As Southern Company works to achieve a net zero carbon future, we remain committed to our core principles of providing clean, safe, reliable and affordable energy to our customers and communities.

Southern Company’s commitment to delivering energy and energy solutions includes conserving and protecting the environment for today and for future generations. In May 2020, we updated our long-term emissions reduction goal to net zero emissions by 2050, and we have already made significant progress towards our 2030 goal of reducing emissions by 50%.

We endeavor to actively engage all our stakeholders – including customers and stockholders – in a productive, transparent conversation about how we are strategically planning for the future while delivering value and growth. In that spirit of engagement and transparency, Southern Company participated in the CDP Climate Disclosure again for 2020.

We are pleased to announce our 2020 score of A- which places Southern Company within the Leadership level among the companies utilizing current practices in climate disclosure.

We encourage you to use the following survey response as well as the resources below to learn more about our business and Southern Company’s plans for achieving a net zero future.

Planning for a Low-Carbon Future
Corporate Responsibility Reports
EEI ESG/Sustainability Reporting Template
C0. Introduction

C0.1
Southern Company is a leading energy company, which, through its subsidiaries, has 42,000 megawatts (MW) of generating capacity and 1,500 billion cubic feet of combined natural gas consumption and throughput volume serving 9 million customers. We provide clean, safe, reliable and affordable energy through electric operating companies in three states, natural gas distribution companies in four states, a competitive generation company serving wholesale customers across America, a leading distributed energy infrastructure company, a fiber optics network and telecommunications services. For more than a century, Southern Company has been building the future of energy, delivering the energy resources and solutions our customers and communities need to drive growth and prosperity.

Southern Company is a holding company that conducts its business through its subsidiaries. Accordingly, unless the context otherwise requires, references in this document to Southern Company’s operations refer to those operations conducted through its subsidiaries. In this document, the terms we, us, our, Southern, SO and the Company all refer to the Southern Company system.

We are the only electric-gas combination utility in the U.S. developing the full portfolio of generation resources, including carbon-free nuclear, advanced carbon capture technologies, natural gas, renewables such as wind and solar, and energy-efficiency and storage technologies. We are investing more than $20 billion between 2010 and 2020 in this low- and no- carbon portfolio of generation resources and are one of the few U.S. utilities engaged in a comprehensive research and development (R&D) program that has a goal of delivering an affordable and reliable net zero energy system.

Southern Company is committed to meeting customers’ current and future energy needs, while setting a long-term goal to transition to net-zero carbon operations by 2050 and an intermediate goal to reduce carbon emissions from 2007 levels by 50 percent by 2030. Current projections now indicate that we could achieve our 50% reduction goal a full five years early, by 2025.

Three key pillars support our approach to reducing carbon dioxide emissions:

- A diverse energy resource portfolio to include low-carbon and carbon-free resources, negative carbon solutions and energy efficiency resources
- Industry-leading R&D, focusing on technologies that lower greenhouse gas (GHG) emissions
- Constructive engagement with policymakers and others to support outcomes that lead to a net zero future

Our path toward net zero will include continued coal transition, utilization of natural gas to enable fleet transition, aggressively growing our investment in renewable energy, modernizing the grid, building the first new nuclear generating units in a generation, solving energy challenges through robust R&D, incorporating negative carbon solutions, and investing in energy efficiency for savings on both sides of the meter.

We have already made significant progress with a full portfolio approach to electric generation resource diversity, focused on maintaining reliability and affordability while reducing carbon emissions. Since 2007, we have significantly transformed the Southern Company system’s electricity generation mix, with coal decreasing from 69% to 22% and renewables/other increasing from 1% to 12% of our annual energy mix. Our current portfolio of more than 13,500 MW of carbon-free generation capacity has established a foundation enabling us to continue our carbon reduction efforts.

Our subsidiary, Southern Company Gas, is a founding member in Our Nation’s Energy (ONE) Future and for our natural gas distribution operations, we aspire to remain aligned with ONE Future’s 2025 goal. Our natural gas distribution operation’s fugitive methane intensity for 2019 using the ONE Future methodology is 0.135 percent, well below ONE Future’s 2025 goal of 0.44 percent for local distribution companies.

Our dedicated R&D organization leverages a diverse research portfolio and collaborates with the U.S. government, other utilities, universities and industry in development of new technologies for energy production, delivery and use. This leadership is inventing innovative solutions for a net-zero energy future.

We are engaging with policymakers, investors, customers and other stakeholders to help shape an energy policy that enhances optionality across the entire energy value chain and supports the development and deployment of more carbon-free energy sources, while ensuring that each state we serve retains the ability to adequately plan and deploy resources that meet the needs of its citizens and communities.

As we work to achieve a net zero carbon future, we remain committed to our core principles of providing clean, safe, reliable and affordable energy to our customers.

Our responses contain forward-looking information. For cautionary statements regarding forward-looking information, please go to Section 15, (C-FI).
(C0.2) State the start and end date of the year for which you are reporting data.

<table>
<thead>
<tr>
<th>Reporting year</th>
<th>Start date</th>
<th>End date</th>
<th>Indicate if you are providing emissions data for past reporting years</th>
<th>Select the number of past reporting years you will be providing emissions data for</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>January 1 2019</td>
<td>December 31 2019</td>
<td>No</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
</tbody>
</table>

C0.3

(C0.3) Select the countries/areas for which you will be supplying data.
United States of America

C0.4

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

C0.5

(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

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

<table>
<thead>
<tr>
<th>Frequency with which climate-related issues are a scheduled agenda item</th>
<th>Governance mechanisms into which climate-related issues are integrated</th>
<th>Scope of board oversight</th>
<th>Please explain</th>
</tr>
</thead>
</table>

**Board Chair**

The Board Chair, who also serves as Chief Executive Officer (CEO) of the Company, has direct responsibility for climate-related issues including setting the strategy to decarbonize the Southern Company system. Key elements include leading strategic resource planning and associated capital allocation, setting annual budgets, evaluating unrelated low-carbon investments, leading climate-related risk assessments, investing in R&D, and assessing climate-related controls and compliance. The Chair engages with investors and stakeholders on climate-related topics, including the Climate Action 100 investor initiative, which provides valuable insight into investors' climate-related priorities and positions. The Chair takes this input into consideration in evaluating strategic priorities. For example, the Chair, in conjunction with senior executives and in consultation with the Board, led a continuing discussion on Southern’s decarbonization efforts that evolved to incorporate concepts related to negative carbon solutions. In May 2020, the Chair formally announced that Southern has updated its long-term GHG emissions reduction goal to net-zero emissions by 2050 and stated that Southern is expected to meet its 2030 reduction goal ahead of schedule, and possibility as early as 2025.

**Director on board**

The Board’s Lead Independent Director (LD) also serves as a member of the Operations, Environmental and Safety (OES) Committee in 2019. Throughout 2019, the LD (and other members of the Board) reviewed reports on a broad range of climate-related topics at each Board meeting. Quarterly reports on progress in achieving our GHG emission reduction goals are provided and discussed. There is quarterly reporting on Plant Vogtle Units 3 and 4 construction progress (new carbon-free nuclear generation) and robust discussions around integrated resource planning, scenario planning and analysis and its underlying assumptions. During 2018 and 2019, the LD directly engaged with a number of our investors on climate-related topics, including investors representing the Climate Action 100 initiative, which provides valuable insight into climate-related priorities and positions. The LD takes this input into consideration in evaluating and overseeing climate-related strategic priorities. In addition, starting in 2019 and continuing into 2020, the LD was involved in leading Board discussions on incorporating concepts related to negative carbon solutions into Southern’s decarbonization efforts, as well as understanding investor and stakeholder interests in net zero. These discussions ultimately resulted in the May 2020 announcement that Southern has updated its long-term GHG emissions reduction goal to net-zero emissions by 2050. The LD played a leadership role in developing the updated target of net zero emissions by 2050. In addition, the LD provided input and oversight in the development of Southern’s Implementation and Action Toward Net Zero report, which is planned for release in 2020.

**Chief Executive Officer (CEO)**

The CEO, who also serves as Board Chair, has direct responsibility for climate-related issues including setting the strategy to decarbonize the Southern Company system. Key elements include leading strategic resource planning and associated capital allocation, setting annual budgets, evaluating unrelated low-carbon investments, leading climate-related risk assessments, investing in R&D, and assessing climate-related controls and compliance. The CEO engages with investors and stakeholders on climate-related topics, including the Climate Action 100 investor initiative, which provides valuable insight into investors' climate-related priorities and positions. The CEO takes this input into consideration in evaluating strategic priorities. For example, the CEO, in conjunction with senior executives and in consultation with the Board, led the analysis, recommendation and decision to set, in April 2018, GHG reduction goals for our electric and gas operations of 50% by 2030 and low-to-no-GHG emissions by 2050. The CEO developed a three-pronged strategy to achieve the goals: (1) pursue a diverse energy resource portfolio that includes low-carbon and carbon-free resources and energy efficiency resources; (2) continue our industry-leading R&D, focusing on technologies that lower GHG emissions; and (3) constructively engage with policymakers, regulators, investors, stakeholders and customers to support outcomes that lead to a low-carbon future. Further, during 2019 and into 2020, the CEO, in conjunction with senior executives and in consultation with the Board, led a continuing discussion on Southern’s decarbonization efforts that evolved to incorporate concepts related to negative carbon solutions. In May 2020, the CEO formally announced that Southern has updated its long-term GHG emissions reduction goal to net-zero emissions by 2050 and stated that Southern is expected to meet its 2030 reduction goal ahead of schedule, and possibility as early as 2025.
<table>
<thead>
<tr>
<th>Frequency with which climate-related issues are a scheduled agenda item</th>
<th>Governance mechanisms into which climate-related issues are integrated</th>
<th>Scope of board-level oversight</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scheduled – all meetings</td>
<td>Reviewing and guiding strategy</td>
<td>&lt;Not Applicable&gt;</td>
<td>Climate-related issues are integrated into all of the governance mechanisms listed. The OES Committee oversees, reviews and guides strategy on climate-related issues and significant environmental and safety policy and planning issues relevant to Southern Company, including but not limited to business strategies designed to address the long-term reduction of carbon emissions and related risks and opportunities across the system, as well as programs, policies, and procedures to protect the environment and provide a healthy and safe environment for employees, customers, contractors, and the public. The OES Committee was responsible for overseeing the setting of performance objectives with respect to the initial 2030 and 2050 GHG emission reduction goals set in 2018 and similarly played an instrumental role in updating the long-term goal to net zero by 2050, as announced in May 2020. In order to monitor the implementation of performance objectives and progress against goals and targets for addressing climate-related issues, the OES Committee receives regular reports on and engages in robust discussion on a range of climate-related topics at each board meeting. For example, regular quarterly reports are provided to and discussed with the OES Committee on the Company’s progress in achieving its GHG emission reduction goals for 2030 and 2050. Regular quarterly reporting and robust discussions on the Company’s progress with respect to the construction of Plant Vogtle Units 3 and 4 (new carbon-free nuclear generation) are also undertaken, as are regular robust discussions around integrated resource planning, scenario planning and analysis and the underlying assumptions for the scenario analysis. In addition, the OES Committee receives regular reports on operating units’ safety and environmental activities and engages in robust discussions about carbon emissions and carbon risks and strategic planning. Starting in 2019 and continuing into 2020, the OES Committee began regular discussions on incorporating concepts related to negative carbon solutions into Southern’s decarbonization efforts, as well as understanding investor and stakeholder interests in net zero. These discussions ultimately resulted in the May 2020 announcement that Southern has updated its long-term GHG emissions reduction goal to net zero emissions by 2050. In addition, the OES Committee provided input and oversight in the development of Southern’s Implementation and Action Toward Net Zero report, which is planned for release in 2020. Further, the OES Committee has worked directly with the CMS Committee to establish an incentive compensation award that ties ten percent of the CEO’s long-term equity incentive compensation to the achievement of the Company’s 2030 and 2050 GHG emission reduction goals and supports execution of the business strategy.</td>
</tr>
<tr>
<td>Scheduled – all meetings</td>
<td>Reviewing and guiding risk management policies</td>
<td>&lt;Not Applicable&gt;</td>
<td>The NGR Committee oversees and reports to the full Board on the composition and competencies of the Board and its committees. Specifically, the Committee considers the qualifications, skills and attributes of the directors and the needs of the full Board to ensure that the skills represented on the Board allow the Board to review and guide strategy and risk management policies. Competencies considered by the Committee include expertise in climate-related matters and environmental policy and regulation, among others. Appropriate climate experience and credibility are specifically considered in this process. The NGR Committee also oversees corporate governance policies, including but not limited to, reviewing and making recommendations to the Board regarding Southern Company’s practices and positions to advance its corporate citizenship, including environmental, sustainability and corporate social responsibility initiatives. The NGR Committee receives quarterly updates about Southern Company’s ongoing stockholder engagement program and feedback received from stockholders on ESG topics, including climate-related risks and disclosures.</td>
</tr>
<tr>
<td>Scheduled – all meetings</td>
<td>Reviewing and guiding major plans of action</td>
<td>&lt;Not Applicable&gt;</td>
<td>The Audit Committee oversees the Company’s financial reporting, audit process, internal controls and legal, regulatory and ethical compliance, which encompasses climate-related controls and compliance issues. In this role, the Audit Committee reviews and guides risk management policies that include climate-related risks.</td>
</tr>
<tr>
<td>Scheduled – all meetings</td>
<td>Reviewing and guiding major plans of action</td>
<td>&lt;Not Applicable&gt;</td>
<td>The Finance Committee reviews the financial strategy of and the strategic deployment of capital by the Company, which includes the Company’s carbon emissions reduction strategy and the associated use of capital to accomplish those goals. In this role, the Finance Committee reviews and guides annual budgets and business plans and oversees major capital expenditures with respect to climate-related issues.</td>
</tr>
</tbody>
</table>
The CMS Committee is responsible for reviewing and approving compensation plans and programs, including performance-based compensation awards that incorporate carbon reduction and other environmental-related metrics. The CMS Committee worked directly with the OES Committee to establish a new CEO incentive compensation award granted in 2018 for the three-year performance period from 2018-2021 that ties ten percent of the CEO’s long-term equity incentive compensation to the achievement of the Company’s 2030 and 2050 GHG emission reduction goals using quantitative and qualitative metrics. The long-term equity incentive compensation award concept was again utilized for the 2020-2022 performance period. Through the award, the CMS Committee has set performance objectives and monitors implementation and achievement of those objectives with respect to execution of our business strategy related to reducing GHG emissions. The CMS Committee regularly assesses the goal rigor of the award metrics as Southern continues to decarbonize its system. In 2020, the CMS Committee raised the stretch goal for 2020, meaning that it is more challenging to reach the maximum payout for the 2020-2022 performance period.

The BSR Committee reviews and evaluates cyber and physical risks posed to the Southern Company system’s facilities and operations, including risks posed by severe weather events and the system’s ability to withstand, mitigate and recover from the effects of any such events. In this role the Committee oversees efforts to secure the grid and maintain safe and reliable delivery of energy to customers in multiple risk scenarios, including climate-related risks.

**C1.2**

**C1.2a**

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

<table>
<thead>
<tr>
<th>Name of the position(s) and/or committee(s)</th>
<th>Reporting line</th>
<th>Responsibility</th>
<th>Coverage of responsibility</th>
<th>Frequency of reporting to the board on climate-related issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief Executive Officer (CEO)</td>
<td>&lt;Not Applicable&gt;</td>
<td>Both assessing and managing climate-related risks and opportunities</td>
<td>&lt;Not Applicable&gt;</td>
<td>More frequently than quarterly</td>
</tr>
<tr>
<td>Chief Financial Officer (CFO)</td>
<td>&lt;Not Applicable&gt;</td>
<td>Both assessing and managing climate-related risks and opportunities</td>
<td>&lt;Not Applicable&gt;</td>
<td>More frequently than quarterly</td>
</tr>
<tr>
<td>Other C-Suite Officer, please specify (Executive Vice President (EVP) of Operations)</td>
<td>&lt;Not Applicable&gt;</td>
<td>Both assessing and managing climate-related risks and opportunities</td>
<td>&lt;Not Applicable&gt;</td>
<td>More frequently than quarterly</td>
</tr>
<tr>
<td>Other, please specify (Senior Vice President (SVP) Environmental &amp; System Planning)</td>
<td>&lt;Not Applicable&gt;</td>
<td>Both assessing and managing climate-related risks and opportunities</td>
<td>&lt;Not Applicable&gt;</td>
<td>More frequently than quarterly</td>
</tr>
<tr>
<td>Other C-Suite Officer, please specify (EVP, Chief Legal Officer &amp; Chief Compliance Officer)</td>
<td>&lt;Not Applicable&gt;</td>
<td>Both assessing and managing climate-related risks and opportunities</td>
<td>&lt;Not Applicable&gt;</td>
<td>More frequently than quarterly</td>
</tr>
<tr>
<td>Other C-Suite Officer, please specify (EVP and Pres. of External Affairs)</td>
<td>&lt;Not Applicable&gt;</td>
<td>Both assessing and managing climate-related risks and opportunities</td>
<td>&lt;Not Applicable&gt;</td>
<td>More frequently than quarterly</td>
</tr>
<tr>
<td>Other committee, please specify ( Subsidiary Presidents )</td>
<td>&lt;Not Applicable&gt;</td>
<td>Both assessing and managing climate-related risks and opportunities</td>
<td>&lt;Not Applicable&gt;</td>
<td>More frequently than quarterly</td>
</tr>
</tbody>
</table>
Southern Company's Chairman/CEO has direct responsibility for climate-related issues including setting strategy and oversight of carbon emission reductions. Key elements of this responsibility include, for example, leading strategic resource planning and associated capital allocation, setting annual budgets, evaluating unregulated low-carbon and zero-carbon investments, leading climate-related risk assessments, investing in R&D and innovation, and assessing climate-related controls and compliance.

The CEO leads a team of the most senior officers across the Southern Company system, called the Southern Company Management Council (SCMC). Other members of the SCMC include the Company's CFO; EVP of operations; EVP and president of external affairs; EVP, chief legal officer and chief compliance officer; and the CEOs of each operating company and Southern Company Services.

The SCMC meets monthly to discuss major business decisions with respect to operations, employees and customers. At SCMC meetings, there are regular discussions of climate-related issues, such as resource planning across the system and at each operating company. Federal and state environmental regulation and policy, and engagement with regulators, customers, stakeholders and stockholders on carbon emission risks and opportunities are also regularly discussed.

For example, in 2019 and into 2020, the Chairman/CEO, in conjunction with the SCMC and in consultation with the Board, led a series of discussions on Southern’s decarbonization efforts that evolved to incorporate concepts related to negative carbon solutions. The SCMC began to discuss the potential to revise the long-term goal, reflecting emissions reduction progress to date, expected future resource decisions, and taking into account conversations with a wide variety of external stakeholders. As a result of these discussions, in May 2020, the Chairman/CEO formally announced that Southern has updated its long-term GHG emissions reduction goal to net zero emissions by 2050 and stated that Southern is expected to meet its 2030 reduction goal ahead of schedule, and possibly as early as 2025.

Additional roles and responsibilities in monitoring climate-related issues include the following.

- The CFO also serves as Southern Company’s Chief Risk Officer. Responsibilities related to climate change include capital allocation for major projects, enterprise-wide risk assessments and financial disclosures which include environmental risk and carbon-related risks. Officers and senior managers are responsible for working across the business to manage enterprise-level risk, monitor the performance of risk mitigation strategies and identify emerging risks. They meet routinely and engage regularly with the Board and its committees throughout the year.

- The EVP of Operations and his direct report, the SVP of Environmental and System Planning, have primary responsibility for system planning, which includes a regular full-scale assessment of Southern Company’s generation fleet, including long-term planning for generation resources. The EVP of Operations and SVP of Environmental and System Planning are responsible for monitoring and reporting on progress against the GHG reduction goals. The SVP, Environmental and System Planning is integral to investor and stakeholder outreach and regularly participates in investor and stakeholder engagement meetings to discuss the Company’s decarbonization progress, the Company’s integrated resource planning process, scenario planning and environmental policies, and programs. Southern Company’s environmental affairs managers are responsible for environmental programs, including carbon policy activities, for the Southern Company system. The environmental affairs managers report to the SVP, Environmental and System Planning.

- The EVP, Chief Legal Officer and Chief Compliance Officer’s responsibilities include legal and ethical compliance programs, interaction with state and federal regulators, and engaging with investors and stakeholders to discuss climate-related issues such as the GHG emission reduction goals and the risks and opportunities to the Company in the transition to a net zero future.

- The EVP and President of External Affairs’ responsibilities include climate-related outreach at the state and federal levels across regulatory and legislative agencies, oversight of the Company’s Corporate Responsibility Report and engaging with investors and stakeholders and on carbon and climate policy issues, including transparency on political contributions and lobbying efforts.

- Operating Company CEOs (Alabama Power, Georgia Power, Mississippi Power, Southern Company Gas) are a part of the SCMC and are responsible for interfacing at the state level on resource planning proposals, and outreach to state and federal legislators and their regulators, and directly oversee safety, compliance and risk management programs at their individual utilities.

