Welcome to your CDP Climate Change Questionnaire 2020

C0. Introduction

C0.1

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

NRG Energy, Inc., or NRG or the Company, is an integrated power company built on dynamic retail brands with diverse generation assets. NRG brings the power of energy to customers by producing and selling electricity and related products and services in major competitive power markets in the U.S. and Canada in a manner that delivers value to all of NRG's stakeholders. NRG is a customer-driven business focused on perfecting the integrated model by balancing retail load with generation supply within its deregulated markets. NRG sells energy, services, and innovative, sustainable products and services directly to retail customers under the brand names NRG, Reliant, Green Mountain Energy, Stream, and XOOM Energy, as well as other brand names owned by NRG, supported by approximately 23,000 MW of generation as of December 31, 2019. NRG was incorporated as a Delaware corporation on May 29, 1992. Certain matters discussed in this survey are forward-looking statements, within the meaning of the Private Securities Litigation Reform Act of 1995, that are subject to risks and uncertainties. Please see statement below about forward-looking statements.

SAFE HARBOR: In addition to historical information, the information presented in this report includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Exchange Act. These statements involve estimates, expectations, projections, goals, assumptions, known and unknown risks and uncertainties and can typically be identified by terminology such as “may,” “should,” “could,” “objective,” “projection,” “forecast,” “goal,” “guidance,” “outlook,” “expect,” “intend,” “seek,” “plan,” “think,” “anticipate,” “estimate,” “predict,” “target,” “potential” or “continue” or the negative of these terms or other comparable terminology. Such forward-looking statements include, but are not limited to, statements about the Company’s future revenues, income, indebtedness, capital structure, plans, expectations, objectives, projected financial performance and/or business results and other future events, and views of economic and market conditions.
Although NRG believes that its expectations are reasonable, it can give no assurance that these expectations will prove to be correct, and actual results may vary materially. Factors that could cause actual results to differ materially from those contemplated herein include, among others, general economic conditions, hazards customary in the power industry, weather conditions, competition in wholesale power markets, the volatility of energy and fuel prices, failure of customers to perform under contracts, changes in the wholesale power markets, changes in government regulations, the condition of capital markets generally, our ability to access capital markets, cyberterrorism and inadequate cybersecurity, unanticipated outages at our generation facilities, adverse results in current and future litigation, failure to identify,

execute or successfully implement acquisitions, repowerings or asset sales, our ability to implement value enhancing improvements to plant operations and companywide processes, our ability to implement and execute on our publicly announced transformation plan, including any cost savings and margin enhancement, our ability to achieve our net debt targets, our ability to proceed with projects under development or the inability to complete the construction of such projects on schedule or within budget, the inability to maintain or create successful partnering relationships, our ability to operate our businesses efficiently, our ability to retain retail customers, our ability to realize value through our commercial operations strategy, the ability to successfully integrate businesses of acquired companies, our ability to realize anticipated benefits of transactions (including expected cost savings and other synergies) or the risk that anticipated benefits may take longer to realize than expected, and our ability to execute our Capital Allocation Plan.

NRG undertakes no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law. The foregoing review of factors that could cause NRG's actual results to differ materially from those contemplated in the forward-looking statements included in this report should be considered in connection with information regarding risks and uncertainties that may affect NRG's future results included in NRG's filings with the Securities and Exchange Commission at www.sec.gov.

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
Reporting year	January 1, 2019	December 31, 2019	No

C0.3

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

Australia

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

C1. Governance

C1.1

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

Yes

C1.1a

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

Position of individual(s)	Please explain
Chief Executive Officer (CEO)	NRG's President and CEO has overall responsibility for the company's climate change-related issues and management. NRG's vision is to create a sustainable energy future, therefore these issues are being managed by the President and CEO. The CEO reviews all sustainability strategy, goals and targets, which are then reviewed and approved by the Company's Governance and Nominating Committee and the Board of Directors. The CEO is directly involved with creating and approving NRG's emissions reductions goals. In 2019, the CEO made the decision to accelerate NRG's emissions reduction goals to be in line with a 1.5 Celsius degree trajectory.
Board-level committee	Since 2016, NRG's Board of Director's Governance and Nominating Committee officially oversees corporate sustainability. The rationale for formalizing board oversight of climate-related issues is because the board is ultimately responsible for all potential risks to the company. The Committee reviews NRG's strategies and efforts to manage its environmental, economic and social impacts, including, but not limited to, NRG's environmental, climate change and sustainability policies and programs. In 2019, the board reviewed and approved

