Vistra Corp. - Climate Change 2022

C0. Introduction

C0.1

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

Vistra (NYSE: VST) is a leading Fortune 500 integrated retail electricity and power generation company based in Irving, Texas, providing essential resources for customers, commerce, and communities. Vistra combines an innovative, customer-centric approach to retail with safe, reliable, diverse, and efficient power generation. The company brings its products and services to market in 20 states and the District of Columbia, including six of the seven competitive wholesale markets in the U.S. Serving nearly 4.3 million residential, commercial, and industrial retail customers with electricity and natural gas, Vistra is one of the largest competitive electricity providers in the country and offers over 50 renewable energy plans. The company is also the largest competitive power generator in the U.S. with a capacity of approximately 39,000 megawatts powered by a diverse portfolio, including natural gas, nuclear, solar, and battery energy storage facilities. In addition, Vistra is a large purchaser of wind power. The company owns and operates the 400-MW/1,600-MWh battery energy storage system in Moss Landing, California, the largest of its kind in the world. Vistra is guided by four core principles: we do business the right way, we work as a team, we compete to win, and we care about our stakeholders, including our customers, our communities where we work and live, our employees, and our investors.

The information presented herein includes forward-looking statements (FLS) within the meaning of the Private Securities Litigation Reform Act of 1995. These FLS, which are based on current expectations, estimates and projections about the industry and markets in which Vistra Corp. (“VST”) operates and beliefs of and assumptions made by VST’s management, involve risks and uncertainties, which are difficult to predict and are not guarantees of future performance, that could significantly affect the financial results of VST. All statements, other than statements of historical facts, that are presented herein, or in response to questions or otherwise, that address activities, events or developments that may occur in the future, including such matters as activities related to our financial or operational projections, financial condition and cash flows, capital expenditures, business and sustainability strategy, competitive strengths, goals, future acquisitions or dispositions, development or operation of power generation assets, market and industry developments and the growth of our businesses and operations (often, but not always, through the use of words or phrases, or the negative variations of those words or other comparable words of a future or forward-looking nature, including, but not limited to: "intends," "plans," "will likely," "unlikely," “believe,” “confident”, "expect," “seek,” "anticipate," "estimate," “continue,” “will,” “shall,” "should," “could,” "may," “might,” “predict,” "project," “forecast,” "target," “potential,” "goal," "objective," “guidance” and "outlook"), are FLS. Readers are cautioned not to place undue reliance on FLS. Although VST believes that in making any such FLS, VST’s expectations are based on reasonable assumptions, any such FLS involves uncertainties and risks that could cause results to differ materially from those projected in or implied by any such FLS, including, but not limited to: (i) adverse changes in general economic or market conditions (including changes in interest rates) or changes in political conditions or federal or state laws and regulations; (ii) the ability of VST to execute upon its contemplated strategic, performance, and cost-saving initiatives and to successfully integrate acquired businesses; (iii) the severity, magnitude and duration of extreme weather events (including winter storm Uri), contingencies and uncertainties relating thereto, most of which are difficult to predict and many of which are beyond our control, and the resulting effects on our results of operations, financial condition and cash flows; and (iv) those additional risks and factors discussed in reports filed with the SEC by VST from time to time, including the uncertainties and risks discussed in the sections entitled “Risk Factors” and “Forward-Looking Statements” in VST’s annual report on Form 10-K for the year ended Dec. 31, 2021 and any subsequently filed quarterly reports on Form 10-Q. Any FLS speaks only at the date on which it is made, and except as may be required by law, VST will not undertake any obligation to update any FLS to reflect events or circumstances after the date on which it is made or to reflect the occurrence of unanticipated events. New factors emerge from time to time, and it is not possible to predict all of them; nor can VST assess the impact of each such factor or the extent to which any factor, or combination of factors, may cause results to differ materially from those contained in any FLS.

C0.2

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

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Reporting year	January 1 2021	December 31 2021	Yes	3 years

C0.3

(C0.3) Select the countries/areas in which you operate.

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

Other divisions
Battery storage
Coal mining

C0.8

(C0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, a Ticker symbol	VST

C1. Governance

C1.1

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

C1.1a

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

Position of individual(s)	Please explain
Board-level committee	Vistra's ESG initiatives are governed by the full Vistra board, with oversight of subject matter-specific components delegated to relevant board committees. The Sustainability and Risk Committee oversees corporate risk management, including the management and tracking of environmental risks and opportunities, including climate change, as well as external sustainability reporting. The Sustainability and Risk Committee is comprised of three independent directors. With respect to sustainability, the Committee: (i) reviews and discusses with management the Company's strategies, policies, and practices to assist in addressing public sentiment and shaping policy to manage the Company's sustainability efforts; (ii) at least annually, reviews and discusses with management the Company's assessment of greenhouse gas-related risks, including transition, regulatory, reputational, and/or market risks related to climate change, and management's process for the identification, evaluation, and mitigation of transition risks related to climate change; (iii) oversees and monitors the Company's core vision and values and advises the Board and management on sustainability policies, including the Company's publicly stated targets and aspirational goals for company-wide reductions of greenhouse gas emissions from its power generation operations; and (iv) provides oversight with respect to any sustainability reporting to the public or governmental agencies. The Committee Charter can be found at: https://www.vistracorp.com/wp-content/uploads/2020/11/Sustainability-and-Risk-Charter.pdf Specifically, this board committee reviews the climate-related risks and opportunities presented in the CDP. This committee also reviews the progress towards our emissions reduction targets and approved, in the Fall of 2020, the acceleration of our GHG emissions reduction goals which includes a net-zero by 2050 ambition.

C1.1b

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

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – all meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding annual budgets Reviewing and guiding business plans Setting performance objectives Monitoring implementation and performance of objectives Overseeing major capital expenditures, acquisitions and divestitures Monitoring and overseeing progress against goals and targets for addressing climate-related issues	<Not Applicable>	Sustainability and climate-related issues and topics are discussed at each scheduled quarterly board and committee meeting and on a more frequent basis as necessary. The Sustainability and Risk Committee, as denoted in their charter, reviews strategy, policies and practices related to sustainability as well as reviews and oversees both enterprise risk management and climate risks. The full board focuses extensively on our path to decarbonize and long-term sustainability and takes an active role with management to review and oversee the development and execution of Vistra's long-term corporate strategy. In particular, the board regularly reviews climate-related risks and opportunities—including the transformation of our generation portfolio and investments in zero-carbon resources—given their significance to and interconnectedness with capital deployment, business strategy, and other board decisions.

C1.1d

(C1.1d) Does your organization have at least one board member with competence on climate-related issues?

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues	Primary reason for no board-level competence on climate-related issues	Explain why your organization does not have at least one board member with competence on climate-related issues and any plans to address board-level competence in the future
Row 1	Yes	Climate change and sustainable strategy/policy experience includes expertise in climate change, climate-related risk management, and sustainability matters, including through formal certification programs or training or participating in significant continuing education on climate science and the technologies, stakeholders, and economic theories that have emerged to prevent climate change, or through a CEO position or other senior executive role with responsibility for managing climate change and its associated risks, and sustainability issues as business imperatives.	<Not Applicable>	<Not Applicable>

C1.2

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

Name of the position(s) and/or committee(s)	Reporting line	Responsibility	Coverage of responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Chief Financial Officer (CFO)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Chief Risks Officer (CRO)	<Not Applicable>	Assessing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Environmental, Health, and Safety manager *Senior Vice President of Environmental Health and Safety*	<Not Applicable>	Managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Business unit manager *Sustainability Team which includes the Vice President of Investor Relations, Sustainability and Purpose and the Director of Sustainability and Investor Relations*	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly

C1.2a

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

Climate-related issues are monitored by a variety of individuals within the Vistra organization with the Chief Executive Officer (CEO) having direct oversight. Reporting to the CEO through the Chief Financial Officer (CFO) is the Sustainability team, led by the Vice President of Investor Relations, Sustainability and Purpose. The Sustainability team is responsible for the development, implementation, and management of Vistra's sustainability strategy and related ESG initiatives as well as direct engagement with stakeholders, including investors, regarding Vistra's sustainability disclosures. The Sustainability team presents to the Sustainability and Risk Committee of the board at least quarterly, at each regularly scheduled committee meeting.

There are three standing committees that comprise the primary governance forums for day-to-day management of the company: Management Committee, Commitments Committee, and Risk Management Committee. The management committee, which consists of the CEO and his direct reports as well as leaders who represent key business areas and support functions, provides a forum for discussion and decision-making related to general strategy, policy items, and operational updates. The Sustainability team will present to the management committee as well as to the company's risk management committee on an as needed basis. The risk management committee, chaired by the CFO, provides risk management oversight, monitoring, control, and guidance for all risk management activities at Vistra, and it approves risk management activities within limits delegated by the board of directors. These two committees provide a forum for discussion and monitoring of climate-related issues with leaders from the risk, planning, strategy, regulatory and government affairs, legal, retail, and operations teams.

The Chief Risk Officer (CRO) leads the company's enterprise risk management process, which includes climate-related risks. The CRO meets annually with every functional group in the company to review the risk universe for any relevant updates. During the annual review process new risks are added, outdated risks are removed, and the likelihood and severity of all risks are evaluated. The output of this process is then reviewed by Vistra's risk management committee and reported to the Sustainability and Risk Committee of the board. Vistra's management utilizes the output from the risk framework to anticipate emerging risks, integrate risk into business planning, and take steps to mitigate the potential impact of any identified risks on the operations and performance of the business.

Vistra's Senior Vice President of Environmental Health and Safety, reporting to the Executive Vice President and General Counsel, is responsible for the day-to-day management and oversight of environmental reporting, performance, and compliance as well as employee safety programs. The SVP of Environmental Health and Safety reports quarterly to the Board of Directors on these topics. The Sustainability team and SVP of Environmental Health and Safety coordinate efforts regarding Vistra's emissions reductions targets and reporting of performance. Vistra's Executive Vice President and General Counsel oversees the governance and compliance of the organization, in addition to all legal matters.

C1.3

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

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	

C1.3a

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

Entitled to incentive	Type of incentive	Activity incentivized	Comment
Corporate executive team	Monetary reward	Company performance against a climate-related sustainability index	In furtherance of the company's continued focus on ESG initiatives, the Social Responsibility and Compensation Committee of the board approved a new ESG Index as part of Vistra's 2021 Executive Annual Incentive Plan scorecard with a 10% weighting. The performance of the company on the categories measured by the ESG Index will factor into the short-term incentive compensation for all employees in the organization, including the corporate executive team. To align management's compensation with Vistra's important ESG and DEI goals, the ESG Index measures: • GHG emissions reduction targets tracking to achieve 60% reduction by 2030 and net-zero by 2050, • GHG-related advocacy efforts, • DEI initiatives, including the implementation of various DEI programs, training and reporting enhancements, and updated recruiting efforts, and • Supplier diversity expansion
All employees	Monetary reward	Company performance against a climate-related sustainability index Other (please specify) (Achieving annual key corporate objectives)	In addition to the ESG Index included in Vistra's Executive Annual Incentive Plan, several of Vistra's corporate objectives for 2022 include the evaluation of various climate change corporate initiatives, as listed below. Individual employee objectives take into account progress towards these goals. • Participating in legislative and regulatory efforts including support and development of national/regional carbon pricing programs • Lobbying Federal and State officials on key items, including carbon pricing, hydrogen, nuclear, energy storage, etc. • Progressing towards decarbonization targets • Assessing and enhancing ESG disclosures and reporting • Evaluating and pursuing investments in retail, renewables, batteries and other clean tech

C2. Risks and opportunities

C2.1

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

Yes

C2.1a

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

	From (years)	To (years)	Comment
Short-term	0	2	
Medium-term	2	5	
Long-term	5	30	

C2.1b

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

When evaluating risks, including climate risks, Vistra considers a substantive impact in terms of impact on our enterprise value. Enterprise value is impacted by quantitative and qualitative factors. Quantitative factors include our expected future earnings, including EBITDA and free cash flow (FCF). Qualitative factors include corporate reputation, progress towards ESG goals, safety, and overall value to stakeholders.

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

Through our enterprise risk management, Vistra evaluates business, regulatory, market, legal, and climate risks, among other potential areas of threat. The enterprise risk management process is owned by the chief risk officer, who meets annually with every functional group in the company to review the risk universe for any relevant updates through a detailed analysis. During the annual process, risks are evaluated across a matrix based on the likelihood of occurrence over several time horizons and severity or potential financial impact to the business. New risks are added, outdated risks are removed, and current risks can be recategorized during the process. All risks identified are then provided two ratings: (1) a residual rating, reflecting the potential impacts of the risk, assuming that existing mitigating processes and controls remain in place, and (2) an inherent rating, which is the rating of the risk without any existing mitigants. The output of this process is then reviewed by Vistra's Risk Management Committee and reported to the Sustainability and Risk Committee of the board. As part of the annual risk process, Vistra develops scenarios to evaluate their impact across multiple risk items. The focus of these scenarios are items of potential high impact, but low likelihood of occurrence. In addition to this comprehensive annual process, the risk universe and scenarios are reviewed on an interim basis as needed to address both emerging risks and material changes that may occur, such as our in-depth risk assessment and mitigation activities we undertook after Winter Storm Uri in 2021. These quarterly and interim updates are also reported to the Sustainability and Risk Committee of the board. Management utilizes the output from the risk framework to anticipate emerging risks, integrate risk into business planning, and take steps to mitigate the potential impact of any identified risks on the operations and performance of the business. Vistra applies this established risk management process to its evaluation of current and emerging climate change trends and their associated physical, regulatory, and market risks. Not only does this process identify risks that management actively evaluates and manages, it can also lead to the discovery of growth opportunities for the organization. Vistra utilizes climate scenario analyses to help inform the assessment of climate-related risks (both physical and transitional) and opportunities over the short, medium, and long term horizons. The identified climate-related risks from the scenario analysis are considered throughout the strategic corporate planning process, including evaluating physical risks of assets when making investment decisions or maintenance upgrades, and also when making decisions on the useful life of its existing fleet.