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**C1.3**

**Do you provide incentives for the management of climate-related issues, including the attainment of targets?**

<table>
<thead>
<tr>
<th>Provide incentives for the management of climate-related issues</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Details provided below.</td>
</tr>
</tbody>
</table>

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**C1.3a**
C2.1a Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

<table>
<thead>
<tr>
<th>Entitled to incentive</th>
<th>Type of incentive</th>
<th>Activity incentivized</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief Executive Officer (CEO)</td>
<td>Monetary reward</td>
<td>Emissions reduction target</td>
<td>The CEO’s compensation includes a 3-year incentive award that is aligned with our 2030 and 2050 GHG reduction goals. The Board tied a significant portion of the CEO’s long-term equity incentive compensation (LTI) award to achievement of the GHG reduction goals. Ten percent of the CEO’s 2019 LTI award is aligned with the goals, equivalent to a potential payout of up to $2 million based on achieving maximum performance through 2021. The CMS and OES Committees worked together to design the award with a shared desire for a measurable, quantitative component aligned with the 2030 goal of 50% reduction in GHG emissions and a qualitative component to incentivize actions aimed at achieving the 2050 goal. The quantitative metric is defined in terms of net MW change and is earned by setting new zero-carbon resources into operation and placing coal in retirement or inactive reserve status during the 3-year period from 2019 through 2021, aligning with our 2030 goal. For a target payout, the system must achieve a 3,080 net MW change. For a maximum payout (150% of target), the system must achieve a 3,518 net MW change. No payout is received if the system’s net MW change by 2021 is less than 2,204, and a 50% payout is received if the system’s net MW change by 2021 is 2,641. The qualitative metric creates an incentive to achieve our 2050 goal. Factors to be considered include: leadership in energy policy, R&amp;D investment, and new business development (e.g., renewables, distributed generation, distributed infrastructure). Achievement is determined by the Board. For maximum performance, a 30% modifier is applied to the payout determined under the quantitative metric. The CMS Committee has again included the GHG goal as part of the CEO’s long-term equity incentive award for the 2020 through 2022 performance period. Quantitative Metric: Performance over the period remains aligned with a trajectory to our 2030. The 150% payout stretch net MW change goal for 2020-2022 has been set at 60% higher than the target net MW change goal, meaning that it is more challenging to reach the maximum payout for the 2020-2022 performance period. Threshold for 2020-2022 has been set to the target level of the 2019-2021 goal, preventing any payout if the target of the 2019-2021 performance period is not reached. Qualitative Modifier: Qualitative payout modifier categories remain the same.</td>
</tr>
<tr>
<td>Other, please specify (Most employees, CEO &amp; Senior Management)</td>
<td>Monetary reward</td>
<td>Emissions reduction target Energy reduction target Efficiency project</td>
<td>We believe in pay for performance and design our compensation program to attract, engage, competitively compensate and retain employees through a mix of base pay and incentive pay. Incentive pay includes an annual incentive program that includes operational &amp; financial goals. Nearly all employees participate in our annual Performance Pay Program. - Several operational goals are important to reducing carbon emissions. Nuclear energy is net-zero carbon and one of the cleanest, most reliable &amp; cost-effective fuel sources available. Its importance in our portfolio continues to grow with the new nuclear units being constructed at Plant Vogtle. Annual assessments of nuclear construction progress are part of the operational goals for many of our senior management team, including our CEO, CFO, &amp; other C-suite officers. Nuclear plant operations are also part of the operational goals’ payout for many senior managers &amp; for thousands of employees at key company subsidiaries. We measure safety, reliability, &amp; availability of the nuclear fleet because those metrics are crucial for delivering clean, net-carbon energy at a reasonable price. Customer satisfaction is a key performance metric. Customer satisfaction includes customer feedback on local perceptions of utility service, including the balance between maintaining affordable prices &amp; minimizing environmental impact. Local customer preferences also drive the regulatory process &amp; implementation of renewable resources and energy efficiency programs that reduce the environment impact. Generation availability and reliability is a key performance metric. It allows us to track efficient usage of our entire fleet, which includes a mix of lower emission fuel alternatives. Energy efficiency has the benefit of both lowering costs for customers and reducing GHG emissions. These benefits attract economic development resulting in job growth for local economies. This development also helps grow the EPS and thereby benefits all employees through the incentive pay plan. - Achieving annual financial goals, including EPS and business unit net income goals, is crucial to executing on our customer-centric business model. Maintaining this business model provides the opportunity to effectively respond to future carbon regulations &amp; the potential to succeed in an accelerated transition to a low carbon business environment.</td>
</tr>
<tr>
<td>Other, please specify (Almost all employees of So. Gas)</td>
<td>Monetary reward</td>
<td>Emissions reduction target Energy reduction target Efficiency project</td>
<td>For employees of our Southern Company Gas subsidiary, including the CEO of Southern Company Gas, operational goals under the annual Performance Pay Program include leak response performance and pipeline replacement projects that reduce methane emissions.</td>
</tr>
<tr>
<td>Other, please specify (Management group, including CEO)</td>
<td>Monetary reward</td>
<td>Emissions reduction project Energy reduction project Efficiency project</td>
<td>Our management group, including our CEO, CFO, and other C-suite officers, has a portion of the annual Performance Pay Program incentive tied to the achievement of individual goals. - Depending on the individual’s position, individual goals may include environmental matters, energy efficiency, expansion of low- and no-carbon resources, and progress in research and development related to emission reduction efforts, among others. For the CEO, individual performance considered by the CMS Committee and the Board in determining his 2019 annual incentive award (and disclosed in Southern Company’s proxy statement) included • Productive long-term strategy of transitioning the fleet, including: 2019 energy mix is down to 22% coal; reduced GHG emissions by 44% through 2019 as compared to 2007 levels; continued investments in renewables; retired 1,800 MW of coal generation • Continued to drive ESG strategy and engage with key stakeholders, including ongoing substantive engagement with environmental stakeholder groups throughout the year. • Reached our pre-established major milestones for 2019 at Georgia Power’s Plant Vogtle Units 3 and 4 construction project while maintaining costs in line with our approved budget.</td>
</tr>
<tr>
<td>Other, please specify (Senior Management)</td>
<td>Monetary reward</td>
<td>Emissions reduction project Energy reduction project Efficiency project</td>
<td>Our strategy is to maximize long-term value to stockholders through a customer, community, and stakeholder focused business model that produces sustainable levels of return on energy infrastructure, and our long-term equity incentive program is intended to further this goal by directly tying a portion of compensation to the interests of stockholders. For senior management, including our CEO, CFO, and other C-suite officers, a substantial portion of their compensation is tied to the long-term equity incentive award, which includes measuring total shareholder return over a three-year period. Crucial to creating long-term stockholder value is the effective management of the risks and opportunities presented by carbon emission reductions and successfully sustaining and evolving our business as we transition to a net zero future. Our strategy for reducing carbon emissions includes aggressively growing our investment in renewable energy generation, modernizing the grid to optimize technological advancements, increasing the use of natural gas, building new nuclear units, continuing our industry-leading research and development efforts and investing in energy efficiency for savings on both sides of the meter. While these monetary awards are not specifically tied to emission reductions, effective implementation of these strategies results in direct Scope 1 emission reductions.</td>
</tr>
<tr>
<td>Other, please specify (Almost all employees)</td>
<td>Monetary reward</td>
<td>Emissions reduction project Energy reduction project Efficiency project</td>
<td>Southern Excellence Awards are given to employees for immediate recognition of superior performance. Employees who work to further climate-related initiatives, including emission reductions, R&amp;D that furthers carbon-free and carbon-neutral generation resources, energy efficiency programs, the electrification of transportation and the promotion of our environmental stewardship and sustainable business practices, are eligible to receive these awards.</td>
</tr>
</tbody>
</table>
(C2.1a) How does your organization define short-, medium- and long-term time horizons?

<table>
<thead>
<tr>
<th></th>
<th>From (years)</th>
<th>To (years)</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short-term</td>
<td>0</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Medium-term</td>
<td>2</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Long-term</td>
<td>10</td>
<td>30</td>
<td></td>
</tr>
</tbody>
</table>

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

Risks are identified based on potential substantive financial or strategic impact to the business with levels of impact ranging from 10s of millions of dollars to billions of dollars on the high end of the scale.

Enterprise Risk Management (ERM) generally refers to a comprehensive approach to risk management and oversight throughout an organization that is integrated with strategic planning activities (prioritize risks and allocate resources appropriately to better manage the business and mitigate risk). These risks include climate-related risks to the enterprise. While Southern Company has a group of employees designated to facilitate and implement its ERM program, it is generally understood that risk management is everyone’s responsibility from the Board of Directors to each employee. The goal of ERM at Southern Company is to provide a clear understanding of the risks facing the Company and to ensure that oversight and accountability are appropriately defined. Risk governance and oversight is largely embedded in existing organization and control structures such as normal management oversight, project review processes, internal auditing, legal and regulatory compliance programs, and Sarbanes Oxley compliance programs. ERM governance provides structure to bring together these efforts to facilitate communications across entities and functions, promote consistency and the use of best practices, create a unified view of risk, and help incorporate risk into strategy considerations. The ERM program includes a risk profile process which is used to identify, assess, and plan for the mitigation of risks, including climate-related risks, throughout the Southern Company system and culminates in formal risk profiles for each participating entity. Southern Company’s risk profile process is a bottom-up approach to risk identification and performed from a business unit and functional area perspective for robustness. This approach utilizes the expertise of our employees in identifying the major risks and promotes a risk-aware culture across the Company. The risk profile process currently includes approximately 18 participating entities (operating companies, business units and functional areas) and 17 risks of materiality, which include climate-related risks such as environmental regulations/legislation as well as grid and generation resiliency.

Additionally, information gathered through non-ERM processes, such as disclosures, auditing, and system and financial planning, are used for insight and monitoring of the ERM program. All risks are categorized and evaluated and ultimately the top risks are consolidated into a Southern Company profile which require the focused attention of the Board and the SCMC. Profiles are used as inputs to various business processes at the entity, corporate, and Board of Director levels. A carbon related risk has been incorporated in Southern’s ERM program’s risk profile process since the early 2000’s and started with an initial focus on the risk of laws and regulations.

The Board of Directors is responsible for oversight of strategy and risk, including risks related to climate-related matters. The Board recognizes the potential impacts on our business and the transitional risks and opportunities the utility industry faces in a future that places additional pressure on carbon emissions. The Board regularly assesses the company’s short- and long-term business strategy, including the long-term sustainability of its business, in light of these climate-related risks and opportunities. Issues that are the subject of active discussions at the Board and Board committee meetings include climate-related risks, regulatory compliance, energy efficiency, renewable energy generation and emerging technology.

All Board members are actively involved in our risk oversight function. The Board reviews our risk profile and ensures that oversight of each risk is properly designated to an appropriate Board committee or the full Board. Each Board committee provides ongoing oversight for the risk designated to it, reports to the Board on their oversight activities and elevates review of risk issues to the Board as appropriate. Independent directors chair each Board committee, and each committee has a designated member of executive management as the primary responsible officer for providing information and updates to the Board committee related to significant risks. There is regular, open communication between management and the Board on these topics throughout the year.

(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**
We have a robust ERM program that facilitates identification, communication and management of the significant potential risks in a formal process. Within this framework, risk governance and oversight are largely embedded in existing organizational and control structures. As part of the governance structure, the Chief Risk Officer is accountable to the CEO and the Board for ensuring that enterprise risk oversight and management processes are established and operating effectively. Officers and senior managers are responsible for working across the business to manage enterprise-level risk, monitor the performance of risk mitigation strategies and identify emerging risks. They meet routinely and engage regularly with the Board and its committees throughout the year in consideration of short, medium, and long-term risks. The OES Committee of the Board is charged with review and oversight of the significant operating segments and significant environmental and safety policies, including addressing long-term reduction of carbon emissions. For the energy industry, high-capital, long-life assets require long-term planning. The current transition in the energy industry along with a net zero carbon future is placing new and different pressures on the traditional energy production and delivery model, creating uncertainty and presenting challenges. The investor community recognizes this as potential risk. Southern Company aims to minimize our exposure to climate-related risk across the energy value chain as we make, move and sell energy to a wide customer base. Our business model relies heavily on state-regulated electric and natural gas investments as well as long-term contracted energy infrastructure, which differentiates Southern Company from other businesses. We believe that operating a customer-centric business model provides the opportunity to effectively respond to future carbon regulations and the potential to succeed in an accelerated transition to a low carbon business environment. By continuing to make major energy decisions that are in the best interest of customers, that appropriately consider fuel and carbon risks and that are approved by our state regulators, we expect to continue to receive fair regulatory treatment of our state-regulated investments. We believe that investment risk to these rate-regulated assets is limited. Distribution network and generation resilience are focus areas for the Southern Company Board, ensuring processes are in place to minimize physical risks to the Southern Company system. Specific to physical risk assessment, Southern Company routinely assesses our infrastructure resiliency in the face of extreme weather events. Much of our electric generation, transmission and distribution footprint is located within the area of the US at higher risk for impacts from severe storms, including tornadoes and hurricanes. Based on historical experiences with all extreme weather events, structures throughout the system have been evaluated and hardened to better protect against damages from high winds, flooding and extreme low temperatures (e.g., use of concrete poles, weatherization of generating equipment and strengthening of cooling towers for generation units near the coasts). As a result of major hurricanes, like Hurricane Katrina in 2005, we have evaluated our facilities for flooding potential and instituted changes that have positively affected our ability to weather recent hurricanes, including moving the Mississippi Power Operations Control Center further inland in 2008. This new operations center is located outside of a flood zone and constructed to withstand 200 mile per hour winds and operate independently of public utilities for a few days. This results in an operations center that can be staffed 24/7 through the worst impacts of a hurricane. We are managing our climate-related transitional risks by aggressively growing our investment in renewable energy, modernizing the grid, increasing the use of natural gas, building the first new nuclear generating units in a generation, solving difficult energy challenges through robust R&D and investing in energy efficiency for savings on both sides of the meter. For our natural gas distribution business, looking towards the future we are exploring opportunities to use or repurpose the natural gas delivery infrastructure to carry renewable natural gas (RNG), hydrogen or another energy carrier, thus continuing to decrease the carbon intensity of the fuel and utilize the pipeline infrastructure to transport fuels like RNG. These opportunities will be developed in consultation with state policymakers and regulators and our customers. For example, in 2019, Southern Company Gas, in partnership with Electric Power Research Institute, began an investigational project into the usage of existing metering and regulation stations relative to blended natural gas and hydrogen service. Southern Company is one of the anchor sponsors that has committed financial support to the Low-Carbon Resources Initiative (LCRI), a research and development collaboration between EPRI and the GTI. The LCRI is a worldwide collaborative looking at hydrogen technologies and applications, along with other low-carbon carriers. Over the next five years, the LCRI will focus on developing pathways to advance low-carbon technologies for large-scale deployment, including hydrogen and related low-carbon resources. The goal of the initiative is to enable a risk-informed understanding of options and technologies enabling significant, economywide decarbonization, with applications for both our electric and natural gas businesses. We have already made significant progress with a full-portfolio approach to electric generation resource diversity, focused on maintaining reliability and affordability while reducing carbon emissions. Responding to the changing market needs, our wholesale generation mix for 2019 included just 22% coal generation and our renewables/other expanded to 12%. For reference, this compares to 68% coal and 1% renewables/other in 2007, our benchmark year. This annual energy mix for 2019 also includes 50% natural gas and 16% nuclear generation.

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**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

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This annual energy mix for 2019 also includes 50% natural gas and 16% nuclear generation.
(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) 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

<table>
<thead>
<tr>
<th>Emerging regulation</th>
<th>Carbon pricing mechanisms</th>
</tr>
</thead>
</table>

**Primary potential financial impact**
Increased indirect (operating) costs

**Climate risk type mapped to traditional financial services industry risk classification**
<Not Applicable>

**Company-specific description**
Costs associated with GHG policies could be significant to the utility industry and the Southern Company system. However, the ultimate impact of these potential policies will depend on various factors, such as the policy approach, framework and stringency, any state-level adoption and implementation requirements, the availability and cost of any deployed compliance strategies and associated technologies, and the outcome of any associated legal proceedings. For example, a hypothetical GHG policy resulting in a fee per metric ton of CO2 would substantially affect the ways we economically dispatch our generation fleet. Southern Company uses its CO2 price paths in electric generation resource planning scenario analyses. The analyses consider both the evolution of the U.S. energy economy and the least-cost evolution of the Southern Company generating portfolio. In different scenarios, different paths for future CO2 prices are assumed. The price path is assumed to arise from a future CO2 control policy such as a carbon tax, clean energy standard, cap-and-trade program or Clean Air Act regulation. The Southern Company system’s annual integrated resource planning process, which includes two primary components, energy economy modeling and integrated resource planning, provides for an understanding of the impacts to individual sectors of the economy and the interaction between sectors at the macro-economy level across a range of scenarios which provides significant insight to informing and identifying broad industry risks and potential business strategies. This scenario format also serves as a basis for integrated resource planning at the state regulated electric operating companies – and ultimately informs major generation retirement and capital investment decisions. As of July 2020, the comprehensive scenario resource planning process has resulted in 6,300 MW of coal and oil-fired retirements since 2010. In addition, because of the projected energy benefit realized by renewable energy resources and the ability to use the energy to serve customers with renewables or sell the renewable energy or associated renewable energy credits (RECs) to third parties for the benefit of customers, as of July 2020 more than 6,000 MW of renewable generation has been added since 2010.

**Time horizon**
Long-term

**Likelihood**
Likely

**Magnitude of impact**
Medium-High

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

**Potential financial impact figure (currency)**
1760000000

**Potential financial impact figure – minimum (currency)**
<Not Applicable>

**Potential financial impact figure – maximum (currency)**
<Not Applicable>

**Explanation of financial impact figure**
In 2019, the Southern Company system’s Scope 1 GHG emissions were 80 million metric tons of CO2 equivalent (CO2e), representing the Company’s direct and current exposure to future GHG policies, all things held constant. This exposure, however, is dynamic due to numerous factors – e.g., our electric generating fleet’s ability to dynamically dispatch due to changing generation unit-level economics. Based on the Southern Company system’s 2019 Scope 1 GHG emissions, a hypothetical GHG policy resulting in a $20 per metric ton of CO2 price would have exposed the Southern Company system’s customers to approximately $1.76 billion in higher operating costs in 2019; however, this cost does not account for any mitigation measures that could have materialized—e.g., dispatching our electric generating fleet to reduce GHG emissions—or any opportunities that might offset the higher operating costs. [88 million metric tons CO2e * $20/metric ton CO2e = $17600000000.] Other potential costs may arise that are not captured in this analysis – e.g., capital costs associated with deploying new assets.

**Cost of response to risk**
6400000000

**Description of response and explanation of cost calculation**
Southern Company aims to minimize our exposure across the energy value chain as we make, move and sell energy. We believe that operating a customer-centric business model provides the opportunity to effectively respond to future GHG policies and the potential to succeed in a transition to a net zero business environment. Southern has anticipated and incorporated GHG pressure into its scenario planning and enterprise risk management practices for more than ten years. These practices have allowed Southern Company to evaluate and manage the risk around GHG emissions and make decisions that are in the best interest of the customers. Southern Company has also applied substantial resources to the technology necessary to move toward a low-carbon future and is committed to providing clean, safe, reliable and affordable energy, while transitioning to net zero operations by 2050. The cost of response to this risk is demonstrated using portions of the Company’s capex plan for 2020-2024. Specifically, the cost listed is the cost of developing new zero-carbon renewable and nuclear generation in these years. This cost includes capex for nuclear ($5,000,000,000) + hydropower ($990,000,000) + solar ($241,000,000) + other renewables ($180,000,000) = $6,400,000,000. The provided cost of response only represents a portion of the possible cost. The potential financial impact of GHG policies depends on numerous unknowns – e.g., a policy’s approach, framework and stringency, any state-level adoption and implementation requirements, the availability and cost of any deployed compliance strategies and associated control technologies and the outcome of any associated legal proceedings. Additionally, future GHG policies may present opportunities for Southern Company by incentivizing energy efficiency through electrification and natural gas utilization to reduce GHG emissions across the entire economy. The Southern Company system’s financial exposure to future GHG policies will ultimately depend on the policy approach, framework and stringency, any state-level adoption and implementation requirements, the availability and cost of any deployed compliance strategies and associated control technologies and the outcome of any associated legal proceedings. Additional management cost would be anticipated; however, without details related to the policy, it is difficult to provide an estimate of the future level of support necessary.

**Comment**
Southern Company is engaged across the energy value chain as we make, move and sell energy to a wide customer base. Southern Company’s business model relies heavily on state-regulated electric and natural gas investments as well as long-term contracted energy infrastructure. Southern Company’s wholesale portfolio includes natural gas, coal, nuclear and renewable electric generating assets and energy storage, electric transmission and distribution, local natural gas distribution, midstream natural gas transmission and distribution energy infrastructure. In 2019, the electric generation mix was 22% coal, 50% natural gas, 16% nuclear and 12% renewables/other. Future GHG policies, depending on the approach and structure, could present a range of risks and opportunities. Since the Southern Company system’s current portfolio includes assets that rely upon the utilization of carbon-based fuels, future GHG policies could increase the Southern Company system’s costs (e.g., operating costs) and, thus, increase customer prices associated with the ultimate delivery of energy. Opportunities include the increase in energy efficiency through electrification and natural gas utilization to reduce GHG emissions across the entire economy.
Risk 2

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

Risk type & Primary climate-related risk driver

<table>
<thead>
<tr>
<th>Market</th>
<th>Changing customer behavior</th>
</tr>
</thead>
</table>

Primary potential financial impact
Decreased revenues due to reduced demand for products and services

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
The energy sector is rapidly evolving, driven by customer preferences, technology advancements, commodity process, energy security and resiliency efforts, and ESG initiatives. Southern Company is committed to providing clean, safe, reliable and affordable energy, while transitioning to net zero operations by 2050. Customers in our retail service territories are increasingly conscious of their environmental impacts and are actively setting their own carbon reduction goals. For example, there is a risk of reduced demand for retail electric services due to customer implementation of distributed generation. Changes in customer behaviors in response to energy efficiency programs, changing conditions and preferences or changes in the adoption of technologies could affect the relationship of economic activity to the consumption of energy. Both federal and state programs exist to influence how customers use energy, and several of the traditional electric operating companies and Southern Company Gas have PSC or other applicable state regulatory agency mandates to promote energy efficiency. Conservation programs could impact the financial results of the Company in different ways. For example, if any traditional electric operating company or Southern Company Gas is required to invest in conservation measure that result in reduced sales from effective conservation, regulatory lag in adjusting rates for the impact of these measures could have a negative financial impact on such traditional electric operating company or Southern Company Gas and Southern Company.