	NRG's accelerated emissions reductions goal to have 50% decrease by 2025 and net-zero by 2050. Committee composition can be found at: http://investors.nrg.com/phoenix.zhtml?c=121544&p=irol-govcommcomp.

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	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 Monitoring implementation and performance of objectives Overseeing major capital expenditures, acquisitions and divestitures Monitoring and overseeing progress against goals and targets for addressing	Since 2016, our board's Governance and Nominating (G&N) Committee officially oversees corporate sustainability. The Committee reviews NRG's strategies and efforts to manage its environmental, economic and social impacts, including, but not limited to, NRG's environmental, climate change and sustainability policies and programs. As of 2018, Sustainability became an annual agenda item at the full Board meeting and is reviewed separately by the G&N Committee, in addition to be part of general review of projects and transactions. The Board has responsibility for overall risk oversight of NRG which includes understanding the material risks of the business and what steps management is taking or should be taking to manage those risks, as well as understanding and determining the appropriate risk appetite for the company. To define NRG's risk appetite, the Board reviews and approves the annual business plan, budget and long-term plan, strategic initiatives, acquisitions and divestitures, and capital allocation plan. Climate-related issues are considered to the extent they are material. For example, the Board may incorporate climate-related issues into relevant strategic decisions, particularly those related to physical generating assets and customer preferences. Learn more about committee composition at http://investors.nrg.com/phoenix.zhtml?c=121544&p=irol-govcommcomp. The head of Sustainability presents key strategic priorities to the full Board during scheduled meetings throughout the fiscal year. For example, NRG's science-based targets are monitored and

	climate-related issues	proposals to make significant changes to the goals are presented to the Board for approval.

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)	Responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO)	Both assessing and managing climate-related risks and opportunities	Quarterly

C1.2a

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

The head of Sustainability reports to the SVP, Corporate Affairs and Chief Compliance Officer, who then reports to the Chief Executive Officer. The position of head of Sustainability was formalized in 2013 as the strategic importance of sustainability was recognized and the need for that to be integrated across the business.

The head of Sustainability leads all implementation and is responsible for the development of NRG's climate change policy positions and coordination between policy and commercial initiatives. This includes drafting and publishing NRG's Climate Change Principles and engaging with investors on integrating ESG factors into reporting practices as well as advising on business-to-business renewable energy solution proposals. The head of Sustainability is responsible for executing on NRG's certified science-based targets to reduce absolute emissions 50% by 2025 and 90% by 2050 and monitoring megatrends in the power sector and relating that information to business units.

Climate-related issues are monitored on an ongoing basis through conversations with NRG's risk, regulatory affairs, legal, retail and operations departments.

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 inventivized	Comment
Other, please specify All Plant Operations employees, including the Management Group	Monetary reward	Efficiency project	Compensation of NRG's power plant personnel is, in part, based on environmental key performance indicator (EKPI) scores. Factors that affect the EKPI are performance, environmental reporting and the econrg projects that can reduce GHGs in the community or plant. The EKPI score take into account the accuracy of continuous emissions monitoring systems (CEMS) and whether a plant has complied with regulatory requirements such as the EPA's Mandatory Greenhouse Gas Reporting Rule (40 CFR Part 98).
Chief Sustainability Officer (CSO)	Monetary reward	Energy reduction target	The performance and incentive compensation of the head of Sustainability and sustainability team members are based on attainment of sustainability goals, including NRG's climate goals to reduce absolute emissions.

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	1	Time horizons are subject to change.
Medium-term	1	3	Time horizons are subject to change.
Long-term	3	10	Time horizons are subject to change.