C2.2a

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

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Current regulation is always considered in Vistra's enterprise risk management process. Vistra monitors the current regulatory environment and associated risks by a cross functional team including members from Legal, Environmental, Regulatory, Government Affairs, and Management. This group meets frequently and reports on current and pending regulations to executive management on at least a quarterly basis. Our businesses are subject to ongoing complex governmental regulations and legislation related to climate change that have impacted, and may in the future impact, our businesses, results of operations, liquidity and financial condition. For example, we are subject to extensive environmental regulation by governmental authorities, including the U.S. EPA as well as the environmental regulatory bodies of states in which we operate. The U.S. EPA has recently finalized or proposed several regulatory actions establishing new requirements for control of certain emissions from sources, including electricity generation facilities. There is no assurance that the currently installed emissions control equipment at our lignite, coal and/or natural gas-fueled generation facilities will satisfy the requirements under any future EPA or state environmental regulations. We monitor potential changes within our enterprise risk process as a potential impact could include a material increase in the cost of compliance for our power generation units, including more capital expenditures, higher operating and fuel costs, and potential production curtailments.
Emerging regulation	Relevant, always included	Emerging regulation is always considered in Vistra's enterprise risk management process. Similar to current regulation, Vistra monitors the emerging regulatory environment and associated risks by a cross functional team including members from Legal, Environmental, Regulatory, Government Affairs, and Management. This group meets frequently and reports on emerging regulations to executive management on at least a quarterly basis. Our businesses are subject to ongoing complex governmental regulations and legislation that have impacted, and may in the future impact, our businesses, results of operations, liquidity and financial condition. In addition, our cost of compliance with existing and new environmental laws could have a material adverse effect on us. For example, the Biden administration is looking at ways to transition the U.S. to a net-zero carbon economy, including potentially evaluating the institution of a nationwide carbon tax. Vistra's market fundamentals and analytics team have evaluated how a nationwide carbon tax could impact Vistra's business. Vistra's management team takes this analysis into account when making various business decisions, including when evaluating the appropriate level of maintenance capex for our generation assets.
Technology	Relevant, always included	Technology is always considered in Vistra's enterprise risk management process. Vistra is constantly monitoring the pace and type of technological advancements that could impact our business. Technological advances have improved, and are likely to continue to improve, for existing and alternative methods to produce and store power, including gas turbines, wind turbines, fuel cells, hydrogen, micro turbines, photovoltaic (solar) cells, batteries and concentrated solar thermal devices, along with improvements in traditional technologies. Such technological advances have reduced, and are expected to continue to reduce, the costs of power production or storage to a level that will enable these technologies to compete effectively with traditional power generation facilities. Consequently, the value of our more traditional generation assets could be significantly reduced as a result of these competitive advances. To remain competitive, we must anticipate and successfully adapt to technological changes. Vistra takes a comprehensive approach to innovation, involving a variety of internal teams, external stakeholders, and industry partners. Vistra is focused on piloting and deploying new technologies to lead in the clean energy transformation, as well as finding new products and approaches to best serve our customers.
Legal	Relevant, always included	Legal is always considered in Vistra's enterprise risk management process. We are involved in the ordinary course of business in a number of lawsuits involving, among other matters, employment, commercial, and environmental issues, and other claims for injuries and damages. We evaluate litigation claims and legal proceedings to assess the likelihood of unfavorable outcomes and to estimate, if possible, the amount of potential losses. We are also involved in the ordinary course of business in regulatory investigations and other administrative proceedings, and we are exposed to the risk that we may become the subject of additional regulatory investigations or administrative proceedings. For example, in April 2013, environmental groups filed a Clean Air Act (CAA) citizen suit in the U.S. District Court for the Central District of Illinois against one of our subsidiaries that owns the Edwards Power Plant alleging violations of opacity and particulate matter limits at the facility. In August 2016, the district court granted the plaintiffs' motion for summary judgment on certain liability issues. In September 2019, the parties to the lawsuit announced a proposed settlement which was approved by the court in a consent decree in November 2019. The consent decree requires the retirement of the Edwards plant by the end of 2022 and funding for certain projects that benefit Peoria-area communities.
Market	Relevant, always included	Market is always considered in Vistra's enterprise risk management process. Vistra's commercial team, with depth of knowledge and experience in transacting in a variety of markets fuel types, participates in the risk management process to appropriately assess the magnitude and probability of market changes on our business. Our revenues, results of operations and operating cash flows depend in large part upon wholesale market prices for electricity, natural gas, uranium, lignite, coal, fuel and transportation in our regional markets and other competitive markets and upon prevailing retail electricity rates, which may be impacted by, among other things, actions of regulatory authorities. Market prices for power, capacity, ancillary services, natural gas, coal and oil are unpredictable and may fluctuate substantially over relatively short periods of time. The demand for and market prices of electricity and natural gas are affected by weather. As a result, our operating results may fluctuate on a seasonal basis. Typically, demand for and the price of electricity is higher in the summer and winter seasons, when the temperatures are more extreme, and the demand for and price of natural gas is also generally higher in the winter. More severe weather conditions such as heat waves or extreme winter weather may make such fluctuations more pronounced. Large increases of renewable generation, a minimal marginal cost generation source, can depress power prices in a market but can also cause greater instances of scarcity events when the renewable resource is not able to supply the power needed. Vistra plays an active role in the markets it operates in, to ensure the sustainability of its business. An example is after Winter Storm Uri hit in Texas in early 2021, the Texas legislature asked for proposals around market reform. Vistra submitted numerous proposals and is in constant communication with the public utilities commission of Texas and the grid operator, ERCOT, in discussing ideas to ensure reliability with the dual goal of keeping costs low for customers.
Reputation	Relevant, always included	Reputation is always considered in Vistra's enterprise risk management process. There is attention and interest nationally and internationally about global climate change and how greenhouse gas (GHG) emissions, such as carbon dioxide (CO2), contribute to global climate change. GHG emissions from the combustion of fossil fuels, primarily by our coal/lignite-fueled generation plants, represent the substantial majority of our total GHG emissions. CO2, methane and nitrous oxide are emitted in this combustion process, with CO2 representing the largest portion of these GHG emissions. Depending on individual stakeholder's level of acceptance of our GHG emission levels and abatement strategy, our business reputation could suffer and impair or limit our access to capital. Insufficient access to capital, including as a result of sustainability positions taken by investors, may threaten the company's capacity to grow, execute its strategies and generate future financial returns. Vistra manages this reputational risk by annually calculating its progress toward the achievement of its GHG emissions reduction targets and transitioning its generation fleet, from one that was coal heavy to one that is low-to-no carbon. Vistra communicates its current strategy to investors and other third parties on a regular basis through both the publication of its annual Sustainability Report as well as through countless one on one conversations. Recognizing the importance of achieving these emissions reduction targets to its third party constituents, Vistra regularly communicates any changes in its strategy to these third parties with the relevant explanation. Vistra is targeting a 60% reduction in its CO2e emissions by 2030 and seeks to achieve net-zero by 2050. Through the retirement of certain of our fossil-fueled assets and the investment in renewable power generation and energy storage assets, Vistra has achieved 72% of its 2030 target and is on track for net-zero by 2050.
Acute physical	Relevant, always included	Acute physical risks are always considered in Vistra's enterprise risk management process. Vistra may be materially and adversely affected by the effects of extreme weather conditions, including sustained cold or hot temperatures, hurricanes, floods, storms, fires, earthquakes or other natural disasters, which could stress our generation facilities and result in outages, destroy our assets and result in casualty losses that are not ultimately offset by insurance proceeds, and could require increased capital expenditures or maintenance costs. Moreover, an extreme weather event could cause disruption in service to customers due to downed wires and poles or damage to other operating equipment, which could result in us foregoing sales of electricity and lost revenue. Similarly, an extreme weather event might affect the availability of generation and transmission capacity, limiting our ability to source or deliver power where it is needed or limit our ability to source fuel for our plants (including due to damage to rail or natural gas pipeline infrastructure). Additionally, extreme weather may result in unexpected increases in customer load, requiring our retail operation to procure additional electricity supplies at wholesale prices in excess of customer sales prices for electricity. These conditions, which cannot be reliably predicted, could have adverse consequences by requiring us to seek additional sources of electricity when wholesale market prices are high or to sell excess electricity when market prices are low, which could have a material adverse effect on us. Vistra recently experienced this when Winter Storm Uri, an unprecedented winter weather event, hit Texas in early 2021. Though a confluence of events occurred, Vistra was financially impacted mainly from fuel deliverability issues and the incredibly high costs to procure gas. In response to this event, Vistra has taken actions to improve its risk profile for future weather driven volatility events. Such actions include procuring incremental gas storage, adding dual fuel capabilities at its gas peaking units, investing capital to enhance the winterization of its generation fleet, and carrying incremental open length into certain peak periods. In addition, Vistra is taking an advocacy position on various market reform opportunities that could further improve the risk profile.
Chronic physical	Relevant, always included	Chronic physical risks are always considered in Vistra's enterprise risk management process. Similar to acute physical risks, Vistra may be materially and adversely affected by the effects of extreme weather conditions and the prolonged or sustained shift of weather patterns. Vistra could be subject to sustained cold or hot temperatures, floods from sea or river level rise, droughts, or precipitation, which could stress our generation facilities and result in outages, destroy our assets, and could require increased capital expenditures, maintenance costs, or premature retirement of facility. Hot temperatures can limit the generation produced from a thermal facility, so rising temperatures could cause a degradation in our production. Vistra evaluated chronic physical risks in a climate scenario analysis. Under all scenarios, even the most extreme business as usual case, Vistra's generation facilities are well-positioned to withstand a variety of weather events including: rising sea and river levels, droughts, and increasing temperatures. While we cannot control weather events, Vistra does make informed decisions on capital spend at our facilities to help position our assets to withstand the potential long-term impacts of climate change. For example, rising mean temperatures can increase river and lake water temperatures that our thermal facilities use for cooling during the electricity generation process. Recent capital expenses at some of these facilities included spend on maintenance and improvements to our cooling towers that recycle and cool the water thus mitigating the potential risk of rising water temperatures to such a de minimus amount that we do not deem this physical risk material to our operations. Additional improvements include inlet chillers and coolers of the air combusted in our gas turbines which lower the temperature from ambient conditions.

C2.3

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

Yes

C2.3a

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

Identifier
Risk 1

Where in the value chain does the risk driver occur?
Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation	Mandates on and regulation of existing products and services

Primary potential financial impact
Decreased asset value or asset useful life leading to write-offs, asset impairment or early retirement of existing assets

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

Company-specific description
Over the last several years, the U.S. Congress has considered and debated several proposals intended to address climate change using different approaches, including a cap on carbon emissions with emitters allowed to trade unused emission allowances (cap-and-trade), a tax on carbon or GHG emissions, incentives for the development of low-carbon technology and federal renewable portfolio standards. In addition, several states have enacted or are considering the enactment of legislation and/or regulations in support of zero carbon emissions electric generation resources and/or the reduction of such emissions. We could be materially and adversely affected if new federal and/or state legislation or regulations are adopted to address global climate change that could require efforts that exceed or are more expensive than our currently planned initiatives or if we are subject to lawsuits for alleged damage to persons or property resulting from GHG emissions. In January 2021, President Biden issued written notification to the United Nations of the U.S.'s intention to rejoin the Paris Agreement, effective in February 2021. Although the Paris Agreement does not create any binding obligations for nations to limit their GHG emissions, it does include pledges to voluntarily limit or reduce future emissions, and various corporations, investors and U.S. states and local governments have previously pledged to further the goals of the Paris Agreement. Additionally, the Biden Administration has directed certain agencies to submit a plan to the National Climate Task Force to achieve a carbon-pollution-free electricity sector by 2035. The Company's plan to transition to clean power generation sources and reduce its GHG emissions may not be completed in this timeframe and we may not otherwise achieve our sustainability and emissions reduction targets as expected. Accordingly, we may be required to accelerate or change our targets, incur additional expenses, and/or adjust or cease certain operations as a result of newly implemented federal and/or state regulations to reduce future carbon emissions.

