues to capture climate opportunities through investments in technology innovation and partnership with our customers and the communities we serve. For example, Entergy Louisiana and Edison Chouest Offshore (ECO) have partnered to build the first utility-scale shore power installation at Port Fourchon, the port that plays a role in providing nearly 20% of the nation's oil supply. Shore power is a beneficial electrification product developed by Entergy's innovation department, KeyString Labs, to enable customers to reach their own sustainability goals by leveraging Entergy's cleaner generation profile. Shore power in Entergy's service areas is estimated to potentially achieve as much as a 42% net reduction in carbon emissions, a 48% net reduction in sulfur oxides emissions and a 98% net reduction in nitrogen oxides emissions, when comparing emissions rate of marine diesel oil versus Entergy's at-the-plug emissions rate. The initial installation extends Entergy Louisiana's local distribution system to simultaneously accommodate 10 ECO marine vessels at port. Entergy also aims to continue growing its shore power offering for ECO and other marine customers throughout its service areas. These investments highlight both companies' commitment to investing in new technologies to increase the sustainability of their operations and the operations of their customers.</p> |

**C3.1f**

**(C3.1f) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).**

N/A

**C4. Targets and performance**

**C4.1**

**(C4.1) Did you have an emissions target that was active in the reporting year?**

Both absolute and intensity targets

**C4.1a**



**(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.**

**Target reference number**

Abs 1

**Year target was set**

2001

**Target coverage**

Company-wide

**Scope(s) (or Scope 3 category)**

Scope 1+2 (location-based) +3 (upstream & downstream)

**Base year**

2000

**Covered emissions in base year (metric tons CO2e)**

48262228

**Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)**

96.6

**Target year**

2020

**Targeted reduction from base year (%)**

20

**Covered emissions in target year (metric tons CO2e) [auto-calculated]**

38609782.4

**Covered emissions in reporting year (metric tons CO2e)**

34500514

**% of target achieved [auto-calculated]**

142.572303126992

**Target status in reporting year**

Achieved

**Is this a science-based target?**

No, but we are reporting another target that is science-based

**Please explain (including target coverage)**

Entergy is committed to reducing our environmental footprint. In 2001, Entergy was the first U.S. utility to cap CO2 emissions voluntarily. The commitment was to stabilize emissions at 2000 levels through 2005. After beating that target by over 20 percent, the company renewed and strengthened this commitment twice, while expanding it to include power purchases from which we could reasonably determine a CO2 emission rate. The company's commitment through 2020 is to stabilize CO2 cumulative emissions from company-owned power plants and controllable power purchases at 20 percent below year 2000 levels through 2020. In April 2019, Entergy announced it was intensifying efforts even further by setting a new climate goal to reduce our CO2 emission rate to 50% below 2000 levels by 2030. The new goal was set based on the 2019 climate scenario analysis (<https://www.entergy.com/userfiles/content/environment/docs/EntergyClimateScenarioAnalysis.pdf>) and means that for every unit of electricity we generate in 2030, we will emit half the CO2 we did in 2000.

---

**C4.1b**

---

**(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).**

**Target reference number**

Int 1

**Year target was set**

2001

**Target coverage**

Company-wide

**Scope(s) (or Scope 3 category)**

Scope 1

**Intensity metric**

Metric tons CO2e per megawatt hour (MWh)

**Base year**

2000

**Intensity figure in base year (metric tons CO2e per unit of activity)**

0.4826223

**% of total base year emissions in selected Scope(s) (or Scope 3 category) covered by this intensity figure**

100

**Target year**

2030

**Targeted reduction from base year (%)**

50

**Intensity figure in target year (metric tons CO2e per unit of activity) [auto-calculated]**

0.24131115

**% change anticipated in absolute Scope 1+2 emissions**

-28

**% change anticipated in absolute Scope 3 emissions**

**Intensity figure in reporting year (metric tons CO2e per unit of activity)**

0.268073

**% of target achieved [auto-calculated]**

88.9098162268921

**Target status in reporting year**

Underway

**Is this a science-based target?**

No, but we are reporting another target that is science-based

**Please explain (including target coverage)**

Entergy aims to achieve a 50 percent reduction in emission intensity from Entergy utility-owned plants (pounds of CO2 per megawatt hour) from our 2000 level, even while demand for electricity in our service territory is expected to increase. As our two-degree scenario analysis indicates, this intensity reduction is likely to produce about a 28 percent absolute emission reduction in 2030 from the 2000 baseline. The target year for this intensity goal is 2030.

**C4.2**

**(C4.2) Did you have any other climate-related targets that were active in the reporting year?**

No other climate-related targets

**C4.3**

**(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.**

Yes

**C4.3a**

**(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.**

|                           | Number of initiatives | Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *) |
|---------------------------|-----------------------|--|
| Under investigation       |                       |  |
| To be implemented*        |                       |  |
| Implementation commenced* | 8                     | 15457000   |
| Implemented*              | 1                     | 3843000  |
| Not to be implemented     |                       |  |

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

**Initiative category & Initiative type**

|                              |  |
|------------------------------|--|
| Low-carbon energy generation | Other, please specify (Fleet transformation towards lower-carbon emission generation by increasing combined-cycle gas turbine generation capacity) |
|------------------------------|--|

**Estimated annual CO2e savings (metric tonnes CO2e)**

3934805

**Scope(s)**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

357000000

**Investment required (unit currency – as specified in C0.4)**

3600000000

**Payback period**

4-10 years

**Estimated lifetime of the initiative**

>30 years

**Comment**

Entergy is transforming its portfolio towards lower-carbon emitting generation. Over the past 14 years, we have added approximately 7,600 MW of clean, highly efficient combined-cycle gas turbine generation. Over that period of time, capital investment for CCGT acquisition has exceeded 3.6 billion. As the result of these investments, the heat rate for Entergy's gas-fired fleet has improved from 11,275 BTUs/kWh in 2002 to 9,300 BTUs/KWh in 2019, a 17% improvement. Entergy estimates that this heat rate improvement reduces CO2 emissions by nearly 4 million metric tons per year and saves over \$357 million in fuel cost annually. Entergy expects to add 7,000 to 8,000 megawatts of new generation from 2022 through 2030 as we continue to deactivate older legacy units. We anticipate up to half of this new generation could be renewables, primarily solar, with the balance being highly efficient gas generation. During the same period, we expect to deactivate approximately 5,000 megawatts of coal and older gas fired units. By the end of 2030, the large majority of our coal units will cease to burn coal pursuant to existing agreements.

**Initiative category & Initiative type**

|                       |  |
|-----------------------|--|
| Other, please specify | Other, please specify (MISO Operation) |
|-----------------------|--|

**Estimated annual CO2e savings (metric tonnes CO2e)**

3843000

**Scope(s)**

Scope 2 (location-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

268000000

**Investment required (unit currency – as specified in C0.4)**

10000000

**Payback period**

<1 year

**Estimated lifetime of the initiative**

Ongoing

**Comment**

In 2019, the Entergy utility operating companies realized an estimated \$195 mil in capacity savings and \$73 mil in energy savings through its participation in the Midcontinent Independent System Operator (MISO) regional transmission authority. Capacity-related savings are attributable to avoided capacity costs and the energy-related savings were realized by more efficient utilization of generation capacity and transmission resources. The reduction in energy-related savings between 2018 and 2019 was largely a result of the reduction in natural gas prices between 2018 and 2019.

**Initiative category & Initiative type**

|                              |         |
|------------------------------|---------|
| Low-carbon energy generation | Nuclear |
|------------------------------|---------|

**Estimated annual CO2e savings (metric tonnes CO2e)**

5800000

**Scope(s)**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

255800000

**Investment required (unit currency – as specified in C0.4)**

2100000000

**Payback period**

4-10 years

**Estimated lifetime of the initiative**

>30 years

**Comment**

Nuclear uprates: Over the last decade, Entergy invested \$2.1 billion to increase the output of its nuclear fleet by nearly 700 MW. Entergy estimates that CO2 emissions avoided through these nuclear uprates results in an estimated 5.8 million metric tons per year of CO2 emission reductions and \$255.8 million per year in fuel cost savings.

**Initiative category & Initiative type**

|                       |  |
|-----------------------|--|
| Other, please specify | Other, please specify (Gulf Coast Carbon Collaborative ) |
|-----------------------|--|

**Estimated annual CO2e savings (metric tonnes CO2e)**

**Scope(s)**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

**Investment required (unit currency – as specified in C0.4)**

76130

**Payback period**

Please select

**Estimated lifetime of the initiative**

Ongoing

**Comment**

In recent years, businesses in the Gulf Coast region have grown increasingly motivated to reduce carbon emissions but have faced challenges in accessing the technology, information and capital required to develop and implement effective strategies. With support from Entergy, the U.S. Business Council for Sustainable Development launched the Gulf Coast Carbon Collaborative to create a cross-sector platform aimed at reducing the region's carbon emissions and impact while preserving and enhancing its economic vitality. The ongoing cross-sector collaboration effort addresses challenges and empowers managers and decision-makers to create strategies through shared experiences that will help protect regional assets and economic opportunity. Entergy supported the effort with a \$76,130 grant from the EIF.

C4.3c

**(C4.3c) What methods do you use to drive investment in emissions reduction activities?**

| Method  | Comment   |
|---|---|
| Compliance with regulatory requirements/standards     | Compliance with permit limits, mandates for energy efficiency programs, preparation of mandatory/voluntary GHG emissions inventories and participation in voluntary carbon markets has driven investment in emission reduction activities.  |
| Dedicated budget for energy efficiency                | Entergy's Utility Operating companies implement energy efficiency programs approved by their Public Service Systems. These programs have a dedicated budget and result in both capacity and energy savings for Entergy. These programs result in energy/cost savings and environmental footprint reduction for our customers. Additionally, investments in generation portfolio management and individual facility efficiency improvements result in overall emission reductions for the company. |
| Dedicated budget for low-carbon product R&D           | Entergy participates in R&D programs through the Electric Power Research Institute (EPRI) dedicated to nuclear generation, emission reductions, sustainability and low carbon generation research.  |
| Employee engagement                                   | Entergy's employees are engaged through a variety of programs, including volunteerism, the Make an Impact program and the goal to engage 25% of the Utility's employees in environmental activities, initiatives and programs.  |
| Financial optimization calculations                   | Entergy Utility Operating Companies conduct Integrated Resource Plans (IRPs) to select the optimal mix of resources to meet customers future energy needs. As with any legislative or regulatory proposal, Entergy engages in rigorous internal evaluations of carbon policy in order to optimize the company's decisions. These decisions include whether or not to conduct power uprates, acquisitions, deactivations, power purchases and divestitures.  |
| Internal price on carbon                              | Entergy maintains a projection on CO2 pricing. This internal cost and projection is used to evaluate business decisions such as whether or not to conduct power uprates, acquisitions, deactivations, power purchases and divestitures.   |
| Internal finance mechanisms                           | Entergy's Environmental Initiative Fund remains at a funding level of approximately \$1 million per year. This fund is primarily used to fund carbon offset projects in Entergy's utility service area and states in which we operate wholesale assets. It also funds efforts to facilitate economy-wide emission reductions through reforestation, sequestration and wetlands restoration, and similar projects.   |
| Marginal abatement cost curve                         | Entergy has engaged third-party consultants to produce and evaluate marginal cost abatement curves both for climate change mitigation and adaptation measures.  |
| Partnering with governments on technology development | Entergy believes that we must institute a large, government-led innovation effort that is directed toward basic research and funding demonstration projects. The only long-term solution to climate change is new technology. A government-led effort would jump-start innovation, provide financing until private funding becomes available and serve a great national purpose.  |
| Please select   |   |

C4.5

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(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?