C2.1b

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

NRG defines substantive financial or strategic impact on the business as a significant event, that at a corporate level, NRG's businesses are adversely affected and may impact NRG's results of operations, financial condition and cash flows. The definition for substantive may affect different businesses at different levels of impact. For example, NRG operates power plants that provide an essential service to customers and any risk of disrupting that service would be substantive. For example, hazards customary to the power production industry include the potential for unusual weather conditions, which could affect fuel pricing and availability, NRG's route to market or access to customers, i.e., transmission and distribution lines, or critical plant assets. The contribution of climate change to the frequency or intensity of weather-related events could affect NRG's operations and planning process. Climate change could also affect the availability of a secure and economical supply of water in some locations, which is essential for the continued operation of NRG's generation plants. NRG monitors water risk carefully. If it is determined that a water supply risk exists that could impact projected generation levels at any plant risk mitigation efforts are identified and evaluated for implementation. Also, demand for NRG's energy-related services could be similarly impacted by consumers' preferences or market factors favoring energy efficiency, low-carbon power sources or reduced electricity usage.

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

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

Description of process

Climate-related issues are integrated in multi-disciplinary company-wide risk identification, assessment and management processes.

At the company level, NRG evaluates risks such as: regulatory, commercial, financial, and physical risks and opportunities associated with climate change and the different

impacts on NRG's wholesale and retail businesses. The SVP and General Counsel, heads of Environment, Government Affairs and Regulatory Affairs team are responsible for assessing and managing regulatory risks and opportunities at federal, regional and local agencies. NRG's President and CEO reports to the Board of Directors on any material risks. NRG's SVP, Operations and SVP Environmental are responsible for identifying and managing environmental risks to operations. NRG's CRO reports to the CFO and monitors commercial risks to domestic revenues from commodity and electric power availability or pricing, carbon and emission trading, and renewable energy credits. The EVP, Retail and SVP of Business Solutions identify commercial opportunities and risks to all of NRG's retail businesses. Risks are further discussed in Item 1A in the 2019 NRG 10-K. NRG calculates annual greenhouse gas emission inventories. Monitoring of risks and opportunities occurs on an ongoing basis by NRG's Financial Risk Management Committee. The frequency of reporting varies depending on the materiality and type of risk. Internally, the Financial Risk Management Committee meets quarterly to review existing risks and approve mitigation initiatives. NRG's executive team communicates risks and mitigation efforts to NRG's board of directors quarterly. Externally, NRG reports material risks to investors and stakeholders through quarterly earnings calls, quarterly SEC filings, the CDP questionnaires and annual sustainability reporting.

The Enterprise Risk Management process enables management to manage uncertainty to enhance or preserve enterprise value and facilitates the functional group's management of risk. NRG's strategy addresses long and short term risks and opportunities and aims to reduce the company's own GHG risks and those of its customers. For example, some of the business platforms to achieve this vision include adding clean energy solutions for our residential and business customers, which will save money, increase reliability and resiliency, and improve their own carbon footprints. We also have modernized our generation fleet in a manner that reduces CO2 emissions by repowering or retiring older, uneconomic power plants.

At the asset level, for our wholesale generation assets, Asset Management and other relevant groups are responsible for identifying risks and opportunities and directly report these risks to the CEO. Commercial Operations and Risk groups help by conducting sensitivity analyses to assess exposure from weather and other risks. Climate change risks to retail subsidiaries are assessed by the respective subsidiary Heads of Business. Risks are monitored by the management teams of our retail subsidiaries and managed by NRG's Financial Risk Management Committee.

Since 2016, our board's Governance and Nominating (G&N) Committee officially oversees corporate sustainability. The Committee reviews NRG's strategies and efforts to manage its environmental, economic and social impacts, including, but not limited to, NRG's environmental, climate change and sustainability policies and programs. As of 2018, Sustainability became an annual agenda item at the full Board meeting and is reviewed separately by the G&N Committee, in addition to be part of general review of projects and transactions. The head of Sustainability presents key strategic priorities to the full Board during scheduled meetings throughout the fiscal year. For example,

NRG's science-based targets are monitored and proposals to make significant changes to the goals are presented to the Board for approval.