Time horizon
Long-term

Likelihood
About as likely as not

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
0

Potential financial impact figure – maximum (currency)
1000000000

Explanation of financial impact figure
Estimated range on the impact to Vistra's enterprise value if there was implementation of federal and/or state regulations that would result in an acceleration of emission reduction targets, causing earlier than expected retirements of Vistra's remaining thermal assets.

Cost of response to risk
5000000000

Description of response and explanation of cost calculation
As of November 15, 2021, which is the most recent update from Vistra management on the expected timing of our renewables development spend, Vistra management expects it will spend ~$5 billion on renewable generating assets (both solar and battery storage) over the next five years, as our generation portfolio continues to transition away from carbon-heavy generating resources. The amount of capital invested could increase with supportive public policies and incentives to promote renewable development to achieve federal and/or state emission reduction targets. These renewable investments will generate EBITDA that will, over time, replace EBITDA from our fossil-fuel resources as they retire or reduce their output.

Comment
Vistra is supportive of the Paris Agreement and has joined SBTi's Business Ambition for 1.5°C to align our emissions reduction targets with the Paris Agreement to keep warming to 1.5°C and reaching science-based net-zero emissions by 2050. Further, we are supportive of the U.S. setting an ambitious Nationally Determined Contribution (NDC) climate target of at least a 50% reduction by 2030 as compared to a 2005 baseline and setting a path to reach net-zero emissions by 2050. Vistra believes that with the appropriate and supportive public policy, net-zero carbon emissions is achievable.

Identifier
Risk 2

Where in the value chain does the risk driver occur?
Direct operations

Risk type & Primary climate-related risk driver

Reputation	Stigmatization of sector

Primary potential financial impact
Decreased access to capital

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

Company-specific description
There is attention and interest nationally and internationally on global climate change and how greenhouse gas (GHG) emissions, such as carbon dioxide (CO2), contribute to global climate change. The utility sector is the second highest contributor of GHG emissions, after the transportation industry. GHG emissions from the combustion of fossil fuels, primarily from our coal/lignite-fueled generation plants, represent the substantial majority of Vistra's total GHG emissions. CO2, methane, and nitrous oxide are emitted in this combustion process, with CO2 representing the largest portion of these GHG emissions. Further, there has been growing attention from large investment firms and their investors in sustainable investing, the investment strategy that considers environmental, social, and governance (ESG) criteria to generate both financial returns and social impact. This strategy can drive investment decisions based on investors' perceived impact of our business on the environment. Depending on individual stakeholders' level of acceptance of the utility sector and/or Vistra's own GHG emission levels and abatement strategy, our reputation could be harmed and thereby impair or limit our access to new capital or impair our ability to procure sufficient insurance coverage for our fossil assets. Further, Vistra's carbon abatement strategy depends on supportive policies and new technologies. If supportive policies are not implemented and/or the pace of innovation is too slow causing a hinderance to or the unsuccessful achievement of our long-term emission reduction goals and portfolio transformation, increased damage to our reputation could incur and in turn impact our access to capital and/or increase our cost of capital. Insufficient access to new capital or an inability to procure adequate insurance coverage for the fossil assets in our wholesale business, including as a result of sustainability positions taken by investors or insurance companies, may threaten the company's capacity to grow, execute its strategies, and generate future financial returns.

Time horizon
Medium-term

Likelihood
About as likely as not

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
100000000

Potential financial impact figure – maximum (currency)
1000000000

Explanation of financial impact figure
Estimate of impact to Vistra's enterprise value resulting from an insufficient access to insurance coverage or capital for the fossil assets in our wholesale business, including any premium required for capital availability, due to reputational harm.

Cost of response to risk
5000000000

Description of response and explanation of cost calculation
To respond to the market's concerns, Vistra must make capital investments to transition the business away from carbon-heavy generating resources and transform the perception of the company to be a leader in renewable power. As of November 15, 2021, which is the most recent update from Vistra management on the expected timing of our renewables development spend, Vistra management expects it will spend ~$5 billion on renewable generating assets (both solar and battery storage) over the next five years.

Comment
Vistra's executive management and Investor Relations team regularly communicate with financial market constituents about the actions Vistra has taken and expects to take to reduce its greenhouse gas emissions and transition its portfolio toward low-to-no carbon generating assets.

Identifier
Risk 3

Where in the value chain does the risk driver occur?
Direct operations

Risk type & Primary climate-related risk driver

Reputation	Increased stakeholder concern or negative stakeholder feedback

Primary potential financial impact
Other, please specify (Low valuation of the company; lower access to capital)

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

Company-specific description
Vistra is actively transitioning its generation fleet toward low-to-no carbon-intensive sources while supporting its customers and communities and prioritizing a Just Transition. However, this transformation will take time and the various steps the company may take to support all of its stakeholders may not be sufficient to fully address market sentiment on this issue. Some investors perceive risks to the long-term viability of Vistra's wholesale business, specifically its fossil generation assets, as the United States electric grid transitions away from fossil fuel generation toward renewable resources. With this perceived risk, some investors ascribe a low terminal value to Vistra's wholesale business, which in turn reduces the overall estimated value for the company. While Vistra management has a very different view of the long-term viability of its business and operations, including its opportunity to invest in the renewable transition, if financial market participants maintain this bearish view, Vistra will not be able to realize the fundamental value of its impressive cash generation.

Time horizon
Short-term

Likelihood
Likely

Magnitude of impact
High

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
0

Potential financial impact figure – maximum (currency)
6500000000

Explanation of financial impact figure
Vistra's research suggests that ESG focused utilities earn up to a 2x enterprise value/EBITDA premium as compared to non-ESG focused utilities. Management believes Vistra is already facing this stakeholder concern and believes Vistra's enterprise value currently reflects a valuation discount in the range of $0 to approximately $6.5 billion (approximately 2x adjusted EBITDA). If management is unsuccessful in addressing this concern in the minds of stakeholders, the company may not be able to realize this higher enterprise valuation.

Cost of response to risk
5000000000

Description of response and explanation of cost calculation
Vistra believes through the transformation of its generation portfolio away from fossil-fueled assets to renewables, the market may re-rate the business prescribing higher multiples to the enterprise. As of November 15, 2021, which is the most recent update from Vistra management on the expected timing of our renewables development spend, Vistra management expects it will spend ~$5 billion on renewable generating assets (both solar and battery storage) over the next five years. Vistra is also evaluating other strategic alternatives to accelerate its renewable transition.

Comment
Vistra's executive management and Investor Relations team regularly communicate with financial market constituents about (i) the actions Vistra has taken and expects to take to transform the generation fleet of Vistra's wholesale business, (ii) the importance of highly-efficient, flexible gas-fueled assets for reliability as the country transitions to a renewable-heavy electric gird, and (iii) Vistra's opportunity to invest in renewable resources at returns that exceed its internal investment thresholds.

Identifier
Risk 4

Where in the value chain does the risk driver occur?
Direct operations

Risk type & Primary climate-related risk driver

Technology	Transitioning to lower emissions technology

Primary potential financial impact
Decreased asset value or asset useful life leading to write-offs, asset impairment or early retirement of existing assets

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

Company-specific description
Carbon sequestration, hydrogen, and the advancement of low-to-no carbon technologies are needed to achieve net-zero carbon emissions in the utility and power sector. Technological advances have improved, and are likely to continue to improve, for existing and alternative methods to produce and store power, including gas turbines, wind turbines, fuel cells, hydrogen, micro turbines, photovoltaic (solar) cells, batteries and concentrated solar thermal devices, along with improvements in traditional technologies. Such technological advances may be superior to, or may not be compatible with, some of our existing technologies, investments and infrastructure, and may require us to make significant expenditures to remain competitive. Moreover, such technological advances have reduced, and are expected to continue to reduce, the costs of power production or storage, which may result in the obsolescence of certain of our operating assets. Consequently, the value of our more traditional generation assets could be significantly reduced as a result of these competitive advances, which could have a material adverse effect on us and our future success will depend, in part, on our ability to anticipate and successfully adapt to technological changes, to offer services and products that meet customer demands and evolving industry standards. Additionally, increased governmental and consumer focus on energy sustainability efforts, including desire for, or incentives related to, the development, implementation and usage of low-carbon technology, may result in decreased demand for the traditional generation technologies that we currently own and operate.

Time horizon
Long-term

Likelihood
Unlikely

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
0

Potential financial impact figure – maximum (currency)
1000000000

Explanation of financial impact figure
Estimated range on the impact to Vistra's enterprise value if new technologies accelerate at a faster pace than we currently expect or have the opportunity to respond, causing earlier than expected retirements of Vistra's remaining thermal assets.

Cost of response to risk
5000000000

Description of response and explanation of cost calculation
As of November 15, 2021, which is the most recent update from Vistra management on the expected timing of our renewables development spend, Vistra management expects it will spend ~$5 billion on renewable generating assets (both solar and battery storage) over the next five years.

Comment

Identifier
Risk 5

Where in the value chain does the risk driver occur?
Direct operations

Risk type & Primary climate-related risk driver

Acute physical	Other, please specify (Increase in extreme hot and cold temperatures)

Primary potential financial impact
Increased direct costs

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

Company-specific description
Vistra's generation facilities could be subject to extreme weather conditions, including natural disasters and sustained extreme cold or hot temperatures, which could stress our generation facilities and grid reliability, limit our ability to procure adequate fuel supply, or result in outages, damage or destroy our assets and result in casualty losses that are not ultimately offset by insurance proceeds, and could require increased capital expenditures or maintenance costs, including supply chain costs. Moreover, an extreme weather event could cause disruption in service to customers due to grid outages, downed wires and poles, or damage to other operating equipment, which could result in us foregoing sales of electricity and lost revenue. Extreme weather can also result in (i) unexpected increases in customer load, requiring our retail operation to procure power at wholesale prices in excess of customer sales prices for electricity, (ii) the failure of equipment at our generation facilities, (iii) a decrease in the availability of, or increases in the cost of, fuel sources, including natural gas, diesel and coal, or (iv) unpredictable curtailment of customer load by the applicable ISO/RTO in order to maintain grid reliability, resulting in the realization of lower wholesale prices or retail customer sales. Climate change may produce changes in weather or other environmental conditions, including temperature or precipitation levels, that may impact consumer demand for electricity. In addition, the potential physical effects of climate change, such as increased frequency and severity of storms, floods, and other climatic events, could disrupt our operations and cause us to incur significant costs to prepare for or respond to these effects. Weather conditions could have adverse consequences by requiring us to seek additional sources of electricity when wholesale market prices are high or to sell excess electricity when market prices are low.

Time horizon
Short-term

Likelihood
About as likely as not

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
0

Potential financial impact figure – maximum (currency)
1000000000

Explanation of financial impact figure
Estimated range on the impact to Vistra's enterprise value if a physical weather event were to cause reliability issues, limit ability to procure fuel supply, result in outages at our facilities, and/or require us to procure power at higher prices. Vistra experienced an extreme weather event in Texas, Winter Storm Uri, in February of 2021. Vistra is taking risk mitigation efforts to ensure an extreme weather like Uri will not have as big of a financial impact in the future.

Cost of response to risk
55000000

Description of response and explanation of cost calculation
After the events of Winter Storm Uri, Vistra evaluated its operations and is taking measures to improve its risk profile including: further winterization of its generation fleet, contracting for incremental gas storage, and adding dual fuel capabilities at its steam units, in addition to carrying incremental unhedged generation length into peak periods. The investment in enhanced winterization of its fleet cost approximately $50-$60 million. The cost of response provided above is the midpoint of this range.

Comment
Vistra monitors weather reports and will enact safety procedures in response to extreme weather events to ensure the safety of all employees and contractors working at its facilities.

Identifier
Risk 6

Where in the value chain does the risk driver occur?
Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation	Carbon pricing mechanisms

Primary potential financial impact
Decreased asset value or asset useful life leading to write-offs, asset impairment or early retirement of existing assets

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

Company-specific description
Regulatory policy and legislation that is implemented at the national, regional, and state levels can directly impact Vistra's long-term strategy. As such, Vistra takes an active role in the development of potential or proposed legislation and regulation, advocating for appropriate action in response to climate change. The need to compensate thermal resources appropriately to act as a reliable transition resource as the grid moves to more renewables is imperative to the overall transition of the grid. If energy market structures do not evolve, as federal and/or state clean energy standards are established, to compensate resources appropriately or if market reform does not occur rapidly enough, the asset life of some of our assets could shorten in the long-term. In this circumstance, our existing thermal resources that we consider to be longer-term in our portfolio could earn lower revenues than we currently expect.

Time horizon
Long-term

Likelihood
Unlikely

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
0

Potential financial impact figure – maximum (currency)
1000000000

Explanation of financial impact figure
Estimated range on the impact to Vistra's enterprise value if policies and market structures are not established to compensate resources appropriately for reliability, causing earlier than expected retirements of Vistra's remaining thermal assets.

Cost of response to risk
5001500000

Description of response and explanation of cost calculation
Vistra estimates it spends approximately $1.5 million on climate advocacy efforts each year. In addition, as of November 15, 2021, which is the most recent update from Vistra management on the expected timing of our renewables development spend, Vistra management expects it will spend ~$5 billion on renewable generating assets (both solar and battery storage) over the next five years, as our portfolio continues to transition away from carbon-heavy generating resources. These renewable investments will generate EBITDA that will, over time, replace the EBITDA from our fossil fuel resources as they retire or reduce their output.