Time horizon
Long-term

Likelihood
Likely

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
366000000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
In 2019, PowerSecure, a Southern Company subsidiary, had annual revenue for energy efficiency and microgrid services of approximately $366 million. This value was used as a placeholder to estimate the potential annual financial impact due to deployment of microgrids, or similar technologies, to meet customer demand in the retail electric service territory; actual impacts would be expected to vary from this value. Costs associated with a transition to low-emission technologies could be significant to the utility industry and the Southern Company system along with our customers. The ultimate impact of this transition will depend on the development of new and more cost-effective energy conversion, delivery and use technologies. Since the 1960s, Southern Company has actively engaged in robust R&D that grows the value of energy services to customers.

Cost of response to risk
425000000

Description of response and explanation of cost calculation
In 2016, Southern Company acquired PowerSecure for $425 million. PowerSecure provides energy solutions to electric utilities and their customers in the areas of distributed generation, energy storage and renewables and energy efficiency. Bringing this subsidiary into the Southern Company system enhances our ability to meet customer demands and provide services within the retail electric footprint and beyond. In addition, retail operating companies continue to work with customers to provide solutions that enhance reliability as well as sustainability, such as the solar panels installed by Georgia Power at the Atlanta Falcons stadium. The Southern Company system is continuing to gain expertise and drive down costs of distributed generation through R&D and practical applications.

Comment
At Southern Company, the R&D program has supported the development of an urban microgrid test bed in conjunction with Georgia Tech to evaluate how diverse distributed energy resources (DERs) can effectively integrate into and operate as part of the electrical grid. This demonstration features multiple DERs, including an energy storage system, fuel cell and diesel and natural gas generators.

Risk 3

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

Risk type & Primary climate-related risk driver

<table>
<thead>
<tr>
<th>Market</th>
<th>Changing customer behavior</th>
</tr>
</thead>
</table>

Primary potential financial impact
Decreased revenues due to reduced demand for products and services
Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
The energy sector is rapidly evolving, driven by customer preferences, technology advancements, commodity process, energy security and resiliency efforts, and environmental, social, and governance initiatives. Customers are actively seeking options to decrease their energy usage. This includes making their homes more energy efficient. Building codes are evolving, and new homes are constructed to be more energy efficient, decreasing the demand for electricity and natural gas. There is potential for decrease in electricity and natural gas usage by retail customers in years to come. For example, several cities in our service territory have expressed interest in energy efficiency and renewable energy goals. In 2017, Atlanta City Council voted to transition the city towards 100% renewable energy by 2050. Also, in Georgia, the Athens-Clarke County government signed on to a 100% clean energy initiative. In 2018, the mayor of Birmingham, Alabama signed a 100% sustainable energy pledge. These examples of community-wide renewable commitments in our service territory demonstrate the movement to a more energy efficient and renewable-centric customer base. Southern Company, through subsidiaries, provides a substantial portion of the electric service to the areas described as considering such changes.

Time horizon
Medium-term

Likelihood
Likely

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
4000000000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
The ultimate impact of this transition will depend on the level of uptake in the construction arena for new energy efficiency products and techniques that reduce the energy demand for a given home. The estimate provided assumes all existing residential homes in our retail service territory reduce energy use commensurate with the best available energy efficiency technologies overnight. A few additional assumptions were used to develop this high-level estimate: all residential customers are considered single family and all customers have electric heat and electric water heaters. This cost estimate is provided for demonstration purposes and does not reflect actual expected performance. The actual financial impact would be expected to vary greatly from this high-level estimated value. Total revenue assuming energy efficiency is not implemented widely: $7,000,000,000 Total revenue assuming energy efficiency is implemented broadly: $3,000,000,000 Total illustrative impact of energy efficiency: $4,000,000,000

Cost of response to risk
6000000

Description of response and explanation of cost calculation
The cost of management represents the 2019 budget in R&D areas related to end use technologies (approximately $3,900,000) and distributed generation and storage (approximately $2,100,000). $3,900,000 + $2,100,000 = $6,000,000 R&D budget dollars in 2019 is used as the estimation for the cost of response to risk in 2019. This is not a comprehensive representation of cost of management. Southern Company’s R&D portfolio over the past decade has returned benefits exceeding 10 times our investment. A key focus of this research is to provide a variety of future technology options for commercial, industrial and residential customers. In addition, Southern Company is a founding partner of Energy Impact Partners (EIP), a $700 million venture capital fund that invests in early-stage technology companies impacting the energy and utility industries. EIP is a means for the Company to further identify and mitigate some of the market risk by gaining insights into emerging technologies and business models. EIP has invested in 34 portfolio companies since its inception in 2016 and already has achieved several successful exits. These successes include Ring, the smart doorbell maker acquired in 2018 by Amazon, and Greenlots, the leading electric vehicle charging infrastructure company acquired by Shell in 2019. Collaborating with the EIP portfolio companies helps Southern Company remain on the cutting edge of disruptive technology while uncovering new revenue opportunities and identifying potential partnerships. This is just one of the ways we are working to shape the future of energy. By leveraging these partnerships and gaining a foothold in new revenue streams, the Southern Company system can then provide products and services to customers that go beyond meeting their electricity needs.

Comment

C2.4

(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

(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
Products and services

Primary climate-related opportunity driver
Development of new products or services through R&D and innovation
Primary potential financial impact
Increased revenues resulting from increased demand for products and services

Company-specific description
The transportation sector accounted for 29 percent of the total U.S. CO₂ emissions in 2017 according to EPA. Transitioning this sector from the heavy use of fossil fuels presents the largest opportunity in realizing a net-zero future. With overall carbon reductions as the objective, emissions reductions in the electricity sector can provide important motivation for further electrification of the remaining end-use sectors. We are exploring opportunities for carbon reductions from the transportation sector through our electric vehicle (EV) and hydrogen research efforts. In the Southern Company retail electric service territory, there are estimated to be over 3.2 million vehicles based on state vehicle registrations from 2017. There is significant opportunity for increased electric vehicle adoption in our service territory. Alabama Power provides EV charging for employees and visitors at more than 135 charging stations at 45 company locations across the state. Georgia Power has installed 37 public community chargers across Georgia and 113 chargers for employees across 22 company locations. Mississippi Power has installed 27 electric vehicle chargers at company locations across the service territory. It is important to note that natural gas infrastructure can be used to not only reduce the carbon footprint for energy delivery, but to also prevent GHG release from other economic activity, like transportation. Compressed natural gas (CNG) vehicles reduce GHG emissions on a wellhead-to-wheel basis by 13 - 17% compared to gasoline and diesel. When CNG vehicles are fueled with RNG sourced from landfills, water treatment facilities, agricultural waste, etc., this reduction of GHG emissions increases to 80 - 90%, or even carbon negative in the case of certain animal waste digesters. CNG vehicles reduce nitrogen oxide (NOx) emissions by 95% compared to diesel vehicles. Since 2012, Atlanta Gas Light Company (AGL) has built $30 million worth of public and private CNG fueling stations for customers in Georgia through our tariff programs and turnkey construction contracts. There are 55 total CNG stations in Georgia, and 40 of these are on AGL’s system. These stations range from large transit size stations to smaller installations for a handful of light duty vehicles.

Time horizon
Medium-term

Likelihood
Very likely

Magnitude of impact
Medium-High

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
120000000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
The ultimate impact of electrifying the transportation sector and implementing additional CNG infrastructure will depend on various factors, such as state adoption and implementation of requirements, tax incentives, vehicle cost and the advancement of electric vehicles and/or battery technology. To demonstrate the potential financial impact, we considered the impact of converting truck fleets in our electric service territories to fully electric trucks. The figure provided is based on the assumption that our electric power customers electrify their truck fleets at the same rate as the US truck fleet at large, resulting in $1.2 billion in cumulative revenue through 2040. The assumed rate of US truck fleet electrification was determined based solely on vehicle economics. This estimation considered only one type of fleet truck and did not consider passenger vehicles.

Cost to realize opportunity
1000000

Strategy to realize opportunity and explanation of cost calculation
Cost is reflective only of annual dedicated R&D budget including funding of projects within EPRI. This cost includes more than $600,000 for manpower and project expenses and nearly $400,000 towards EPRI funding. There would be additional costs associated with realizing this opportunity that are not estimated here. We are also actively engaged in advancing the electrification of transportation, which will reduce transportation costs for customers while reducing carbon emissions. This includes Promoting customer education and awareness; Working with manufacturers and EPRI to bring viable on-road EV technologies to market; Helping develop charging infrastructure and improve vehicle/grid integration plans for efficient distribution; and Offering lower electricity rates and programs for off-peak usage, which helps commercial and industrial customers reduce their operating costs and environmental impact. Southern Company was a founding member of the Alliance for Transportation Electrification, a collaboration among utilities, original equipment manufacturers and others focused on advocating the acceleration of transportation electrification nationwide. An example of implementation, Will-It-Work™ is a fleet electrification process based on data for Georgia Power customers. The process guides customers through fleet electrification suitability and demonstration, then features a summary report. A multitude of data is collected in the demonstration phase through the use of telematics. The data is analyzed and includes number and type of vehicles in the fleet, miles driven, fuel costs, number of shifts, run- time hours, and environmental impacts to answer the question, Will It Work™. To date, the Will It Work™ program has reduced customers fuel costs by 70% on average, CO₂ emissions by 83% and service costs by 40%.

Comment

Identifier
Opp2

Where in the value chain does the opportunity occur?
Direct operations

Opportunity type
Energy source

Primary climate-related opportunity driver
Use of lower-emission sources of energy

Primary potential financial impact
Other, please specify (Reduced exposure to GHG emissions and therefore less sensitivity to changes in cost of carbon)

Company-specific description
To date, none of the three states where we operate electric utilities has enacted legislation or regulations to specifically regulate CO₂ emissions or mandates for certain levels of renewable resources. But we understand our customers’ needs and preferences for clean, safe, reliable and affordable energy, as well as a continuing desire of many of our stakeholders to reduce our carbon emissions. We will work within each state’s regulatory framework – with support from customers, state regulators, and environmental agencies – to ensure that our carbon reduction efforts are supportive of customers’ needs and preferences. Our subsidiaries are focused on strategically...
increasing the role of renewables in our generation mix. A pioneer in distributed power systems, PowerSecure, a subsidiary of Southern Company, installed over 2 GW and currently controls 1.6 GW of distributed generation system and is the market leader in microgrid solutions deployment with 85% of the U.S. market share as acknowledged by GreenTech Media Research. One way solar is growing is through our customer renewable programs, such as the Customer Renewable Supply Procurement (CRSP) program. The CRSP program will support commercial and industrial (C&I) customer’s sustainability goals through renewable energy subscriptions. This service is designed to help large energy consumers reduce their electric carbon footprint, while maintaining low costs and high reliability. Additionally, in January 2019, Georgia Power filed its 2019 IRP with the Georgia PSC. As ordered in the IRP agreement, 1,000 MW of renewable energy was designated for renewable subscriptions by C&I customers through the CRSP program by 2024. Participating customers may purchase a monthly subscription and receive hourly credits based on the actual production of the portfolio of renewable facilities procured to supply the program. Georgia Power will retire the RECs generated by the renewable portfolio on behalf of the participating customers. This innovative program design allows individual customers to support significant growth of renewable resources as part of the evolution of Georgia Power’s reliable and diverse resource mix. Georgia Power purchases only the null energy output from some renewable generating facilities that have contracted to sell that energy to Georgia Power. Ownership of the associated RECs is specified in each respective power purchase agreement. The party that owns the RECs retains the right to use them.

**Time horizon**
Short-term

**Likelihood**
Likely

**Magnitude of impact**
Medium

**Are you able to provide a potential financial impact figure?**
Yes, a single figure estimate

**Potential financial impact figure (currency)**
428000000

**Potential financial impact figure – minimum (currency)**
<Not Applicable>

**Potential financial impact figure – maximum (currency)**
<Not Applicable>

**Explanation of financial impact figure**
This financial figure representing 100% of 2019 annual revenue for energy efficiency and microgrid services for PowerSecure is used here as a placeholder for the potential financial impact from increased distributed generation in Southern Company. The opportunity for capital investment in low-emitting energy sources could be significant to the utility industry and the Southern Company system. The ultimate impact of low- to no-emission resources will depend on various factors, such as technology development and availability, cost and regulatory and tax drivers.

**Cost to realize opportunity**
2100000

**Strategy to realize opportunity and explanation of cost calculation**
Cost shown is reflective of 100% of the 2019 annual R&D budget dedicated to renewables, energy storage and distributed generation. There would be additional costs associated with realizing this opportunity that are not estimated here. The energy sector is rapidly evolving, driven by customer preferences, technology advancements, commodity process, energy security and resiliency efforts, and ESG initiatives. Southern Company is committed to providing clean, safe, reliable and affordable energy, with a goal of transitioning to net zero carbon operations by 2050. We have partnered with the Army, Navy, Marine Corps and Air Force to develop innovative renewable energy generation projects on 33 Federal sites. Southern Company and its subsidiaries Alabama Power, Georgia Power and Mississippi Power have military solar projects online or under contract totaling more than 400 MW as of 2019. This partnership with the Department of Defense helps meet the military’s goals to support the development of new renewable generation resources nationwide while the operating companies, generally, receive the energy and RECs from the projects which they may use to serve customers or sell to third parties for the benefit of customers. Through our planning process and customer partnerships, Southern Company and its subsidiaries will continue to evaluate and develop program designs to meet customers’ goals. We also have numerous R&D projects underway to determine the potential of emerging cost-effective renewable resources and technologies.

**Comment**
Overall, Southern Company’s wholesale generation portfolio included more than 9,500 MW of renewable resources online in 2019 and that number will continue to grow as the Company’s generating fleet is expected to have nearly 14,000 MW of renewable resources by 2024. It should be noted when the Southern Company system’s retail electric utility subsidiaries purchase renewable energy or build renewable generation sources, if they have the right to the RECs associated with these resources, they retain the ability to use the RECs to serve their customers with renewable energy or sell the RECs, either bundled with energy or separately, to third parties for the benefit of customers.

**Identifier**
Opp3

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

**Opportunity type**
Products and services

**Primary climate-related opportunity driver**
Development of new products or services through R&D and innovation

**Primary potential financial impact**
Other, please specify (Better competitive position to reflect shifting consumer preferences, resulting in increased revenues.)

**Company-specific description**
Our long and successful history of incorporating distributed generation into our energy mix began in the late 1970s and continues today. The integration of cost-effective energy storage with intermittent renewable generation is one of the key options that can help lower carbon emissions and provide an opportunity for Company growth through the sale of additional products and services. Alabama Power and Georgia Power have developed Smart Neighborhoods in Birmingham, Alabama and Atlanta, Georgia respectively, to evaluate how high-performance homes operate and benefit both customers and the utility. These Smart Neighborhood projects will help to develop new methods to integrate solar, battery storage and controllable devices and could provide a model for developing similar communities throughout the Southeast. Alabama Power’s new Smart Neighborhood Builder Program partners with homebuilders to build energy-efficient homes that feature advanced energy products and home automation. Over the past 10 years, we have made major investments in smart grid technologies including deploying approximately 4.6 million smart meters, or advanced metering infrastructure, helping customers better manage their energy use and save money. We are also conducting collaborative, industry-wide research with EPRI, for the ongoing development of transmission system monitoring, diagnostics and visualization tools that will facilitate decisions and mitigation measures to enhance system performance, efficiency and reliability. We have numerous research and development projects underway across our system to develop technologies associated with
renewable resources, energy storage and distributed generation. Research areas include solar photovoltaic (PV) deployment, operation and maintenance, solar resource forecasting, tall tower wind generation, and bulk-power system integration of variable generation sources. These investments in new products and services, smart grid technologies and renewables help both position us to be able to integrate higher penetrations of intermittent renewables and grow earnings for our investors, while maintaining grid stability and reliability.

<table>
<thead>
<tr>
<th>Time horizon</th>
<th>Short-term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Likelihood</td>
<td>Very likely</td>
</tr>
<tr>
<td>Magnitude of impact</td>
<td>Medium</td>
</tr>
</tbody>
</table>

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

<table>
<thead>
<tr>
<th>Potential financial impact figure (currency)</th>
<th>428000000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential financial impact figure – minimum (currency)</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>Potential financial impact figure – maximum (currency)</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
</tbody>
</table>

Explanation of financial impact figure
The financial impact captured here is reflective of the 2019 revenues for energy efficiency and microgrid services from PowerSecure. The opportunity for capital investment in new products and services that meet customer preferences could be significant to the utility industry and the Southern Company system. Cost of capital investments is dependent on the speed of new low- to no- emission resource development, installation costs and customer preferences.

Cost to realize opportunity
3950000

Strategy to realize opportunity and explanation of cost calculation
Cost shown is only reflective of 100% of the 2019 R&D budget related to end-use technologies. There would be additional costs associated with realizing this opportunity that are not estimated here. Southern Company subsidiary, PowerSecure, has cemented its reputation as a leader in the distributed infrastructure market. The Company customizes advanced energy solutions that provide commercial, industrial and institutional customers with resiliency, flexibility and cost efficiencies. Southern Company will also continue our industry-leading R&D, as well as active participation in the EPRI, with particular focus on technologies that lower GHG emissions. A pioneer in distributed power systems, PowerSecure, installed over 2 gigawatts and currently controls 1.6 gigawatts of distributed generation system and is the market leader in microgrid solutions deployment with 85% of the U.S. market share as acknowledged by GreenTech Media Research.

Comment

C3. Business Strategy

C3.1

(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

(C3.1a) Does your organization use climate-related scenario analysis to inform its strategy?
Yes, qualitative and quantitative

C3.1b
(C.3.1b) Provide details of your organization’s use of climate-related scenario analysis.

C3.1d

Describe where and how climate-related risks and opportunities have influenced your strategy.

<table>
<thead>
<tr>
<th>Products and services</th>
<th>Description of influence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Beyond providing clean, safe, reliable, and affordable energy to our customers, we are ensuring that our customers can efficiently use our product. To demonstrate the significant impact of reducing emissions from coal and oil-fired generation, Southern Company Gas has been actively investing in infrastructure modernization and improvements to replace aging natural gas pipelines. Southern Company Gas is a founding member of ONE Future, which has members with a geographically diverse and material share of the U.S. natural gas supply chain, with a goal to collectively achieve a science-based rate of fugitive methane emissions across the entire natural gas supply chain (production through consumption) equivalent to 1% or less of total natural gas production. Southern Company is engaging in the ONE Future program to also promote the production of natural gas in a more sustainable way from its upstream suppliers. For example, Virginia Natural Gas (VNG), a subsidiary of Southern Company Gas, announced that it aspires to provide its customers with natural gas that is 100% sourced, transported and distributed by companies that have pledged to reduce GHG emissions to less than 3% across the natural gas value chain. This announcement provides an example of the significant importance of supply chain in our business strategy.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Supply chain and/or value chain</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Since the 1960s, Southern Company has actively engaged in robust, proprietary R&amp;D that grows the value of energy services to customers. Over the past decade, Southern Company's R&amp;D investment has returned benefits approaching $5 billion. As part of our approach to reducing carbon emissions, nearly all our current R&amp;D spend is focused on lower carbon-emitting technologies and is a significant portion of our business strategy. We are also an active participant and a significant funder of EPRI, whose membership includes utilities throughout the world, as well as other R&amp;D organizations like GTI. Southern Company R&amp;D has identified critical technology pathways necessary to achieve this outcome, and is further refining its strategy for a net zero future to focus on the following objectives: &gt; Deliver an affordable, reliable, net zero energy system &gt; Optimize energy delivery systems to support sector transformation &gt; Serve customer energy needs holistically.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Investment in R&amp;D</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>No one is doing more in pursuing a full portfolio energy strategy. We believe developing and maintaining a diversified energy portfolio is essential to successfully reducing carbon emissions while maintaining reliability and affordability. As with R&amp;D, diversification of our energy portfolio is a significant portion of our business strategy around reducing carbon emissions. Our portfolio was initially focused on zero-carbon hydroelectric generation and has grown to include coal, natural gas, nuclear, landfill gas, solar, wind, energy efficiency programs, demand response, and distributed resources. Over the last decade, we have significantly transformed our electricity generation mix. Recent generation decisions and environmental compliance strategies have led to the following: Since 2007, we have retired or converted to gas approximately 9,600 MW of coal and oil generating capacity. We invest in a diverse portfolio of low-carbon and carbon-free generation assets to serve customers and communities with a focus on maintaining reliability and affordability while reducing carbon emissions. Our current portfolio of over 13,500 MW of carbon-free resource capacity has established a foundation enabling us to continue our carbon reduction efforts. We anticipate adding approximately 4,400 MW of additional generation resources by 2024. Along with our partners, we are building the first new nuclear units in the U.S. in more than 30 years. The units will add 1,000 MW to our existing 3,700 MW portfolio of carbon-free nuclear generation. Combined with our existing fleet of zero-carbon generation, we have committed to growing our fleet of zero carbon generation to more than 19,000 MW by 2024. The trends of additional coal generation retirements and natural gas-fired and renewable generation additions are projected to continue. With $13 billion in capital improvements for our transmission and delivery system to ensure resilient, fully integrated, self-healing energy delivery grids for unrestricted creation and use of low and no carbon energy sources.</td>
<td></td>
</tr>
</tbody>
</table>

C.3.1e
(C3.1e) Describe where and how climate-related risks and opportunities have influenced your financial planning.