The Board has responsibility for overall risk oversight of NRG which includes understanding the material risks of the business and what steps management is taking or should be taking to manage those risks, as well as understanding and determining the appropriate risk appetite for the company. To define NRG's risk appetite, the Board reviews and approves the annual business plan, budget and long-term plan, strategic initiatives, acquisitions and divestitures, and capital allocation plan. Climate-related issues are considered to the extent they are material. For example, the Board may incorporate climate-related issues into relevant strategic decisions, particularly those related to physical generating assets and customer preferences. Learn more about committee composition at http://investors.nrg.com/phoenix.zhtml?c=121544&p=irol-govcommcomp.

TRANSITION RISKS
Situation: Federal regulations related to carbon pricing. NRG’s fleet of utility-scale power plants is heavily regulated by federal regulators. For example, most of NRG’s power plants sell their output into regional electricity markets under rules set by the Federal Energy Regulatory Commission (FERC). While some regional energy markets address sustainability needs by putting a price on carbon (such as AB 32 in California or the Regional Greenhouse Gas Initiative (RGGI) in the Eastern United States), many struggle to price environmental externalities into the wholesale price of electricity.
Task: Assess different impacts on the market specific to NRG's wholesale business
Action: NRG is engaged with stakeholders in reviewing innovative market designs that price carbon or allow for the procurement of low-carbon power, as part of a competitive process. Senior NRG executives have presented and testified on key issues related to transitional risks such as the Department of Energy (DOE) Grid Reliability and Resilience Proposal. More information can be found online at https://www.nrg.com/energy-policy.html.
Result: NRG 's position on certain regulations is heard and considered in potential regulatory environments, and if successful, creates new innovative market designs

PHYSICAL RISKS
Situation: Extreme weather event Hurricane Harvey during August 2017
Task: Made improvements to operations after the hurricane
Action: Implement business continuity plan. The team at W.A. Parish – when faced with wet coal and flood conditions – successfully transitioned units 5 and 6 from coal to gas, and in real time, to keep the system running and power generation uninterrupted. The San Jacinto team was locked in at their facility for four full days – including a brief shelter-in-place event when a neighboring facility sprung a small ammonia leak. The team kept required steam flowing to a customer – a DuPont facility located next door – for as long as they needed it to keep their own operations running.
Result: Facilities are better prepared for future events

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 assessments by the Financial Risk Management Committee. Monitoring of current regulatory risks occurs on an ongoing basis. The frequency of reporting varies depending on the materiality and type of risk. Internally, the Financial Risk Management Committee meets quarterly to review existing risks and approve mitigation initiatives. The SVP and General Counsel, heads of Environment, Government Affairs and Regulatory Affairs Teams are responsible for assessing regulatory risks and opportunities at federal, regional and local agencies. Policies at the national, regional and state levels to regulate GHG emissions, as well as mitigate climate change, could adversely impact NRG's results of operations, financial condition and cash flows. NRG operates generating units in Connecticut, Delaware, Maryland, and New York that are subject to the Regional Greenhouse Gas Initiative, RGGI, which is a regional cap and trade system. Intangible assets include RGGI emission credits which NRG began purchasing in 2009. These emission allowances are held-for-use and are amortized to cost of operations, with RGGI credits amortized based on units of production. California has a CO2 cap and trade program for electric generating units greater than 25 MW. The impact on NRG depends on the cost of the allowances and the ability to pass these costs through to customers. Current regulation is included in risk assessments because it may impact revenue in areas such as the Northeast U.S. where NRG has power generating operations.
Emerging regulation	Relevant, always included	Emerging regulation is always considered in assessments by the Financial Risk Management Committee. Monitoring of potential regulatory risks occurs on an ongoing basis. The frequency of reporting varies depending on the materiality and type of risk. Internally, the Financial Risk Management Committee meets quarterly to review existing risks and approve mitigation initiatives. The SVP and