Comment
Vistra believes an economy-wide, adequately priced carbon fee and dividend plan with a border carbon adjustment is the ideal public policy solution to advance emissions reduction goals through appropriately incentivized investments in carbon-free and carbon-reducing technologies, while mitigating the financial impacts on the economically disadvantaged. This kind of structure can leverage the attributes of U.S. competitive markets that have resulted in unparalleled prosperity and capital efficiency while preserving the sanctity and equity of the free market system.

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?
Downstream

Opportunity type
Products and services

Primary climate-related opportunity driver
Shift in consumer preferences

Primary potential financial impact
Increased revenues resulting from increased demand for products and services

Company-specific description
Vistra Retail currently offers more than 50 electricity plans that incorporate renewable energy into the product offer. These products are offered to customers through Vistra's many retail brands leveraging various marketing channels across the U.S. These brands offer renewable energy, carbon offset, and energy management products that help consumers reduce their carbon footprint. Retail customers make decisions on which retail electricity product to buy based on a variety of factors including price, customer service, brand, product choices that meet their needs, bundles, or value-added features. If consumers in the markets where Vistra sells its retail electricity products continue to prioritize renewable energy in their product selection, Vistra, with its diverse portfolio of product offerings appealing to the renewable conscious customer, will continue to have the opportunity to expand its customer base with these product offerings.

Time horizon
Medium-term

Likelihood
Likely

Magnitude of impact
Low

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
0

Potential financial impact figure – maximum (currency)
30000000

Explanation of financial impact figure
If Vistra is able to grow its customer count by 0-5% through its renewable retail product offerings, this could translate into an annual adjusted EBITDA uplift in the range of $0 to $30,000,000. The financial impact will depend on the popularity and uptake of each product offered.

Cost to realize opportunity
1800000

Strategy to realize opportunity and explanation of cost calculation
Vistra's product innovation and customer acquisition efforts are part of its ordinary course of business. After gathering market research, Vistra's marketing and product development teams identify and create innovative products to meet customer wants and needs. The cost to realize the opportunity is the additional cost to serve these products (i.e., IT enhancements, billing, etc.). Vistra estimates the maximum cost to serve these products to be approximately 6% of Vistra's margin from these products.

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
Increased revenues resulting from increased production capacity

Company-specific description
As the country continues to transition the electric grid away from traditional thermal resources toward zero-emitting generating assets, Vistra is in the perfect position to participate in this supply rotation. With its market-leading commercial team, development project management skills, operational and maintenance capabilities, and attractive sites, Vistra is a natural owner of these assets. Vistra knows how to manage the volatility and risk associated with renewables—and its retail operations serve nearly 5 million retail customers who are increasingly seeking to procure their electricity needs from renewable sources. As a result, Vistra has the ability to capture attractive stand-alone returns on these investments, with the opportunity to earn superior integrated returns all the way through the retail value chain. Vistra is already a market leader in battery energy storage, operating the largest battery of its kind in Moss Landing, California at 400 MW/1,600 MWh and developing an additional 350 MW of energy storage at that site. In addition, Vistra operates of a 10 MW/42 MWh battery on the site of its 180 MW Upton 2 Solar Power Plant and a 260 MW/260 MWh energy storage facility co-located at its natural gas-fueled DeCordova Power Plant, both located in Texas. Over the next 10 years, Vistra will continue to seek out development projects and technologies related to renewables and energy storage. We have development opportunities at our current conventional generation sites, where we can utilize existing land and infrastructure to enable lower cost and faster development of new renewable generation assets. We are actively constructing, developing and otherwise pursuing nearly 4,000 MW of solar and storage projects across Texas, California, and Illinois through 2026. Vistra continues to evaluate and monitor new power facility technologies and we expect to balance investment in these new technologies with Vistra's commitment to providing safe, efficient, and low-cost power.

Time horizon
Medium-term

Likelihood
Very likely

Magnitude of impact
Medium-low

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
55000000

Potential financial impact figure – maximum (currency)
500000000

Explanation of financial impact figure
Vistra expects it will grow its zero-carbon renewable and energy storage generation portfolio to ~5 GW by year-end 2026 with ~$5 billion in development capital, resulting in an estimated incremental $55 to $500 million of adjusted EBITDA contribution. We don't publicly provide EBITDA segment information at this time for our renewables and storage assets portfolio, as such the lower end of the range is an amount we disclosed in 2019 as the estimated EBITDA contribution from our solar and energy storage assets expected to be online as of December 31, 2021. The higher end of the range is the estimate of the expected EBITDA contribution once the full 5 GW is online.

Cost to realize opportunity
5000000000

Strategy to realize opportunity and explanation of cost calculation
As of November 15, 2021, which is the most recent update from Vistra management on the expected timing of our renewables development spend, Vistra management expects it will spend ~$5 billion on renewable generating assets (both solar and battery storage) over the next five years.

Comment

Identifier
Opp3

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

Opportunity type
Products and services

Primary climate-related opportunity driver
Other, please specify (The electrification of the economy, specifically from transport, is expected to increase demand for electricity over the next several decades)

Primary potential financial impact
Increased revenues resulting from increased demand for products and services

Company-specific description
Under nearly all climate scenarios, demand for electricity is expected to increase between now and 2050 as growth from the electrification of the economy is projected to more than offset any energy efficiency improvements adopted. Vistra's integrated operations are well-positioned to service this expected increase in electricity demand—both on the generation and retail sides of the equation. Vistra's existing highly efficient, flexible, and low-emitting natural gas fleet will be critical to meet this growing electricity demand, as it is a relatively low-emitting resource and is easily dispatchable to support the growing reliance on intermittent renewable resources. Vistra is also investing in incremental renewable generating assets and owns a highly efficient nuclear plant in Texas, both of which will be critical to the future electric supply. On the retail side, Vistra already serves nearly 4.3 million retail electricity customers with affordable, reliable power. Vistra is well-positioned to service future increased demand for electricity. We expect we will be able to grow our retail customer base in the years to come, as Vistra's integrated operations provide it a unique competitive advantage to offer the types of products and services customers require.

Time horizon
Long-term

Likelihood
Likely

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
0

Potential financial impact figure – maximum (currency)
350000000

Explanation of financial impact figure
Estimate of potential annual EBITDA contribution resulting from an increase in both electricity volumes consumed and higher electricity prices due to increased demand and volatility, benefiting both our retail and generation businesses.

Cost to realize opportunity
550000000

Strategy to realize opportunity and explanation of cost calculation
To be able to provide electricity when demand is high, Vistra must keep well maintained facilities ready to generate power when needed. Vistra currently spends $500-$600 million annually on capex to maintain its generation facilities. Vistra management does not believe any incremental spend outside of its existing maintenance capex would be required to capitalize on this opportunity.

Comment

Identifier
Opp4

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

Opportunity type
Energy source

Primary climate-related opportunity driver
Use of supportive policy incentives

Primary potential financial impact
Returns on investment in low-emission technology

Company-specific description
Vistra could be a beneficiary of various supportive policy incentives, including a carbon fee regime and tax incentives for renewable development. Vistra is a proponent of an escalating nationwide carbon fee with a dividend and border carbon adjustment as the best public policy to influence the transition to a lower carbon economy. Such a policy would create a level playing field for competitive businesses and appropriately incentivize investments in new technologies. Vistra could be a beneficiary of such a policy as it should incentivize owners of older, higher-heat rate thermal resources to retire those assets given their increased cost. In turn, this should improve the economic returns of Vistra's existing and planned renewable and nuclear assets while maintaining a critical role for Vistra's highly efficient and low-cost natural gas assets. In addition, Vistra can take advantage of tax incentives to develop renewable projects to reduce its future tax and/or tax receivable agreement obligations.

Time horizon
Long-term

Likelihood
About as likely as not

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
0

Potential financial impact figure – maximum (currency)
250000000

Explanation of financial impact figure
The potential financial impact to Vistra of supportive policy incentives such as a national carbon fee program or favorable tax incentives will be highly dependent on the details of any applicable policy. Vistra has evaluated various policy scenarios and believes it is reasonable to assume Vistra's annual EBITDA could improve by $0 to $250 million upon the initial implementation of policy incentives of this type.

Cost to realize opportunity
500000000

Strategy to realize opportunity and explanation of cost calculation
If policy incentives were implemented that improved our expected returns on growth investments by, we could potentially invest up to $500 million more than our committed investment spend.

Comment

Identifier
Opp5

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

Opportunity type
Energy source

Primary climate-related opportunity driver
Other, please specify (Increased reliance on reliable and flexible generation assets)

Primary potential financial impact
Increased revenues resulting from increased demand for products and services

Company-specific description
Vistra believes that natural gas-fueled generation will be a necessary transition resource for many years to come, as a complement to renewable resources. Natural gas-fueled generation provides cost-effective, flexible, and reliable dispatch of electricity, and will also provide the critical backstop to intermittent renewables. In fact, we have already seen evidence of the critical reliability need for dispatchable resources in the heavy renewable markets of California, Texas, and Germany. Vistra's highly efficient, flexible, and low-emitting natural gas fleet is well-positioned to meet the electricity demands of U.S. consumers as the country continues to transition to lower-carbon technologies while increasing its demand for electricity. The increased dependency on this critical asset could result in increased revenues if future market compensation structures appropriately value this service.

Time horizon
Medium-term

Likelihood
More likely than not

Magnitude of impact
Medium-low

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
0

Potential financial impact figure – maximum (currency)
100000000

Explanation of financial impact figure
Vistra believes policy changes that would enhance revenue streams designed to maintain the marginal resource required in the market could replace other forms of revenue as markets evolve. Given that Vistra has a fleet of highly efficient CCGTs that can offer reliability and quick start services, changes of this nature could enhance Vistra's enterprise value by up to $100 million.

Cost to realize opportunity
550000000

Strategy to realize opportunity and explanation of cost calculation
Vistra must keep well maintained facilities ready to generate power when needed. Vistra currently spends $500-$600 million annually on capex to maintain its generation facilities. Vistra management does not believe any incremental spend outside of its existing maintenance capex would be required to capitalize on this opportunity.

Comment

C3. Business Strategy

C3.1

(C3.1) Does your organization's strategy include a transition plan that aligns with a 1.5°C world?

Row 1

Transition plan
No, but our strategy has been influenced by climate-related risks and opportunities, and we are developing a transition plan within two years

Publicly available transition plan
<Not Applicable>

Mechanism by which feedback is collected from shareholders on your transition plan
<Not Applicable>

Description of feedback mechanism
<Not Applicable>

Frequency of feedback collection
<Not Applicable>

Attach any relevant documents which detail your transition plan (optional)
<Not Applicable>

Explain why your organization does not have a transition plan that aligns with a 1.5°C world and any plans to develop one in the future
Vistra believes its transition plan in place to meet its decarbonization goals are aligned with a 1.5°C world. Vistra has joined SBTi's Business Ambition for 1.5°C to validate our emissions reduction targets to keep warming to 1.5°C and reaching science-based net-zero emissions by 2050. When our SBTi targets are validated to be aligned with 1.5°C, our corresponding transition plan to achieve the goal will by default be aligned. Further, as described in C2.2, Vistra considers physical and transitional climate-related risks when planning its long-term corporate strategy.

Explain why climate-related risks and opportunities have not influenced your strategy
<Not Applicable>

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?

	Use of climate-related scenario analysis to inform strategy	Primary reason why your organization does not use climate-related scenario analysis to inform its strategy	Explain why your organization does not use climate-related scenario analysis to inform its strategy and any plans to use it in the future
Row 1	Yes, qualitative and quantitative	<Not Applicable>	<Not Applicable>

C3.2a

(C3.2a) Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Transition scenarios: IEA CPS	Company-wide	<Not Applicable>	
Transition scenarios: IEA STEPS (previously IEA NPS)	Company-wide	<Not Applicable>	
Transition scenarios: IEA SDS	Company-wide	<Not Applicable>	
Physical climate scenarios: RCP 2.6	Country/area	<Not Applicable>	
Physical climate scenarios: RCP 4.5	Country/area	<Not Applicable>	
Physical climate scenarios: RCP 8.5	Country/area	<Not Applicable>	

C3.2b

(C3.2b) Provide details of the focal questions your organization seeks to address by using climate-related scenario analysis, and summarize the results with respect to these questions.

Row 1

Focal questions

How might climate change impact our assets over the next 5, 10, 30 years? How can we build resiliency for range of climate outcomes over the next 10-30 years?