<table>
<thead>
<tr>
<th>Financial planning elements that have been influenced</th>
<th>Description of influence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues, Indirect costs, Capital expenditures, Acquisitions and dispositions, Access to capital, Assets</td>
<td>Revenues: Our energy infrastructure portfolio of primarily rate-regulated assets and assets under long-term contracts is designed to produce regular, predictable and sustainable earnings. The Southern Company system has made significant investment over the past decade in low- and no-carbon resources. We expect that if our companies continue to make major energy decisions that are in the best interest of customers that consider fuel and carbon risks and that are approved by the state regulators, each company will receive fair regulatory treatment regarding its regulated assets. We will continue to seek out opportunities outside of our rate-regulated assets to grow our renewable and energy storage portfolio. Operating costs / Indirect Costs: Our R&amp;D spend, which is more than $40 million dollars per year, including the EPRI applied dollars, continues to significantly increase its focus on low, zero and negative carbon technologies, and we have expanded our products and services through PowerSecure’s strategic partnerships with Bloom Energy and Advanced MicroGrid Solutions. Capital expenditures: Through our subsidiaries, we are investing in developing low-carbon and carbon-free resources as evidenced by the addition of approximately 1,000 MW of new solar generation in 2019. Our current portfolio of greater than 13,500 MW of carbon-free resource capacity has established a foundation upon which to continue our carbon reduction efforts. In addition to spending more on low carbon generation options, we do not intend to invest further in our existing thermal coal fleet, unless the investment ensures safety, affordability or reliability to serve customers or to comply with federal or state laws. Over a 20-year period from 2008 to 2018, Southern Company Gas invested more than $2.2 billion in pipeline and infrastructure replacements, and those improvements have reduced fugitive methane emissions. Acquisitions and dispositions: As mentioned previously, beyond providing clean, safe, reliable and affordable energy to our customers, we are ensuring that our customers can efficiently use our product. In May 2016, we acquired PowerSecure, which provides energy solutions to electric utilities and their customers in the areas of distributed generation, energy storage and renewables and energy efficiency. With over 1.6 GW of distributed energy resources under management, PowerSecure has a national footprint and continues to grow. Over the last decade, we have significantly transformed our electricity generation mix. As of December 2019, generation decisions and environmental compliance strategies have led to approximately 6,300 MW of coal- and oil-related generation retirements since 2010 and approximately 3,300 MW of coal capacity switched to use lower-carbon natural gas as a primary fuel since 2015. Access to capital: impacted investors and credit bureaus are increasingly focused on ESG issues, including climate-related issues. In 2018, we published our “Planning for a Low Carbon Future” report to enhance the information for investors related to the risks and opportunities in a low-carbon transition. We continue to communicate through disclosures like the CDP, “Planning for a Low Carbon Future” report, and the addendum “Implementation and Action Toward Net Zero” report that we plan to publish in 2020 to transparently convey our progress and forward-looking strategy as well as to ensure the quality of our reputation and creditworthiness. Loss of access to short-term money markets and long-term capital markets would significantly impact our business by reducing project funding options or increasing the cost of borrowing. Assets: We have seen a positive impact to our assets. We invest in a diverse portfolio of low-carbon and carbon-free generation assets to serve customers and communities. Through our subsidiaries, we have invested $20 billion in developing low-carbon and carbon-free resources since 2010. Liabilities: Not impacted While each electric utility company in the Southern Company system owns and operates its generating resources, Southern Company’s retail electric generating fleet is economically dispatched to serve customer needs regardless of the location or company ownership of any specific generation unit. A range of planning scenarios is established, developed and modeled through the work of a coordinated planning team consisting of internal subject matter experts, company planning managers, and external experts that provide input on key parts of the analysis. A major goal of the resource planning process and environmental compliance strategy process is to make fully informed, risk adjusted decisions that are in the best interest of our customers.</td>
</tr>
</tbody>
</table>

C3.1f

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

Climate change is real and we are committed to finding and implementing solutions that meet the needs of the customers and communities we serve. Southern Company is committed to providing clean, safe, reliable and affordable energy and reducing emissions of CO2 and other GHG by developing the full portfolio of energy resources. Southern Company understands that operating in a CO2-constrained future will be a reality, and for more than a decade we have been planning and making business decisions with the expectation of a CO2-constrained future.

In April 2018, we set emission reduction goals that were aligned with strategies designed to address the long-term reduction of carbon emissions and our commitment to a leadership role in developing solutions that make technological and economic sense. The goals established in 2018 were to reduce GHG emissions by 50% (from 2007 levels) by 2030 and to achieve low-to-no GHG emissions by 2050. These were enterprise-wide goals that encompass the Scope 1 emissions from our electric and natural gas operations. In 2020, we revised our long-term goal to Net Zero by 2050. Our strategy to achieve these goals includes the continued development and deployment of a diverse portfolio of energy resources to reliably and affordably serve our customers and communities with a focus on reducing CO2 emissions. To do this, we are aggressively growing our investment in renewable energy, modernizing the grid to optimize technology advancements, increasing the use of natural gas, building new nuclear generating units, continuing our industry-leading, robust R&D efforts, incorporating negative carbon solutions into our R&D and business plans and investing in energy efficiency for savings on both sides of the meter. Transitioning to a net zero future will require continued advancement in technology. We also see potential to invest appropriately in new technologies that may emerge, mature and come to market through our PowerSecure subsidiary. We are also engaging with policymakers, customers and other stakeholders to help shape an energy policy that enhances optionality across the entire energy value chain and supports the development and deployment of more carbon-free energy sources, while ensuring that each state that we serve retains the ability to adequately plan and deploy resources that meet the needs of its citizens and communities. In 2020, we began to incorporate negative carbon concepts into each element of our strategy to facilitate the transition to a net zero future.

As we plan for a cleaner energy future, we recognize that our current electric generation portfolio consists of high-capital, long-life assets. Efforts to further diversify our portfolio should be achieved through an orderly transition that accounts for the economic value of our existing assets. Our robust scenario based integrated resource planning process occurs annually and is a key component that we use to ensure that the right resources are deployed at the right time to maintain safety, reliability and affordability for customers. The planning process allows for updates to a number of assumptions, inputs and alternatives, including potential CO2, fuel and other commodity prices, as well as economic or other policy indicators. The annual process allows each of our state-regulated utilities to actively work within its regulatory framework to ensure that carbon reduction efforts are in customers’ best interests over time.

Nobody is doing more to pursue a full portfolio energy strategy. We believe developing and maintaining a diversified energy portfolio is essential to successfully reducing carbon emissions while maintaining reliability and affordability.

C4. Targets and performance

C4.1
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
2018

Target coverage
Business activity

Scope(s) (or Scope 3 category)
Scope 1

Base year
2007

Covered emissions in base year (metric tons CO2e)
156650363

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)
100

Target year
2050

Targeted reduction from base year (%)
100

Covered emissions in target year (metric tons CO2e) [auto-calculated]
0

Covered emissions in reporting year (metric tons CO2e)
88213565

% of target achieved [auto-calculated]
43.687608946045

Target status in reporting year
Underway

Is this a science-based target?
Yes, we consider this a science-based target, but this target has not been approved as science-based by the Science-Based Targets initiative

Please explain (including target coverage)
In 2018, we set emission reduction goals that were aligned with strategies designed to address the long-term reduction of carbon emissions and our commitment to a leadership role in developing solutions that make technological and economic sense. The goals established in 2018 were to reduce GHG emissions by 50% (from 2007 levels) by 2030 and to achieve low-to-no GHG emissions by 2050. These are enterprise-wide goals that encompass the Scope 1 emissions from our electric and natural gas operations. In 2020, we revised our long-term goal to achieve net zero GHG emissions by 2050. The goals are informed by the results of our integrated resource plans, which are designed to plan for an appropriate mix of generation resources to meet energy and capacity needs at a reasonable cost for our customers. These goals are also consistent with actions needed to potentially limit the global average temperature rise to less than 1.5 degrees Celsius above pre-industrial times—see EPRI’s “Grounding Decisions: A scientific foundation for companies considering global climate scenarios and greenhouse gas goals” and “Review of 1.5°C and Other Newer Global Emissions Scenarios: Insights for Company and Financial Climate Low-Carbon Transition Risk Assessment and Greenhouse Goal Setting” reports. Southern Company will continue to use a portfolio approach as we seek to decarbonize. We expect our path to net zero to be comprised of several key elements: continued coal transition, utilization of natural gas to enable the fleet transition, further growth in our portfolio of zero-carbon resources, negative carbon solutions, enhanced energy efficiency initiatives and continued investment in R&D focused on clean energy technologies. Our approach is driven by thoughtful scenario planning, long-term integrated resources plans, and constructive regulatory decisions-making. We are also engaging with policymakers, customers and other stakeholders to support outcomes that lead to a net zero future.
Targeted reduction from base year (%)
50

Covered emissions in target year (metric tons CO2e) [auto-calculated]
7825181.5

Covered emissions in reporting year (metric tons CO2e)
88213565

% of target achieved [auto-calculated]
87.37521789209

Target status in reporting year
Underway

Is this a science-based target?
Yes, we consider this a science-based target, but this target has not been approved as science-based by the Science-Based Targets initiative

Please explain (including target coverage)
In 2018, we set emission reduction goals that were aligned with strategies designed to address the long-term reduction of carbon emissions and our commitment to a leadership role in developing solutions that make technological and economic sense. The goals established in 2018 were to reduce GHG emissions by 50% (from 2007 levels) by 2030 and to achieve low-to-no GHG emissions by 2050. These are enterprise-wide goals that encompass the Scope 1 emissions from our electric and natural gas operations. In 2020, we revised our long-term goal to achieve net zero GHG emissions by 2050. The goals are informed by the results of our integrated resource plans, which are designed to plan for an appropriate mix of generation resources to meet energy and capacity needs at a reasonable cost for our customers. These goals are also consistent with actions needed to potentially limit the global average temperature rise to less than 1.5 degrees Celsius above pre-industrial times--see EPRI’s “Grounding Decisions: A scientific foundation for companies considering global climate scenarios and greenhouse gas goals” and “Review of 1.5°C and Other Newer Global Emissions Scenarios: Insights for Company and Financial Climate Low-Carbon Transition Risk Assessment and Greenhouse Goal Setting” reports. Southern Company will continue to use a portfolio approach as we seek to decarbonize. We expect our path to net zero to be comprised of several key elements: continued coal transition, utilization of natural gas to enable the fleet transition, further growth in our portfolio of zero-carbon resources, negative carbon solutions, enhanced energy efficiency initiatives and continued investment in R&D focused on clean energy technologies. Our approach is driven by thoughtful scenario planning, long-term integrated resources plans, and constructive regulatory decisions-making. We are also engaging with policymakers, customers and other stakeholders to support outcomes that lead to a net zero future.

(C4.2) Did you have any other climate-related targets that were active in the reporting year?
Target(s) to reduce methane emissions

(C4.2b) Provide details of any other climate-related targets, including methane reduction targets.

<table>
<thead>
<tr>
<th>Target reference number</th>
<th>Oth 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year target was set</td>
<td>2014</td>
</tr>
<tr>
<td>Target coverage</td>
<td>Business division</td>
</tr>
<tr>
<td>Target type: absolute or intensity</td>
<td>Intensity</td>
</tr>
<tr>
<td>Target type: category &amp; Metric (target numerator if reporting an intensity target)</td>
<td>Methane reduction target</td>
</tr>
</tbody>
</table>

Target denominator (intensity targets only)
Other, please specify (Throughput of natural gas)

<table>
<thead>
<tr>
<th>Base year</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure or percentage in base year</td>
<td>0.52</td>
</tr>
<tr>
<td>Target year</td>
<td>2025</td>
</tr>
<tr>
<td>Figure or percentage in target year</td>
<td>0.44</td>
</tr>
<tr>
<td>Figure or percentage in reporting year</td>
<td>0.135</td>
</tr>
<tr>
<td>% of target achieved [auto-calculated]</td>
<td>481.25</td>
</tr>
<tr>
<td>Target status in reporting year</td>
<td>Achieved</td>
</tr>
</tbody>
</table>
Is this target part of an emissions target?
The methane reduction target is part of a larger Distribution Sector target which is a part of the overall One Future goal of a natural gas value chain methane intensity that is 1% or less.

Is this target part of an overarching initiative?
Other, please specify (ONE Future Program)

Please explain (including target coverage)
Southern Company Gas is a founding member of the ONE Future program, a coalition of companies across the natural gas value chain focused on identifying policy and technical solutions that yield continuous improvement in the management of methane emissions associated with the production, processing, transmission, and distribution of natural gas. If adopted widely, their system of emissions management could lower total methane emissions to less than one percent of gross production and delivery – the point of which the use of natural gas for any purpose provides a clean and immediate GHG-reduction benefit as compared to any other fossil fuel in any other application.

Target reference number
Oth 2

Year target was set

Target coverage
Business division

Target type: absolute or intensity
Please select

Target type: category & Metric (target numerator if reporting an intensity target)
Please select

Target denominator (intensity targets only)
<Not Applicable>

Base year

Figure or percentage in base year

Target year

Figure or percentage in target year

Figure or percentage in reporting year

% of target achieved [auto-calculated]
<Calculated field>

Target status in reporting year
Underway

Is this target part of an emissions target?
Efficient operation and continued maintenance of generation units assists in meeting the Southern Company’s overarching target of 50% reduction in GHG emissions by 2030.

Is this target part of an overarching initiative?
Other, please specify (Part of Overall Reduction Goals)

Please explain (including target coverage)
The Southern Company’s electric generating units have annual goals related to heat rate (fuel efficiency) of the individual units. Baselines are based on the previous year’s operation, and goals are established per unit. Employees responsible for heat rate are incentivized to meet these goals as they are a part of annual performance pay goals. Striving to meet these operational goals ensures the units continue to operate efficiently. Similarly, Southern Company’s nuclear fleet seeks to meet an annual nuclear fleet capability factor on a per site basis. By maximizing operation of these carbon-free resources, we offset the need to run more carbon intensive generating units. Employees responsible for operation of the nuclear fleet are incentivized to meet these goals as they are a part of annual performance pay goals.

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

<table>
<thead>
<tr>
<th>Initiative Status</th>
<th>Number of initiatives</th>
<th>Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under investigation</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>To be implemented*</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Implementation commenced*</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Implemented*</td>
<td>26</td>
<td>1033653</td>
</tr>
<tr>
<td>Not to be implemented</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

<table>
<thead>
<tr>
<th>Initiative category &amp; Initiative type</th>
<th>Solar PV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-carbon energy generation</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Estimated annual CO2e savings (metric tonnes CO2e)</th>
<th>131178</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scope(s)</strong></td>
<td>Scope 1</td>
</tr>
<tr>
<td><strong>Voluntary/Mandatory</strong></td>
<td>Voluntary</td>
</tr>
<tr>
<td>Annual monetary savings (unit currency – as specified in C0.4)</td>
<td>0</td>
</tr>
<tr>
<td>Investment required (unit currency – as specified in C0.4)</td>
<td>198000000</td>
</tr>
<tr>
<td>Payback period</td>
<td>No payback</td>
</tr>
<tr>
<td>Estimated lifetime of the initiative</td>
<td>&gt;30 years</td>
</tr>
</tbody>
</table>

**Comment**

In 2019, Southern Company subsidiaries completed 10 solar projects across the country. It should be noted that, generally, with respect to renewable energy generated or purchased by the state-regulated electric operating companies, the state-regulated electric operating companies retain the right to use the renewable energy to serve customers or to sell the energy and associated renewable energy credits, together or separately, to third parties for the benefit of customers. Southern Company receives regulatory and program approvals through PSCs in respective retail operating company states prior to entering into any agreements to build or purchase renewable energy. While "voluntary" was selected, it should be noted that in some cases builds and purchases were developed as projects in conjunction with the respective PSCs. Retail operating companies continue to pursue the development of zero carbon solar PV installations.

<table>
<thead>
<tr>
<th>Initiative category &amp; Initiative type</th>
<th>Solar PV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-carbon energy generation</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Estimated annual CO2e savings (metric tonnes CO2e)</th>
<th>493895</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scope(s)</strong></td>
<td>Scope 1</td>
</tr>
<tr>
<td><strong>Voluntary/Mandatory</strong></td>
<td>Voluntary</td>
</tr>
<tr>
<td>Annual monetary savings (unit currency – as specified in C0.4)</td>
<td>0</td>
</tr>
<tr>
<td>Investment required (unit currency – as specified in C0.4)</td>
<td>0</td>
</tr>
<tr>
<td>Payback period</td>
<td>No payback</td>
</tr>
<tr>
<td>Estimated lifetime of the initiative</td>
<td>&gt;30 years</td>
</tr>
</tbody>
</table>

**Comment**

In 2019, Southern subsidiaries had power purchase agreements for multiple solar projects in their retail service territories. It should be noted that generally, with respect to renewable energy generated or purchased by the state-regulated electric operating companies, the state-regulated electric operating companies retain the right to use the renewable energy to serve customers or to sell the energy and associated renewable energy credits, together or separately, to third parties for the benefit of customers. The ultimate purchasers of the RECs receive the right to claim all associated emission reductions. Retail operating companies continue to seek suppliers and purchase low and zero carbon energy to diversify the company’s fuel portfolio and create cost savings for customers where possible. New capacity is typically contracted for on a multi-year basis, based upon regulatory approval.

<table>
<thead>
<tr>
<th>Initiative category &amp; Initiative type</th>
<th>Wind</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-carbon energy generation</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Estimated annual CO2e savings (metric tonnes CO2e)</th>
<th>408580</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scope(s)</strong></td>
<td>Scope 1</td>
</tr>
<tr>
<td><strong>Voluntary/Mandatory</strong></td>
<td>Voluntary</td>
</tr>
<tr>
<td>Annual monetary savings (unit currency – as specified in C0.4)</td>
<td>0</td>
</tr>
<tr>
<td>Investment required (unit currency – as specified in C0.4)</td>
<td>0</td>
</tr>
<tr>
<td>Payback period</td>
<td>No payback</td>
</tr>
<tr>
<td>Estimated lifetime of the initiative</td>
<td>&gt;30 years</td>
</tr>
</tbody>
</table>

**Comment**

In 2019, Southern subsidiaries had power purchase agreements for multiple solar projects in their retail service territories. It should be noted that generally, with respect to renewable energy generated or purchased by the state-regulated electric operating companies, the state-regulated electric operating companies retain the right to use the renewable energy to serve customers or to sell the energy and associated renewable energy credits, together or separately, to third parties for the benefit of customers. The ultimate purchasers of the RECs receive the right to claim all associated emission reductions. Retail operating companies continue to seek suppliers and purchase low and zero carbon energy to diversify the company’s fuel portfolio and create cost savings for customers where possible. New capacity is typically contracted for on a multi-year basis, based upon regulatory approval.
Annual monetary savings (unit currency – as specified in C0.4) 0
Investment required (unit currency – as specified in C0.4) 0
Payback period No payback
Estimated lifetime of the initiative >30 years

Comment
In 2019, Southern subsidiaries had power purchase agreements for wind projects in their retail service territories. It should be noted that generally, with respect to renewable energy generated or purchased by the state-regulated electric operating companies, the state-regulated electric operating companies retain the right to use the renewable energy to serve customers or to sell the energy and associated renewable energy credits, together or separately, to third parties for the benefit of customers. The ultimate purchasers of the RECs receive the right to claim all associated emission reductions. Retail operating companies continue to seek suppliers and purchase low and zero carbon energy to diversify the Company’s fuel portfolio and create cost savings for customers where possible. New capacity is typically contracted for on a multi-year basis, based upon regulatory approval.

C4.3c

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

<table>
<thead>
<tr>
<th>Method</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compliance with regulatory requirements/standards</td>
<td>Decisions made by an electric and gas operating company regarding its assets, including those requiring specific state regulatory (i.e., PSC) approval, must be made in the best interest of its customers, taking into consideration a wide variety of factors, and based on the best information available at the time of the decision. EPA regulations governing emissions from existing electric generators could drive investment in the future.</td>
</tr>
<tr>
<td>Dedicated budget for energy efficiency</td>
<td>Across our state-regulated electric utilities, since 2000, energy efficiency and demand response programs have helped reduce peak demand for electricity by more than 5,600 MW and avoid more than 3 billion kilowatt hours (KWh) of energy use. Additionally, since 2011, Nicor Gas’s energy efficiency programs have helped reduce demand by more than 160 million therms and reduced customers’ emissions. Looking forward, the Southern Company system is on a path to finding more ways for our customers to save money while also reducing GHG emissions by investing more than $1 billion in energy efficiency for electric customers between 2010 and 2030 and more than $375 million in energy efficiency for natural gas customers between 2011 and 2021.</td>
</tr>
<tr>
<td>Dedicated budget for low-carbon product R&amp;D</td>
<td>Since the 1960s, Southern Company has actively engaged in robust R&amp;D that grows the value of energy services to customers. Nearly all of our current R&amp;D spend is focused on lower carbon-emitting technologies or carbon removal technologies.</td>
</tr>
<tr>
<td>Internal price on carbon</td>
<td>Our integrated resource planning process occurs annually – allowing updates to the scenarios and associated CO2 prices, as well as incorporation of recent commodity, economic or policy indicators. We use a robust scenario planning process that has two primary components: energy economy modelling and integrated resource planning. We continue to evaluate this process on an annual basis, and it is therefore subject to change.</td>
</tr>
<tr>
<td>Internal incentives/recognition programs</td>
<td>To demonstrate its commitment to the reduction goals and facilitate the execution of our business strategy to address the long-term reduction of carbon emissions, in 2019 and again in 2020, the Board decided that it would tie a portion of the CEO’s LT award for 2019 and for 2020 to the achievement of the goals. Ten percent of the CEO’s 2019 and 2020 LT awards are aligned with the GHG reduction goals, equivalent to a potential payout of up to $2 million of incentive compensation.</td>
</tr>
<tr>
<td>Partnering with governments on technology development</td>
<td>Southern Company R&amp;D has worked for almost 50 years to develop new technologies across the production, delivery and end-use of energy. Since its formation, the DOE has been a major research partner with Southern Company in defining R&amp;D needs, leveraging public-private funding and understanding and implementing results. In addition to DOE and its national laboratories, Southern Company R&amp;D actively collaborates with other utilities, universities, technology developers and industry organizations, highly leveraging both funding and expertise. These long-standing partnerships address the industry’s most significant challenges – including the reduction of carbon emissions – and advance the most promising technology options for the energy sector. Furthermore, this collaborative model allows the matching of internal research investments - on average, dollar for dollar – through public-private partnerships and other forms of external cost-sharing. As a result, Southern Company’s R&amp;D organization has delivered significant benefits across the enterprise that, over the last 10 years, have averaged at least 10 times its investment.</td>
</tr>
</tbody>
</table>

C4.5

(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

(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
Group of products

Description of product/Group of products
Residential and commercial energy efficiency programs offered by the retail electric operating companies and gas distribution company reduce electricity and natural gas usage and therefore reduce emissions. These services include incentives to increase use of high efficiency appliances, home improvement incentives, energy check-up services and many other programs.