Yes

C4.5a

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**(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.**

**Level of aggregation**

Company-wide

**Description of product/Group of products**

Low Carbon Energy Production Installation - efficient natural gas-fired generation

**Are these low-carbon product(s) or do they enable avoided emissions?**

Avoided emissions

**Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions**

Other, please specify (EPA Climate Leaders GHG Inventory Protocol and the Standard for Greenhouse Gas Accounting and Verification (ISO 14064))

**% revenue from low carbon product(s) in the reporting year**

40

**% of total portfolio value**

<Not Applicable>

**Asset classes/ product types**

<Not Applicable>

**Comment**

Scope 2 emissions for Entergy's customers are reduced as a result of the company's Portfolio Transformation Strategy and as the result of operating in MISO. Entergy is transforming its portfolio towards lower-carbon emitting generation. Over the past 13 years, we have added approximately 5900 MW of clean, highly efficient combined-cycle gas turbine generation. Over that period of time, capital investment for CCGT acquisition has exceeded 2.5 billion. As the result of these investments, the heat rate for Entergy's gas-fired fleet has improved from 11,275 BTUs/kWh in 2002 to 8,340 BTUs/kWh in 2016, a 26% improvement. Approximately 40% of the energy we supply to meet utility demand comes from efficient natural gas-fired generation.

---

**Level of aggregation**

Product

**Description of product/Group of products**

Low Carbon Energy Production - clean nuclear generation

**Are these low-carbon product(s) or do they enable avoided emissions?**

Avoided emissions

**Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions**

Other, please specify (EPA Climate Leaders GHG Inventory Protocol and the Standard for Greenhouse Gas Accounting and Verification (ISO 14064) )

**% revenue from low carbon product(s) in the reporting year**

28

**% of total portfolio value**

<Not Applicable>

**Asset classes/ product types**

<Not Applicable>

**Comment**

Scope 2 emissions for Entergy's customers are reduced as a result of improved nuclear unit capacity factors. Over the last decade, Entergy invested \$2.1 billion to increase the output of its nuclear fleet by nearly 700 MW. Approximately 28% of the energy we supply to meet utility demand comes from clean nuclear generation.

---

**Level of aggregation**

Product

**Description of product/Group of products**

Low Carbon Energy Production - renewable resources

**Are these low-carbon product(s) or do they enable avoided emissions?**

Avoided emissions

**Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions**

Other, please specify (EPA Climate Leaders GHG Inventory Protocol and the Standard for Greenhouse Gas Accounting and Verification (ISO 14064) )

**% revenue from low carbon product(s) in the reporting year**

2

**% of total portfolio value**

<Not Applicable>

**Asset classes/ product types**

<Not Applicable>

**Comment**

Scope 2 emissions for Entergy's customers are reduced as a result of Entergy's investment in carbon-free renewable generation. In 2019, renewable resources (solar, wind renewable energy credits, hydro, biomass, landfill gas, and waste heat) supplied approximately 2.8 million MWh, or approximately 2 percent of total electric demand, to our utility customers. While still a small portion of our utility generation, as technology and economics continue to improve, we are pursuing additional utility-scale renewable opportunities as well as potential applications for distributed energy resources. We currently have nearly 2,000 megawatts of renewable projects in various stages of development or planning.

---

C-EU4.6

**(C-EU4.6) Describe your organization's efforts to reduce methane emissions from your activities.**

The Entergy Gas Accelerated Replacement Program was initiated in 2007 to prioritize replacement of the aging and obsolete low pressure gas distribution facilities in Baton Rouge and New Orleans Louisiana. Replacement of these high maintenance systems is necessary to ensure safe and reliable service to our gas customers. Since the program was implemented, Entergy Gas Distribution has replaced over 400 miles of antiquated low pressure system. All of the low pressure facilities have been replaced in the Baton Rouge service area. The remaining 120 miles of low pressure facilities in New Orleans are scheduled to be replaced by 2027.

**C5. Emissions methodology**

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**C5.1**

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**(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).**

**Scope 1**

**Base year start**

January 1 2000

**Base year end**

December 31 2000

**Base year emissions (metric tons CO2e)**

48262228

**Comment**

**Scope 2 (location-based)**

**Base year start**

January 1 2000

**Base year end**

December 31 2000

**Base year emissions (metric tons CO2e)**

788000

**Comment**

**Scope 2 (market-based)**

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

**C5.2**

---

**(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.**

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

US EPA Center for Corporate Climate Leadership: Indirect Emissions From Purchased Electricity

US EPA Center for Corporate Climate Leadership: Direct Emissions from Stationary Combustion Sources

**C6. Emissions data**

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**C6.1**

---

**(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?**

**Reporting year**

**Gross global Scope 1 emissions (metric tons CO2e)**  
34372801

**Start date**  
January 1 2019

**End date**  
December 31 2019

**Comment**

**Past year 1**

**Gross global Scope 1 emissions (metric tons CO2e)**  
36682440

**Start date**  
January 1 2018

**End date**  
December 31 2018

**Comment**  
Entergy is providing past emission data for calendar years 2016 - 2018.

**Past year 2**

**Gross global Scope 1 emissions (metric tons CO2e)**  
33135508

**Start date**  
January 1 2017

**End date**  
December 31 2017

**Comment**  
Entergy is providing past emission data for calendar years 2016 - 2018.

**Past year 3**

**Gross global Scope 1 emissions (metric tons CO2e)**  
35189215

**Start date**  
January 1 2016

**End date**  
December 31 2016

**Comment**  
Entergy is providing past emission data for calendar years 2016 - 2018.

**C6.2**

---

**(C6.2) Describe your organization's approach to reporting Scope 2 emissions.**

**Row 1**

**Scope 2, location-based**  
We are reporting a Scope 2, location-based figure

**Scope 2, market-based**

**Comment**

**C6.3**

---



**(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?**

**Reporting year**

**Scope 2, location-based**

127713

**Scope 2, market-based (if applicable)**

<Not Applicable>

**Start date**

January 1 2019

**End date**

December 31 2019

**Comment**

**Past year 1**

**Scope 2, location-based**

153563

**Scope 2, market-based (if applicable)**

<Not Applicable>

**Start date**

January 1 2018

**End date**

December 31 2018

**Comment**

Entergy is providing past emission data for calendar years 2016 - 2018.

**Past year 2**

**Scope 2, location-based**

153708

**Scope 2, market-based (if applicable)**

<Not Applicable>

**Start date**

January 1 2017

**End date**

December 31 2017

**Comment**

Entergy is providing past emission data for calendar years 2016 - 2018.

**Past year 3**

**Scope 2, location-based**

192005

**Scope 2, market-based (if applicable)**

<Not Applicable>

**Start date**

January 1 2016

**End date**

December 31 2016

**Comment**

Entergy is providing past emission data for calendar years 2016 - 2018.

**C6.4**

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**(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?**

No

**C6.5**

---

**(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.**

## Purchased goods and services

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Please explain

Purchased goods and services include lines, poles, transformers, etc. Our qualitative investigation of these materials suggests that in 2019 associated emissions from these goods and services are not material for Entergy, <1% of Scope 3 emissions.

## Capital goods

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Please explain

The company primarily purchases electric generation facilities that have been built; emissions associated with operation of these facilities are reported as Scope 1 or Scope 2 as appropriate.

## Fuel-and-energy-related activities (not included in Scope 1 or 2)

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

3794896

### Emissions calculation methodology

(i) Purchased Power is electrical energy purchased by Entergy from merchant power plants or from transmission systems as sources of energy for Entergy's electric utility customers (ii) Data is provided by billed electric energy sales per power plant or billed electric energy from the transmission grid supplying the energy and using appropriate E-Grid Database emission factors for the source. (iii) - Controllable Purchased power - Entergy calculates this emission category based on actual power purchase data and unit-specific emission factors from EPA's eGRID database using Climate Leaders: Indirect Emissions from Purchases/Sales of Electricity and Steam and further developed using the methodology in ISO 14064-1. Uses a GWP for CO2 of 1. This category of power purchases include those for which the generating unit is known and involve a buying decision.

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

### Please explain

See Entergy 2019 GHG Inventory, Optional Emission Sources.

## Upstream transportation and distribution

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Please explain

Emissions from any assets leased and operated by Entergy are incorporated into the company's scope 1 or scope 2 reporting.

## Waste generated in operations

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Please explain

Entergy's largest single-type non-hazardous waste stream is coal ash, the majority of which historically has been recycled and used for building materials. Therefore, the Scope 3 emissions from third-party disposal and treatment of this waste are not material to Entergy.

## Business travel

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Please explain

Business travel includes airline travel by Entergy employees. Our qualitative investigation suggests that in 2019 business travel associated emissions are not material for Entergy, <1% of Scope 3 emissions.

## Employee commuting

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

46772

### Emissions calculation methodology

(i) Employee commuting is an estimate of ghg emissions from Entergy employees travelling to and from their work locations. (ii) This is an estimate based upon EPA Climate Leaders "Optional Emissions from Commuting, Business Travel and Product Transport methodology (EPA430-R-08-006)". (iii) Calculated based upon 14,000 employees, using individual cars, car pools, van pools, public transportation, bikers and walkers to commute an estimated total of 125,000,000 miles/yr. with individual cars and car pools emitting 0.36 kg CO2/vehicle mile, (GWP for CO2 of 1), 0.031 g CH4/vehicle mile (GWP for CH4 of 28-36), and 0.032 g N2O/vehicle mile (GWP for N2O of 265-298). See Entergy's 2019 GHG Emission Inventory, Employee Commuting for methodology and assumptions.

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

### Please explain

See 'Employee Commuting' under Optional Emissions Sources in 2019 GHG Inventory.

## Upstream leased assets

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Please explain

Upstream leased assets include Entergy operated vehicles; emissions of these vehicles are reported in the company's Scope 1 emissions. Entergy invests in electric generation facilities. The emissions of these facilities are reported in Scope 1 and Scope 2 emissions. Entergy does not provide financial services.

## Downstream transportation and distribution

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Please explain

Entergy delivers electrical energy from the power plant to the customers' location through a transmission and distribution system. Entergy calculates transmission and distribution losses and accounts for them as Scope 2 emissions although they're also included in Scope 1 emissions that are measured at the power plant. See 'T&D losses' under Scope 2 emissions, and 'Fugitive Emissions' under Scope 1 emissions in 2019 GHG Inventory.