Results of the climate-related scenario analysis with respect to the focal questions

In 2020, Vistra engaged a third-party agency to assist in conducting a climate scenario analysis, evaluating both physical and transition risks to the business over the next 10 to 30 years. This climate scenario analysis was one input Vistra utilized to help inform the assessment of physical risks and transition risks Vistra could be challenged with between now and 2030 and now and 2050 as a result of climate change and the decarbonization of the economy. The third-party agency specifically utilized climate projections adopted by the Intergovernmental Panel on Climate Change (IPCC) for three scenarios: Sustainable Future Scenario (RCP 2.6, global average temperature rise stays below 2 degrees), 2 Degree Scenario (RCP 4.5, global average temperature rise limited to 2 degrees), and Current Policies Scenario (RCP 8.5, business as usual) to analyze possible weather impacts to Vistra's physical operations under each scenario. Under all scenarios, even the most extreme business as usual case, Vistra's generation facilities are well-positioned to withstand a variety of weather events including: rising sea and river levels, droughts, and increasing temperatures. While we cannot control weather events, Vistra does make informed decisions on capital spend at our facilities to help position our assets to withstand the potential long-term impacts of climate change. In addition, Vistra management reviewed the three scenarios as prepared by the IEA in its 2019 WEO—the Current Policy Scenario, the Stated Policy Scenario, and the Sustainable Development Scenario—to evaluate the potential business implications that could result from various policy and market changes under those climate scenarios. While these scenarios do not predict the future, the analysis of multiple scenarios provided Vistra with a range of outcomes and a diverse set of data to make an informed analysis of how policies, markets, and industry norms could evolve over time, as well as the risks such outcomes could present in the future. By understanding and analyzing the potential impacts and likelihoods of various transitional risks, Vistra is best positioned to make informed decisions regarding how our current strategy could lead to success in an uncertain future.

C3.3

(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	Through Vistra's various retail brands and marketing channels, we balance the needs and preferences of our customers through a vast portfolio of products and services, including green energy and conservation-focused products. As consumer preferences change to more climate focused products, Vistra Retail's marketing team creates new market leading, innovative products. For example, Vistra's flagship retail brand, TXU Energy, launched a product specifically for electric vehicle owners, giving customers 50% off energy charges every weeknight and all weekend long - times when customers most often charge their vehicles. Vistra Retail also offers energy efficiency products, such as TXU's iThermostat, helping customers monitor and lower their energy usage. For its large business customers who have their own climate goals, Vistra's business markets team creates customized solutions that utilize wind PPAs, utility scale solar generation, and other innovative structures for our business customer base.
Supply chain and/or value chain	Yes	Vistra relies on natural gas, coal, and oil to fuel the majority of our power generation facilities. Delivery of these fuels to the facilities is dependent upon the continuing financial viability of contractual counterparties as well as upon the infrastructure (including rail lines, rail cars, barge facilities, roadways, riverways and natural gas pipelines) available to serve each generation facility. As a result, we are subject to the risks of disruptions or curtailments in the production of power at our generation facilities if no fuel is available at any price or if a counterparty fails to perform or if there is a disruption in the fuel delivery infrastructure. Vistra's commercial team evaluates and considers these supply chain risks when entering contracts to hedge portions of purchase and sale commitments.
Investment in R&D	Yes	Vistra is not an R&D company, rather Vistra partners with key industry groups, investment firms, suppliers, academic institutions, and government organizations on innovative projects. Vistra has developed relationships with a number of organizations to which Vistra both provides our operational and market expertise and, in return, gains access to valuable insight and collaboration regarding the development and deployment of energy technologies and innovations across the value chain. Vistra was an early adopter of battery energy storage, gaining industry-leading expertise in the development and commercialization of battery storage assets and is now a market leader in utility scale battery development.
Operations	Yes	Vistra understands the impact of our business on the environment and knows we have a social responsibility to combat climate change and reduce our carbon footprint, while still providing safe and reliable energy to our customers. Vistra follows all current environmental compliance and regulations when running its power plants. With long term CO2e emission reduction targets of 60% by 2030 and net-zero carbon emissions by 2050, Vistra must make long-term operation decisions that meet or exceed these goals coupled with adjusting operations to meet any environmental laws and regulations imposed both regionally and nationally as well as meet the reliability needs of the electric grids where we operate. Changes in the asset life, or the operations of a power plant, can change due to the acceleration of renewables in the market it operates, new technologies, and changing regulations.

C3.4

(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Direct costs Indirect costs Capital expenditures Capital allocation Acquisitions and divestments Access to capital Assets Liabilities	Revenues – Vistra evaluates how its revenues could fluctuate based on market or regulatory changes, which climate can influence, as well as based on investments the company intends to make to meet its decarbonization goals. Any anticipated changes to revenues are incorporated into Vistra's five year financial plan. Direct Costs – Vistra evaluates how its direct costs might change as a result of direct or indirect climate-related impacts. For example, Vistra's retail business estimates what its costs will be to procure the power necessary to serve its customers, which can fluctuate based on supply/demand fundamentals. If geographies where we operate are projected to experience more extreme weather events, the demand for electricity could rise, tightening the supply/demand balance. Similarly, our generation business estimates what its future costs of fuel procurement will be and executes forward purchases based on these expectations. For example, if the United States were to enact a regulatory change that would ban natural gas fracking, the price of natural gas would likely rise. Vistra hedges its fuel exposure in order to mitigate the financial impacts of any near-term fluctuations in fuel prices. Any anticipated changes to direct costs are incorporated into Vistra's five year financial plan. Indirect Costs – Climate-related risks and opportunities can impact Vistra's indirect cost structure. For example, as the importance of climate-related reporting has increased meaningfully in recent years, Vistra now engages a third party auditor to independently verify Vistra's annual greenhouse gas emissions. Any anticipated changes to indirect costs are incorporated into Vistra's five year financial plan. Capital Expenditures – Vistra spends approximately $500 to $600 million dollars each year on non-growth capital expenditures, which include the maintenance of its generating assets, nuclear fuel purchases, and environmental expenditures. When spending routine capital, Vistra factors in the expected impacts of climate change and climate-related policies, which influence the estimated useful life of its assets. Capital Allocation – Vistra makes capital allocation decisions seeking to invest in growth projects only when those projects meet or exceed Vistra's internal investment thresholds. Vistra's capital allocation strategy includes an intent to spend ~$5 billion in the next 5 years on growing its carbon-free Vistra Zero generation portfolio. Acquisitions and Divestments – Vistra considers climate change and its strategic priority to continue to transition as a low-to-no carbon generator in all of its acquisition and divestment decisions. For example, in recent years Vistra has passed on the opportunity to acquire portfolios of thermal generating resources because the acquisition opportunities presented would not have been in alignment with Vistra's strategic direction. Access to capital – As Vistra continues to transform its company away from coal and lower its emissions intensity, Vistra hopes to gain new investors who have an ESG focus. Investor preferences for companies that are taking steps to mitigate climate change influence Vistra's strategic decisions, as continued access to capital remains important to the company. Assets – Vistra has significant long-lived assets recorded on its balance sheet. The recorded value of these assets can change for a variety of reasons, including climate-related policy and regulatory actions. Vistra regularly evaluates the recorded value of its assets in light of any pending or enacted regulations. Liabilities – Vistra accounts for all anticipated future costs to retire its generating assets (both plants and mines) on its balance sheet. The net present value of these future anticipated cash flows is reported as Vistra's Asset Retirement Obligation (ARO) liability. In addition, Vistra has a separate reporting segment called the Asset Closure Segment, which is managed internally by a Vice President leading a team with the goal to minimize the cost of decommissioning retired plants and reclaiming closed lignite mines.

C4. Targets and performance

C4.1

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

Absolute target

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

2020

Target coverage
Company-wide

Scope(s)
Scope 1
Scope 2

Scope 2 accounting method
Location-based

Scope 3 category(ies)
<Not Applicable>

Base year
2010

Base year Scope 1 emissions covered by target (metric tons CO2e)
172810588

Base year Scope 2 emissions covered by target (metric tons CO2e)
0

Base year Scope 3 emissions covered by target (metric tons CO2e)
<Not Applicable>

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)
172810588

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1
100

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2
0

Base year Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)
<Not Applicable>

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes
100

Target year
2030

Targeted reduction from base year (%)
60

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]
69124235.2

Scope 1 emissions in reporting year covered by target (metric tons CO2e)
98749588

Scope 2 emissions in reporting year covered by target (metric tons CO2e)
242970

Scope 3 emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)
98992558

% of target achieved relative to base year [auto-calculated]
71.1935833468722

Target status in reporting year
Underway

Is this a science-based target?
No, but we anticipate setting one in the next 2 years

Target ambition
<Not Applicable>

Please explain target coverage and identify any exclusions
Vistra's emissions reduction target of 60% by 2030 includes Scope 2 GHG emissions, even though these emissions for the base year 2010 are not available. Vistra's Scope 2 GHG emissions are not a material driver of its overall emissions profile, consistently representing less than 0.5% of the total GHG emissions. As such, Vistra's Scope 2 GHG emissions represent an immaterial addition to the target base year's emissions.

Plan for achieving target, and progress made to the end of the reporting year
Vistra accelerated its GHG emissions reduction targets in 2020 and is now setting out to achieve a 60% reduction, previously 50%, in its Scope 1 and Scope 2 CO2 equivalent (CO2e) emissions by 2030 as compared to a 2010 baseline. Vistra has retired ~13,000 MW of coal and gas plants since 2010, contributing to a majority of the emissions reduction progress.

List the emissions reduction initiatives which contributed most to achieving this target
<Not Applicable>

C4.2

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

C4.2c

(C4.2c) Provide details of your net-zero target(s).

Target reference number
NZ1

Target coverage
Company-wide

Absolute/intensity emission target(s) linked to this net-zero target
Abs1

Target year for achieving net zero
2050

Is this a science-based target?
Yes, we consider this a science-based target, and we have committed to seek validation of this target by the Science Based Targets initiative in the next 2 years

Please explain target coverage and identify any exclusions
Vistra accelerated its GHG emissions reduction targets in 2020 and is now setting out to achieve net-zero carbon emissions by 2050, previously an 80% reduction as compared to a 2010 baseline.

Do you intend to neutralize any unabated emissions with permanent carbon removals at the target year?
Unsure

Planned milestones and/or near-term investments for neutralization at target year
<Not Applicable>

Planned actions to mitigate emissions beyond your value chain (optional)
We continue to invest in innovation and operational improvements, as well as advocate for policy changes that will accelerate the global transition to a clean energy future. Through these expected technological advancements and public policy incentives, we believe we will be able to achieve our long-term target of net-zero carbon emissions by 2050.

C4.3

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

C4.3a

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

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	7	
To be implemented*	22	34800000
Implementation commenced*	5	3000000
Implemented*	7	3400000
Not to be implemented	0	

C4.3b

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

Initiative category & Initiative type
Please select

Estimated annual CO2e savings (metric tonnes CO2e)
250000

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 1

Voluntary/Mandatory
Voluntary

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

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

Payback period
4-10 years

Estimated lifetime of the initiative
21-30 years

Comment
Vistra is growing its portfolio of zero-carbon generation assets. As of Dec. 31, 2021, Vistra had 1 solar plus battery facility and 2 energy storage facilities online. The total generation from these three facilities in 2021 was 457,759 MWh of power, translating to avoided emissions of ~250,000 metric tons CO2e (calculated using the U.S. EPA's AVERT tool: https://www.epa.gov/statelocalenergy/avoided-emissions-and-generation-tool-avert).

C4.3c

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

Method	Comment
Compliance with regulatory requirements/standards	Vistra does business the right way and will maintain strict compliance with environmental laws and regulations. In some cases this means that Vistra must make capital expenditure decisions on the maintenance and upgrades at its existing power generation facilities. In addition, changes to, or development of, legislation that requires the use of clean renewable and alternate fuel sources or mandate the implementation of energy conservation programs that require the implementation of new technologies, could increase our capital expenditures.
Internal price on carbon	When Vistra evaluates power generation investments, the multiples applied by Vistra's team to value opportunities take into account carbon intensity and useful life. Lower emitting investments are prescribed higher multiples recognizing the higher value of low carbon investments.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products?
Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products.