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 (Reduction in peak and overall demand)

% revenue from low carbon product(s) in the reporting year
0

% of total portfolio value
<Not Applicable>
These programs have helped avoid more than 3 billion kWh of energy use since 2010.

Our primary product is electricity sold to customers. To the extent that we lower our total system emissions and emissions rate, our customers may also directly lower their total emissions. We also supply natural gas to customers, and we are focused on opportunities to lead the industry in the use of renewable natural gas, minimize fugitive methane emissions across the natural gas supply chain and reduce GHG emission by end use customers, including electric generation.

By supporting technologies that help to decarbonize other sectors of the economy, we are able to reduce net carbon emissions. Focus areas of our R&D include technologies related to efficient use of electric and natural gas for transportation, building, industrial processes and food production. Southern Company's retail operating companies have built, own and operate a fleet of low- and zero-carbon facilities and also purchase energy and RECs from zero-carbon facilities owned by third parties. The retail operating companies are generally able to use the RECs from these facilities to offer their customers the option to match some or all of their retail load with RECs, a low-carbon product. The retail operating companies can also sell the unused RECs to third parties for the benefit of customers. Because these resources (both owned and purchased) are part of each company’s wholesale portfolio and the sale of energy and RECs (both to retail customers and wholesale customers) are commingled with all other wholesale sales, our subsidiaries do not have a percentage of revenues that can be claimed for these activities for any specific set of customers. These activities are not, however, pursuant or implemented to satisfy any regulatory or other reporting requirements but rather as a means to satisfy customer demand and as an added benefit achieve Company-wide goals to reduce carbon emissions and diversify fuel sources to the benefit of customers.

Southern Company and its subsidiaries offer specific customer programs in states where there is interest to support development of renewable generation assets including wind and solar generation.

By supporting technologies that help to decarbonize other sectors of the economy, we are able to reduce net carbon emissions. Focus areas of our R&D include technologies related to efficient use of electric and natural gas for transportation, building, industrial processes and food production. Southern Company's retail operating companies have built, own and operate a fleet of low- and zero-carbon facilities and also purchase energy and RECs from zero-carbon facilities owned by third parties. The retail operating companies are generally able to use the RECs from these facilities to offer their customers the option to match some or all of their retail load with RECs, a low-carbon product. The retail operating companies can also sell the unused RECs to third parties for the benefit of customers. Because these resources (both owned and purchased) are part of each company’s wholesale portfolio and the sale of energy and RECs (both to retail customers and wholesale customers) are commingled with all other wholesale sales, our subsidiaries do not have a percentage of revenues that can be claimed for these activities for any specific set of customers. These activities are not, however, pursuant or implemented to satisfy any regulatory or other reporting requirements but rather as a means to satisfy customer demand and as an added benefit achieve Company-wide goals to reduce carbon emissions and diversify fuel sources to the benefit of customers.

C-EU4.6
Describe your organization’s efforts to reduce methane emissions from your activities.

Southern Company Gas has led the natural gas industry in fostering significant progress to minimize fugitive methane emissions. Its distribution system operates at almost 99.9% efficiency in its delivery of natural gas. Intensity is derived from the ONE Future Methane Intensity Protocol (2018). Over a 20-year timeframe, from 1998 to 2018, Southern Company Gas invested more than $2.2 billion in pipeline and infrastructure replacements, and these improvements have reduced its annual methane emissions for its distribution systems by 50% while accommodating a 20% growth in its distribution system. We continue to invest in methane detection and reduction across the Southern Company Gas footprint.

Southern Company Gas also demonstrates leadership across the value chain as a founding member of ONE Future. The ONE Future Coalition is a group of natural gas companies working together to voluntarily reduce methane emissions across the natural gas supply chain. With operations across every part of the natural gas value chain, ONE Future is focused on identifying policy and technical solutions that yield continuous improvement in the management of methane emissions associated with the production, processing, transmission and distribution of natural gas. Since its formation, it has grown from 8 companies to 28 companies accounting for the some of the largest natural gas producers, transmission and distribution companies in the U.S. ONE Future members operate in many of the production basins and other segments of the value chain in multiple regions of the country, hence ONE Future’s data represent a geographically diverse and material share of the U.S. natural gas supply chain. By increasing suppliers involved in the initiative, Southern Company can increase availability of ONE Future suppliers in our service territory.

For example, in October 2019, Virginia Natural Gas (VNG), a subsidiary of Southern Company Gas, announced its plan to be the first natural gas utility in America to provide its customers with natural gas that is 100% sourced, transported and distributed by companies that have pledged to reduce methane emissions to less than 1% across the natural gas value chain. As a down payment on that pledge, the company began purchasing 20% of its customers’ annual natural gas supply from select, low fugitive emission wells operated by gas producers in the ONE Future program, making a "well head to burner tip" supply chain of low fugitive emission gas for customers. Both Southern Company Gas and Southern Company’s electric operations have updated their natural gas bid selection process to offer a competitive edge to natural gas suppliers committed to reducing fugitive methane emissions.

The improvements put into place across the whole value chain will positively influence the supply side for our electric and gas utilities. To achieve ONE Future’s collective 1% target, ONE Future has identified sectoral performance targets for each of the four major industry sectors (Exploration & Production; Gathering & Processing; Transmission & Storage, and Distribution & Retail) that would cumulatively add up to the overall one percent goal. ONE Future has worked to set these performance targets in rough proportion to each industry sectors’ respective share of current emissions, considering reduction potentials given current regulatory barriers. These sectoral targets serve both to benchmark company progress toward goals, but also to facilitate comparisons amongst diverse companies as each strives for optimal performance.

C5. Emissions methodology

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

Scope 1

Base year start
January 1 2007

Base year end
December 31 2007

Base year emissions (metric tons CO2e)
156650363

Comment
Baseline emissions include equity owned assets for electric operations (including transmission and distribution). Gas operations baseline emissions are not yet available.

Scope 2 (location-based)

Base year start
January 1 2019

Base year end
December 31 2019

Base year emissions (metric tons CO2e)
36845

Comment
Southern Company’s Scope 2 emissions are calculated using the equity share approach presented in the WRI/WBCSD GHG Protocol Scope 2 Guidance for its owned facilities. The GHG emissions included in Scope 2 are emissions from electricity purchased for Company consumption at Company-owned locations that are located outside of Southern Company’s retail electric service territory. The location-based calculations use regional 2018 EPA eGRID emission factors.

Scope 2 (market-based)

Base year start
January 1 2019

Base year end
December 31 2019

Base year emissions (metric tons CO2e)
35568

Comment
Southern Company’s Scope 2 emissions are calculated using the equity share approach presented in the WRI/WBCSD GHG Protocol Scope 2 Guidance for its owned facilities. The GHG emissions included in Scope 2 are emissions from electricity purchased for Company consumption at Company-owned locations that are located outside of Southern Company’s retail electric service territory. The market-based calculations use a combination of supplier provided emissions factors, where available, and regional 2018 EPA eGRID emission factors.

C5.2

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

US EPA Center for Corporate Climate Leadership: Direct Emissions from Mobile Combustion Sources
US EPA Mandatory Greenhouse Gas Reporting Rule
US EPA Emissions & Generation Resource Integrated Database (eGRID)

Other, please specify (ONE Future Methane Intensity Protocol (2018) is used for Southern Company Gas methane intensity numbers provided in section 4. Southern Company Gas non-GHGRP methane sources are calculated consistent with the EPA Greenhouse Gas Inventory)

C5.2a

(C5.2a) Provide details of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

ONE Future Methane Intensity Protocol (2018) is used for Southern Company Gas methane intensity numbers provided in section 4. Southern Company Gas non-GHGRP methane sources are calculated consistent with the EPA Greenhouse Gas Inventory.

C6. Emissions data

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) | 88213565 |
| Start date | <Not Applicable> |
| End date | <Not Applicable> |

**Comment**

Southern Company's GHG emission goals are calculated using the equity share approach presented in the WRI/WBCSD GHG Protocol for all of its owned facilities. The GHG emissions included are Scope 1 direct facility emissions that are required to be tracked by EPA's Greenhouse Gas Reporting Program (GHGRP) and calculated using methods required by the GHGRP. Additional emissions sources for the gas distribution sector are also included consistent with EPA's GHG Inventory and ONE Future. Company owned mobile vehicle emissions are also included in Scope 1.

### 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 | We are reporting a Scope 2, market-based figure |

**Comment**

Southern Company's Scope 2 emissions are calculated using the equity share approach presented in the WRI/WBCSD GHG Protocol Scope 2 Guidance for its owned facilities. The GHG emissions included in Scope 2 are emissions from electricity purchases for company use at company-owned locations that are located outside of Southern Company's retail electric service territory. The location-based calculations use regional 2018 EPA eGRID emission factors. The market-based calculations use a combination of supplier provided emissions factors, where available, and regional 2018 EPA eGRID emission factors.

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

**Reporting year**

| Scope 2, location-based | 36845 |
| Scope 2, market-based (if applicable) | 35568 |

| Start date | <Not Applicable> |
| End date | <Not Applicable> |

**Comment**

Southern Company's Scope 2 emissions are calculated using the equity share approach presented in the WRI/WBCSD GHG Protocol Scope 2 Guidance for its owned facilities. The GHG emissions included in Scope 2 are emissions from electricity purchased for company consumption at company-owned locations that are located outside of Southern Company's retail electric service territory. The location-based calculations use regional 2018 EPA eGRID emission factors. The market-based calculations use a combination of supplier provided emissions factors, where available, and regional 2018 EPA eGRID emission factors.

### 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?

Yes

### C6.4a
(C6.4a) Provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure.

Source
Scope 1 de-minimis sources

Relevance of Scope 1 emissions from this source
Emissions are not relevant

Relevance of location-based Scope 2 emissions from this source
No emissions from this source

Relevance of market-based Scope 2 emissions from this source (if applicable)
No emissions from this source

Explain why this source is excluded
Per The Climate Registry General Reporting Protocol (TCR GRP) and Electric Power Sector Protocols there are a number of de-minimis sources for the electric utility industry that are not included in our Scope 1 inventory.

Source
Scope 1 natural gas purchases for comfort heating

Relevance of Scope 1 emissions from this source
Emissions are not relevant

Relevance of location-based Scope 2 emissions from this source
No emissions from this source

Relevance of market-based Scope 2 emissions from this source (if applicable)
No emissions from this source

Explain why this source is excluded
Southern Company does not currently have processes in place to collect data associated with natural gas purchases for comfort heating at our facilities. In addition, these emissions are expected to be insignificant compared to our total Scope 1 emissions.

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
Scope 1 and Scope 2 emissions have been reported. No material emissions from other purchased goods and services.

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
Scope 1 and Scope 2 emissions have been reported. Any relevant emissions related to capital goods is reflected by those emissions or is otherwise not material.
Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status
Relevant, calculated

Metric tonnes CO2e
3423778

Emissions calculation methodology
Emissions calculated from the generation of purchased electricity that is sold to end users including spot and market purchases, power purchase agreements and interchange purchases. Market based emission factors are applied where available, EPA eGRID emission factors are applied for spot and market purchases when the generating source is unknown or where market based emission factors are not available.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
71

Please explain
These emissions were previously reported to CDP as Scope 2 emissions.

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
Scope 1 and Scope 2 emissions have been reported. No material emissions from other upstream T&D.

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
Compared to Southern Company Scope 1 and Scope 2 emissions, emissions related to Waste Generated in Operations is not material.

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
When compared to Scope 1 emissions, emissions related to travel are not material.

Employee commuting

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
Compared to Scope 1 emissions provided the emissions related to employee commuting are not material. In addition, there are opportunities for employees to participate in ride share programs. Charging stations for EVs are also provided free of charge at company locations.
Upstream leased assets

**Evaluation status**  
Not relevant, calculated

**Metric tonnes CO2e**  
88879

**Emissions calculation methodology**  
Includes leased vehicle and aircraft emissions calculated using the WRI Mobile Emissions Transport Tool and electricity purchases for leased assets outside of Southern Company’s retail electric service territory calculated using the WRI/WBCSD Scope 2 Protocol.

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**  
100

**Please explain**  
Includes emissions from leased mobile vehicles and aircraft and electricity purchases for leased assets outside of Southern Company’s retail electric service territory.

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**  
Scope 1 and Scope 2 emissions have been reported. No material emissions from downstream T&D.

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**  
Electricity is not processed by customers, and emissions from gas distribution are included above in Use of Sold Products.

Use of sold products

**Evaluation status**  
Relevant, calculated

**Metric tonnes CO2e**  
35260791

**Emissions calculation methodology**  
This value is determined in accordance with the requirements of 40 CFR Part 98 Subpart NN and therefore does not include emissions from deliveries to customers whose meters register an annual volume greater than 460,000 Mscf of natural gas deliveries.

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**  
100

**Please explain**  
Emissions reported as required by 40 CFR Part 98 Subpart NN (Suppliers of Natural Gas and Natural Gas Liquids).

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**  
Electricity and natural gas require no end of life treatment.
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**  
There are no downstream emissions from Southern Company’s leased 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**  
Southern Company does not own 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**  
Investments are included in Scope 1 emissions as leveraged leases.

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**  
No other relevant upstream emissions as compared to Scope 1 emissions.

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**  
There are no downstream emissions resulting from the use of electricity. Gas emissions are provided above.

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?  
Yes
(C6.7a) Provide the emissions from biogenic carbon relevant to your organization in metric tons CO2.

<table>
<thead>
<tr>
<th>CO2 emissions from biogenic carbon (metric tons CO2)</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row 1 34711</td>
<td>Biofuel carbon emissions associated with mobile fleet and biomass carbon emissions associated with biomass generating facility.</td>
</tr>
</tbody>
</table>

(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 0.46

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
88249113

Metric denominator megawatt hour generated (MWh)
190528625

Scope 2 figure used Market-based
% change from previous year 5
Direction of change Decreased
Reason for change
Due to the change in Scope 2 methodology, Southern Company's Scope 2 emissions decreased. In addition, due to a shift from coal to natural gas and lower emitting generation Scope 1 emissions decreased. Generation also decreased. Overall, the primary reason for the reduction in intensity is that we are meeting generation demand using lower emitting resources.

Intensity figure 0.004

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
88249133

Metric denominator Other, please specify (unit total revenue)
21419000000

Scope 2 figure used Market-based
% change from previous year 31
Direction of change Decreased
Reason for change
Revenue increased and emissions decreased. Overall, the primary reason for the reduction in intensity is that we are meeting generation demand using lower emitting resources.

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).

<table>
<thead>
<tr>
<th>Greenhouse gas</th>
<th>Scope 1 emissions (metric tons CO2e)</th>
<th>GWP Reference</th>
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<tr>
<td>CH4</td>
<td>94181.5</td>
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</tr>
<tr>
<td>N2O</td>
<td>256534</td>
<td>Other, please specify (Other, please specify Table A-1 to Subpart A of Part 98—Global Warming Potentials (GWP100 yr); Chemical Specific GWPs are: N2O: 298)</td>
</tr>
<tr>
<td>CO2</td>
<td>869752.17</td>
<td>Other, please specify (Table A-1 to Subpart A of Part 98—Global Warming Potentials (GWP100 yr))</td>
</tr>
<tr>
<td>SF6</td>
<td>37999</td>
<td>Other, please specify (Other, please specify Table A-1 to Subpart A of Part 98—Global Warming Potentials (GWP100 yr); GWP SF6: 22800)</td>
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(C-EU7.1b) Break down your total gross global Scope 1 emissions from electric utilities value chain activities by greenhouse gas type.

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<th></th>
<th>Gross Scope 1 CO2 emissions (metric tons CO2)</th>
<th>Gross Scope 1 methane emissions (metric tons CH4)</th>
<th>Gross Scope 1 SF6 emissions (metric tons SF6)</th>
<th>Total gross Scope 1 emissions (metric tons CO2e)</th>
<th>Comment</th>
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<td></td>
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<td></td>
<td>Combustion (Gas utilities)</td>
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(C7.2) Break down your total gross global Scope 1 emissions by country/region.

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<th>Country/Region</th>
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(C7.3a) Break down your total gross global Scope 1 emissions by business division.

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<td>Georgia Power Company</td>
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<td>Mississippi Power Company</td>
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<td>SEGCO</td>
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<td>Southern Company Gas</td>
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<td>Leveraged Leases/Southern Company Finance</td>
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<td>Mobile Fleet</td>
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<td>Southern Nuclear Company</td>
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(C7.3b) Break down your total gross global Scope 1 emissions by business facility.
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**C7.3c**

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

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<th>Activity</th>
<th>Scope 1 emissions (metric tons CO2e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Stationary Combustion</td>
<td>8671996</td>
</tr>
<tr>
<td>Electric Transmission &amp; Distribution</td>
<td>37999</td>
</tr>
<tr>
<td>Gas Transmission &amp; Distribution</td>
<td>1335936</td>
</tr>
<tr>
<td>Mobile Combustion</td>
<td>122083</td>
</tr>
</tbody>
</table>

---

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

<table>
<thead>
<tr>
<th>Comment</th>
<th>Gross Scope 1 emissions, metric tons CO2e</th>
<th>Net Scope 1 emissions , metric tons CO2e</th>
<th>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.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cement production activities</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>Change in emissions (metric tons CO2e) 87512 Decreased 0.1 Southern Company increased renewable energy with the addition of solar and wind facilities. Calculated by subtracting 2019 renewable net generation (2,528,262 MWh) – 2018 renewable net generation (2,331,982 MWh) and applying a Southern Company system emission factor (0.45 metric tons CO2e/MWh) to the difference. Divided by the total 2018 Scope 1 + 2 emissions (104,374,405 metric tons CO2e) to determine emissions value.</td>
</tr>
<tr>
<td>Chemicals production activities</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>Other emissions reduction activities 15100768 Decreased 14 Southern Company burned less coal by increasing natural gas and non-emitting generation, and also retired 8 coal units. Calculated by subtracting 2019 CO2e emission from coal (42,871,894 metric tons CO2e) - 2019 CO2e emissions from coal (57,972,662 metric tons CO2e). Divided by the total 2018 Scope 1 + 2 emissions (104,374,405 metric tons CO2e) to determine emissions value.</td>
</tr>
<tr>
<td>Coal production activities</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>Divestment 9485622 Decreased 0 Southern Company sold several coal and gas electric generating assets in January 2019. Also sold gas LDCs in mid-2018. 2019 emissions from these facilities were zero, so the change is the total 2018 CO2e emissions from these facilities. Divided by the total 2018 Scope 1 + 2 emissions to determine the emissions value.</td>
</tr>
<tr>
<td>Electric utility activities</td>
<td>86757945</td>
<td>&lt;Not Applicable&gt;</td>
<td>Acquisitions 0 No change 0 Not applicable</td>
</tr>
<tr>
<td>Metals and mining production activities</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>Mergers 0 No change 0 Not applicable</td>
</tr>
<tr>
<td>Oil and gas production activities (upstream)</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>Change in output 0 No change 0 Not applicable</td>
</tr>
<tr>
<td>Oil and gas production activities (midstream)</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>Change in methodology 2105552 Decreased 2 Scope 2 emissions were previously calculated and reported as emissions from generation of purchased power to serve our customer load (2,142,130 metric tons CO2e in 2018). However, Scope 2 emissions are now reported as emissions from the electricity purchased for our own company use (35,568 metric tons CO2e in 2019), and purchased power to serve our customer load is now reported as scope 3 emissions.</td>
</tr>
<tr>
<td>Oil and gas production activities (downstream)</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>Change in boundary 0 No change 0 Not applicable</td>
</tr>
<tr>
<td>Steel production activities</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>Change in physical operating conditions 0 No change 0 Not applicable</td>
</tr>
<tr>
<td>Transport OEM activities</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>Unidentified 0 No change 0 Not applicable</td>
</tr>
<tr>
<td>Transport services activities</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>Other 0 No change 0 Not applicable</td>
</tr>
</tbody>
</table>

(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?