## Processing of sold products

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Please explain

Entergy primarily sells electrical energy that is consumed by customers. There is no further processing of the sold electricity.

## Use of sold products

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

902129

### Emissions calculation methodology

i) Product consumption of natural gas by residential, commercial and industrial customers that are supplied natural gas by Entergy's gas distribution systems in New Orleans and Baton Rouge. ii) CO2e emissions are calculated based upon Entergy's natural gas throughput data and EPA's system for reporting GHG emissions under the Mandatory Reporting Rule Subpart NN (Suppliers of Natural Gas and Natural Gas Liquids) and a GWP of 16-28 for CH4.

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

### Please explain

Entergy utility business includes a small natural gas distribution business in New Orleans and Baton Rouge. Methodology for calculating these Scope 3 emissions are shown under Optional Emissions in Entergy's 2019 GHG Emission Inventory under "Product Combustion".

## End of life treatment of sold products

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Please explain

Entergy primarily sells electrical energy that is consumed by customers. There are no end of life treatment issues because the product is fully consumed

## Downstream leased assets

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Please explain

Entergy does not lease downstream assets.

## Franchises

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Please explain

Entergy does not operate any franchises.

## Investments

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Please explain

Entergy invests in electric generation facilities. The emissions of these facilities are reported in Scope 1 and Scope 2 emissions. Entergy does not provide financial services.

**Other (upstream)**

**Evaluation status**

Not relevant, explanation provided

**Metric tonnes CO2e**

<Not Applicable>

**Emissions calculation methodology**

<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

<Not Applicable>

**Please explain**

Entergy does not have other upstream Scope 3 emission sources.

**Other (downstream)**

**Evaluation status**

Not relevant, explanation provided

**Metric tonnes CO2e**

<Not Applicable>

**Emissions calculation methodology**

<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

<Not Applicable>

**Please explain**

Entergy does not have other downstream Scope 3 emission sources.

C6.7

---

**(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?**

No

C6.10

---

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

**Intensity figure**

0.0031713899

**Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)**

34500514

**Metric denominator**

unit total revenue

**Metric denominator: Unit total**

10878673000

**Scope 2 figure used**

Location-based

**% change from previous year**

5.37

**Direction of change**

Decreased

**Reason for change**

In 2019, Entergy's financial intensity metric improved by 5.37% compared to 2018 due to emission reduction measures and other factors. Although total revenue decreased by 1% compared to 2018, combined scope 1 and scope 2 emissions decreased in 2019 by approximately 6.3% compared to 2018, which led to a decrease in CO2 tons per unit total revenue. Within the scope 1 and scope 2 emissions, emissions from various categories including combustion emissions, fugitive emissions, and transmission and distribution emissions have decreased compared to 2018. Entergy's continuous emission reduction measures such as fleet transformation to cleaner and more efficient generation sources play an important role in improving the financial intensity metric and achieving Entergy's climate goal.

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**Intensity figure**

2530.29

**Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)**

34500514

**Metric denominator**

full time equivalent (FTE) employee

**Metric denominator: Unit total**

13635

**Scope 2 figure used**

Location-based

**% change from previous year**

6

**Direction of change**

Decreased

**Reason for change**

In 2019, Entergy's FTE intensity metric improved by 6% compared to 2018 due to emission reduction measures and other factors. There was a minimal decrease (<1%) in FTE employees in 2019. Combined scope 1 and scope 2 emissions decreased in 2019 by approximately 6.3% compared to 2018, which led to a decrease in CO2 tons per FTE employee. Within the scope 1 and scope 2 emissions, emissions from various categories including combustion emissions, fugitive emissions, and transmission and distribution emissions have decreased compared to 2018. Entergy's continuous emission reduction measures such as fleet transformation to cleaner and more efficient generation sources play an important role in improving the FTE metric and achieving Entergy's climate goal.

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**Intensity figure**

0.2715556695

**Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)**

34500514

**Metric denominator**

megawatt hour generated (MWh)

**Metric denominator: Unit total**

127047666

**Scope 2 figure used**

Location-based

**% change from previous year**

4.5

**Direction of change**

Decreased

**Reason for change**

In 2019, Entergy's Product Intensity metric improved by 4.5% due to emission reduction measures and other factors. Within the scope 1 and scope 2 emissions, emissions from various categories including combustion emissions, fugitive emissions, and transmission and distribution emissions have decreased compared to 2018. Entergy's continuous emission reduction measures such as fleet transformation to cleaner and more efficient generation sources play an important role in improving the product intensity metric and achieving Entergy's climate goal.

## C7. Emissions breakdowns

### C7.1

**(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?**

Yes

### C7.1a

**(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).**

| Greenhouse gas | Scope 1 emissions (metric tons of CO2e) | GWP Reference                                  |
|----------------|---|--|
| CO2            | 34114530                                | IPCC Fourth Assessment Report (AR4 - 100 year) |
| CH4            | 73043                                   | IPCC Fourth Assessment Report (AR4 - 100 year) |
| N2O            | 63330                                   | IPCC Fourth Assessment Report (AR4 - 100 year) |
| SF6            | 116308                                  | IPCC Fourth Assessment Report (AR4 - 100 year) |
| HFCs           | 5589                                    | IPCC Fourth Assessment Report (AR4 - 100 year) |

### C-EU7.1b

**(C-EU7.1b) Break down your total gross global Scope 1 emissions from electric utilities value chain activities by greenhouse gas type.**

|                                    | Gross Scope 1 CO2 emissions (metric tons CO2) | Gross Scope 1 methane emissions (metric tons CH4) | Gross Scope 1 SF6 emissions (metric tons SF6) | Total gross Scope 1 emissions (metric tons CO2e) | Comment   |
|------------------------------------|---|---|---|--|---|
| Fugitives                          | 0   | 2360.64   | 5.1   | 180913   | Total gross Scope 1 fugitive emissions also includes 5589 metric tons CO2e of HFCs from cooling/air-conditioning for building, mobile and nuclear cooling equipment. See GHG Emissions breakdown by category in 2019 GHG Inventory. |
| Combustion (Electric utilities)    | 34114530                                      | 561.08  | 0   | 34191887   | Total gross Scope 1 combustion (electric utilities) emissions also include 63330 metric tons CO2e of N2O emissions. See GHG Emissions breakdown by category in 2019 GHG Inventory.  |
| Combustion (Gas utilities)         |   |   |   |  |   |
| Combustion (Other)                 |   |   |   |  |   |
| Emissions not elsewhere classified |   |   |   |  |   |

### C7.2

**(C7.2) Break down your total gross global Scope 1 emissions by country/region.**

| Country/Region           | Scope 1 emissions (metric tons CO2e) |
|--------------------------|--------------------------------------|
| United States of America | 34372801                             |

### C7.3

**(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.**

By business division

By facility

By activity

### C7.3a

**(C7.3a) Break down your total gross global Scope 1 emissions by business division.**

| Business division  | Scope 1 emissions (metric ton CO2e) |
|--|-------------------------------------|
| Electric Generation (includes Fossil Operations and Nuclear)                     | 34144681                            |
| Natural Gas and Electric Transmission and Distribution (includes Gas Operations) | 175324                              |
| Mobile Fleet   | 47206                               |
| Corporate  | 5589                                |

**C7.3b**

**(C7.3b) Break down your total gross global Scope 1 emissions by business facility.**

| Facility   | Scope 1 emissions (metric tons CO2e) | Latitude  | Longitude  |
|--|--------------------------------------|-----------|------------|
| Acadia   | 686284.7                             | 30.4284   | -92.4112   |
| Attala   | 632809.2                             | 33.0142   | -89.6758   |
| Baxter Wilson  | 880271.48                            | 32.2831   | -90.9306   |
| Big Cajun 2  | 734041.04                            | 30.7261   | -91.3669   |
| Calcasieu Plant  | 70897.77                             | 30.1603   | -93.3458   |
| Choctaw County   | 237897.25                            | 33.2881   | -89.4201   |
| Gerald Andrus  | 364781.47                            | 33.3503   | -91.1181   |
| Hinds Energy Facility  | 1192830.94                           | 32.3781   | -90.2169   |
| Hot Spring Energy Facility   | 1194131.26                           | 34.2963   | -92.8683   |
| Independence   | 2983383.01                           | 35.6733   | -91.4083   |
| Lake Catherine   | 94758.6                              | 34.4341   | -92.9046   |
| Lewis Creek  | 1300382.2                            | 30.4364   | -95.5215   |
| Little Gypsy   | 1518713.6                            | 30.0033   | -90.4611   |
| Ninemile Point   | 4649448.04                           | 29.9472   | -90.1458   |
| Ouachita Power   | 1432662.67                           | 32.7056   | -92.0697   |
| Perryville   | 1129484.49                           | 32.6914   | -92.0192   |
| R S Cogen  | 793690.63                            | 30.221    | -93.2826   |
| R S Nelson   | 1747224.54                           | 30.2861   | -93.2917   |
| Rex Brown  | 77530.12                             | 32.3564   | -90.2125   |
| Sabine   | 1875276.2                            | 30.0242   | -93.875    |
| Sterlington  | 1980.61                              | 32.7047   | -92.0792   |
| St. Charles Power Station  | 1413098.77                           | 30.0051   | -90.4617   |
| Union Power Station  | 4299762.51                           | 33.2961   | -92.5933   |
| Waterford  | 405831.58                            | 29.9994   | -90.4758   |
| White Bluff  | 4366854.98                           | 34.4236   | -92.1392   |
| Pilgrim  | 8962.081                             | 41.942844 | -70.576553 |
| River Bend   | 623.236                              | 30.759557 | -91.330083 |
| Indian Point 2   | 16835.539                            | 41.26993  | -73.952949 |
| Indian Point 3   | 72.575                               | 41.26993  | -73.952949 |
| Palisades  | 7037.034                             | 42.323397 | -86.314516 |
| Waterford 3  | 6388.397                             | 29.996843 | -90.471402 |
| Grand Gulf   | 10097.876                            | 32.009462 | -91.047001 |
| Arkansas Nuclear 1&2   | 10639.466                            | 35.310705 | -93.23088  |
| Mobile Sources   | 47206                                |           |            |
| Fugitive Sources (NG T&D, Electricity T&D, Cooling/Air Conditioning) | 180913                               |           |            |

**C7.3c**

**(C7.3c) Break down your total gross global Scope 1 emissions by business activity.**

| Activity              | Scope 1 emissions (metric tons CO2e) |
|-----------------------|--------------------------------------|
| Stationary Combustion | 34144681                             |
| Mobil Combustion      | 47206                                |
| Fugitive Emissions    | 180913                               |