		General Counsel, Heads of Environment, Government Affairs and Regulatory Affairs team are responsible for assessing regulatory risks and opportunities at federal, regional and local agencies. GHG regulation could increase the cost of electricity generated by fossil fuels, and such increases could reduce demand for the power NRG generates and markets. Additionally, government regulations providing incentives for renewable generation could change at any time and such changes may adversely impact NRG's business, revenues, margins, results of operations and cash flows. For example, On September 29, 2017, the Department of Energy issued a proposed rulemaking titled the "Grid Resiliency Pricing Rule." The rulemaking proposed that FERC take action to reform the ISO/RTO markets to value certain reliability and resiliency attributes of electric generation resources. On October 23, 2017, NRG filed comments encouraging FERC to act expeditiously to modernize energy and capacity markets in a manner compatible with robust competitive markets. Emerging regulation is included in risk assessments because it may impact revenue in geographies with power markets (i.e CAISO, ERCOT, ISO-NE, NYISO, PJM) where NRG has operations.
Technology	Relevant, always included	Technology is always considered in assessments by the Financial Risk Management Committee. Monitoring of technology risks occurs on an ongoing basis. The frequency of reporting varies depending on the materiality and type of risk. Internally, the Financial Risk Management Committee meets quarterly to review existing risks and approve mitigation initiatives. Changes in technology may impair the value of NRG's power plants and the attractiveness of its retail products. Research and development activities are ongoing to provide alternative and more efficient technologies to produce power, including wind, photovoltaic (solar) cells, energy storage, and improvements in traditional technologies and equipment, such as more efficient gas turbines. Advances in these or other technologies could reduce the costs of power production to a level below what NRG has currently forecasted, which could adversely affect its cash flows, results of operations or competitive position. Technology, including distributed technology or changes in retail rate structures, may also have a material impact on NRG's ability to retain retail customers.

		Additionally, NRG may potentially be affected by emerging technologies that may over time affect change in capacity markets and the energy industry overall with the inclusion of distributed generation and clean technology. Some emerging technologies like distributed renewable energy technologies, broad consumer adoption of electric vehicles and energy storage devices could affect the price of energy. These emerging technologies may affect the financial viability of utility counterparties and could have significant impacts on wholesale market prices, which could ultimately have a material adverse effect on NRG's financial condition, results of operations and cash flows. Cybersecurity is also a risk for the operation of NRG's businesses. A cyber-attack could cause NRG to incur significant losses of revenues or other substantial liabilities. Technology is included in risk assessments because these emerging technologies may affect the financial viability of utility counterparties and could have significant impacts on wholesale market prices, which could ultimately have a material adverse effect on NRG's financial condition, results of operations and cash flows.
Legal	Relevant, always included	Legal issues are always considered in assessments by the Financial Risk Management Committee. Monitoring of legal risks occurs on an ongoing basis. The frequency of reporting varies depending on the materiality and type of risk. Internally, the Financial Risk Management Committee meets quarterly to review existing risks and approve mitigation initiatives. NRG is subject to environmental laws that impose extensive and increasingly stringent requirements on NRG's ongoing operations, as well as potentially substantial liabilities arising out of environmental contamination. These environmental requirements and liabilities could adversely impact NRG's results of operations, financial condition and cash flows. NRG is subject to the environmental laws of foreign and U.S., federal, state and local authorities. NRG must comply with numerous environmental laws and obtain numerous governmental permits and approvals to build and operate NRG's plants. Federal and state environmental laws generally have become more stringent over time, although this trend has slowed. Should NRG fail to comply with any environmental requirements that apply to its operations, NRG could be subject to administrative, civil and/or criminal liability and fines, and regulatory agencies could take other actions seeking to curtail NRG's operations. In addition, when new requirements take effect or when existing environmental requirements are revised, reinterpreted or