Market-based
C8. Energy

C8.1

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

More than 55% but less than or equal to 60%

C8.2

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

<table>
<thead>
<tr>
<th>Activity</th>
<th>Indicate whether your organization undertook this energy-related activity in the reporting year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumption of fuel (excluding feedstocks)</td>
<td>Yes</td>
</tr>
<tr>
<td>Consumption of purchased or acquired electricity</td>
<td>Yes</td>
</tr>
<tr>
<td>Consumption of purchased or acquired heat</td>
<td>No</td>
</tr>
<tr>
<td>Consumption of purchased or acquired steam</td>
<td>No</td>
</tr>
<tr>
<td>Consumption of purchased or acquired cooling</td>
<td>No</td>
</tr>
<tr>
<td>Generation of electricity, heat, steam, or cooling</td>
<td>Yes</td>
</tr>
</tbody>
</table>

C8.2a

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

<table>
<thead>
<tr>
<th>Activity</th>
<th>Heating value</th>
<th>MWh from renewable sources</th>
<th>MWh from non-renewable sources</th>
<th>Total (renewable and non-renewable) MWh</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumption of fuel (excluding feedstock)</td>
<td>HHV (higher heating value)</td>
<td>135198</td>
<td>152053217</td>
<td>152188416</td>
</tr>
<tr>
<td>Consumption of purchased or acquired electricity</td>
<td>&lt;Not Applicable&gt;</td>
<td>0</td>
<td>89763</td>
<td>89763</td>
</tr>
<tr>
<td>Consumption of purchased or acquired heat</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>Consumption of purchased or acquired steam</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>Consumption of purchased or acquired cooling</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>Consumption of self-generated non-fuel renewable energy</td>
<td>&lt;Not Applicable&gt;</td>
<td>18580166</td>
<td>&lt;Not Applicable&gt;</td>
<td>18580166</td>
</tr>
<tr>
<td>Total energy consumption</td>
<td>&lt;Not Applicable&gt;</td>
<td>18715364</td>
<td>152142980</td>
<td>170858345</td>
</tr>
</tbody>
</table>

C8.2b

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

<table>
<thead>
<tr>
<th>Application</th>
<th>Indicate whether your organization undertakes this fuel application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumption of fuel for the generation of electricity</td>
<td>Yes</td>
</tr>
<tr>
<td>Consumption of fuel for the generation of heat</td>
<td>No</td>
</tr>
<tr>
<td>Consumption of fuel for the generation of steam</td>
<td>Yes</td>
</tr>
<tr>
<td>Consumption of fuel for the generation of cooling</td>
<td>No</td>
</tr>
<tr>
<td>Consumption of fuel for co-generation or tri-generation</td>
<td>Yes</td>
</tr>
</tbody>
</table>

C8.2c

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

**Fuels (excluding feedstocks)**
- Coal

**Heating value**
- HHV (higher heating value)

**Total fuel MWh consumed by the organization**
- 45215880

**MWh fuel consumed for self-generation of electricity**
- 45215880

**MWh fuel consumed for self-generation of heat**
- 0

**MWh fuel consumed for self-generation of steam**
-
MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
0

Emission factor
93.28

Unit
kg CO2 per million Btu

Emissions factor source
40 CFR Appendix Table C-1 to Subpart C of Part 98

Comment
bituminous coal 93.28 kg CO2/MMBtu; subbituminous coal 97.17 kg CO2/mmbtu

Fuels (excluding feedstocks)
Landfill Gas

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
75560

MWh fuel consumed for self-generation of electricity
75560

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
0

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
0

Emission factor
52.07

Unit
kg CO2 per million Btu

Emissions factor source
40 CFR Appendix Table C-1 to Subpart C of Part 98

Comment

Fuels (excluding feedstocks)
Light Distillate

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
358988

MWh fuel consumed for self-generation of electricity
112188

MWh fuel consumed for self-generation of heat
193575

MWh fuel consumed for self-generation of steam
53226

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
0

Emission factor
73.96

Unit
kg CO2 per million Btu

Emissions factor source
40 CFR Appendix Table C-1 to Subpart C of Part 98

Comment
<table>
<thead>
<tr>
<th>Fuels (excluding feedstocks)</th>
<th>Wood Waste</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heating value</td>
<td>HHV (higher heating value)</td>
</tr>
<tr>
<td>Total fuel MWh consumed by the organization</td>
<td>14556</td>
</tr>
<tr>
<td>MWh fuel consumed for self-generation of electricity</td>
<td>14556</td>
</tr>
<tr>
<td>MWh fuel consumed for self-generation of heat</td>
<td>0</td>
</tr>
<tr>
<td>MWh fuel consumed for self-generation of steam</td>
<td>0</td>
</tr>
<tr>
<td>MWh fuel consumed for self-generation of cooling</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>MWh fuel consumed for self-cogeneration or self-trigeneration</td>
<td>0</td>
</tr>
<tr>
<td>Emission factor</td>
<td>93.8</td>
</tr>
<tr>
<td>Unit</td>
<td>kg CO2 per million Btu</td>
</tr>
<tr>
<td>Emissions factor source</td>
<td>40 CFR Appendix Table C-1 to Subpart C of Part 98</td>
</tr>
<tr>
<td>Comment</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fuels (excluding feedstocks)</th>
<th>Other, please specify (Fuel Cells (NG))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heating value</td>
<td>HHV (higher heating value)</td>
</tr>
<tr>
<td>Total fuel MWh consumed by the organization</td>
<td>45083</td>
</tr>
<tr>
<td>MWh fuel consumed for self-generation of electricity</td>
<td>45083</td>
</tr>
<tr>
<td>MWh fuel consumed for self-generation of heat</td>
<td>0</td>
</tr>
<tr>
<td>MWh fuel consumed for self-generation of steam</td>
<td>0</td>
</tr>
<tr>
<td>MWh fuel consumed for self-generation of cooling</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
</tbody>
</table>

CDP
<table>
<thead>
<tr>
<th>Fuels (excluding feedstocks)</th>
<th>Propane Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heating value</td>
<td>HHV (higher heating value)</td>
</tr>
<tr>
<td>Total fuel MWh consumed by the organization</td>
<td>323</td>
</tr>
<tr>
<td>MWh fuel consumed for self-generation of electricity</td>
<td>1</td>
</tr>
<tr>
<td>MWh fuel consumed for self-generation of heat</td>
<td>0</td>
</tr>
<tr>
<td>MWh fuel consumed for self-generation of steam</td>
<td>322</td>
</tr>
<tr>
<td>MWh fuel consumed for self-generation of cooling</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>MWh fuel consumed for self-cogeneration or self-trigeneration</td>
<td>0</td>
</tr>
<tr>
<td>Emission factor</td>
<td>61.46</td>
</tr>
<tr>
<td>Unit</td>
<td>kg CO2 per million Btu</td>
</tr>
<tr>
<td>Emissions factor source</td>
<td>40 CFR Appendix Table C-1 to Subpart C of Part 98</td>
</tr>
<tr>
<td>Comment</td>
<td></td>
</tr>
<tr>
<td>Description</td>
<td>Value</td>
</tr>
<tr>
<td>-----------------------------------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>Total fuel MWh consumed by the organization</td>
<td>283295</td>
</tr>
<tr>
<td>MWh fuel consumed for self-generation of electricity</td>
<td>0</td>
</tr>
<tr>
<td>MWh fuel consumed for self-generation of heat</td>
<td>0</td>
</tr>
<tr>
<td>MWh fuel consumed for self-generation of steam</td>
<td>283295</td>
</tr>
<tr>
<td>MWh fuel consumed for self-generation of cooling</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>MWh fuel consumed for self-cogeneration or self-trigeneration</td>
<td>0</td>
</tr>
<tr>
<td>Emission factor</td>
<td>70.2</td>
</tr>
<tr>
<td>Unit</td>
<td>kg CO2 per million Btu</td>
</tr>
<tr>
<td>Emissions factor source</td>
<td>40 CFR Appendix Table C-1 to Subpart C of Part 98</td>
</tr>
</tbody>
</table>

**Fuels (excluding feedstocks)**

Jet Kerosene

**Heating value**

HHV (higher heating value)

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total fuel MWh consumed by the organization</td>
<td>370</td>
</tr>
<tr>
<td>MWh fuel consumed for self-generation of electricity</td>
<td>0</td>
</tr>
<tr>
<td>MWh fuel consumed for self-generation of heat</td>
<td>370</td>
</tr>
<tr>
<td>MWh fuel consumed for self-generation of steam</td>
<td>0</td>
</tr>
<tr>
<td>MWh fuel consumed for self-generation of cooling</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>MWh fuel consumed for self-cogeneration or self-trigeneration</td>
<td>0</td>
</tr>
<tr>
<td>Emission factor</td>
<td>72.22</td>
</tr>
<tr>
<td>Unit</td>
<td>kg CO2 per million Btu</td>
</tr>
<tr>
<td>Emissions factor source</td>
<td>40 CFR Appendix Table C-1 to Subpart C of Part 98</td>
</tr>
</tbody>
</table>

**Fuels (excluding feedstocks)**

Lignite Coal

**Heating value**

HHV (higher heating value)

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total fuel MWh consumed by the organization</td>
<td>2744572</td>
</tr>
<tr>
<td>MWh fuel consumed for self-generation of electricity</td>
<td>2744572</td>
</tr>
<tr>
<td>MWh fuel consumed for self-generation of heat</td>
<td>0</td>
</tr>
<tr>
<td>MWh fuel consumed for self-generation of steam</td>
<td>0</td>
</tr>
<tr>
<td>MWh fuel consumed for self-generation of cooling</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>MWh fuel consumed for self-cogeneration or self-trigeneration</td>
<td>0</td>
</tr>
<tr>
<td>Emission factor</td>
<td>97.72</td>
</tr>
<tr>
<td>Unit</td>
<td>kg CO2 per million Btu</td>
</tr>
</tbody>
</table>
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**

<table>
<thead>
<tr>
<th>Nameplate capacity (MW)</th>
<th>11779</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross electricity generation (GWh)</td>
<td>45216</td>
</tr>
<tr>
<td>Net electricity generation (GWh)</td>
<td>41703</td>
</tr>
<tr>
<td>Absolute scope 1 emissions (metric tons CO2e)</td>
<td>43138717</td>
</tr>
<tr>
<td>Scope 1 emissions intensity (metric tons CO2e per GWh)</td>
<td>1034</td>
</tr>
</tbody>
</table>

**Comment**

Capacity of units is included based on their primary fuel type. Some units may have dual fuel capability. Generation includes facilities for which Southern Company owns and sells the energy to customers (i.e. excludes purchased power and leveraged leases). Approximately 1,900 MW of coal-fired generation was retired in 2019.

**Lignite**

<table>
<thead>
<tr>
<th>Nameplate capacity (MW)</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross electricity generation (GWh)</td>
<td>0</td>
</tr>
<tr>
<td>Net electricity generation (GWh)</td>
<td>0</td>
</tr>
<tr>
<td>Absolute scope 1 emissions (metric tons CO2e)</td>
<td>0</td>
</tr>
<tr>
<td>Scope 1 emissions intensity (metric tons CO2e per GWh)</td>
<td>0</td>
</tr>
</tbody>
</table>

**Comment**

Not applicable. Power plant capacity, generation, and related emission data is not provided for lignite fuels because the facilities in our system using lignite are leveraged lease facilities. Southern Company does not actually sell the electricity from these facilities and therefore does not include them in our calculations for electric sector emission intensities.

**Oil**

<table>
<thead>
<tr>
<th>Nameplate capacity (MW)</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross electricity generation (GWh)</td>
<td>111</td>
</tr>
<tr>
<td>Net electricity generation (GWh)</td>
<td>106</td>
</tr>
<tr>
<td>Absolute scope 1 emissions (metric tons CO2e)</td>
<td>57317</td>
</tr>
<tr>
<td>Scope 1 emissions intensity (metric tons CO2e per GWh)</td>
<td>542</td>
</tr>
</tbody>
</table>

**Comment**

Capacity of units is included based on their primary fuel type. Some units may have dual fuel capability. Generation includes facilities for which Southern Company owns and sells the energy to customers (i.e. excludes purchased power and leveraged leases).
### Gas

<table>
<thead>
<tr>
<th>Nameplate capacity (MW)</th>
<th>20517</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross electricity generation (GWh)</td>
<td>98273</td>
</tr>
<tr>
<td>Net electricity generation (GWh)</td>
<td>95966</td>
</tr>
<tr>
<td>Absolute scope 1 emissions (metric tons CO2e)</td>
<td>39909214</td>
</tr>
<tr>
<td>Scope 1 emissions intensity (metric tons CO2e per GWh)</td>
<td>416</td>
</tr>
</tbody>
</table>

**Comment**
Capacity of units is included based on their primary fuel type. Some units may have dual fuel capability. Generation includes facilities for which Southern Company owns and sells the energy to customers (i.e. excludes purchased power and leveraged leases).

### Biomass

<table>
<thead>
<tr>
<th>Nameplate capacity (MW)</th>
<th>115</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross electricity generation (GWh)</td>
<td>15</td>
</tr>
<tr>
<td>Net electricity generation (GWh)</td>
<td>15</td>
</tr>
<tr>
<td>Absolute scope 1 emissions (metric tons CO2e)</td>
<td>281</td>
</tr>
<tr>
<td>Scope 1 emissions intensity (metric tons CO2e per GWh)</td>
<td>19</td>
</tr>
</tbody>
</table>

**Comment**
Generation and emissions include facilities for which Southern Company owns and sells the energy to customers (i.e. excludes purchased power and leveraged leases).

### Waste (non-biomass)

<table>
<thead>
<tr>
<th>Nameplate capacity (MW)</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross electricity generation (GWh)</td>
<td>0</td>
</tr>
<tr>
<td>Net electricity generation (GWh)</td>
<td>0</td>
</tr>
<tr>
<td>Absolute scope 1 emissions (metric tons CO2e)</td>
<td>0</td>
</tr>
<tr>
<td>Scope 1 emissions intensity (metric tons CO2e per GWh)</td>
<td>0</td>
</tr>
</tbody>
</table>

**Comment**
Not applicable

### Nuclear

<table>
<thead>
<tr>
<th>Nameplate capacity (MW)</th>
<th>3680</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross electricity generation (GWh)</td>
<td>31513</td>
</tr>
<tr>
<td>Net electricity generation (GWh)</td>
<td>30099</td>
</tr>
<tr>
<td>Absolute scope 1 emissions (metric tons CO2e)</td>
<td>0</td>
</tr>
<tr>
<td>Scope 1 emissions intensity (metric tons CO2e per GWh)</td>
<td>0</td>
</tr>
</tbody>
</table>

**Comment**

---

CDP
Fossil-fuel plants fitted with CCS

Nameplate capacity (MW)  
0

Gross electricity generation (GWh)  
0

Net electricity generation (GWh)  
0

Absolute scope 1 emissions (metric tons CO2e)  
0

Scope 1 emissions intensity (metric tons CO2e per GWh)  
0

Comment
Not applicable

Geothermal

Nameplate capacity (MW)  
27

Gross electricity generation (GWh)  
121

Net electricity generation (GWh)  
121

Absolute scope 1 emissions (metric tons CO2e)  
14384

Scope 1 emissions intensity (metric tons CO2e per GWh)  
119

Comment

Hydropower

Nameplate capacity (MW)  
2758

Gross electricity generation (GWh)  
6568

Net electricity generation (GWh)  
6546

Absolute scope 1 emissions (metric tons CO2e)  
0

Scope 1 emissions intensity (metric tons CO2e per GWh)  
0

Comment
Generation and emissions include facilities for which Southern Company owns and sells the energy to customers (i.e. excludes purchased power and leveraged leases). It should be noted that generally, with respect to renewable energy generated or purchased by the state-regulated electric operating companies, the state-regulated electric operating companies retain the right to use the renewable energy to serve customers or to sell the energy and associated renewable energy credits, together or separately, to third parties for the benefit of customers. The ultimate purchasers of the renewable energy credits receives the right to claim all associated emission reductions.

Wind

Nameplate capacity (MW)  
2054

Gross electricity generation (GWh)  
6154

Net electricity generation (GWh)  
6154

Absolute scope 1 emissions (metric tons CO2e)  
0

Scope 1 emissions intensity (metric tons CO2e per GWh)  
0

Comment
The information provided in response to this question and question C2.8e reflects Southern Company’s total generation based upon equity control only, not upon load service by any retail operating companies. It should be noted that generally, with respect to renewable energy generated or purchased by the state-regulated electric operating companies, the state-regulated electric operating companies retain the right to use the renewable energy to serve customers or to sell the energy and associated renewable energy credits, together or separately, to third parties for the benefit of customers. The ultimate purchasers of the renewable energy credits receives the right to claim all associated emission reductions. Generation and emissions include facilities for which Southern Company owns and sells the energy to customers (i.e. excludes purchased power and leveraged leases).
Solar
Nameplate capacity (MW)
2620
Gross electricity generation (GWh)
5858
Net electricity generation (GWh)
5858
Absolute scope 1 emissions (metric tons CO2e)
0
Scope 1 emissions intensity (metric tons CO2e per GWh)
0
Comment
The information provided in response to this question and question C2.8e reflects Southern Company’s total generation based upon equity control only, not upon load service by any retail operating companies. It should be noted that generally, with respect to renewable energy generated or purchased by the state-regulated electric operating companies, the state-regulated electric operating companies retain the right to use the renewable energy to serve customers or to sell the energy and associated renewable energy credits, together or separately, to third parties for the benefit of customers. The ultimate purchasers of the renewable energy credits receives the right to claim all associated emission reductions. Generation and emissions include facilities for which Southern Company owns and sells the energy to customers (i.e. excludes purchased power and leveraged leases).

Marine
Nameplate capacity (MW)
0
Gross electricity generation (GWh)
0
Net electricity generation (GWh)
0
Absolute scope 1 emissions (metric tons CO2e)
0
Scope 1 emissions intensity (metric tons CO2e per GWh)
0
Comment
Not applicable

Other renewable
Nameplate capacity (MW)
0
Gross electricity generation (GWh)
0
Net electricity generation (GWh)
0
Absolute scope 1 emissions (metric tons CO2e)
0
Scope 1 emissions intensity (metric tons CO2e per GWh)
0
Comment
Not applicable

Other non-renewable
Nameplate capacity (MW)
0
Gross electricity generation (GWh)
0
Net electricity generation (GWh)
0
Absolute scope 1 emissions (metric tons CO2e)
0
Scope 1 emissions intensity (metric tons CO2e per GWh)
0
Comment
Not applicable
Total

Nameplate capacity (MW)  
45717

Gross electricity generation (GWh)  
193828

Net electricity generation (GWh)  
186568

Absolute scope 1 emissions (metric tons CO2e)  
83119912

Scope 1 emissions intensity (metric tons CO2e per GWh)  
446

Comment
Generation and emissions include facilities for which Southern Company owns and sells the energy to customers (i.e. excludes purchased power and leveraged leases).

C-EU8.4

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

C-EU8.4a
### Country/Region
United States of America

### Voltage level
Transmission (high voltage)

### Annual load (GWh)
163968

### Annual energy losses (% of annual load)
3.99

### Scope where emissions from energy losses are accounted for
Scope 1

### Emissions from energy losses (metric tons CO2e)
0

### Length of network (km)
44614

### Number of connections
61

### Area covered (km2)
320345

### Comment
Southern Company does not separately calculate emissions from energy losses from its transmission system because these are already accounted for in Southern's total Scope 1 emissions since it generates and transmits the electricity.

### Country/Region
United States of America

### Voltage level
Distribution (low voltage)

### Annual load (GWh)
113326

### Annual energy losses (% of annual load)
2.88

### Scope where emissions from energy losses are accounted for
Scope 1

### Emissions from energy losses (metric tons CO2e)
0

### Length of network (km)
262873

### Number of connections
4588710

### Area covered (km2)
320345

### Comment
Southern Company does not separately calculate emissions from energy losses from its distribution system because these are already accounted for in Southern's total Scope 1 emissions since it generates and distributes the electricity.

### C9. Additional metrics

#### C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.
(C-EU9.5a) Break down, by source, your total planned CAPEX in your current CAPEX plan for power generation.

<table>
<thead>
<tr>
<th>Primary power generation source</th>
<th>CAPEX planned for power generation from this source</th>
<th>Percentage of total CAPEX planned for power generation</th>
<th>End year of CAPEX plan</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coal – hard</td>
<td>2100000000</td>
<td>19%</td>
<td>2024</td>
<td>In 2019 we retired nearly 1.900 additional megawatts of coal and oil-fired generating units as of July 2019. We do not intend to invest further in our existing thermal coal fleet, unless the investment ensures safety, affordability or reliability to serve customers or to comply with federal or state laws. Most of the capital expenditure shown here is related to compliance with environmental regulations.</td>
</tr>
<tr>
<td>Gas</td>
<td>2550000000</td>
<td>23%</td>
<td>2024</td>
<td>Southern Company will continue to use a portfolio approach as we seek to decarbonize. We expect our path to net zero to be comprised of several key elements: continued coal transition, utilization of natural gas to enable the fleet transition, further growth in our portfolio of zero-carbon resources, negative carbon solutions, enhanced energy efficiency initiatives and continued investment in R&amp;D focused on clean energy technologies.</td>
</tr>
<tr>
<td>Nuclear</td>
<td>5000000000</td>
<td>45.2%</td>
<td>2024</td>
<td>Nuclear energy is net-zero carbon and one of the cleanest, most reliable and cost-effective fuel sources available today. Its importance in our portfolio continues to grow with the two new nuclear units being constructed.</td>
</tr>
<tr>
<td>Hydropower</td>
<td>900000000</td>
<td>8.9%</td>
<td>2024</td>
<td>Our diverse portfolio was initially founded on zero-carbon hydroelectric generation.</td>
</tr>
<tr>
<td>Solar</td>
<td>2410000000</td>
<td>2.2%</td>
<td>2024</td>
<td>From 2010-2019, Southern Power has invested more than $10.5 billion in capital investments related to its renewable portfolio. Southern is among the largest solar owner-operators in the U.S.</td>
</tr>
<tr>
<td>Wind</td>
<td>1910000000</td>
<td>1.7%</td>
<td>2024</td>
<td>From 2010-2019, Southern Power has invested more than $10.5 billion in capital investments related to its renewable portfolio.</td>
</tr>
</tbody>
</table>

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.).