C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4



**(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO2e.**

|  | Gross Scope 1 emissions, metric tons CO2e | Net Scope 1 emissions , metric tons CO2e | Comment          |
|--|---|--|------------------|
| Cement production activities                   | <Not Applicable>                          | <Not Applicable>                         | <Not Applicable> |
| Chemicals production activities                | <Not Applicable>                          | <Not Applicable>                         | <Not Applicable> |
| Coal production activities                     | <Not Applicable>                          | <Not Applicable>                         | <Not Applicable> |
| Electric utility activities                    | 34260989                                  | <Not Applicable>                         |                  |
| Metals and mining production activities        | <Not Applicable>                          | <Not Applicable>                         | <Not Applicable> |
| Oil and gas production activities (upstream)   | <Not Applicable>                          | <Not Applicable>                         | <Not Applicable> |
| Oil and gas production activities (midstream)  | <Not Applicable>                          | <Not Applicable>                         | <Not Applicable> |
| Oil and gas production activities (downstream) | <Not Applicable>                          | <Not Applicable>                         | <Not Applicable> |
| Steel production activities                    | <Not Applicable>                          | <Not Applicable>                         | <Not Applicable> |
| Transport OEM activities                       | <Not Applicable>                          | <Not Applicable>                         | <Not Applicable> |
| Transport services activities                  | <Not Applicable>                          | <Not Applicable>                         | <Not Applicable> |

**C7.9**

**(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?**  
Decreased

**C7.9a**

**(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.**

|   | Change in emissions (metric tons CO2e) | Direction of change | Emissions value (percentage) | Please explain calculation   |
|---|--|---------------------|------------------------------|--|
| Change in renewable energy consumption  | 12322                                  | Decreased           | 0.03                         | Entergy started purchasing solar power from a new 81 MW solar facility in Stuttgart, Arkansas to meet the demand of its utility customers. A total of 791,830.6 MWh solar power was purchased in 2019, which constitutes 8.5% of total power purchased. An increase in solar energy purchase means a decrease in Scope 3 emissions for Entergy (Scope 2 emission for our customers, and Scope 1 emission for the party that generates it). It also decreases Entergy's Scope 2 emissions in terms of T&D loss from purchased power. The purchase of solar power, however, does not directly affect Entergy's Scope 1 emissions since Scope 1 emissions come from fossil-fuel combustion sources. Therefore, the change in Scope 1 and 2 emissions due to purchased solar power would be the change in Scope 2 emissions, which are the CO2e emissions avoided from purchasing solar power times the line loss factor. In 2019, the line loss factor applied was 3.379%. Applying an average of the plant-specific CO2 emission factors from purchased power, which is 1012 lb/MWh, CO2 emissions avoided from purchasing solar power = 791,830.6 MWh * 1012 lb/MWh = 400,656 short tons CO2; similarly, N2O emissions avoided = 791,830.6 MWh * 0.007 lb/MWh = 2.8 short tons CO2; CH4 emissions avoided = 791,830.6 * 0.05 lb/MWh = 19.8 short tons CO2. Applying the GWPs for CO2, CH4, and N2O (1, 25, 298, respectively), CO2e avoided from purchasing solar power = 1*400,656 + 25*19.8 + 298*2.8 = 401,977 short tons CO2e; Change in Scope 1+2 emissions = 401,977 short tons CO2e *line loss factor (3.379%) = 13,582.81 short tons CO2e = 12,322 metric tons CO2e; Per CDP guidance, Emissions Value (percentage) = Change in Scope 1+2 emissions attributed to solar purchase/Scope 1+2 Emissions in 2018 = 12,322/36,836,003 = 0.03%. |
| Other emissions reduction activities    | 3382666                                | Decreased           | 9.2                          | In 2019, Entergy operated four coal plants (Big Cajun 2, Independence, one of the units in R S Nelson, White Bluff) with a combined Scope 1 and 2 emissions of 9,831,504 metric tons CO2e. In 2018, the Scope 1 and Scope 2 CO2e emissions from these coal-fired units were 13,214,170 metric tons. This decrease in emission of 3,382,666 metric tons was due to Entergy's emission reduction initiative to replace coal-fired units with cleaner, higher efficiency CCGT units. Per CDP guidance, Emission value (percentage) = Change in Scope 1+2 emissions attributed to reduced operation of coal-fired units/Scope 1+2 emissions in 2018 = 3,382,666/36,836,003 = 9.2%.   |
| Divestment                              | 0                                      | No change           | 0                            | No divestment during 2019  |
| Acquisitions                            | 237895.25                              | Increased           | 0.65                         | In October 2019, Entergy Mississippi acquired Choctaw Generating Station, a 2003 810-MW CCGT in French Camp, Mississippi. Emissions from the Choctaw Generating Station were 237,897.25 metric tons CO2e in 2019. Calculated in accordance to the CDP guidance, Emission Value (percentage) = Change in Scope 1+2 emissions attributed to the acquisition/Scope 1+2 emissions in 2018 * 100 = 237,897.25/36,836,003 = 0.65%.   |
| Mergers                                 | 0                                      | No change           | 0                            | No mergers during 2019   |
| Change in output                        | 442003                                 | Decreased           | 1.12                         | In 2019, the billed electricity sales for the Utility was 129,121 GWh, which represents a 0.07% decrease from 129,213 GWh in 2018. The billed sales for Entergy Wholesale Commodities was 28,088 GWh in 2019, which represents a 5.98% decrease from 29,875 GWh in 2018. The overall decrease in output is approximately 1.12%. In accordance with the CDP guidance, the change in CO2e emissions due to change in output is estimated assuming the decrease in CO2e emissions is proportional to the decrease in output. Change in Emissions = 1.12% * CO2e Scope 1 & 2 Emissions in 2018 = 1.12% * 36,836,003 = 442,032 metric tons.   |
| Change in methodology                   | 0                                      | No change           | 0                            | No change in calculation methodology during 2019   |
| Change in boundary                      | 0                                      | No change           | 0                            | No change in boundary during 2019  |
| Change in physical operating conditions | 0                                      | No change           | 0                            | No change in physical operating conditions during 2019   |
| Unidentified                            | 0                                      | No change           | 0                            | No change during 2019  |
| Other                                   | 1413098.77                             | Increased           | 3.84                         | In 2019, Entergy started operating the new self-built St. Charles Power Station, a 980-MW CCGT plant in Montz, Louisiana. Operation of the new St. Charles Power Station generated 1,413,098.77 metric tons Scope 1 and 2 CO2e emissions. Per CDP guidance, Emissions Value (percentage) = Change in Scope 1+2 emissions attributed to operation of new plant/Scope 1+2 Emissions in 2018 = 1,413,098.77/36,836,003 = 3.84%  |

**C7.9b**

**(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?**

Location-based

## C8. Energy

### C8.1

**(C8.1) What percentage of your total operational spend in the reporting year was on energy?**

More than 30% but less than or equal to 35%

### C8.2

**(C8.2) Select which energy-related activities your organization has undertaken.**

|  | Indicate whether your organization undertook this energy-related activity in the reporting year |
|--|---|
| Consumption of fuel (excluding feedstocks)         | Yes   |
| Consumption of purchased or acquired electricity   | Yes   |
| Consumption of purchased or acquired heat          | No  |
| Consumption of purchased or acquired steam         | No  |
| Consumption of purchased or acquired cooling       | No  |
| Generation of electricity, heat, steam, or cooling | Yes   |

### C8.2a

**(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.**

|   | Heating value              | MWh from renewable sources | MWh from non-renewable sources | Total (renewable and non-renewable) MWh |
|---|----------------------------|----------------------------|--------------------------------|---|
| Consumption of fuel (excluding feedstock)               | HHV (higher heating value) | 0                          | 61120081.25                    | 61120081.25                             |
| Consumption of purchased or acquired electricity        | <Not Applicable>           | 527234.29                  | 32749710.08                    | 33276944.38                             |
| Consumption of purchased or acquired heat               | <Not Applicable>           | <Not Applicable>           | <Not Applicable>               | <Not Applicable>                        |
| Consumption of purchased or acquired steam              | <Not Applicable>           | <Not Applicable>           | <Not Applicable>               | <Not Applicable>                        |
| Consumption of purchased or acquired cooling            | <Not Applicable>           | <Not Applicable>           | <Not Applicable>               | <Not Applicable>                        |
| Consumption of self-generated non-fuel renewable energy | <Not Applicable>           | 1844674.75                 | <Not Applicable>               | 1844674.75                              |
| Total energy consumption                                | <Not Applicable>           | 2371909.05                 | 93869791.33                    | 96241700.38                             |

### C8.2b

**(C8.2b) Select the applications of your organization's consumption of fuel.**

|   | Indicate whether your organization undertakes this fuel application |
|---|---|
| Consumption of fuel for the generation of electricity   | Yes   |
| Consumption of fuel for the generation of heat          | No  |
| Consumption of fuel for the generation of steam         | No  |
| Consumption of fuel for the generation of cooling       | No  |
| Consumption of fuel for co-generation or tri-generation | Yes   |

### C8.2c

**(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.**

**Fuels (excluding feedstocks)**

Subbituminous Coal

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

8278598.77

**MWh fuel consumed for self-generation of electricity**

8278598.77

**MWh fuel consumed for self-generation of heat**

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self-cogeneration or self-trigeneration**

**Emission factor**

2417.07633

**Unit**

lb CO2 per MWh

**Emissions factor source**

Entergy measures direct emissions from fossil fuel usage at generating facilities using CEMS. The emission factor provided above is estimated using the total CO2e from coal combustion divided by the total MWh generated from coal-fired facilities.

**Comment**

The MWh reported under this question reflects Entergy's MWh generation from coal-fired facilities. For the amount of coal that Entergy consumed (in MMBtu or in MWh) to generate the reported MWh, please refer to the 2019 EIA 923 report. (<https://www.eia.gov/electricity/data/eia923/>)

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**Fuels (excluding feedstocks)**

Natural Gas

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

52841482.49

**MWh fuel consumed for self-generation of electricity**

52841482.49

**MWh fuel consumed for self-generation of heat**

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self-cogeneration or self-trigeneration**

**Emission factor**

970.45778

**Unit**

lb CO2 per MWh

**Emissions factor source**

Entergy measures direct emissions from fossil fuel usage at generating facilities using CEMS. The emission factor provided above is estimated using the total CO2e from natural gas combustion divided by the total MWh generated from natural gas-fired facilities.

**Comment**

The MWh reported under this question reflects Entergy's MWh generation from natural gas-fired facilities. For the amount of natural gas that Entergy consumed (in MMBtu or in MWh) to generate the reported MWh, please refer to the 2019 EIA 923 report. (<https://www.eia.gov/electricity/data/eia923/>)"

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**C-EU8.2d**

**(C-EU8.2d) For your electric utility activities, provide a breakdown of your total power plant capacity, generation, and related emissions during the reporting year by source.**

**Coal – hard**

**Nameplate capacity (MW)**

2401

**Gross electricity generation (GWh)**

**Net electricity generation (GWh)**

8214

**Absolute scope 1 emissions (metric tons CO2e)**

9830727.47

**Scope 1 emissions intensity (metric tons CO2e per GWh)**

1196.83

**Comment**

**Lignite**

**Nameplate capacity (MW)**

**Gross electricity generation (GWh)**

**Net electricity generation (GWh)**

**Absolute scope 1 emissions (metric tons CO2e)**

**Scope 1 emissions intensity (metric tons CO2e per GWh)**

**Comment**

**Oil**

**Nameplate capacity (MW)**

**Gross electricity generation (GWh)**

**Net electricity generation (GWh)**

**Absolute scope 1 emissions (metric tons CO2e)**

**Scope 1 emissions intensity (metric tons CO2e per GWh)**

**Comment**

**Gas**

**Nameplate capacity (MW)**

15341

**Gross electricity generation (GWh)**

**Net electricity generation (GWh)**

52672

**Absolute scope 1 emissions (metric tons CO2e)**

24252524.09

**Scope 1 emissions intensity (metric tons CO2e per GWh)**

460.44

**Comment**

The net generation includes a minimal amount (<0.1%) of fuel oil operation for testing purposes.