Level of aggregation
Group of products or services

Taxonomy used to classify product(s) or service(s) as low-carbon
Other, please specify (Internal methodology)

Type of product(s) or service(s)

Other	Other, please specify (Green electricity plans, energy efficiency, and demand response products for retail electric customers)

Description of product(s) or service(s)
Vistra Retail currently offers more than 50 electricity plans that incorporate renewable energy into the product offer. These products are offered to customers through Vistra's many retail brands leveraging various marketing channels across the U.S. These brands offer renewable energy, carbon offset, and energy management products that help consumers reduce their carbon footprint. For example, in 2019, Vistra launched TXU Energy Pure Solar, which provides residential customers easy access to solar power. This value-add allows customers turn any TXU Energy electricity plan into a renewable solar plan. TXU Energy Pure Solar is a first-of-its-kind offering in Texas. Known for its innovation and its desire to give customers what they want, TXU Energy's renewable portfolio of offerings is the most comprehensive in ERCOT, with over eight products, many of which were first-to-market. Other renewable energy firsts include its popular 100% renewable Free Nights and Solar Days plan, community solar through TXU Energy Solar Club, and its 100% solar plan called TXU Energy Solar Advantage.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)
No

Methodology used to calculate avoided emissions
<Not Applicable>

Life cycle stage(s) covered for the low-carbon product(s) or services(s)
<Not Applicable>

Functional unit used
<Not Applicable>

Reference product/service or baseline scenario used
<Not Applicable>

Life cycle stage(s) covered for the reference product/service or baseline scenario
<Not Applicable>

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario
<Not Applicable>

Explain your calculation of avoided emissions, including any assumptions
<Not Applicable>

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

---

Level of aggregation
Group of products or services

Taxonomy used to classify product(s) or service(s) as low-carbon
The EU Taxonomy for environmentally sustainable economic activities

Type of product(s) or service(s)

Power	Other, please specify (Renewable Energy (wind, solar and green hydrogen projects))

Description of product(s) or service(s)
Vistra Zero is a generation portfolio comprised of the company's existing nuclear, renewable, and energy storage facilities as well as the company's emission-free renewable projects under development in Texas, California, and Illinois. As of Dec. 31, 2021, Vistra had ~2,900 MW of zero-emissions generation in commercial operations and Vistra expects to grow this portfolio to at least 7,300 MW of zero-carbon generation online by 2026. To help fund these renewable investments, Vistra issued $1 billion of 7% Green Perpetual Preferred Stock in accordance with Vistra's Green Finance Framework. The Framework defines the requirements of renewable energy and energy efficiency projects eligible for financing through this Green Perpetual Preferred Stock. One requirement includes alignment with the EU Technical Expert Group report on the EU Taxonomy.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)
No

Methodology used to calculate avoided emissions
<Not Applicable>

Life cycle stage(s) covered for the low-carbon product(s) or services(s)
<Not Applicable>

Functional unit used
<Not Applicable>

Reference product/service or baseline scenario used
<Not Applicable>

Life cycle stage(s) covered for the reference product/service or baseline scenario
<Not Applicable>

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario
<Not Applicable>

Explain your calculation of avoided emissions, including any assumptions
<Not Applicable>

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

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C-EU4.6

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

Vistra does not own or operate assets with high methane emissions nor does Vistra own natural gas pipelines. However, the majority of our power plants do utilize natural gas fuel which we believe will be a necessary fuel as the country transitions to a renewable-heavy electric gird. Vistra has a robust supplier assessment ensuring all suppliers, including our natural gas suppliers, share our commitment to safety, performance excellence, and ethical business practices. Further, Vistra will evaluate cleaner options, such as renewable natural gas, and new technologies when they are presented.

C5. Emissions methodology

C5.1

(C5.1) Is this your first year of reporting emissions data to CDP?
No

C5.1a

(C5.1a) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

Row 1

Has there been a structural change?
No

Name of organization(s) acquired, divested from, or merged with
<Not Applicable>

Details of structural change(s), including completion dates
<Not Applicable>

C5.1b

(C5.1b) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

	Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
Row 1	No	<Not Applicable>

C5.2

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

Scope 1

Base year start
January 1 2010

Base year end
December 31 2010

Base year emissions (metric tons CO2e)
172810588

Comment
The base year for Scope 1 GHG emissions is 2010, the year Vistra's last thermal asset was constructed and online. Emissions are reported according to the equity share approach as defined by the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard. GHG emissions that pertain to the organizational and operational boundaries have been reported for the Company owned buildings and power generation facilities, including facilities that are not required to report direct emissions under the US EPA's Mandatory Reporting Rule, and the Company's real estate financial leases located in the United States.

Scope 2 (location-based)

Base year start
January 1 2018

Base year end
December 31 2018

Base year emissions (metric tons CO2e)
248611

Comment
The Scope 2 GHG emissions base year is 2018, the first year Vistra calculated Scope 2 GHG emissions. Emissions are reported according to the equity share approach as defined by the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard. GHG emissions that pertain to the organizational and operational boundaries have been reported for the Company owned buildings and power generation facilities, including facilities that are not required to report direct emissions under the US EPA's Mandatory Reporting Rule, and the Company's real estate financial leases located in the United States. The Company's policy is to exclude Scope 2 GHG emissions from a facility in the year in which the facility is acquired.

Scope 2 (market-based)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 1: Purchased goods and services

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 2: Capital goods

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

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

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 4: Upstream transportation and distribution

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 5: Waste generated in operations

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 6: Business travel

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 7: Employee commuting

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 8: Upstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 9: Downstream transportation and distribution

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 10: Processing of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 11: Use of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 12: End of life treatment of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 13: Downstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 14: Franchises

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 15: Investments

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3: Other (upstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3: Other (downstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

C5.3

(C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
The Greenhouse Gas Protocol: Scope 2 Guidance
US EPA Mandatory Greenhouse Gas Reporting Rule
US EPA Emissions & Generation Resource Integrated Database (eGRID)

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)
98749588

Start date
January 1 2021

End date
December 31 2021

Comment

Past year 1

Gross global Scope 1 emissions (metric tons CO2e)
94290023

Start date
January 1 2020

End date
December 31 2020

Comment

Past year 2

Gross global Scope 1 emissions (metric tons CO2e)
105523364

Start date
January 1 2019

End date
December 31 2019

Comment

Past year 3

Gross global Scope 1 emissions (metric tons CO2e)
118650466

Start date
January 1 2018

End date
December 31 2018

Comment

C6.2

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

Row 1

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

Scope 2, market-based
We have no operations where we are able to access electricity supplier emission factors or residual emissions factors and are unable to report a Scope 2, market-based figure

Comment

C6.3

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

Reporting year

Scope 2, location-based
242970

Scope 2, market-based (if applicable)
<Not Applicable>

Start date
January 1 2021

End date
December 31 2021

Comment

Past year 1

Scope 2, location-based
333770

Scope 2, market-based (if applicable)
<Not Applicable>

Start date
January 1 2020

End date
December 31 2020

Comment

Past year 2

Scope 2, location-based
249068

Scope 2, market-based (if applicable)
<Not Applicable>

Start date
January 1 2019

End date
December 31 2019

Comment

Past year 3

Scope 2, location-based
248611

Scope 2, market-based (if applicable)
<Not Applicable>

Start date
January 1 2018

End date
December 31 2018

Comment

C6.4

(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
Mobile equipment at generation facilities

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
Reported scope 1 emissions does not include mobile equipment used at facilities for operations as these are not a material source of emissions.

Estimated percentage of total Scope 1+2 emissions this excluded source represents
0

Explain how you estimated the percentage of emissions this excluded source represents
Emissions from mobile equipment is estimated to be ~0.01% of total 2021 emissions. This estimate is based on approximate amount of volume of fuel purchased to run mobile equipment in 2021.

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

Emissions in reporting year (metric tons 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
As a power generator, Scope 1 emissions cover the vast majority of Vistra's total emissions. Scope 3 emissions from purchased goods and services are not considered material to our overall emissions profile.

Capital goods

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons 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
As a power generator, Scope 1 emissions cover the vast majority of Vistra's total emissions. Scope 3 emissions from purchased goods and services are not considered material to our overall emissions profile.

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

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
12006

Emissions calculation methodology
Average data method

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

Please explain
The amount of MWh purchased for the reporting year is obtained from our commercial operations team who manages the purchase of power from other power suppliers.

Upstream transportation and distribution

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons 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
As a power generator, Scope 1 emissions cover the vast majority of Vistra's total emissions. Scope 3 emissions from upstream transportation and distribution are not considered material to our overall emissions profile.

Waste generated in operations

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons 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
As a power generator, Scope 1 emissions cover the vast majority of Vistra's total emissions. Scope 3 emissions from waste generated in operations are not considered material to our overall emissions profile.

Business travel

Evaluation status
Not relevant, calculated

Emissions in reporting year (metric tons CO2e)
178

Emissions calculation methodology
Distance-based method

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

Please explain
This represents the emissions associated with air travel completed by employees and booked through Vistra's corporate travel agency. Vistra received the log of booked travel and distance from its third-party vendor.

Employee commuting

Evaluation status
Not relevant, calculated

Emissions in reporting year (metric tons CO2e)
16429

Emissions calculation methodology
Distance-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
Vistra calculated the estimated distance travelled by employees between their mailing address and work location, as registered in our human capital management software, for a sample size of employees that was then extrapolated to the total employee population.

Upstream leased assets

Evaluation status
Not relevant, calculated

Emissions in reporting year (metric tons CO2e)
1095

Emissions calculation methodology
Asset-specific method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
This represents the emissions associated with electricity consumption from leased facilities/offices that are not included in Vistra's scope 2 emissions. The amount of MWh of electricity purchased and consumed for the reporting year is obtained from our facilities team.

Downstream transportation and distribution

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons 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
As a power generator, Scope 1 emissions cover the vast majority of Vistra's total emissions. Scope 3 emissions from downstream transportation and distribution are not considered material to our overall emissions profile.

Processing of sold products

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons 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
All processing of sold products is covered in Vistra's Scope 1 and Scope 2 emissions.

Use of sold products

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
2386622

Emissions calculation methodology
Methodology for direct use phase emissions, please specify (Combustion of Fuels and Feedstocks)

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
This represents the associated emissions from the sale of retail natural gas. The amount of mmbtu sold to our retail customers for the reporting year is obtained from our retail planning team.

End of life treatment of sold products

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons 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
Vistra sells electricity and natural gas, neither of which require end of life treatment.

Downstream leased assets

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons 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
As a power generator, Scope 1 emissions cover the vast majority of Vistra's total emissions. Scope 3 emissions from downstream leased assets are not considered material to our overall emissions profile.

Franchises

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons 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
Vistra does not own franchises.

Investments

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons 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
Any investments Vistra makes would be included in its Scope 1 and Scope 2 emissions.

Other (upstream)

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons 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 other upstream emissions that are material to our overall emissions profile.

Other (downstream)

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons 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 other downstream emissions that are material to our overall emissions profile.

C6.5a

(C6.5a) Disclose or restate your Scope 3 emissions data for previous years.

Past year 1

Start date
January 1 2020

End date
December 31 2020

Scope 3: Purchased goods and services (metric tons CO2e)

Scope 3: Capital goods (metric tons CO2e)

Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)
440765

Scope 3: Upstream transportation and distribution (metric tons CO2e)

Scope 3: Waste generated in operations (metric tons CO2e)

Scope 3: Business travel (metric tons CO2e)
221

Scope 3: Employee commuting (metric tons CO2e)
600

Scope 3: Upstream leased assets (metric tons CO2e)
2193

Scope 3: Downstream transportation and distribution (metric tons CO2e)

Scope 3: Processing of sold products (metric tons CO2e)

Scope 3: Use of sold products (metric tons CO2e)
2724789

Scope 3: End of life treatment of sold products (metric tons CO2e)

Scope 3: Downstream leased assets (metric tons CO2e)

Scope 3: Franchises (metric tons CO2e)

Scope 3: Investments (metric tons CO2e)

Scope 3: Other (upstream) (metric tons CO2e)

Scope 3: Other (downstream) (metric tons CO2e)

Comment

Past year 2

Start date
January 1 2019

End date
December 31 2019

Scope 3: Purchased goods and services (metric tons CO2e)

Scope 3: Capital goods (metric tons CO2e)

Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)

Scope 3: Upstream transportation and distribution (metric tons CO2e)

Scope 3: Waste generated in operations (metric tons CO2e)

Scope 3: Business travel (metric tons CO2e)

Scope 3: Employee commuting (metric tons CO2e)

Scope 3: Upstream leased assets (metric tons CO2e)

Scope 3: Downstream transportation and distribution (metric tons CO2e)

Scope 3: Processing of sold products (metric tons CO2e)

Scope 3: Use of sold products (metric tons CO2e)

Scope 3: End of life treatment of sold products (metric tons CO2e)

Scope 3: Downstream leased assets (metric tons CO2e)

Scope 3: Franchises (metric tons CO2e)

Scope 3: Investments (metric tons CO2e)

Scope 3: Other (upstream) (metric tons CO2e)

Scope 3: Other (downstream) (metric tons CO2e)

Comment
Vistra began calculating Scope 3 emissions for reporting year 2020.

Past year 3

Start date
January 1 2018

End date
December 31 2018

Scope 3: Purchased goods and services (metric tons CO2e)

Scope 3: Capital goods (metric tons CO2e)

Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)

Scope 3: Upstream transportation and distribution (metric tons CO2e)

Scope 3: Waste generated in operations (metric tons CO2e)

Scope 3: Business travel (metric tons CO2e)

Scope 3: Employee commuting (metric tons CO2e)

Scope 3: Upstream leased assets (metric tons CO2e)

Scope 3: Downstream transportation and distribution (metric tons CO2e)

Scope 3: Processing of sold products (metric tons CO2e)

Scope 3: Use of sold products (metric tons CO2e)

Scope 3: End of life treatment of sold products (metric tons CO2e)

Scope 3: Downstream leased assets (metric tons CO2e)

Scope 3: Franchises (metric tons CO2e)

Scope 3: Investments (metric tons CO2e)

Scope 3: Other (upstream) (metric tons CO2e)

Scope 3: Other (downstream) (metric tons CO2e)

Comment
Vistra began calculating Scope 3 emissions for reporting year 2020.