		subject to changing enforcement policies, NRG's business, results of operations, financial condition and cash flows could be adversely affected. Therefore, legal risks are always included in risk assessments. For example, in 2012, the EPA enacted standards (the MATS rule) to control emissions of HAPs from coal and oil-fired electric generating units. The rule established limits for mercury, non-mercury metals, certain organics and acid gases, which had to be met beginning in April 2015. On April 27, 2017, the D.C. Circuit granted the EPA's request to postpone the oral argument and hold the case in abeyance while the EPA reconsidered the rule. While NRG cannot predict the final outcome of this rulemaking, NRG believes that because it has already invested in pollution controls and cleaner technologies, the fleet is well-positioned to comply with the MATS rule.
Market	Relevant, always included	Market risks are always considered in assessments by the Financial Risk Management Committee. Monitoring of market risks occurs on an ongoing basis. The frequency of reporting varies depending on the materiality and type of risk. Internally, the Financial Risk Management Committee meets quarterly to review existing risks and approve mitigation initiatives. NRG's CRO reports to the CFO and monitors commercial risks to domestic revenues from commodity and electric power availability or pricing, carbon and emission trading, and renewable energy credits. The EVP of Retail and EVP of Business Solutions identify commercial opportunities and risks to all of NRG's retail businesses. Climate change is producing changes in weather and other environmental conditions, including temperature and precipitation levels, and thus may affect consumer demand for electricity. Additionally, demand for NRG's energy-related services could be impacted by consumers' preferences or market factors favoring energy efficiency, low-carbon power sources or reduced electricity usage. For example, in August 2017 Hurricane Harvey made landfall on the Texas coast where NRG has significant retail and generation operations. During the third quarter of 2017, NRG's Retail business was impacted by Hurricane Harvey by approximately $20 million in part due regional power outages and disruptions in transmission and distribution. Market risks are always included in risk assessments because it may impact revenue.

Reputation	Relevant, always included	Reputational issues are always considered in assessments by the Financial Risk Management Committee. Monitoring of reputational risks occurs on an ongoing basis. The frequency of reporting varies depending on the materiality and type of risk. Internally, the Financial Risk Management Committee meets quarterly to review existing risks and approve mitigation initiatives. Power generation involves hazardous activities, including acquiring, transporting and unloading fuel, operating large pieces of rotating equipment and delivering electricity to transmission and distribution systems. In addition to natural risks such as earthquake, flood, lightning, hurricane and wind, other hazards, such as fire, explosion, structural collapse and machinery failure are inherent risks in the NRG's operations. These and other hazards can cause significant personal injury or loss of life, severe damage to and destruction of property, plant and equipment, contamination of, or damage to, the environment and suspension of operations. The occurrence of any one of these events may result in NRG being named as a defendant in lawsuits asserting claims for substantial damages, including for environmental cleanup costs, personal injury and property damage and fines and/or penalties. This may adversely affect the reputation of NRG. For example, during the August 2017 Hurricane Harvey event, NRG successfully mitigated any reputational risks by providing customer relief to our retail customers including ceasing disconnects and providing payment extensions. Reputational risks are always included in risk assessments because it may impact revenue.
Acute physical	Relevant, always included	Acute physical risks are always considered in assessments by the Financial Risk Management Committee. Monitoring of acute physical risks occurs on an ongoing basis. The frequency of reporting varies depending on the materiality and type of risk. Internally, the Financial Risk Management Committee meets quarterly to review existing risks and approve mitigation initiatives. Climate change is producing changes in weather and other environmental conditions, including temperature and precipitation levels, and thus may affect 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 NRG's operations and supply chain, and cause them to incur significant costs in preparing for or responding to these effects. These or other meteorological changes could lead to

		increased operating costs, capital expenses or power purchase costs. NRG's commercial and residential customers may also experience the potential physical impacts of climate change and may incur significant costs in preparing for or responding to these efforts, including increasing the mix and resiliency of their energy solutions and supply. For example, during August 2017 Hurricane Harvey impacted NRG's Texas retail and Gulf Coast operations. For retail, lower gross margin related to the impact of the hurricane was driven by a reduction in load and the unfavorable impact of selling back excess supply along with $7 million of customer relief. (See NRG 2017 10-K pg. 73) Long- and short-term power prices may also fluctuate substantially due to other factors outside of NRG's control, including weather conditions, including extreme weather conditions and seasonal fluctuations, including the effects of climate change. Such factors and the associated fluctuations in power prices have affected the NRG's wholesale power operating results in the past and will continue to do so in the future. Acute physical risks are always included in risk assessments because they may impact revenue.
Chronic physical	Relevant, always included	Chronic physical risks are always considered in assessments by the Financial Risk Management Committee. Monitoring of chronic physical risks occurs on an ongoing basis. The frequency of reporting varies depending on the materiality and type of risk. Internally, the Financial Risk Management Committee meets quarterly to review existing risks and approve mitigation initiatives. Climate change is producing changes in weather and other environmental conditions, including temperature and precipitation levels. For example, climate change could affect the availability of a secure and economical supply of water in some locations, which is essential for the continued operation of NRG's generation plants. Water risk is monitored by the risk owners (individual plant operators) and reported to NRG management upon changes with a significance threshold of 20% in water consumption and withdrawal levels. If it is determined that a water supply risk exists that could impact projected generation levels at any plant within the subsequent two-year time frame, risk mitigation efforts are identified and economically evaluated for implementation. Chronic physical risks are always included in risk assessments because they may impact revenue.