**Biomass**

**Nameplate capacity (MW)**

**Gross electricity generation (GWh)**

**Net electricity generation (GWh)**

**Absolute scope 1 emissions (metric tons CO2e)**

**Scope 1 emissions intensity (metric tons CO2e per GWh)**

**Comment**

**Waste (non-biomass)**

**Nameplate capacity (MW)**

**Gross electricity generation (GWh)**

**Net electricity generation (GWh)**

**Absolute scope 1 emissions (metric tons CO2e)**

**Scope 1 emissions intensity (metric tons CO2e per GWh)**

**Comment**

**Nuclear**

Nameplate capacity (MW)

8087

Gross electricity generation (GWh)

Net electricity generation (GWh)

37484

Absolute scope 1 emissions (metric tons CO2e)

60673

Scope 1 emissions intensity (metric tons CO2e per GWh)

1.62

Comment

**Fossil-fuel plants fitted with CCS**

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

**Geothermal**

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

**Hydropower**

Nameplate capacity (MW)

73

Gross electricity generation (GWh)

Net electricity generation (GWh)

224

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

**Wind**

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

**Solar**

Nameplate capacity (MW)

3

Gross electricity generation (GWh)

Net electricity generation (GWh)

5

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

**Marine**

**Nameplate capacity (MW)**

**Gross electricity generation (GWh)**

**Net electricity generation (GWh)**

**Absolute scope 1 emissions (metric tons CO2e)**

**Scope 1 emissions intensity (metric tons CO2e per GWh)**

**Comment**

**Other renewable**

**Nameplate capacity (MW)**

**Gross electricity generation (GWh)**

**Net electricity generation (GWh)**

**Absolute scope 1 emissions (metric tons CO2e)**

**Scope 1 emissions intensity (metric tons CO2e per GWh)**

**Comment**

**Other non-renewable**

**Nameplate capacity (MW)**

**Gross electricity generation (GWh)**

**Net electricity generation (GWh)**

**Absolute scope 1 emissions (metric tons CO2e)**

**Scope 1 emissions intensity (metric tons CO2e per GWh)**

**Comment**

**Total**

**Nameplate capacity (MW)**

25938.5

**Gross electricity generation (GWh)**

**Net electricity generation (GWh)**

98600

**Absolute scope 1 emissions (metric tons CO2e)**

34372801

**Scope 1 emissions intensity (metric tons CO2e per GWh)**

348.6

**Comment**

**C-EU8.4**

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**(C-EU8.4) Does your electric utility organization have a transmission and distribution business?**

Yes

**C-EU8.4a**

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**(C-EU8.4a) Disclose the following information about your transmission and distribution business.**

**Country/Region**

United States of America

**Voltage level**

Transmission (high voltage)

**Annual load (GWh)**

157209

**Annual energy losses (% of annual load)**

1.7

**Scope where emissions from energy losses are accounted for**

Scope 2 (location-based)

**Emissions from energy losses (metric tons CO2e)**

97840

**Length of network (km)**

25573

**Number of connections**

2923219

**Area covered (km2)**

295259

**Comment**

97,840 metric tons CO2e is the total T&D losses from Entergy purchased power consumed on Entergy T&D system. (Refer to 2019 GHG Inventory - [https://cdn.energy.com/userfiles/content/environment/docs/GHG\\_Inventory\\_Mgmt\\_Plan\\_Reporting\\_Document\\_2019.pdf](https://cdn.energy.com/userfiles/content/environment/docs/GHG_Inventory_Mgmt_Plan_Reporting_Document_2019.pdf)) 2,923,219 is the total number of Entergy's retail customers. (Refer to page 36 of investor guide - [https://cdn.energy.com/userfiles/content/investor\\_relations/docs/2019\\_Investor\\_Guide.pdf](https://cdn.energy.com/userfiles/content/investor_relations/docs/2019_Investor_Guide.pdf))

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**Country/Region**

United States of America

**Voltage level**

Distribution (low voltage)

**Annual load (GWh)**

157209

**Annual energy losses (% of annual load)**

5.1

**Scope where emissions from energy losses are accounted for**

Scope 2 (location-based)

**Emissions from energy losses (metric tons CO2e)**

97840

**Length of network (km)**

168733

**Number of connections**

2923219

**Area covered (km2)**

243459

**Comment**

97,840 metric tons CO2e is the total T&D losses from Entergy purchased power consumed on Entergy T&D system. (Refer to 2019 GHG Inventory - [https://cdn.energy.com/userfiles/content/environment/docs/GHG\\_Inventory\\_Mgmt\\_Plan\\_Reporting\\_Document\\_2019.pdf](https://cdn.energy.com/userfiles/content/environment/docs/GHG_Inventory_Mgmt_Plan_Reporting_Document_2019.pdf)) 2,923,219 is the total number of Entergy's retail customers. (Refer to page 36 of investor guide - [https://cdn.energy.com/userfiles/content/investor\\_relations/docs/2019\\_Investor\\_Guide.pdf](https://cdn.energy.com/userfiles/content/investor_relations/docs/2019_Investor_Guide.pdf))

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**C9. Additional metrics**

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**C9.1**

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**(C9.1) Provide any additional climate-related metrics relevant to your business.**

**C-EU9.5a**

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**(C-EU9.5a) Break down, by source, your total planned CAPEX in your current CAPEX plan for power generation.**

| Primary power generation source              | CAPEX planned for power generation from this source | Percentage of total CAPEX planned for power generation | End year of CAPEX plan | Comment  |
|--|---|--|------------------------|--|
| Other, please specify (Renewables)           | 800000000   | 19   | 2022                   | Refer to Page 9 of <a href="https://entergy.com/static-files/ba4481f6-fbc7-412f-abff-99598b8419ae">https://entergy.com/static-files/ba4481f6-fbc7-412f-abff-99598b8419ae</a> |
| Gas  | 700000000   | 17   | 2022                   | Refer to Page 9 of <a href="https://entergy.com/static-files/ba4481f6-fbc7-412f-abff-99598b8419ae">https://entergy.com/static-files/ba4481f6-fbc7-412f-abff-99598b8419ae</a> |
| Nuclear                                      | 1600000000  | 38   | 2022                   | Refer to Page 9 of <a href="https://entergy.com/static-files/ba4481f6-fbc7-412f-abff-99598b8419ae">https://entergy.com/static-files/ba4481f6-fbc7-412f-abff-99598b8419ae</a> |
| Other, please specify (Non-nuclear baseline) | 1100000000  | 26   | 2022                   | Refer to Page 9 of <a href="https://entergy.com/static-files/ba4481f6-fbc7-412f-abff-99598b8419ae">https://entergy.com/static-files/ba4481f6-fbc7-412f-abff-99598b8419ae</a> |

**C-EU9.5b**

**(C-EU9.5b) Break down your total planned CAPEX in your current CAPEX plan for products and services (e.g. smart grids, digitalization, etc.).**

| Products and services                         | Description of product/service   | CAPEX planned for product/service | Percentage of total CAPEX planned products and services | End of year CAPEX plan |
|---|--|-----------------------------------|---|------------------------|
| Smart grid                                    | Grid modernization investment including - • Advanced metering infrastructure • Enterprise asset management systems • Workforce management systems • Customer relationship management systems • New and improved customer engagement portal • Distribution automation • Distribution and outage management systems • Geospatial information systems | 900000000                         | 18  | 2022                   |
| Other, please specify (Utility Support)       | Utility support  | 2400000000                        | 48  | 2022                   |
| Other, please specify (Distribution baseline) | Distribution baseline  | 1700000000                        | 34  | 2022                   |

**C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6**

**(C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?**

|       | Investment in low-carbon R&D | Comment |
|-------|------------------------------|---------|
| Row 1 | Yes                          |         |

**C-CO9.6a/C-EU9.6a/C-OG9.6a**



(C-CO9.6a/C-EU9.6a/C-OG9.6a) Provide details of your organization's investments in low-carbon R&D for your sector activities over the last three years.