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?
No

C6.10

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

Intensity figure
0.0082

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
98992558

Metric denominator
unit total revenue

Metric denominator: Unit total
12077000000

Scope 2 figure used
Location-based

% change from previous year
1

Direction of change
Decreased

Reason for change
The decrease was driven by increased revenue year-over-year offset by higher emissions year over year. 2021 emissions were higher than 2020 due to the demand of electricity back to normal post-COVID levels.

Intensity figure
0.569

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
98992558

Metric denominator
megawatt hour generated (MWh)

Metric denominator: Unit total
174040471

Scope 2 figure used
Location-based

% change from previous year
4

Direction of change
Increased

Reason for change
The increase was driven by both an increase in emissions and generation (MWh) year-over-year. 2021 emissions were higher than 2020 due to the demand of electricity back to normal post-COVID levels.

C7. Emissions breakdowns

C7.1

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

C7.1a

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

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	98231573	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	192747	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	325268	IPCC Fourth Assessment Report (AR4 - 100 year)

C-EU7.1b

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

	Gross Scope 1 CO2 emissions (metric tons CO2)	Gross Scope 1 methane emissions (metric tons CH4)	Gross Scope 1 SF6 emissions (metric tons SF6)	Total gross Scope 1 emissions (metric tons CO2e)	Comment
Fugitives	0	0	0	0	
Combustion (Electric utilities)	98231573	192747	0	98749588	SF6 emissions are not calculated
Combustion (Gas utilities)	0	0	0	0	
Combustion (Other)	0	0	0	0	
Emissions not elsewhere classified	0	0	0	0	

C7.2

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

Country/Region	Scope 1 emissions (metric tons CO2e)
United States of America	98749588

C7.3

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

C7.3c

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

Activity	Scope 1 emissions (metric tons CO2e)
Combustion	98749588

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

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

	Gross Scope 1 emissions, metric tons CO2e	Net Scope 1 emissions , metric tons CO2e	Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Electric utility activities	98749588	<Not Applicable>	
Metals and mining production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (midstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (downstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

C7.9

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

C7.9a

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

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption		<Not Applicable>		
Other emissions reduction activities		<Not Applicable>		
Divestment		<Not Applicable>		
Acquisitions		<Not Applicable>		
Mergers		<Not Applicable>		
Change in output	4368765	Increased	4.6	Scope 1 GHG emissions includes all relevant GHG emissions emitted directly from the Company's activities, which include fuel combustion in boilers, turbines, and engines used for the production of wholesale electric power. The demand for electricity was higher year over year, returning to normal post-COVID levels which increased the amount of power (megawatt hours) we generated. This increase of Scope 1 emissions from power generation was minimally offset by lower Scope 2 emissions year over year
Change in methodology		<Not Applicable>		
Change in boundary		<Not Applicable>		
Change in physical operating conditions		<Not Applicable>		
Unidentified		<Not Applicable>		
Other		<Not Applicable>		

C7.9b

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

Location-based

C8. Energy

C8.1

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

More than 45% but less than or equal to 50%

C8.2

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

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

C8.2a

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

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	0	439978683	439978683
Consumption of purchased or acquired electricity	<Not Applicable>	0	570509	570509
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	0	<Not Applicable>	0
Total energy consumption	<Not Applicable>	0	440549192	440549192

C8.2b

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

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

C8.2c

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

Sustainable biomass

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

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

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

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
Vistra does not consume this fuel type.

Other biomass

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

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

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

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
Vistra does not consume this fuel type.

Other renewable fuels (e.g. renewable hydrogen)

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

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

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

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
Vistra does not consume this fuel type.

Coal

Heating value
HHV

Total fuel MWh consumed by the organization
211923468

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

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

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

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
Fuel consumed for the production of electricity.

Oil

Heating value
HHV

Total fuel MWh consumed by the organization
29819331

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

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

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

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
Fuel consumed for the production of electricity.

Gas

Heating value
HHV

Total fuel MWh consumed by the organization
198235883

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

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

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

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
Fuel consumed for the production of electricity.

Other non-renewable fuels (e.g. non-renewable hydrogen)

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

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

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

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
Vistra does not consume other non-renewable fuels.

Total fuel

Heating value
HHV

Total fuel MWh consumed by the organization
439978683

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

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

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

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
Fuel consumed for the production of electricity.

C-EU8.2d

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

Coal – hard

Nameplate capacity (MW)
11115

Gross electricity generation (GWh)

Net electricity generation (GWh)
62408

Absolute scope 1 emissions (metric tons CO2e)
62057473

Scope 1 emissions intensity (metric tons CO2e per GWh)
994

Comment
Capacity and emissions are equity adjusted.

Lignite

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
Lignite was included in the total coal figures above.

Oil

Nameplate capacity (MW)
203

Gross electricity generation (GWh)

Net electricity generation (GWh)
3.1

Absolute scope 1 emissions (metric tons CO2e)
8926

Scope 1 emissions intensity (metric tons CO2e per GWh)
2893

Comment
Capacity and emissions are equity adjusted.

Gas

Nameplate capacity (MW)
24534

Gross electricity generation (GWh)

Net electricity generation (GWh)
91770

Absolute scope 1 emissions (metric tons CO2e)
36683189

Scope 1 emissions intensity (metric tons CO2e per GWh)
400

Comment
Capacity and emissions are equity adjusted.

Sustainable biomass

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
Vistra has no biomass generation.

Other biomass

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
Vistra has no biomass generation.

Waste (non-biomass)

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
Vistra has no waste (non-biomass) generation.

Nuclear

Nameplate capacity (MW)
2300

Gross electricity generation (GWh)

Net electricity generation (GWh)
19402

Absolute scope 1 emissions (metric tons CO2e)
0

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

Comment
Vistra's Comanche Peak nuclear power plant is carbon free generation and has no associated Scope 1 emissions.

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
Vistra has no fossil-fuel plants fitted with CCS.

Geothermal

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
Vistra has no geothermal generation.

Hydropower

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
Vistra has no hydropower generation.

Wind

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
Vistra has no wind generation assets, rather Vistra purchases wind power through power purchase agreements.

Solar

Nameplate capacity (MW)
180

Gross electricity generation (GWh)

Net electricity generation (GWh)
454

Absolute scope 1 emissions (metric tons CO2e)
0

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

Comment
Vistra's solar facility is zero emissions generation.

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
Vistra has no marine generation.

Other renewable

Nameplate capacity (MW)
400

Gross electricity generation (GWh)

Net electricity generation (GWh)
3.9

Absolute scope 1 emissions (metric tons CO2e)
0

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

Comment
Vistra's batteries at Moss Landing store excess generation from the grid. There are no Scope 1 emissions associated with this business activity.

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
Vistra has no other non-renewable generation.

Total

Nameplate capacity (MW)
38732

Gross electricity generation (GWh)

Net electricity generation (GWh)
174040

Absolute scope 1 emissions (metric tons CO2e)
98749588

Scope 1 emissions intensity (metric tons CO2e per GWh)
567.4

Comment
Capacity and emissions are equity adjusted.

C8.2g

(C8.2g) Provide a breakdown of your non-fuel energy consumption by country.

Country/area
United States of America

Consumption of electricity (MWh)
570509

Consumption of heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
570509

Is this consumption excluded from your RE100 commitment?
<Not Applicable>

C-EU8.4

(C-EU8.4) Does your electric utility organization have a transmission and distribution business?
No

C9. Additional metrics

C9.1

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

C-EU9.5a

(C-EU9.5a) Break down, by source, your organization's CAPEX in the reporting year and CAPEX planned over the next 5 years.

Coal – hard

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)
518000000

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year
52

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Explain your CAPEX calculations, including any assumptions
Vistra does not publicly report CAPEX by specific fuel type. The CAPEX provided is the total nuclear and fossil-fuel maintenance spend for the reporting year of 2021 as reported in Vistra's Q4 2021 Investor Presentation. Vistra has not provided details into CAPEX spend for the next 5 years.

Lignite

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)
0

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year
0

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years
0

Explain your CAPEX calculations, including any assumptions
All lignite spend is included in the coal figures reported above.

Oil

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)
518000000

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year
52

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Explain your CAPEX calculations, including any assumptions
Vistra does not publicly report CAPEX by specific fuel type. The CAPEX provided is the total nuclear and fossil-fuel maintenance spend for the reporting year of 2021 as reported in Vistra's Q4 2021 Investor Presentation. Vistra has not provided details into CAPEX spend for the next 5 years.

Gas

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)
518000000

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year
52

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Explain your CAPEX calculations, including any assumptions
Vistra does not publicly report CAPEX by specific fuel type. The CAPEX provided is the total nuclear and fossil-fuel maintenance spend for the reporting year of 2021 as reported in Vistra's Q4 2021 Investor Presentation. Vistra has not provided details into CAPEX spend for the next 5 years.

Sustainable biomass

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)
0

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year
0

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years
0

Explain your CAPEX calculations, including any assumptions
Vistra does not own sustainable biomass powered assets.

Other biomass

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)
0

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year
0

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years
0

Explain your CAPEX calculations, including any assumptions
Vistra does not own other biomass powered assets.

Waste (non-biomass)

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)
0

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year
0

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years
0

Explain your CAPEX calculations, including any assumptions
Vistra does not own waste (non-biomass) powered assets.

Nuclear

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)
559000000

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year
56

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Explain your CAPEX calculations, including any assumptions
Vistra does not publicly report CAPEX by specific fuel type. The CAPEX provided is the total nuclear and fossil-fuel maintenance plus nuclear fuel spend for the reporting year of 2021 as reported in Vistra's Q4 2021 Investor Presentation. Vistra has not provided details into CAPEX spend for the next 5 years.

Geothermal

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)
0

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year
0

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years
0

Explain your CAPEX calculations, including any assumptions
Vistra does not own geothermal powered assets.

Hydropower

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)
0

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year
0

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years
0

Explain your CAPEX calculations, including any assumptions
Vistra does not own hydro powered assets.

Wind

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)
0

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year
0

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years
0

Explain your CAPEX calculations, including any assumptions
Vistra does not own wind powered assets.

Solar

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)
386000000

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year
39

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Explain your CAPEX calculations, including any assumptions
Vistra does not publicly report CAPEX by specific fuel type. The CAPEX provided is the total solar and energy storage development spend for the reporting year of 2021 as reported in Vistra's Q4 2021 Investor Presentation. Vistra has not provided details into CAPEX spend for the next 5 years.

Marine

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)
0

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year
0

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years
0

Explain your CAPEX calculations, including any assumptions
Vistra does not own marine powered assets.

Fossil-fuel plants fitted with CCS

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)
0

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year
0

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years
0

Explain your CAPEX calculations, including any assumptions
Vistra does not have Fossil-fuel plants fitted with CCS.

Other renewable (e.g. renewable hydrogen)

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)
0

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year
0

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years
0

Explain your CAPEX calculations, including any assumptions
Vistra does not have any other renewable assets.

Other non-renewable (e.g. non-renewable hydrogen)

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)
0

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year
0

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years
0

Explain your CAPEX calculations, including any assumptions
Vistra does not have any other non-renewable assets.

C-EU9.5b

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

Products and services	Description of product/service	CAPEX planned for product/service	Percentage of total CAPEX planned products and services	End of year CAPEX plan
Distributed generation	Vistra retail offers a variety of renewable product offerings for its customers, including distributed generation. Through its partner, Sunrun, Vistra retail can offer its residential customers the market's highest-efficiency rooftop solar panels and batteries. Vistra also offers a community solar product in Texas for our residential customers (TXU Solar Club.) For its large business customers, Vistra's large business retail team provides solutions to meet customer's sustainability goals ranging from purchasing renewable energy credits to onsite renewable generation development to energy efficiency and advisory services.	0	0	2022

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

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

	Investment in low-carbon R&D	Comment
Row 1	Yes	Vistra partners with key industry groups, investment firms, suppliers, academic institutions, and government organizations on innovative projects. Vistra has developed relationships with a number of organizations to which Vistra both provides our operational and market expertise and, in return, gains access to valuable insight and collaboration regarding the development and deployment of energy technologies and innovations across the value chain.

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

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

Technology area	Stage of development in the reporting year	Average % of total R&D investment over the last 3 years	R&D investment figure in the reporting year (optional)	Comment
Other, please specify (Venture capital fund investing in various low carbon technologies)	Basic academic/theoretical research	≤20%		In 2020, Vistra made a $20 million commitment to invest in a new fund managed by The Westly Group, a leading venture capital firm with an established track record of identifying and supporting emerging energy technologies. The Westly Group is focused on investing in early stage companies that are developing new technologies and service offerings related to Smart Energy, Smart Mobility, Smart Buildings, and Industry 4.0. In addition to investing via the Westly Group, we can leverage our position as a leading competitive generator and retailer in the U.S. to partner directly with early stage companies to pilot new technologies and help shape product roadmaps.