<table>
<thead>
<tr>
<th>Products and services</th>
<th>Description of product/service</th>
<th>CAPEX planned for product/service</th>
<th>Percentage of total CAPEX planned products and services</th>
<th>End of year CAPEX plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distributed generation</td>
<td>Distributed generation such as solar PV</td>
<td>34000000</td>
<td>0.4%</td>
<td>2024</td>
</tr>
<tr>
<td>Home systems</td>
<td>Surge protection</td>
<td>4807030</td>
<td>0.5%</td>
<td>2024</td>
</tr>
<tr>
<td>Energy management services</td>
<td>Backup generation projects</td>
<td>96000000</td>
<td>10.5%</td>
<td>2024</td>
</tr>
<tr>
<td>Charging networks</td>
<td>Electric transport initiatives</td>
<td>30620000</td>
<td>3.3%</td>
<td>2024</td>
</tr>
<tr>
<td>Lighting</td>
<td>Outdoor lighting</td>
<td>63000000</td>
<td>6%</td>
<td>2024</td>
</tr>
<tr>
<td>Large-scale storage</td>
<td>Battery technology</td>
<td>25100000</td>
<td>2.7%</td>
<td>2024</td>
</tr>
<tr>
<td>Other, please specify (Cameras and other equipment related to power delivery)</td>
<td>Cameras and other equipment related to power delivery</td>
<td>62000000</td>
<td>6.8%</td>
<td>2024</td>
</tr>
<tr>
<td>Micro-grid</td>
<td>Micro-grid installation</td>
<td>62400000</td>
<td>6.8%</td>
<td>2024</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Investment in low-carbon R&amp;D</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row 1</td>
<td>Yes</td>
</tr>
<tr>
<td>Southern Company's dedicated R&amp;D organization leverages a diverse research portfolio and collaborates with the U.S. government, other utilities, universities and industry in development of new technologies for energy production, delivery and end-use. This leadership is inventing innovative solutions for a low-carbon energy future.</td>
<td></td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Technology area</th>
<th>Stage of development in the reporting year</th>
<th>Average % of total R&amp;D investment over the last 3 years</th>
<th>R&amp;D investment figure in the reporting year (optional)</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon capture and storage/utilisation</td>
<td>Pilot demonstration</td>
<td>120%</td>
<td>02546636</td>
<td>This program supports the research, development and demonstration of transformational, cost-effective CCUS technologies for fossil-based power generation, explores emerging technologies for CO2 utilization and direct air capture (DAC), demonstrates secure CO2 storage within the Southern Company system service territory, engages in stakeholder outreach to ensure support for CCUS technology deployment and promotes development of new technologies, processes, systems, tools, modeling capabilities and business models to support commercial deployment. The focal point of these efforts is the U.S. Department of Energy's National Carbon Capture Center (NCCC), a neutral research facility working to advance technologies to reduce GHG emissions from fossil-based power plants and to promote carbon utilization and DAC innovations. Located in Wilsonville, Alabama, USA, the NCCC has completed over 10,000 hours of testing for developers from seven countries. While its previous technology development focused primarily on post-combustion carbon capture for coal-fired power plants, a major new addition is significantly broadening the NCCC's evaluation of carbon capture technologies for natural gas power generation. Through pilot testing of over 60 technologies, the NCCC has reduced the projected cost of carbon capture from fossil-based generation by one-third, with further cost reductions expected as the NCCC more fully explores carbon capture solutions for natural gas power plants. Future projects are also expected to explore carbon capture technologies for carbon utilization and DAC. The center's work on CO2 utilization technologies will help advance applications where CO2 emissions are captured and used to manufacture value-added products like building materials, fuels, plastics and chemicals – partially offsetting CO2 capture costs from power generation and providing alternatives to traditional manufacturing processes. In the area of DAC, Southern Company is actively pursuing research agreements and opportunities for providing a host site for DAC technologies at the NCCC. Other projects in Southern Company's CCUS program area include geologic resource assessments for commercial storage and fundamental science and pilot demonstrations to clarify the economics, technologies and risks associated with underground storage of CO2.</td>
</tr>
</tbody>
</table>

CDP
Other, please specify (Power Delivery)  
Applied research and development  
≤20%  
249351  
This program focuses on power delivery technology issues and improvements, including next-generation transmission technologies to improve reliability, reduce cost and modernize the grid. Innovative solutions to enhance grid reliability and modernization efforts; and reducing operations and maintenance costs. Examples include: edge of network grid optimization and radio frequency identification sensors and the new Schatz Grid Visualization and Analytics Center, which offers a variety of capabilities to advance the assessment, adoption and integration of emerging power delivery processes, tools and protocols. These technologies and analytics support a more robust power delivery system that enables a higher penetration of renewables and distributed energy resources.

Other, please specify (Grid R & D)  
Basic academic/theoretical research  
≤20%  
1034926  
This grid operations research is focused on supporting transmission owners in planning and operating the bulk power system reliably and economically to provide safe and environmentally responsible sources of electric power.

Other, please specify (End Use Technology)  
Applied research and development  
≤20%  
3951213  
End-use R&D focuses on identifying and hardening technologies that meet industrial, commercial and residential customers' evolving energy needs. Initiatives in this research program include: the Alabama Power and Georgia Power Smart Neighborhoods, electric transportation, market opportunities for electric vehicles, advanced HVAC technologies, indoor agriculture evaluations, industrial and additive manufacturing, as well as energy efficiency and renewable materials and programs.

Other, please specify (Generation Fleet Modernization)  
Applied research and development  
≤20%  
1226291  
This R&D is focused on improving all components of the existing fossil generation fleet, with primary work in areas that include natural gas turbines, cooling systems, advanced materials and instruments and controls. Projects work to maximize fleet flexibility, availability and performance; analyze, develop and demonstrate advanced generation concepts with lower carbon footprints for retrofit or greenfield applications; and provide generation technology assessment for system planning.

Other, please specify (Advanced Energy Systems and Next Generation Nuclear)  
Applied research and development  
≤20%  
5723087  
Southern Company is playing an industry-leading role in the development and demonstration of Generation IV nuclear technologies. Southern Company’s primary advanced nuclear research is a collaborative with TerraPower, the DOE, EPRI and others, which is focused on development of the Molten Chloride Fast Reactor (MCFR). The MCFR has the potential to produce high-quality, carbon-free energy at low cost with inherent safety and reliability, expanded options for spent fuel disposition and utilization, polygeneration benefits, enhanced security and transformational economics. Through collaboration with DOE and in close coordination with the Nuclear Regulatory Commission, Southern Company is also working to modernize the licensing framework for advanced reactor technologies.

Other, please specify (Renewables, Storage, and Distributed Generation)  
Pilot demonstration  
≤20%  
2086436  
Southern Company’s renewables, storage and distributed generation R&D program represents a collaborative effort between the Generation and Retail Marketing business units of the Southern Company system to develop and advance emerging technologies associated with renewable resources (wind, solar, biomass), energy storage and distributed generation. Objectives include providing technical, economic and operational research to evaluate, demonstrate and ready future technology projects for the Company. Research includes energy storage and microgrid demonstrations; tall tower wind generation evaluation; and probabilistic forecasting to reduce variability and operating costs from photovoltaic solar generation. For example, field demonstrations across the Southern Company system are evaluating technologies and protocols for safely deploying, maintaining and optimizing energy storage in combination with solar resources. Key technologies being evaluated include long-duration advanced flow batteries, compressed and liquid air energy storage and thermal energy storage.

Other, please specify (R&D Cross-Cutting Technologies)  
Applied research and development  
≤20%  
566381  
This program area facilitates enhanced R&D value through internal and external collaboration across strategic areas by leveraging funds, finding and exploiting synergies and applying common results. R&D is conducted into instrumentation, controls, advanced materials, analytics, sensors and unmanned aircraft systems, which can lead to more efficient operation of generating units and the grid and subsequently lower carbon emissions.

Other, please specify (R&D Portfolio Management)  
Basic academic/theoretical research  
≤20%  
1135917  
Southern Company's R&D organization has worked for more than 50 years to develop new technologies across the production, delivery and use of energy. This R&D portfolio manages a diverse research portfolio to ensure that Southern Company, its subsidiaries and the energy industry have the capabilities and knowledge to successfully deploy technologies to meet customers' needs and provide affordable energy as the sector transitions to a net-zero future. Current research areas include CCUS; renewables, storage and distributed generation; advanced nuclear and hydrogen-based energy systems; energy end-use, generating fleet; sustainability; and smart power delivery systems. Southern Company’s unique, centralized R&D organization provides industry-leading technical expertise, strategic planning, budgeting and leadership to accomplish the internal and external goals of Southern Company. The organization works with experts from across the Southern Company system to identify, evaluate and demonstrate future technology options, and quantify their value in anticipation of the changing business needs of the Company and industry. Results of the R&D program are routinely applied in decision-making for the deployment of new technologies into the Southern Company system's future portfolio. Southern Company R&D also actively collaborates with other utilities, universities, technology developers and industry associations, highly leveraging both funding and expertise. These long-standing partnerships, coupled with aggressive investments (on average, dollar for dollar) through public-private partnerships and other forms of external cost-sharing. As a result, Southern Company’s R&D organization has delivered significant benefits across the enterprise that, over the last 10 years, have averaged at least 10 times its investment.  

Other, please specify (Industry R&D Collaborations)  
Applied research and development  
21-40%  
2190000  
Southern Company’s model for R&D includes active collaboration with the U.S. government, other utilities, academia and technology developers - a strategy that highly leverages both funding and expertise. Through these long-standing partnerships, Southern Company advances the most promising technology options for the energy sector in the transition to a net-zero carbon future. Furthermore, this collaborative approach magnifies Southern Company’s internal research investments through public-private partnerships and other forms of external cost-sharing. As a result, Southern Company's R&D organization has delivered significant benefits across the enterprise that, over the last 10 years, have averaged at least 10 times its investment. This program includes Southern Company’s membership in EPRI. Through EPRI, Southern Company collaborates with the entire electricity sector and its stakeholders to solve significant industry issues. Southern Company is a founding member of EPRI, with hundreds of employees from across the Southern Company system engaged at all levels, including advisory, council and board positions. Southern Company's annual membership in EPRI gains access to the institute's entire research portfolio. EPRI member benefits include best practices, better operations, reliability and customer service, access to white papers, as well as independent third-party data for regulators and stakeholders. Furthermore, as one of several anchor sponsors, Southern Company has committed financial support of approximately $25 million to the Low-Carbon Resource Initiative (LCRI), a collaboration between EPRI and GTI. Over the next five years, LCRI will focus on advancing low-carbon technologies for large-scale deployment, including hydrogen and related low-carbon resources. The goal is to establish a risk-informed, code-consistent and deployable set of technologies enabling significant economy-wide decarbonization.

Other, please specify (Industry R&D Collaborations)  
Applied research and development  
61-80%  
1577707  
In addition, Southern Company Gas, through Nicor Gas, is a member of the Gas Technology Institute: Utilization Technology Development; Emerging Technology Program; and Operation Technology Development Programs. GTI collaborates with gas utilities in North America, leading researchers, government agencies, manufacturers and distributors to create and advance new technologies and products to save consumers money, enable efficient fuel choices and minimize environmental impacts, further integrating natural gas with renewable energy. Nicor Gas allocates funding to GTI's Carbon Management Information Center. Employees from Nicor Gas hold GTI board and advisory positions. GTI's R&D impacts and benefits ratepayers, utilities, other stakeholders and our planet. Southern Company Gas is a member of the NYSERCAH organization. Similar to the GTI, NYSERCAH collaborates across all gas utilities to develop technologies and protocols for the efficient use of the natural gas industry and consumers. Southern Company Gas employees hold board position and serve as technical industry leaders within the organization. Southern Company Gas also collaborates with several national labs and additional research organizations on an ad-hoc basis for technical research projects related to developing the utility infrastructure of the future.
C10.1

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

<table>
<thead>
<tr>
<th>Scope</th>
<th>Verification/assurance status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope 1</td>
<td>No third-party verification or assurance</td>
</tr>
<tr>
<td>Scope 2 (location-based or market-based)</td>
<td>No third-party verification or assurance</td>
</tr>
<tr>
<td>Scope 3</td>
<td>No third-party verification or assurance</td>
</tr>
</tbody>
</table>

C10.2

(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?

No, but we are actively considering verifying within the next two years.

C11. Carbon pricing

C11.1

(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

(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
(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 low-carbon investment
- Stress test investments
- Identify and seize low-carbon opportunities

**GHG Scope**
Scope 1

**Application**
Southern Company applies its CO2 price paths in its analyses supporting resource planning and associated major investment decision-making for the current and future generating plants of all its retail electricity businesses.

**Actual price(s) used (Currency /metric ton)**
20

**Variance of price(s) used**
The Southern Company system considers a range of future CO2 price paths. Path one maintains a $0 price; path two starts at $10 per metric ton and escalates annually at a rate above inflation; path three starts at $20 per metric ton and escalates annually at a rate above inflation.

**Type of internal carbon price**
Other, please specify (CO2 price paths in resource planning scenario analyses)

Southern Company uses its CO2 price paths in resource planning scenario analyses and to inform all major generation decisions in our retail electric utilities. The analyses consider both the evolution of the US energy economy and the least-cost evolution of the Southern Company generating portfolio. In different scenarios, different paths for future CO2 prices are assumed. The price path is assumed to arise from a future CO2 control policy such as a carbon tax, clean energy standard, cap-and-trade program, or Clean Air Act regulation.

**Impact & implication**
Southern Company uses its CO2 price paths in resource planning scenario analyses and to inform all major generation decisions in our retail electric utilities. The analyses consider both the evolution of the U.S. energy economy and the least-cost evolution of the Southern Company generating portfolio. In different scenarios, different paths for future CO2 prices are assumed. The price path is assumed to arise from a future CO2 control policy such as a carbon tax, clean energy standard, cap-and-trade program, or Clean Air Act regulation. Southern Company's annual integrated resource planning process, which includes two primary components: energy economy modeling and integrated resource planning, provides for an understanding of the impacts to individual sectors of the economy and the interaction between sectors at the macro-economy level across a range of scenarios which provides significant insight to informing and identifying broad industry risks and potential business strategies. This scenario format also serves as a basis for integrated resource planning at the state regulated electric operating companies – and ultimately informs major generation retirement and capital investment decisions. As of July 2020, the comprehensive scenario resource planning process has resulted in 6,300 MW of coal and oil-fired retirements since 2010. In addition, because of the projected energy benefit realized by renewable energy resources and the ability to use the energy to serve customers with renewables or sell the renewable energy or associated RECs to third parties for the benefit of customers, as of July 2020 more than 6,000 MW of renewable generation has been added since 2010. Lastly, the scenario planning process resulted in the regulatory approval to construct the nation's first new zero carbon U.S. nuclear generation facilities in 30 years.

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**C12. Engagement**

**C12.1**

(C12.1) Do you engage with your value chain on climate-related issues?
- Yes, our suppliers
- Yes, our customers

---

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

**Type of engagement**
- Engagement & incentivization (changing supplier behavior)

**Details of engagement**
- Climate change performance is featured in supplier awards scheme
- Other, please specify (Work with industry to reduce emissions)

**% of suppliers by number**
- 48

**% total procurement spend (direct and indirect)**
- 27

**% of supplier-related Scope 3 emissions as reported in C6.5**
- 0

**Rationale for the coverage of your engagement**
Southern Company Gas is a founding member of ONE Future. ONE Future was formed with a focus to collectively achieve a science-based average rate of methane emissions across our facilities equivalent to one percent (or less) of total natural gas production. With operations across nearly every part of the natural gas value chain, we are focused on identifying policy and technical solutions that yield continuous improvement in the management of methane emissions. ONE Future members are a target for engagement as they have all made commitments to reduce methane emissions. Southern Company, along with other ONE Future members, hopes to increase membership in ONE Future to include additional natural gas suppliers and producers which would increase reductions across the entire value chain. Additionally, natural gas suppliers committed to GHG reductions from their own operations have a competitive edge in our natural gas procurement process.

**Impact of engagement, including measures of success**
The % of suppliers and % of total procurement spend is reflective of spend by the Southern Company electric operations with companies that are either members of ONE Future or part of companies that are engaged in ONE Future. In some cases, an affiliate company is the participating member, and the supplier itself is not a named member of ONE Future. To achieve ONE Future’s collective one percent target, ONE Future has identified sectoral performance targets for each of the four major industry sectors (Exploration and Production; Gathering and Processing; Transmission and Storage, and Distribution and Retail) that would cumulatively add up to its overall one percent goal. ONE Future has worked to set these performance targets in rough proportion to each industry sectors’ respective share of current emissions, considering the reduction potentials given current regulatory barriers. These sectoral targets serve both to benchmark company progress toward their goals, but also to facilitate comparisons amongst diverse companies as each strives for optimal performance. Success of these engagement efforts will be demonstrated as more companies become a part of ONE Future and as member companies reach their methane reduction goals. Membership in ONE Future grew 33% between 2019 and 2020.

**Comment**
ONE Future’s members begin with a focus on the outcome they want to achieve. In the case of methane emissions, our desired outcome is to collectively achieve an average rate of emissions across all facilities that is equivalent to one percent (or less) of total produced and delivered natural gas. With one goal in mind, each member company has the flexibility to deploy their capital where it will be maximally effective in reducing emissions. For one company that may be deploying an innovative technology, for another modifying a work practice or for another retiring an asset. To demonstrate credible and measurable results, ONE Future companies agree to measure their emissions and track their progress over time according to uniform, EPA-approved reporting protocols. This is effective because most studies demonstrate that the majority of methane emissions come from a small fraction of sources. This approach allows companies to focus their resources on identifying and addressing those sources. The percentage of total procurement spend of Southern Company Gas (direct and indirect, but excluding procurement by its subsidiary SouthStar Energy Services LLC) on natural gas commodity, transportation and storage with companies that are either members of ONE Future or part of companies that are engaged in ONE Future is 21%. In some cases, an affiliate company is the participating member, and the supplier itself is not a named member of ONE Future. The percentage of total procurement spend of SouthStar Energy Services LLC (direct and indirect) on natural gas commodity, transportation and storage with companies that are either members of ONE Future or part of companies that are engaged in ONE Future is 21%. In some cases, an affiliate company is the participating member, and the supplier itself is not a named member of ONE Future. Southern Company does not currently have a way to collect meaningful corporate data related to upstream transportation and distribution to provide a percentage of Scope 3 data.

---

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

**Type of engagement**
Education/information sharing

**Details of engagement**
Share information about your products and relevant certification schemes (i.e. Energy STAR)

<table>
<thead>
<tr>
<th>% of customers by number</th>
<th>100</th>
</tr>
</thead>
</table>

| % of customer - related Scope 3 emissions as reported in C6.5 | 0 |

**Portfolio coverage (total or outstanding)**
<Not Applicable>

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

Energy efficiency programs and products are made available to all customers served by each of the electric operating companies. There are specific programs and products targeted at residential and commercial customers to increase the efficiencies of their homes and businesses and ultimately decrease energy usage. Programs include appliance incentives for upgrading to new more efficient models, home energy check-ups, Home Energy Improvement Programs and behavior analysis programs focused on reducing energy usage and available to all customers. Southern Company Gas natural gas energy efficiency programs offer customers a wide array of energy saving measures and incentives. These programs are designed and implemented to help customers conserve energy and save money, without sacrificing comfort, style or convenience.

**Impact of engagement, including measures of success**
The programs are all facilitated by individual retail operating companies, and success is measured in various ways for each program including but not limited to tracking of rebates for appliance installations and tracking participation in auditing and behavioral programs. The most telling measure of success is the reduction in electricity usage of 3 billion kWh of energy from our electric utility. Since 2011, energy efficiency programs have helped Southern Company Gas’s subsidiary Nicor Gas reduce demand by more than 160 million therms, reducing customers’ GHG emissions.

<table>
<thead>
<tr>
<th>Type of engagement</th>
<th>Education/information sharing</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of customers by number</td>
<td>100</td>
</tr>
<tr>
<td>% of customer - related Scope 3 emissions as reported in C6.5</td>
<td>0</td>
</tr>
<tr>
<td>Portfolio coverage (total or outstanding)</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
</tbody>
</table>

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

Southern Company electric operating companies each have programs and services available to all customers related to renewable generation including but not limited to programs such as Community Solar and Simple Solar programs offered by Georgia Power. Due to multiple program offerings, Georgia Power, for example, offers solar education and analysis to assist all customers in determining which solar option is best for them. Alabama Power is also working to implement renewable energy programs to provide solar energy to customers who want to drive development of new resources without requiring subsidies from other customers. Alabama Power’s residents and businesses have the opportunity to purchase renewable energy credits. Since 2017, over 12,000,000 kilowatt hours of clean energy have been used by participants through Alabama Power’s renewable energy programs.

**Impact of engagement, including measures of success**
The programs are all facilitated by individual retail operating companies, and success is measured in various ways for each program. One measure of success is the increased enrollment in such customer engagement programs. For example, Georgia Power recognized an enrollment increase of 29% for the Simple Solar program and 37% in the Community Solar program in 2019.

<table>
<thead>
<tr>
<th>Type of engagement</th>
<th>Education/information sharing</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of customers by number</td>
<td>5</td>
</tr>
<tr>
<td>% of customer - related Scope 3 emissions as reported in C6.5</td>
<td>0</td>
</tr>
</tbody>
</table>

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

Georgia Natural Gas, part of the SouthStar Energy Services, owned by Southern Company Gas provides retail gas operations in Georgia. The program, Greener Life, provides customers with the option to offset their individual GHG emissions and make their natural gas usage carbon neutral. This group of customers was selected based on market demand and availability of the program in the area. The scope of engagement includes voluntary enrollment and an associated monthly fee. When enrolled, a customer’s GHG emissions are calculated and Georgia Natural Gas purchases and retires carbon offsets to balance the impact of those emissions.

**Impact of engagement, including measures of success**
The primary measure of success for this program is enrollment, as of July 1, 2020, Georgia Natural Gas had 467,718 customers. The Greener Life program has 3,018 active customers. Greener Life has received Green-e Climate certification from an independent third party, the Center for Resource Solutions. Green-e Climate is the leading certification program for voluntary carbon offset programs.
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
Other

C12.3a

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

<table>
<thead>
<tr>
<th>Focus of legislation</th>
<th>Corporate position</th>
<th>Details of engagement</th>
<th>Proposed legislative solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy efficiency</td>
<td>Support with minor exceptions</td>
<td>Southern Company actively seeks direct, open communication with various policymakers, regulators and stakeholders. Southern Company has a presence in Washington, D.C. that enables a constructive dialogue with policymakers in the federal government. The Company attempts to ensure policymakers are provided accurate information that leads to appropriate discussions, debates and decisions on policy issues that could impact the Southern Company system's business units and customers.</td>
<td>Southern Company will continue to support energy efficiency policies where cost-effective measures can be achieved.</td>
</tr>
<tr>
<td>Clean energy generation</td>
<td>Support with minor exceptions</td>
<td>Southern Company actively seeks direct, open communication with various policymakers, regulators and stakeholders. Southern Company has a presence in Washington, D.C. that enables a constructive dialogue with policymakers in the federal government. The Company attempts to ensure policymakers are provided accurate information that leads to appropriate discussions, debates and decisions on policy issues that could impact the Southern Company system's business units and customers.</td>
<td>Southern Company will continue to support growth in lower-emitting generation and continued development and deployment of a diverse portfolio of energy resources to reliably and affordably serve customers.</td>
</tr>
<tr>
<td>Carbon tax</td>
<td>Neutral</td>
<td>Southern Company actively seeks direct, open communication with various policymakers, regulators and stakeholders. Southern Company has a presence in Washington, D.C. that enables a constructive dialogue with policymakers in the federal government. The Company attempts to ensure policymakers are provided accurate information that leads to appropriate discussions, debates and decisions on policy issues that could impact the Southern Company system's business units and customers.</td>
<td>Southern Company will continue to support growth in lower-emitting generation and continued development and deployment of a diverse portfolio of energy resources to reliably and affordably serve customers.</td>
</tr>
</tbody>
</table>

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
Alliance to Save Energy
Is your position on climate change consistent with theirs?
Mixed
Please explain the trade association's position
Alliance to Save Energy's vision is a nation that uses more productively to achieve economic growth, a clean environment and greater energy security, affordability and reliability. Alliance to Save Energy's mission is to improve productivity by: leading bipartisan initiatives that drive technological innovation and energy efficiency across all sectors of the economy, through policy advocacy, education, communications and research; and convening and engaging in diverse public-private partnerships, collaborative efforts and strategic alliances to optimize resources and expand our sphere of influence. The Alliance supports a carbon tax as one of the many viable policy options for driving efficiency. The Alliance, however, recognizes that carbon pricing policy design is complex, and legislation must be thoughtfully structured to achieve results, including through complementary policies and programs helping energy consumers realize savings.
How have you influenced, or are you attempting to influence their position?
As a member, Southern Company is actively engaged on energy efficiency issues.