| Technology area                               | Stage of development in the reporting year | Average % of total R&D investment over the last 3 years | R&D investment figure in the reporting year (optional) | Comment   |
|---|--|---|--|---|
| Carbon capture and storage/utilisation        | Pilot demonstration                        | Please select   |  | Entergy's Environmental Initiatives Fund (EIF) has supported projects for over 15 years with conservation groups as external partners. These projects aim for a net positive impact in habitat, water quality and purification, and climate through coastal and wetlands restoration in the four states served by the utility. Since 1996, Entergy planted over 4.1 million trees at several sites in our four-state service territory. To assess the state of Entergy's forest assets, continuous forestry inventory (CFI) plots have been established on 25,000 acres of underutilized or surplus property. These CFI plots will provide vital feedback on our forest's composition and health as well as suggest ways to maximize carbon sequestration. Corporate Real Estate is also working on creating new carbon 'sinks' by reforesting pasture lands, marginal croplands and degraded forest sites. Since 2011, Entergy has updated the forest management plans, inspected the properties, surveyed/painted boundary lines, conducted timber cruises, and had prescribed burns within the CFI plots.  |
| Renewable energy                              | Large scale commercial deployment          | Please select   |  | In 2019, Entergy continued to advance our portfolio transformation strategy by enhancing our infrastructure with more renewable resources. In 2019, renewable resources (solar, wind renewable energy credits, hydro, biomass, landfill gas, and waste heat) supplied approximately 2.8 million MWh, or approximately 2 percent of total electric demand, to our utility customers. While still a small portion of our utility generation, as technology and economics continue to improve, we are pursuing additional utility-scale renewable opportunities as well as potential applications for distributed energy resources. We currently have nearly 2,000 megawatts of renewable projects in various stages of development or planning.   |
| Steam turbine and/or other component upgrades | Large scale commercial deployment          | Please select   |  | Through 2019, our cumulative CO2 emissions were approximately 8 percent below our target. We expect our planned investments in portfolio transformation and grid modernization will continue to increase our overall efficiency and reduce our environmental impact. For example: Highly efficient new combined-cycle power stations such as the J. Wayne Leonard Power Station, Lake Charles Power Station, and Montgomery County Power Station produce significantly fewer carbon emissions per MWh than the facilities they replace. Our coal generation resources are limited, producing only 6 percent of our utility's 2019 energy mix. We will retire the significant majority of our coal plants no later than the end of 2030. We are evaluating options for the remainder.  |
| Demand side response programs                 | Large scale commercial deployment          | Please select   |  | Energy efficiency and demand-side management programs are effective ways to partner with customers to help them manage usage and costs while providing societal benefits. The objectives of these offerings are to reduce the overall cost of meeting energy resource needs, to provide customers with attractive options to reduce their energy consumption, to educate customers about the value of energy efficiency, and to support low-income and sustainability initiatives. Since 2002, our utilities have invested more than \$600 million to deliver nearly 900 megawatts of peak load reduction and 2.7 million megawatt hours of cumulative energy savings. We currently have more than 45 energy efficiency and demand-side management offerings with a stated goal of 990 MW of peak load reduction through 2031. Our operating companies now spend more than \$90 million annually on demand-side management efforts (both energy efficiency and demand response), which represents more than a 10-fold increase from just 10 years ago.  |
| Digital technology                            | Large scale commercial deployment          | Please select   |  | Our customers are benefiting from online, self-service tools. Self-serve transactions via web, text message, and interactive voice response now represent nearly 53 percent of our customers' transactions. In 2019, we met our goal of approximately 950,000 customers opting for paper-free electronic billing, meeting customers' needs, reducing environmental impact, and creating more than \$5.5 million in annual savings versus mailing paper bills. These savings directly benefit our customers. We are updating our customer web and mobile app technologies. In 2019 we implemented the first phase of our customer digital initiative, which will improve customer engagement through increased use of digital channels including myAccount online and an interactive voice response unit. The remaining released in this initiative will be complete by the end of 2020. These tools both benefit our customers by providing them easier access and communication channels and enable us to gather more relevant and accurate usage data and real-time feedback from customers.  |
| Distributed energy resources                  | Small scale commercial deployment          | Please select   |  | Entergy New Orleans continued construction on 5 MW of distributed-scale solar resources through its commercial rooftop solar program. The program leases commercial building rooftops to install utility-owned solar that will put clean energy directly onto the electric distribution grid for the benefit of all customers. Installations are expected to be completed in 2020 - 2021. Entergy also actively engages with customers who are interested in distributed energy resources to understand their underlying objectives and to explore utility-led solutions.   |
| Energy storage                                | Small scale commercial deployment          | Please select   |  | Entergy Arkansas announced plans for a 100-MW solar energy facility in White County near Searcy. This project, recently approved by the Arkansas Public Service Commission, will be the largest utility-owned solar facility in the state and the first to feature battery storage. The project is expected to be in service in 2021.   |
| Infrastructure                                | Large scale commercial deployment          | Please select   |  | Entergy is investing approximately \$11 billion in capital over the next three years in generation resources and transmission and distribution infrastructure. Initiated in 2002, Entergy's portfolio transformation strategy incorporates cleaner, more efficient generation sources, allowing the retirement of older, less efficient legacy units. Due to this strategy, we have replaced nearly 30 percent of our older generation with cleaner, more efficient resources, and natural gas now represents approximately 60 percent of our current utility generation capacity. Entergy also works to preserve our nuclear assets and has set a goal of integrating approximately 2,000 MW of renewable energy sources into our utilities' respective generation supply portfolios over the next several years, further reducing the company's already low CO2 emission rate. In 2019, we invested approximately \$1 billion in transmission capital projects to connect generation assets; support economic development by serving new customers; and enhance system reliability, efficiency, and resiliency.   |
| Smart grids                                   | Large scale commercial deployment          | Please select   |  | We have several grid modernization projects in various stages of development: • Advanced metering infrastructure • Enterprise asset management systems • Workforce management systems • Customer relationship management systems • New and improved customer engagement portal • Distribution automation • Distribution and outage management systems • Geospatial information systems We are in the process of deploying advanced meters to all customers and are one third of the way through installation of 3 million advanced meters across our service area. These new meters will allow us to identify outages more quickly and, in some instances, spot problems before they occur. This is a foundational technology that will open doors to many other technological opportunities. Our new distribution and outage management systems will detect outages faster, improve outage communications, recommend switching for service restoration, and improve visualization of the power system. We are investing in distribution automation by deploying more smart devices on our distribution grid to report near-real-time health status and configuration of the grid to further improve restoration times and minimize customer impacts from outage conditions.  |
| Smart meters                                  | Large scale commercial deployment          | Please select   |  | In 2019 we began installing advanced meters and recently reached the milestone of our 1 millionth meter installation. Our goal is to provide advanced meters to all of our customers by the end of 2021. These meters will provide significant benefits, from faster outage restoration to enhanced customer service and cost savings. Additionally, with these meters we will have more tools to help our customers manage their energy usage and lower their bills. Additionally, Entergy's utilities plan to use advanced meters to offer new products and services to our customers, such as prepaid service. Advanced meters also lay the foundation for the next generation of grid technologies for customers. We are evaluating broader grid modernization initiatives, engaging with our stakeholders, and bringing forward proposals for innovation. We are also exploring technologies to improve grid reliability and resiliency through automation and grid hardening, as well as technologies and devices that enable distributed energy resources and microgrids. Our goal is to enhance our infrastructure, deploy new technologies and advanced analytics, and develop tailored solutions that anticipate customers' expectations while managing the required investments to maintain high reliability and reasonable rates. |

C10. Verification

C10.1

**(C10.1) Indicate the verification/assurance status that applies to your reported emissions.**

|  | Verification/assurance status                          |
|--|--|
| Scope 1                                  | Third-party verification or assurance process in place |
| Scope 2 (location-based or market-based) | Third-party verification or assurance process in place |
| Scope 3                                  | Third-party verification or assurance process in place |

**C10.1a**

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**(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.**

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Limited assurance

**Attach the statement**

Cventure\_2019\_GHG\_Inventory\_2019 (verification report).pdf

**Page/ section reference**

pg. 4 - 16

**Relevant standard**

ISO14064-3

**Proportion of reported emissions verified (%)**

100

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**C10.1b**

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**(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.**

**Scope 2 approach**

Scope 2 location-based

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Limited assurance

**Attach the statement**

Cventure\_2019\_GHG\_Inventory\_2019 (verification report).pdf

**Page/ section reference**

pg.4-16

**Relevant standard**

ISO14064-3

**Proportion of reported emissions verified (%)**

100

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**C10.1c**

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(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

**Scope 3 category**

Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Limited assurance

**Attach the statement**

Cventure\_2019\_GHG\_Inventory\_2019 (verification report).pdf

**Page/section reference**

pg.4-16

**Relevant standard**

ISO14064-3

**Proportion of reported emissions verified (%)**

100

---

**Scope 3 category**

Scope 3: Employee commuting

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Limited assurance

**Attach the statement**

Cventure\_2019\_GHG\_Inventory\_2019 (verification report).pdf

**Page/section reference**

pg.4-16

**Relevant standard**

ISO14064-3

**Proportion of reported emissions verified (%)**

---

**Scope 3 category**

Scope 3: Use of sold products

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Limited assurance

**Attach the statement**

Cventure\_2019\_GHG\_Inventory\_2019 (verification report).pdf

**Page/section reference**

pg.4-16

**Relevant standard**

ISO14064-3

**Proportion of reported emissions verified (%)**

---

100

C10.2

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(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

Yes

C10.2a

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**(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?**

| Disclosure module verification relates to | Data verified                                    | Verification standard    | Please explain  |
|---|--|--------------------------|---|
| C2. Risks and opportunities               | Other, please specify (Carbon Emissions Offsets) | American Carbon Registry | Entergy owns carbon emission offsets that have not been used or retired. These offsets were reported to and verified by the American Carbon Registry. <a href="https://americancarbonregistry.org/how-it-works/accounts/entergy-corporation-corporate-ghg-inventory-reporting">https://americancarbonregistry.org/how-it-works/accounts/entergy-corporation-corporate-ghg-inventory-reporting</a> |

**C11. Carbon pricing**

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**C11.1**

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**(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?**

No, and we do not anticipate being regulated in the next three years

**C11.2**

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**(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?**

No

**C11.3**

---

**(C11.3) Does your organization use an internal price on carbon?**

Yes

**C11.3a**

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**(C11.3a) Provide details of how your organization uses an internal price on carbon.**

**Objective for implementing an internal carbon price**

- Navigate GHG regulations
- Stakeholder expectations
- Change internal behavior
- Drive energy efficiency
- Drive low-carbon investment
- Stress test investments
- Identify and seize low-carbon opportunities
- Supplier engagement

**GHG Scope**

- Scope 1
- Scope 2
- Scope 3

**Application**

The price-of carbon calculation is based on Entergy's point-of-view on CO2-related legislative/regulatory scenarios and the associated economic impacts that a CO2 price range (associated with specific legislation/regulation scenarios) could impose. The forecast is based on an analysis conducted and issued by ICF and is updated at least annually. Entergy uses a forecast price on CO2 as a strategic tool to: (1) evaluate the impacts and opportunities a CO2 price could have on long-lived asset investments through its Investment Approval Process; (2) inform Integrated Resource Plan scenarios designed to determine the optimal mix of future resources; (3) help identify least cost methods for meeting its voluntary CO2 stabilization and intensity reduction goals.

**Actual price(s) used (Currency /metric ton)**

19.36

**Variance of price(s) used**

The price-of-carbon calculation is based on Entergy's point-of-view on CO2-related legislative/regulatory scenarios and the associated economic impacts that a CO2 price range (associated with specific legislation/regulation scenarios) could impose. The value provided (\$19.36 per metric ton) is the probability-weighted price for 2030 based on four underlying cases and the "probability" that the various cases will come to fruition. The range of outcomes extends from a zero direct cost per ton (low or "business as usual" case) up to a high case reflecting national legislation implementing national targets similar to those conceived under the Paris Climate Agreement. During 2019, Entergy added a carbon price case in recognition of the various carbon tax/fee proposals in Congress. The POV is reviewed periodically and updated at least annually (or more often as conditions warrant), in consultation with ICF. The carbon tax case starts around \$40/ton (real \$2018) in 2025, 2 percent per year to \$106/ton in 2050. The "reference case" price stream is based on a probability-weighted forecast average of (i) the business as usual case, (ii) a delayed Clean Air Act mass cap case, translating a cap similar to the U.S. EPA Clean Power Plan into a national mass cap, (iii) the high case based on a cap-and-trade program, and (iv) a carbon price case as described above. The internal price of carbon shown above is the average of Entergy's CO2 POV between 2025 and 2050.

**Type of internal carbon price**

Shadow price

**Impact & implication**

For over a decade, Entergy has maintained a "Point of View" (forward cost curve) on carbon prices. The forecast is based on an analysis conducted and issued by ICF and is updated at least annually. Entergy uses a forecast price on CO2 as a strategic tool to: (1) evaluate the impacts and opportunities a CO2 price could have on long-lived asset investments through its Investment Approval Process; (2) inform Integrated Resource Plan scenarios designed to determine the optimal mix of future resources; and (3) help identify least cost methods for meeting its voluntary CO2 stabilization and intensity reduction goals.