C10. Verification

C10.1

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

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	No third-party verification or assurance

C10.1a

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

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
Vistra Corp. 2021 Statement of GHG Emissions - Final (Signed).pdf

Page/ section reference
All pages

Relevant standard
Attestation standards established by AICPA (AT105)

Proportion of reported emissions verified (%)
100

C10.1b

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

Scope 2 approach
Scope 2 location-based

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
Vistra Corp. 2021 Statement of GHG Emissions - Final (Signed).pdf

Page/ section reference
All pages

Relevant standard
Attestation standards established by AICPA (AT105)

Proportion of reported emissions verified (%)
100

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, we do not verify any other climate-related information reported in our CDP disclosure

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)?
Yes

C11.1a

(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.
California CaT - ETS
Massachusetts state ETS
RGGI - ETS

C11.1b

(C11.1b) Complete the following table for each of the emissions trading schemes you are regulated by.

California CaT - ETS

% of Scope 1 emissions covered by the ETS
2.03

% of Scope 2 emissions covered by the ETS
0

Period start date
January 1 2021

Period end date
December 31 2021

Allowances allocated

Allowances purchased
7606000

Verified Scope 1 emissions in metric tons CO2e
2000308

Verified Scope 2 emissions in metric tons CO2e
0

Details of ownership
Facilities we own and operate

Comment
The emissions are equity adjusted.

Massachusetts state ETS

% of Scope 1 emissions covered by the ETS
1.06

% of Scope 2 emissions covered by the ETS
0

Period start date
January 1 2021

Period end date
December 31 2021

Allowances allocated
37720

Allowances purchased
2499465

Verified Scope 1 emissions in metric tons CO2e
1046403

Verified Scope 2 emissions in metric tons CO2e
0

Details of ownership
Facilities we own and operate

Comment
The emissions are equity adjusted.

RGGI - ETS

% of Scope 1 emissions covered by the ETS
6.86

% of Scope 2 emissions covered by the ETS
0

Period start date
January 1 2021

Period end date
December 31 2021

Allowances allocated

Allowances purchased
23779000

Verified Scope 1 emissions in metric tons CO2e
6775781

Verified Scope 2 emissions in metric tons CO2e
0

Details of ownership
Facilities we own and operate

Comment
The emissions are equity adjusted.

C11.1d

(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

One of Vistra's core principles is we do business the right way and we are committed to continuous improvement of environmental protection measures, building on our record of compliance with environmental laws and regulations. Vistra's Environmental, Legal, and Regulatory teams coordinate efforts to ensure that Vistra is adhering and responding to all federal and state environmental regulations. Specifically regarding carbon pricing regulation, Vistra advocates for and believes a national, economy-wide carbon fee and dividend approach with a border carbon adjustment is the ideal public policy solution to appropriately incentivize investments in carbon-free and carbon-reducing technologies while mitigating the financial impacts on the economically disadvantaged. At a regional level, Vistra believes market-based solutions such as RGGI are the appropriate way to incentivize investments in lower emitting technologies as opposed to policies that subsidize specific resources.

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

Stakeholder expectations
Change internal behavior
Drive low-carbon investment
Stress test investments
Identify and seize low-carbon opportunities

GHG Scope

Scope 1

Application

When Vistra evaluates power generation investments, the multiples applied by Vistra's team to value opportunities take into account carbon intensity and useful life. Lower emitting investments are prescribed higher multiples recognizing the higher value of low carbon investments.

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

0

Variance of price(s) used

Vistra accounts for the impact of carbon by applying various terminal multiples to valuation analyses as opposed to a straight carbon price per MWh of generation.

Type of internal carbon price

Shadow price

Impact & implication

Our internal processes incentivize investments in low carbon resources as those resources would be valued with a higher terminal multiple. Using a higher terminal multiple improves the valuation profile of renewable resources making them more attractive investment options as compared to investments in thermal resources.

C12. Engagement

C12.1

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

Yes, our suppliers
Yes, our customers/clients
Yes, other partners in the value chain

C12.1a

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

Type of engagement
Information collection (understanding supplier behavior)

Details of engagement
Collect climate change and carbon information at least annually from suppliers

% of suppliers by number
0.07

% total procurement spend (direct and indirect)
23

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

Rationale for the coverage of your engagement
In 2021, we continued our annual benchmark reporting on supplier ESG performance. Building on our own report, we utilize the assessment created by Electric Utility Industry Sustainable Supply Chain Alliance, to which we are active members of. The numbers reported above represent the suppliers that responded to our request for data. Year over year, Vistra was able to increase the number of suppliers reporting their ESG performance from 10 to 67 suppliers who represent 23% of Vistra's spend.

Impact of engagement, including measures of success
Vistra is able to track the management of ESG risks/impacts by suppliers by asking specific questions related to the policies, initiatives, and metrics companies have in place. In addition to measuring potential impacts, the assessment helps create engagement opportunities and goal setting. In reviewing the responses to Vistra's annual Supply Chain Sustainability Report, we noticed strong commitments and practices to all ESG facets. In particular, of the suppliers who responded, 71% annually measure and/or publicly report sustainable information, 92% have a human rights policy, and 65% have a diversity and inclusion policy or program in place. Leading by example, Vistra has plans to connect and engage with suppliers who have not implemented specific policies or sustainable performance objectives to promote best practices, such as GHG emissions reduction goals or implementing a human rights policy.

Comment

C12.1b

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

Type of engagement & Details of engagement

Education/information sharing	Run an engagement campaign to educate customers about the climate change impacts of (using) your products, goods, and/or services

% of customers by number
100

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

Please explain the rationale for selecting this group of customers and scope of engagement
Vistra Retail runs campaigns for all its products and services, including its green, conservation, and sustainability focused products. These campaigns include information about the product benefits, such as environmental stewardship through solar procurement. Vistra retail also engages its customers on energy efficiency tips and tricks through communications on its social media platforms and customers monthly invoices. Vistra's large business markets team engages with its large commercial and industrial (C&I) customers about its custom solutions that help these C&I customers achieve their own sustainable goals, such as reduction of Scope 2 emissions from purchased electricity. The business markets team also offers rebates to customers who make energy-efficiency improvements to their facilities. For example, Cinemark, a movie theater chain and TXU Energy customer in Texas, received Greenback rebates for a LED retrofit of one of their theater parking lots. The partnership between TXU Energy and Cinemark not only allowed Cinemark to reduce power consumption in their parking lot by 70%, but also made their parking lot safer and brighter for their customers.

Impact of engagement, including measures of success
The impact of engagement is variable with each campaign and product offering; enrollment rate of products, high renewal rate, and positive feedback are just some measures of success.

C12.1d

(C12.1d) Give details of your climate-related engagement strategy with other partners in the value chain.

Vistra has interactions and engagement on its ESG-related activities with other stakeholders including, investors, other financial community participants, employees, recruits, local communities, consultants, state and federal governments, regulators, and non governmental organizations. Some examples of stakeholder engagement activities we undertake on an annual basis include frequent meetings and calls with members of the financial community, regulators, and state, local, and federal government officials; employee town halls and engagement surveys; and local community town halls.

C12.2

(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?
No, but we plan to introduce climate-related requirements within the next two years

C12.3

(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?

Row 1

Direct or indirect engagement that could influence policy, law, or regulation that may impact the climate

Yes, we engage directly with policy makers

Yes, we engage indirectly through trade associations

Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?

No, but we plan to have one in the next two years

Attach commitment or position statement(s)

<Not Applicable>

Describe the process(es) your organization has in place to ensure that your engagement activities are consistent with your overall climate change strategy

Annually, Vistra reviews all its memberships with trade groups, associations, and other third-party organizations to discern whether their positions are materially inconsistent with Vistra's views. If Vistra determines that a group is taking a materially inconsistent position from the Company's views, the Company will advocate within the organization to seek to align our positions and if that is unsuccessful may withdraw from or otherwise disassociate from that organization.

Primary reason for not engaging in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

<Not Applicable>

Explain why your organization does not engage in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

<Not Applicable>

C12.3a

(C12.3a) On what policy, law, or regulation that may impact the climate has your organization been engaging directly with policy makers in the reporting year?

Focus of policy, law, or regulation that may impact the climate
Carbon tax

Specify the policy, law, or regulation on which your organization is engaging with policy makers
The Climate Leadership Council's Bipartisan Climate Roadmap

Policy, law, or regulation geographic coverage
National

Country/region the policy, law, or regulation applies to
United States of America

Your organization's position on the policy, law, or regulation
Support with no exceptions

Description of engagement with policy makers
Vistra is a founding member of the Climate Leadership Council and its advocacy arm, Americans for Carbon Dividends. Vistra actively supports the CLC's framework of a consistently applied national carbon fee and dividend approach with a border tax adjustment as the ideal public policy solution to appropriately incentivize investments in carbon-free and carbon-reducing technologies. Vistra believes the CLC's bipartisan climate roadmap is the right public policy solution to facilitate the country's transition to a lower carbon future while maintaining the strength of the American economy. The CLC has estimated that if its plan were to be implemented in 2021, it would cut U.S. CO2 emissions in half by 2035 (as compared to 2005) and far exceed the U.S. Paris commitment.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation
<Not Applicable>

Have you evaluated whether your organization's engagement is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

Focus of policy, law, or regulation that may impact the climate
Renewable energy generation

Specify the policy, law, or regulation on which your organization is engaging with policy makers
The Illinois Coal to Solar & Energy Storage Act (SB 2408)

Policy, law, or regulation geographic coverage
Sub-national

Country/region the policy, law, or regulation applies to
United States of America

Your organization's position on the policy, law, or regulation
Support with no exceptions

Description of engagement with policy makers
In September of 2021, Illinois Governor J.B. Pritzker signed into law SB 2408, the Energy Transition Act, a sweeping and comprehensive measure designed to move the State of Illinois to 100% clean energy, support a responsible transition away from carbon-intense power generation, and spur further diversity and inclusion in the renewable energy industry. Vistra supported the legislation, which incorporated the company's legislative priority known as the Coal to Solar & Energy Storage Act. As enacted, the legislation supports the company's future build and operation of up to 300 MW of utility-scale solar and 150 MW of battery energy storage facilities at nine retired or to-be-retired coal plant sites across central and southern Illinois. The Illinois Coal to Solar and Energy Storage Act is a bold and visionary proposal to expand and deploy renewable energy technologies at existing power plant sites across the central and southern Illinois. The plan calls for the reinvestment of ~$550 million to immediately develop approximately 300 megawatts (MW) of utility-scale solar projects and approximately 175 MW of new energy storage facilities. This investment will support more than 2,200 full-time equivalent jobs, generate over $180 million in earnings for workers and add over $300 million to the state's economic output from 2022 to 2025, all in downstate Illinois communities.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation
<Not Applicable>

Have you evaluated whether your organization's engagement is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

C12.3b

(C12.3b) Provide details of the trade associations your organization engages with which are likely to take a position on any policy, law or regulation that may impact the climate.

Trade association
Business Roundtable

Is your organization's position on climate change consistent with theirs?
Consistent

Has your organization influenced, or is your organization attempting to influence their position?
We publicly promote their current position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)
Business Roundtable believes the United States should adopt a more comprehensive, coordinated and market-based approach to reduce emissions. This approach must be pursued in a manner that ensures environmental effectiveness while fostering innovation, maintaining U.S. competitiveness, maximizing compliance flexibility and minimizing costs to business and society. This is outlined in the Business Roundtable's "Addressing Climate Change: Principles and Policies", which can be found online: https://s3.amazonaws.com/brt.org/Business-RoundtableAddressingClimateChangeReport.September2020.pdf

Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)
200000

Describe the aim of your organization's funding
To provide thought leadership for the power sector, from one of the largest independent power producers.

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

C12.4

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

Publication
In voluntary sustainability report

Status
Complete

Attach the document
2021 VST Sustainability Report.pdf

Page/Section reference
All pages

Content elements
Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

C15. Biodiversity

C15.1

(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	Description of oversight and objectives relating to biodiversity	Scope of board-level oversight
Row 1	Yes, executive management-level responsibility	Biodiversity is managed through our Environmental, Health and Safety team, which is lead by our General Counsel & Chief Compliance Officer. Vistra also considers biodiversity impacts within its development process of new renewable generation, as well as part of its asset closure plans both of which have oversight by Vistra's executive management.	<Not Applicable>

C15.2

(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity	Biodiversity-related public commitments	Initiatives endorsed
Row 1	No, but we plan to do so within the next 2 years	<Not Applicable>	<Not Applicable>

C15.3

(C15.3) Does your organization assess the impact of its value chain on biodiversity?

	Does your organization assess the impact of its value chain on biodiversity?	Portfolio
Row 1	No, but we plan to assess biodiversity-related impacts within the next two years	<Not Applicable>

C15.4

(C15.4) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity- related commitments
Row 1	Yes, we are taking actions to progress our biodiversity-related commitments	Land/water management

C15.5

(C15.5) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	No, we do not use indicators, but plan to within the next two years	Please select

C15.6

(C15.6) Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
In voluntary sustainability report or other voluntary communications	Content of biodiversity-related policies or commitments	Vistra's biodiversity commitment and few initiatives are reported on page 21 of Vistra's 2021 Sustainability Report. 2021 VST Sustainability Report.pdf

C16. Signoff

C-FI

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

C16.1

(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	President and Chief Executive Officer	Chief Executive Officer (CEO)

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

Please confirm below

I have read and accept the applicable Terms