Trade association
Alliance for Transportation Electrification
Is your position on climate change consistent with theirs?
Consistent
Please explain the trade association's position
The Alliance for Transportation Electrification advocates the acceleration of transportation electrification nationwide. The Alliance believes that a multi-stakeholder coalition educating and promoting the benefits of transportation electrification is necessary and will benefit the public welfare in the U.S. for many reasons.
How have you influenced, or are you attempting to influence their position?
As a member, Southern Company is actively engaged on electric transportation issues and serves at the board level.

Trade association
American Council on Renewable Energy (ACORE)
Is your position on climate change consistent with theirs?
Consistent
Please explain the trade association's position
The ACORE unites finance, policy and technology to accelerate the transition to a renewable energy economy. The Council supports collaborative advocacy across the renewable energy sector, supported by members spanning renewable energy technologies and constituencies, including developers, manufacturers, top financial institutions, major corporate renewable energy buyers, grid technology providers, utilities, professional service firms, academic institutions and allied nonprofit groups. The
Council convenes key stakeholders, facilitates partnerships, educates senior officials on important policies, publishes research and analysis on pressing issues and undertakes strategic outreach on the policies and financial structures essential to renewable energy growth. To stimulate the next phase of renewable growth, ACORE supports simplifying and consolidating federal clean energy tax incentives through the enactment of a technology-neutral tax credit based on carbon emissions, as well as effective forms of carbon pricing.

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

As a member, Southern Company is actively engaged on renewable energy investment and deployment.

---

**Trade association**

American Gas Association (AGA)

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

Consistent

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

AGA is committed to leveraging and utilizing America's abundant, domestic, affordable and clean natural gas to help meet the nation’s energy and environmental needs. The AGA promotes the safe, reliable and efficient delivery of natural gas to homes and businesses across the nation. The AGA is committed to reducing GHG emissions through smart innovation, new and modernized infrastructure and advanced technologies that maintain reliable, resilient and affordable energy service choices for consumers.

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

Southern Company serves on the Board of Directors and serves on multiple committees and in leadership positions in AGA.

---

**Trade association**

American Wind Energy Association (AWEA)

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

Consistent

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

AWEA is the national trade association for the U.S. wind industry. AWEA promotes wind energy as a clean source of electricity for American consumers. AWEA recognizes that climate change poses a substantial threat to human health and the environment, and AWEA supports policies that reduce carbon pollution, including by accurately valuing wind's zero carbon electricity. AWEA has long believed that a price on carbon is important.

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

As a member, Southern Company is actively engaged on wind energy issues to implement policies that help with deployment and operations. Southern Company served at the board level.

---

**Trade association**

Business Roundtable

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

Consistent

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

The Business Roundtable is an association of chief executive officers of America's leading companies working to promote a thriving U.S. economy and expanded opportunity for all Americans through sound public policy. The Business Roundtable acknowledges access to sustainable, reliable, affordable energy is fundamental to U.S. national and economic security. Similarly, a clean and healthy environment is essential for economic prosperity now and in the long term. Business Roundtable supports policies that build on America's strengths in technology and energy diversity, encourage investment and innovation in our nation's vibrant energy sector and preserve environmental quality for the 21st century and beyond. The Business Roundtable recognizes the real and growing threat of climate change and believes that America’s business leaders have an obligation to contribute to an environmentally responsible future. Because the consequences of global warming for society and ecosystems are potentially serious and far-reaching, steps to address the risks of such warming are prudent even now, while the science continues to evolve. The Business Roundtable supports collective actions that will lead to the coordinated efforts to address the risks of climate change.

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

Southern Company's CEO is a member of the Business Roundtable.

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**Trade association**

Consortium for Energy Efficiency

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

Consistent

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

As the Consortium of Energy Efficiency, United States and Canadian efficiency program administrators develop cutting-edge strategies to accelerate commercialization of energy efficiency solutions to benefit gas and electric customers, utility systems, and the environment.

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

As a member, Southern Company is actively engaged and serves as a board member.

---

**Trade association**

Carbon Utilization Research Council (CURC)

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

Consistent

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

CURC is an industry coalition focused on technology solutions for the responsible use of our fossil energy resources in a balanced portfolio to support our nation's need for reliable and affordable energy in an increasingly carbon-constrained world.

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

As a member, Southern Company is actively engaged and serves as a co-chair.

---

**Trade association**

Edison Electric Institute (EEI)
Is your position on climate change consistent with theirs?
Consistent

Please explain the trade association's position
EEI is the association that represents all U.S. investor-owned electric companies. EEI acknowledges that global climate change presents one of the biggest energy and environmental policy challenges this country has ever faced. EEI member companies are committed to addressing the challenge of climate change and have undertaken a wide range of initiatives over the last 30 years to reduce, avoid or sequester GHG emissions. Policies to address climate change should seek to minimize impacts to customers and avoid harm to U.S. industry and the economy.

How have you influenced, or are you attempting to influence their position?
Southern Company serves on multiple committees and in leadership positions in EEI.

Trade association
Electric Transportation Association (EDTA)

Is your position on climate change consistent with theirs?
Consistent

Please explain the trade association's position
EDTA is the trade association promoting battery, hybrid, plug-in hybrid and fuel cell electric drive technologies and infrastructure. To advance this mission, EDTA conducts public policy advocacy, education, industry networking, and conferences that engage industry, academia, policymakers, and the public. EDTA supports federal policy that can spur innovation by accelerating technology breakthroughs and promoting investment in next-generation electric drive vehicles and infrastructure.

How have you influenced, or are you attempting to influence their position?
As a member, Southern Company is actively engaged on electric transportation issues and serves at the board level.

Trade association
Energy Storage Association (ESA)

Is your position on climate change consistent with theirs?
Consistent

Please explain the trade association's position
ESA is the leading national voice that advocates and advances the energy storage industry to realize its 35 GW of new energy storage systems by 2025 goal, resulting in a better world through a more resilient, efficient, sustainable and affordable electricity grid. ESA's mission is to accelerate the widespread use of competitive and reliable energy storage systems in North America. ESA's policy activities focus on three overarching goals to advance the U.S. market for the full range of energy storage technologies: increase revenues available to storage, enhance the competitiveness of storage and ensure grid and market access for storage.

How have you influenced, or are you attempting to influence their position?
As a member, Southern Company is actively engaged in energy storage issues.

Trade association
Gas Technology Institute (GTI)

Is your position on climate change consistent with theirs?
Consistent

Please explain the trade association's position
GTI is a leading research, development and training organization addressing global energy and environmental challenges. GTI is dedicated to expanding supplies of affordable and clean energy; ensuring safe, efficient, resilient and reliable energy infrastructure; delivering solutions for efficient and environmentally responsible use of energy; reducing and managing carbon emissions; and advancing energy systems innovations that protect air, land, water and communities while enhancing economic growth. GTI recognizes that common sense, cost-effective solutions that can reduce annual emissions of CO2 and other potential GHG emissions to the atmosphere are needed.

How have you influenced, or are you attempting to influence their position?
As a member, Southern Company is actively engaged and serves on the board.

Trade association
Interstate Natural Gas Association of America (INGAA)

Is your position on climate change consistent with theirs?
Consistent

Please explain the trade association's position
INGAA is a trade organization that advocates regulatory and legislative positions of importance to the natural gas pipeline industry in North America. INGAA recognizes climate change as an important issue and the increased use of natural gas as helping combat climate change by lowering CO2 emissions.

How have you influenced, or are you attempting to influence their position?
As a member, Southern Company is actively engaged and serves at the board level.

Trade association
National Association of Manufacturers

Is your position on climate change consistent with theirs?
Consistent

Please explain the trade association's position
Climate change is happening. Human activities are contributing. The NAM supports the objectives of the Paris Climate Agreement to significantly reduce the risks and impacts of global climate change. Manufacturers are committed to helping address climate change while increasing the global competitiveness of U.S. industries. U.S. manufacturers are leading and the results have been unprecedented: we are significantly more carbon efficient than most of our global competitors, and the U.S. has reduced its total GHG emissions more than any other nation. We are committed to being part of the solution and encourage all other sectors of the American economy to join us. Manufacturers are advocating for policies that encourage domestic emissions reductions so that the U.S. continues to lead on the global stage, driving our international counterparts to do the same. All sectors of the global economy will have to do their part to limit global GHG emissions. U.S. manufacturers are both creators and users of the technologies that will be vital to reducing global emissions. Accordingly, sound policy for U.S. manufacturers is one that reduces emissions while maintaining their global competitiveness. Policymakers should pursue policies that achieve meaningful, cost-effective GHG reductions while empowering U.S.
manufacturers to thrive in the global marketplace and ensuring the affordable, reliable energy supplies needed to keep our economy strong.

How have you influenced, or are you attempting to influence their position?
As a member, Southern Company is actively engaged and serves at the board level.

Trade association
Nuclear Energy Institute (NEI)

Is your position on climate change consistent with theirs?
Consistent

Please explain the trade association’s position
NEI supports preserving the current fleet of nuclear power plants, sustaining efficient operations of the existing nuclear fleet through smarter regulations and sharing best practices, innovating new nuclear technologies to help deliver a clean energy future and thriving in the global nuclear energy marketplace. NEI recognizes the need for deep decarbonization to hit climate goals. Protecting and growing the use of nuclear technologies are important ways to make a dent in greenhouse gases and help make meaningful progress to address climate change.

How have you influenced, or are you attempting to influence their position?
As a member, Southern Company is actively engaged and serves at the board level.

Trade association
ONE Future

Is your position on climate change consistent with theirs?
Consistent

Please explain the trade association’s position
ONE Future was formed with a focus to collectively achieve a science-based average rate of methane emissions across our facilities equivalent to one percent (or less) of total natural gas production. With operations across every part of the natural gas value chain, we are focused on identifying policy and technical solutions that yield continuous improvement in the management of methane emissions.

How have you influenced, or are you attempting to influence their position?
As a founding member, Southern Company is actively involved with employees serving on the board and the Executive Committee.

Trade association
Smart Electric Power Alliance (SEPA)

Is your position on climate change consistent with theirs?
Consistent

Please explain the trade association’s position
SEPA’s mission is to facilitate the electric power industry’s smart transition to a clean and modern energy future through education, research, standards and collaboration. SEPA focuses on clean energy (solar, demand response, energy storage and electric transportation) and grid modernization that ultimately result in reduced GHG emissions.

How have you influenced, or are you attempting to influence their position?
As a member, Southern Company is actively engaged on energy efficiency issues and serves on the advisory board.

Trade association
Southeast Energy Efficiency Alliance (SEEA)

Is your position on climate change consistent with theirs?
Consistent

Please explain the trade association’s position
SEEA’s mission is to optimize the use and impact of energy to enhance the quality of life in the Southeast with a vision for all people in the Southeast to live and work in healthy and resilient buildings, utilize clean and affordable transportation, and thrive in a robust and equitable economy. SEEA is committed to supporting the advancement of energy efficiency policy across the Southeast.

How have you influenced, or are you attempting to influence their position?
As a member, Southern Company is actively engaged on energy efficiency issues and serves at the board level.

Trade association
Southeastern Wind Coalition

Is your position on climate change consistent with theirs?
Consistent

Please explain the trade association’s position
The Southeastern Wind Coalition works to advance the wind industry in the Southeast. The mission of the Southeastern Wind Coalition is to advance the wind industry in ways that result in net economic benefits to industry, utilities, ratepayers, and citizens of the Southeast. The Coalition takes an objective, data-driven, and economic development focused approach to ensure the Southeast can take advantage of this clean, low-cost generation source.
How have you influenced, or are you attempting to influence their position?
As a member, Southern Company is actively engaged on wind energy issues to implement policies that help with deployment and operations. Southern Company serves at the board level.

Trade association
U.S. Chamber of Commerce

Is your position on climate change consistent with theirs?
Mixed

Please explain the trade association’s position
The U.S. Chamber of Commerce recognizes that the climate is changing and humans are contributing to these changes. The Chamber believes that there is much common ground on which all sides of this discussion could come together to address climate change with policies that are practical, flexible, predictable and durable. The Chamber believes in a policy approach that acknowledges the costs of action and inaction and the competitiveness of the U.S. economy.

How have you influenced, or are you attempting to influence their position?
Southern Company is a member of the U.S. Chamber of Commerce and actively engages on multiple issues taken up by the membership. Southern Company may not agree with the U.S. Chamber on every issue or have influence over various issues but we find it valuable to continue our participation.

C12.3d

(C12.3d) Do you publicly disclose a list of all research organizations that you fund?
No

C12.3e

(C12.3e) Provide details of the other engagement activities that you undertake.

Southern Company places great importance on consistent dialogue with all our stakeholders, including customers, employees and investors. We regularly engage in discussions with, and provide comprehensive information for, constituents interested in our corporate governance citizenship, stewardship and environmental compliance. We are receptive to stakeholder concerns, and we are committed to transparency and proactive interactions with our investors. We regularly communicate with our stakeholders to better understand their viewpoints, gather input on our business strategy and execution and obtain feedback regarding other matters of interest. The feedback received from our outreach efforts informs discussions in the boardroom.

Since 2011, we have held regular environmental stakeholder forums, webinars, calls and meetings covering a range of topics, including regulatory and policy issues, system risk and planning related to renewables, energy efficiency and GHG matters. Members of senior management participate in these events, including the Chairman and CEO; CFO; Chief Legal Officer; SVP of Operations and SVP of Environmental and System Planning. At the annual environmental stakeholder forum in May 2019 topics included carbon reduction strategies, energy efficiency and methane. A webinar on Coal Combustion Residuals followed the annual stakeholder meeting as well as in-person engagements with smaller groups of stakeholders throughout the year to discuss issues such as the just transition of our generating fleet.

The Board of Directors places great importance on regularly communicating with our stockholders to better understand their viewpoints and gather feedback. The NGCR Committee of the Board oversees our stockholder engagement efforts on behalf of the Board.

In 2019 and early 2020, we reached out to our 100 largest stockholders representing more than 50% of our outstanding shares and offered to engage on ESG-related topics, as well as any other topics of interest. We also reached out to stockholders that are not among our 100 largest but expressed an interest in engaging with us. We received positive responses from, and had engagements with, stockholders representing over 30% of our outstanding shares. We engaged with a broad range of stockholders, including index funds, union and public pension funds, actively managed funds and socially-responsible investment funds, as well as stockholder advisory firms.

Key topics for stockholder engagement included climate-related matters, executive compensation, cybersecurity, leadership development and management succession planning, human capital management and corporate culture, Board leadership structure, Board succession planning and on-boarding of new Directors, as well as how these topics tie to our long-term strategic thinking. Participants in these engagements included independent directors (Lead Independent Director, Chair of NGCR Committee and Chair of CMS Committee); Chairman and CEO; CFO; Chief Legal Officer; SVP of Environmental and System Planning; SVP of Human Resources/Total Rewards; VP, Corporate Governance; and Director, Investor Relations. In addition, our investor relations group leads our management team in hundreds of investor meetings throughout the year.

In 2019, Southern Company was recognized by the U.S. Transparency Awards as the winner of the best proxy statement among the top S&P 250 companies, providing investors with the information needed for informed decision-making in advance of the company’s annual shareholders meeting.

C12.3f
(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?

To ensure consistency, Southern Company’s policy organizations evaluate our membership and/or funding of relevant organizations through regular and consistent communication with our individual operating companies’ management and staff. In addition to serving at the leadership level in multiple organizations, many Southern Company subject matter experts advise the organizations in multiple instances.

The policy organizations are aided in this process by the SCMC. The CEO leads a team of the most senior officers across the Southern Company system, called the Southern Company Management Council (SCMC). Other members of the SCMC include the Company’s CFO; EVP of operations; EVP and president of external affairs; EVP, chief legal officer and chief compliance officer; and the CEOs of each operating company and Southern Company Services. The SCMC meets monthly to discuss major business decisions with respect to operations, employees and customers. At SCMC meetings, there are regular discussions of climate-related issues, such as resource planning across the system and at each operating company. Federal and state environmental regulation and policy, and engagement with regulators, customers, stakeholders and stockholders on carbon emission risks and opportunities are also regularly discussed. The monthly meetings allow for alignments on direct and indirect activities that influence policy are consistent with the overall climate change strategy.

When the Southern Company’s Board evaluates climate-related issues it routinely reviews lobbying expenses to ensure consistency with climate-related business strategy.
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**
Underway – previous year attached

**Attach the document**
Planning-for-a-low-carbon-future.pdf

**Comment**
In 2018 we published the Planning for a Low Carbon Future report to outline how we are taking steps to increase disclosure of our preparations for a low-carbon future. In 2020 we plan to publish an addendum to the 2018 report titled: Implementation and Action Toward Net Zero. In the recent iteration we provide further insights into how we are tackling these tough issues include setting a net zero carbon goal for our 2050 operations.

**Publication**
Other, please specify (Communication regarding carbon issues)

**Status**
Complete

**Attach the document**
EEI-ESG-Sustainability-Reporting-Template.pdf
Planning-for-a-low-carbon-future.pdf

**Page/Section reference**

**Comment**
https://www.southerncompany.com/corporate-responsibility/report-parameters.html Provides the most recent version of the Corporate Responsibility Report and other environmental reports.

**Publication**
In mainstream reports

**Status**
Complete

**Attach the document**
2020 10-K filing.pdf

**Page/Section reference**
"Global Climate Issues" starting on page 118, Risks, p 28.

**Comment**

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C15. Signoff

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C-FI
Cautionary Note Regarding Forward-Looking Statements:

Certain information contained in this release is forward-looking information based on current expectations and plans that involve risks and uncertainties. Forward-looking information includes, among other things, statements concerning GHG reduction goals, including timing of achievement, costs related to carbon, expected renewable generation growth and capital expenditures. Southern Company cautions that there are certain factors that can cause actual results to differ materially from the forward-looking information that has been provided. The reader is cautioned not to put undue reliance on this forward-looking information, which is not a guarantee of future performance and is subject to a number of uncertainties and other factors, many of which are outside the control of Southern Company; accordingly, there can be no assurance that such suggested results will be realized. The following factors, in addition to those discussed in Southern Company's Annual Report on Form 10-K for the year ended December 31, 2019, Quarterly Report on Form 10-Q for the quarters ended March 31, 2020 and June 30, 2020 and subsequent securities filings, could cause actual results to differ materially from management expectations as suggested by such forward-looking information: the impact of recent and future federal and state regulatory changes, as well as changes in application of existing laws and regulations; variations in demand for electricity and natural gas; available sources and costs of natural gas and other fuels; the ability to control costs and avoid cost and schedule overruns during the development, construction and operation of facilities or other projects; legal proceedings and regulatory approvals and actions related to construction projects; the ability to construct facilities in accordance with the requirements of permits and licenses, to satisfy any environmental performance standards and the requirements of tax credits and other incentives, and to integrate facilities into the Southern Company system upon completion of construction; advances in technology; performance of counterparties under ongoing renewable energy partnerships and development agreements; state and federal rate regulations and the impact of pending and future rate cases and negotiations; and the ability to successfully operate the electric utilities' generating, transmission, and distribution facilities and Southern Company Gas' natural gas distribution and storage facilities; and the successful performance of necessary corporate functions. Southern Company and its subsidiaries expressly disclaim any obligation to update any forward-looking information.

C15.1

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

<table>
<thead>
<tr>
<th>Job title</th>
<th>Corresponding job category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chairman, President, and CEO Southern Company</td>
<td>Board chair</td>
</tr>
</tbody>
</table>

SC. Supply chain module

SC0.0

(SC0.0) If you would like to do so, please provide a separate introduction to this module.

SC0.1

(SC0.1) What is your company’s annual revenue for the stated reporting period?

<table>
<thead>
<tr>
<th>Annual Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

SC0.2

(SC0.2) Do you have an ISIN for your company that you would be willing to share with CDP?

No

SC1.1

(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

SC1.2

(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

SC1.3
SC1.3 What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

<table>
<thead>
<tr>
<th>Allocation challenges</th>
<th>Please explain what would help you overcome these challenges</th>
</tr>
</thead>
</table>

SC1.4

(SCL4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?
Yes

SC1.4a

(SCL4a) Describe how you plan to develop your capabilities.
National customers can receive state-specific emission factors by reaching out to their Southern Company national accounts representatives. Local customers can receive state-specific emission factors by reaching out to the marketing representative at each Operating Company.

SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?
No

SC3.1

(SC3.1) Do you want to enroll in the 2020-2021 CDP Action Exchange initiative?
No

SC3.2

(SC3.2) Is your company a participating supplier in CDP’s 2019-2020 Action Exchange initiative?
No

SC4.1

(SC4.1) Are you providing product level data for your organization’s goods or services?
No, I am not providing data

Submit your response

In which language are you submitting your response?
English

Please confirm how your response should be handled by CDP

<table>
<thead>
<tr>
<th>I am submitting to</th>
<th>Public or Non-Public Submission</th>
<th>Are you ready to submit the additional Supply Chain Questions?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investors</td>
<td>Public</td>
<td>Yes, submit Supply Chain Questions now</td>
</tr>
<tr>
<td>Customers</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please confirm below
I have read and accept the applicable Terms