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**C12. Engagement**

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**C12.1**

**(C12.1) Do you engage with your value chain on climate-related issues?**

- Yes, our suppliers
- Yes, our customers

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**C12.1a**

**(C12.1a) Provide details of your climate-related supplier engagement strategy.**

**Type of engagement**

Compliance & onboarding

**Details of engagement**

Included climate change in supplier selection / management mechanism

Climate change is integrated into supplier evaluation processes

Other, please specify

**% of suppliers by number**

0.1

**% total procurement spend (direct and indirect)**

18

**% of supplier-related Scope 3 emissions as reported in C6.5**

7.5

**Rationale for the coverage of your engagement**

Power purchases are the company's most material Scope 3 emission category. In 2019, 26% of the Utilities' retail electric sales were supplied from purchased power. Total purchased power was obtained from 11 suppliers. (Refer to 2019 Entergy GHG Inventory Management Plan and Reporting Document) Purchased power expense in 2019 was \$1,192,860,000 or 12.6% of Total Operating Expense of \$9,488,176,000. Entergy uses supplier's emission profiles as one management tool for helping to attain our voluntary GHG stabilization commitment. Unit contingency purchases, or "controllable purchases" are used to meet Entergy customers' demand for electricity. Controllable purchases are included within the boundaries of Entergy's Voluntary GHG Emissions Stabilization Target and as Optional Emission Sources (Scope 3) in its annual inventory. A detailed breakdown of power purchases is provided in a section of the inventory titled "Power Purchases". This section lists energy supplied by individual unit contingent power purchases and calculates emissions from each of the power plant providing energy by using EPA EGGRID emission factors.

**Impact of engagement, including measures of success**

Entergy started purchasing solar power from a new 81 MW solar facility in Stuttgart, Arkansas to meet the demand of its utility customers. A total of 791,830.6 MWh solar power was purchased in 2019, which constitutes 8.5% of total power purchased. An increase in solar energy purchase means a decrease in Scope 3 emissions for Entergy (Scope 2 emission for our customers, and Scope 1 emission for the party that generates it). For estimates of avoided CO2e emission, refer to C7.9a. In addition Entergy is also a founding member of the Electric Utility Industry Sustainable Supply Chain Alliance (EUISSCA) focusing its work on several areas including energy efficiency which lowers air emissions (including GHG emissions). Entergy participates in the EUISSCA, which is known as the leader in establishing a robust and sustainable electric utility industry supply chain. Entergy is very active in the Alliance, as a member on Executive Committee as well serving on key subcommittees. Focusing on non-fuel suppliers, the Alliance's goal is to work with industry suppliers and other interested parties to improve environmental performance and advance sustainable business practices. By working as a group, member companies expect to more effectively and efficiently engage suppliers to improve impacts on air emissions, water consumption, waste disposal and energy efficiency.

**Comment**

---

**Type of engagement**

Information collection (understanding supplier behavior)

**Details of engagement**

Collect climate change and carbon information at least annually from suppliers

**% of suppliers by number**

0.1

**% total procurement spend (direct and indirect)**

18

**% of supplier-related Scope 3 emissions as reported in C6.5**

7.5

**Rationale for the coverage of your engagement**

Power purchases are the company's most material Scope 3 emission category. In 2019, 26% of the Utilities' retail electric sales were supplied from purchased power. Total purchased power was obtained from 11 suppliers. (Refer to 2019 Entergy GHG Inventory Management Plan and Reporting Document) Purchased power expense in 2019 was \$1,192,860,000 or 12.6% of Total Operating Expense of \$9,488,176,000. Entergy uses supplier's emission profiles as one management tool for helping to attain our voluntary GHG stabilization commitment. Unit contingency purchases, or "controllable purchases" are used to meet Entergy customers' demand for electricity. Controllable purchases are included within the boundaries of Entergy's Voluntary GHG Emissions Stabilization Target and as Optional Emission Sources (Scope 3) in its annual inventory. A detailed breakdown of power purchases is provided in a section of the inventory titled "Power Purchases". This section lists energy supplied by individual unit contingent power purchases and calculates emissions from each of the power plant providing energy by using EPA EGGRID emission factors.

**Impact of engagement, including measures of success**

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**Comment**

---

**C12.1b**

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**(C12.1b) Give details of your climate-related engagement strategy with your customers.**

**Type of engagement**

Collaboration & innovation

**Details of engagement**

Run a campaign to encourage innovation to reduce climate change impacts

**% of customers by number**

30

**% of customer - related Scope 3 emissions as reported in C6.5**

2.4

**Portfolio coverage (total or outstanding)**

<Not Applicable>

**Please explain the rationale for selecting this group of customers and scope of engagement**

Partnering with customers is a key approach to reduce economy-wide emissions. As Entergy continues to reduce the emission rate of our generating fleet, we also are developing new ways to partner with customers in other sectors of the economy (such as industry, ports and transportation) to help them save money through lower equipment operation and maintenance costs and using energy more efficiently, while also reducing their direct emissions by electrifying their energy needs and operations.

**Impact of engagement, including measures of success**

(1) New grid technologies improve resilience, enhance reliability, lower cost and improve customer service. To provide these benefits to our customers, we began installing advanced meters in early 2019 and reached the milestone of our 1 millionth meter installation (~30% of Entergy customers) at the end of 2019. Our goal is to provide advanced meters to all customers by the end of 2021. These meters will provide significant benefits, from faster outage restoration to enhanced customer service and cost savings. Additionally, with these meters we will have more tools to help our customers manage their energy usage and lower their bills. Advanced meters also lay the foundation for the next generation of grid technologies for customers. (2) Many studies highlight that transportation electrification will be critical to achieving long-term greenhouse gas reduction goals. This presents an ongoing opportunity for Entergy to partner with regulators and key stakeholders on policy and incentive options to encourage adoption of electric vehicles. Entergy has started on this path by: • Incentivizing customers to purchase electric vehicles and charging infrastructure as part of its eTech program; • Providing a grant to 16 colleges and universities in our region to install 17 Level 2 (240 volt) electric vehicle charging stations and to purchase electric shuttle vehicles; • Establishing our PowerDrive program to purchase electric vehicles and install charging infrastructure at company facilities; and • Participating in the Midcontinent Transportation Electrification Collaborative to study EV deployment and the role of utilities. The effort has developed consensus principles regarding the role of utilities and the group is modelling the load and emissions impact of various EV penetration levels.

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**Type of engagement**

Collaboration & innovation

**Details of engagement**

Other, please specify (Gulf Coast Carbon Collaborative )

**% of customers by number**

**% of customer - related Scope 3 emissions as reported in C6.5**

**Portfolio coverage (total or outstanding)**

<Not Applicable>

**Please explain the rationale for selecting this group of customers and scope of engagement**

**Impact of engagement, including measures of success**

In recent years, businesses in the Gulf Coast region have grown increasingly motivated to reduce carbon emissions but have faced challenges in accessing the technology, information and capital required to develop and implement effective strategies. With support from Entergy, the U.S. Business Council for Sustainable Development launched the Gulf Coast Carbon Collaborative to create a cross-sector platform aimed at reducing the region's carbon emissions and impact while preserving and enhancing its economic vitality. The ongoing cross-sector collaboration effort addresses challenges and empowers managers and decision-makers to create strategies through shared experiences that will help protect regional assets and economic opportunity. Entergy supported the effort with a \$76,130 grant from the EIF. Establishing and supporting this collaborative is part of Entergy's long-term commitment to the sustainability of its communities and operations. Entergy leaders understand that the company's growth potential depends on the health and sustainability of the four-state area it serves. Entergy intends to reduce the overall carbon emissions from and impacts to its region and help businesses thrive in a responsible, sustainable way.

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**C12.3**

**(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?**

Direct engagement with policy makers

Trade associations

Funding research organizations

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**C12.3a**

**(C12.3a) On what issues have you been engaging directly with policy makers?**

| Focus of legislation     | Corporate position | Details of engagement  | Proposed legislative solution  |
|--------------------------|--------------------|--|--|
| Cap and trade            | Support            | Over the past several years: CEO face to face meetings with over 40 members of Congress, five key Administration officials, and three southern state governors; public letter of support for Waxman - Markey cap and trade legislation; CAO delivered CDP address at NYSE (2013), speaking at public forums, collaborating with others, writing articles and by authoring four op-eds and one advertorial; Charter member of C2ES BELC advocating for market mechanisms to place a price on carbon; CEO a member of the C2ES Board of Directors and a C2ES Strategic Partner; CEO participated in "We Can Lead" on the need for a climate bill; CEO presentations to investors, at Annual Meeting, in Annual Reports, In Sustainability Reports calling for cap and trade with a predictable price on carbon.                        | Economy-wide, sustainable price on carbon that predictably increases over time; investment in R&D for development and deployment of retrofit carbon capture and sequestration that is affordable enough for China and the developing world to invest in; auction of allowances with a portion recycled to neutralize regressive impacts of higher energy prices on low income families; Check and assess provisions if global agreements to reduce GHG emissions don't materialize.  |
| Carbon tax               | Support            | In 2012, CEO publicly called for a "Carbon Tax" at C2ES in Washington DC; CEO gave a defense of that position before Louisiana Public Service Commissioners  | Sustainable, predictable price on carbon that increases over time with revenues recycled to reduce deficit, reduces distorted taxes and recycles revenue to low income families to reduce regressive impacts of higher energy prices   |
| Energy efficiency        | Support            | Invested in a wide range of energy efficiency programs since 2002; Supports decarbonization through electrification, energy efficiency initiatives and distributed energy generation; Supports weatherization initiatives for low income customers   | Work with regulatory commissions to allow rate of return on energy efficiency investments and deals equitably with lost revenues   |
| Clean energy generation  | Support            | In 2014, extensive participation in advocacy for market reform to preserve the value of existing nuclear generation. In 2011, CEO participated in interview with Washington Post Editorial Staff advocating a modified CES as an effective market mechanism for placing a price on carbon; CEO wrote Wall Street Journal Op-Ed titled "Cool the Planet with Natural Gas" advocating a CES that substitutes natural gas for coal as a way to reduce carbon emissions  | CES that allows trading of credits around reduced coal utilization for increased natural gas utilization   |
| Adaptation or resilience | Support            | Eleven Blue Ribbon Resilient Community leadership forums and two technical conferences with our customers have identified values that we share together, encouraged a dialogue on where they feel vulnerable, what they've done to become more resilient and ways Entergy can prioritize its system hardening to complement what customers have done to reduce business interruption losses from wind, storm surge and flooding. In 2019, Entergy sponsored a study regarding adaptation investments and their cost-benefit with regard to avoiding damage from extreme weather. In late-2016/early-2017 sponsored and participated in by Entergy to explore issues surrounding the Louisiana Coastal Master Plan. We participated in additional follow-up sessions in 2018 and sponsored additional follow-up meetings during 2019. | Work with stakeholders to quantify risks to coastal communities, identify cost effective adaptation investments to manage risks. Work collaboratively with customers to prioritize utility system hardening investments to complement actions and investments they've taken to become more resilient. Prioritize hardening investments to reduce business interruption economic losses. Work to enhance prosperity, ensure safety for families and preserve quality of life in coastal communities we serve. Preserve and enhance economic viability of customer base. |

**C12.3b**

**(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?**

Yes

**C12.3c**

**(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.**

**Trade association**

EEI

**Is your position on climate change consistent with theirs?**

Consistent

**Please explain the trade association's position**

EEI believes efforts to further reduce GHG emissions should involve all sectors of the economy and seek to minimize their cumulative effects on costs to customers, impact on the economy, and the reliability of the electric system. Electric utilities will continue their efforts to transition to a cleaner, more modern electric generating fleet, help improve energy efficiency, and electrify the transportation sector. EEI supports R&D to accelerate deployment of Carbon Capture and Sequestration (CCS) and advocates for laws and regulation to remove barriers to implementation.

**How have you influenced, or are you attempting to influence their position?**

Entergy is an EEI member company and actively participates on EEI's Executive Committee, Environmental Committee, Legislative Committee and GHG Committee, where it shares its points of view climate change and clean energy policy. Entergy's CEO serves on the Executive Committee, and the VP Environmental Strategy and Policy serves on the substantive Executive Environmental Advisory Committee. Entergy's CEO also serves on the Board of Directors.

**Trade association**

C2ES

**Is your position on climate change consistent with theirs?**

Consistent

**Please explain the trade association's position**

C2ES continues to favor market-based approaches that put a price on carbon as the most cost-effective means of reducing GHG emissions. C2ES also supports carbon capture and storage (CCS) is likely to be critical for reducing global greenhouse gas emissions from stationary sources. Apart from such approaches, which would require major new legislation, there is a range of actions the Administration and Congress can take to significantly reduce GHG emissions, expand clean energy sources, and make communities and critical infrastructure more climate-resilient. For example: the Administration can adopt stronger standards through 2025 for medium- and heavy-duty vehicles; finalize its proposed GHG emission standards for new power plants; set GHG emissions standards for existing power plants, while allowing states to meet them with a range of market-based measures; increase the energy efficiency of appliances and industrial equipment; open more federal lands to renewable energy development; and increase efforts to tackle short-lived climate forcers such as methane, black carbon, and HFCs.

**How have you influenced, or are you attempting to influence their position?**

As a Strategic Partner with the Center for Climate and Energy Solutions (a non-profit working to advance strong policy on the twin challenges of energy and climate change) Entergy is closely aligned with the Center's vision that using economy-wide market mechanisms to put a price on carbon as the most efficient method for incentivizing investment in energy efficiency and clean technologies to reduce GHG emissions and the importance of adaptation planning and investment to build resilience to climate change. Entergy participates on the C2ES Board of Directors and is a charter member of the C2ES Business Environment Leadership Council (BELC). Entergy supports C2ES position on the importance of CO2 Carbon Capture and Sequestration (CCS).



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**Trade association**

Americas Wetland Foundation

**Is your position on climate change consistent with theirs?**

Consistent

**Please explain the trade association's position**

Advocates for a systems approach to building resilience to wind damage, flooding and storm surge along the Gulf Coast; advocates for "multiple lines of defence" that include wetlands restoration and barrier island restoration paired with levy protection; and, encourages communities to invest in economically sensible resilience measures to reduce vulnerability to risks from climate change impacts.

**How have you influenced, or are you attempting to influence their position?**

Entergy is Americas Wetland Foundation member and a member of AWF's Americas Energy Coast organizations. Entergy and AWF share a strong view on the importance restoring and maintaining coastal wetlands and barrier islands are to building resilient communities. Recent engagements include - (1) AWF forums in late-2016/early-2017 sponsored and participated in by Entergy to explore the status and issues surrounding the Louisiana Coastal Master Plan; (2) the funding of The Lowlander Center Study "Building the Resilience of Small Coastal Businesses" (2017); and (3) participation and sponsorship of future follow-up forums (2018 and 2019). Link here [https://www.entergy.com/userfiles/content/environment/docs/LOWLANDER\\_BROCHURE.pdf](https://www.entergy.com/userfiles/content/environment/docs/LOWLANDER_BROCHURE.pdf)

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**Trade association**

Clean Energy Group

**Is your position on climate change consistent with theirs?**

Consistent

**Please explain the trade association's position**

Advocates using economy-wide market mechanisms to put a price on carbon as the most efficient method for incentivizing investment in energy efficiency and clean technologies to reduce GHG emissions; Could be in the form of cap and trade, For Utility Sector cap and trade, CEG favors an output based allocation of allowances clean Energy Standard or a Carbon Tax.

**How have you influenced, or are you attempting to influence their position?**

Entergy is a Clean Energy Group member company and actively participates in shaping Clean Entergy Group strategy energy and environmental policy.

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**Trade association**

Natural Gas Supply Collaborative

**Is your position on climate change consistent with theirs?**

Consistent

**Please explain the trade association's position**

The Natural Gas Supply Collaborative (NGSC) is a voluntary collaborative of natural gas purchasers that are promoting safe and responsible practices for natural gas supply. Natural gas plays a vital role in the U.S. energy mix. This abundant domestic resource currently provides significant economic and environmental benefits to customers in the electric power, residential, industrial and commercial sectors and across the U.S. economy. At the same time, as public-facing companies in the natural gas value chain, electric generators and natural gas utilities face questions from the public, regulators, investors, and other stakeholders concerning natural gas production.

**How have you influenced, or are you attempting to influence their position?**

Entergy has joined the Natural Gas Supply Collaborative, an effort focused on engaging fuel suppliers to understand and address upstream methane emissions in the exploration, production and transmission/transportation process.

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**Trade association**

Gulf Coast Carbon Collaborative

**Is your position on climate change consistent with theirs?**

Consistent

**Please explain the trade association's position**

In recent years, businesses in the Gulf Coast region have grown increasingly motivated to reduce carbon emissions but have faced challenges in accessing the technology, information and capital required to develop and implement effective strategies. With support from Entergy, the U.S. Business Council for Sustainable Development launched the Gulf Coast Carbon Collaborative to create a cross-sector platform aimed at reducing the region's carbon emissions and impact while preserving and enhancing its economic vitality. The ongoing cross-sector collaboration effort addresses challenges and empowers managers and decision-makers to create strategies through shared experiences that will help protect regional assets and economic opportunity. "

**How have you influenced, or are you attempting to influence their position?**

Establishing and supporting this collaborative is part of Entergy's long-term commitment to the sustainability of its communities and operations. Entergy leaders understand that the company's growth potential depends on the health and sustainability of the four-state area it serves. This region offers a rare combination of resources: a business-friendly, central U.S. location with direct access to raw materials and markets; an expansive infrastructure; and a skilled, affordable workforce. Entergy intends to reduce the overall carbon emissions from and impacts to its region and help businesses thrive in a responsible, sustainable way.

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**C12.3d****(C12.3d) Do you publicly disclose a list of all research organizations that you fund?**

No

**C12.3f**

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**(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?**

Entergy's fundamental view of climate change – that it poses a significant risk to our region, our business, our society and our planet – has not changed since we adopted our first carbon dioxide emissions goal in 2001. We believe the United States needs to be part of a larger global strategy to reduce greenhouse gas emissions, as well as to adopt adaptation and resiliency strategies for more vulnerable areas. Entergy has developed "guiding principles" that we believe should drive national and international climate change policies. These principles were first published in our 2007 sustainability report. Today, the company's position on carbon mitigation policy is guided by the following principles:

- Climate change presents a risk to our corporate assets and to our customers, employees, communities and owners;
- Optimally, greenhouse gas control mechanisms should be economy-wide and send a stable, predictable price signal to stimulate investment in efficient, low-carbon technologies and to take advantage of the potential net emission reductions from the electrification of other sectors of the economy;
- As a society, we need to employ advanced technologies to electrify the more carbon-intensive transportation, commercial and industrial sectors of the economy, even as the electricity sector continues to work to further decarbonize the generation fleet;
- We need to act across the entire global economy to seek balance between CO2 emission sources and sinks and to increase the resilience of both our natural and built environments;
- We support efforts to engage our stakeholders and partners in the communities we serve to evaluate and deploy adaptation efforts, resiliency investments and natural sequestration opportunities; and
- We support built-in, permanent protection for low-income customers in any greenhouse gas control mechanism.

For nearly two decades, Entergy has advocated for national action on climate issues based on similar principles. Entergy has engaged policymakers directly and through collaborative groups and various trade associations. Entergy also has engaged with communities within our utility service area on strategies for adaptation and resiliency.

**C12.4**

**(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).**

**Publication**

In voluntary sustainability report

**Status**

Complete

**Attach the document**

GHG\_Inventory\_Mgmt\_Plan\_Reporting\_Document\_2019 (1).pdf

**Page/Section reference**

All

**Content elements**

Emissions figures  
Emission targets

**Comment**

2019 Greenhouse Gas Inventory Management Plan and Reporting Document

**Publication**

In voluntary sustainability report

**Status**

Complete

**Attach the document**

2019\_Integrated\_Report (Entergy).pdf

**Page/Section reference**

45-70

**Content elements**

Governance  
Strategy  
Risks & opportunities  
Emissions figures  
Emission targets  
Other metrics

**Comment**

2019 Integrated Report

**Publication**

In voluntary sustainability report

**Status**

Complete

**Attach the document**

**Page/Section reference**

All

**Content elements**

Governance  
Strategy  
Risks & opportunities  
Emissions figures  
Emission targets  
Other metrics

**Comment**

Climate Scenario Analysis and Evaluation of Risks and Opportunities

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**Publication**

Other, please specify (Proxy Statement)

**Status**

Complete

**Attach the document**

2020\_Proxy\_Statement.pdf

**Page/Section reference**

25

**Content elements**

Governance  
Strategy

**Comment**

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**Publication**

In other regulatory filings

**Status**

Complete

**Attach the document**

2019\_Form\_10-K.pdf

**Page/Section reference**

266 - 274

**Content elements**

Governance  
Strategy  
Risks & opportunities  
Other, please specify (Environmental regulations)

**Comment**

SEC Form 10K

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**Publication**

Other, please specify (Investor Guide)

**Status**

Complete

**Attach the document**

2019\_Investor\_Guide.pdf

**Page/Section reference**

**Content elements**

Governance  
Strategy  
Other metrics

**Comment**

Investor Guide

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## C15. Signoff

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C-FI

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(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

N/A

### C15.1

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(C15.1) Provide details for the person that has signed off (approved) your CDP climate change response.

|       | Job title                                    | Corresponding job category |
|-------|--|----------------------------|
| Row 1 | Executive Vice President and General Counsel | Other C-Suite Officer      |

### Submit your response

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In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

|                             | I am submitting to | Public or Non-Public Submission |
|-----------------------------|--------------------|---------------------------------|
| I am submitting my response | Investors          | Public                          |

Please confirm below

I have read and accept the applicable Terms