C2.3

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

Yes

C2.3a

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

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation

Carbon pricing mechanisms

Primary potential financial impact

Increased direct costs

Company-specific description

As a member of a highly regulated industry NRG is directly affected by environmental regulations on power generating assets. This includes risks driven by laws, taxation, or disclosure standards, whether focused directly on GHGs or on other issues that affect GHG emissions. NRG operates generating units in Connecticut, Delaware, Maryland and New York that are subject to RGGI, which is a regional cap and trade system. The same holds true for the California Cap and Trade scheme. In 2013, each of these RGGI states finalized a rule that reduced and will continue to reduce the number of allowances,. These new rules could impact NRG's results of operations, financial condition and cash flows.

GHG regulation could increase the cost of electricity generated by fossil fuels, and such increases could reduce demand for the power NRG generates and markets. If carbon pricing were enacted, it would have significant adverse effects on the economics on NRG's coal and natural gas fueled plants which could impact the decision to own, operate or sell these assets.

Additionally, government regulations providing incentives for renewable generation could change at any time and such changes may adversely impact NRG's business, revenues, margins, results of operations and cash flows.

For example, in 2018 NRG paid approximately $50,000 to have its emissions and water

inventories voluntarily assured according to accounting standards. This cost could potentially increase as emissions calculations become more complex and stakeholder demand for verification increases. Additionally, as NRG's power generating assets diversify (distributed generation, co-generation, wind, solar, etc.) there will be additional calculation protocol training needed for emissions managers.

Time horizon

Short-term

Likelihood

Very unlikely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

0

Potential financial impact figure – maximum (currency)

200,000

Explanation of financial impact figure

The potential financial impact is meant to be illustrative. In this scenario there would be a price of carbon for each ton of emitted carbon for operations in the United States. The potential financial impact figure is based on the expense of hiring an additional full time employee to manage the carbon trading program

Cost of response to risk

0

Description of response and explanation of cost calculation

The SVP and General Counsel, heads of Environment, Government and Regulatory Affairs team are responsible for assessing regulatory risks at federal, regional and local agencies. NRG's President and CEO reports to the Board of Directors on any material risks. NRG's Head of Operations and SVP Environmental are responsible for identifying and mitigating environmental risks to operations.

An example of managing transition risks related to climate change is evidenced by NRG's policy and regulatory engagement. In 2017, senior NRG executives presented and testified on key issues related to transition risks such as the Department of Energy (DOE) Grid Reliability and Resilience Proposal. Most of NRG’s power plants sell their output into regional electricity markets under rules set by the Federal Energy Regulatory Commission (FERC). While some regional energy markets address sustainability needs

by putting a price on carbon (such as AB 32 in California or the Regional Greenhouse Gas Initiative (RGGI) in the Eastern United States), many don't price environmental externalities into the wholesale price of electricity.

The cost of management is not an additional cost as it is integrated into operational costs. For example, NRG 's environmental, regulatory and governmental affairs groups monitor emerging legislation and bring any potential material issues to management. It is part of doing business and embedded in decision-making processes.

Comment

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Acute physical

Increased severity and frequency of extreme weather events such as cyclones and floods

Primary potential financial impact

Decreased revenues due to reduced production capacity

Company-specific description

Extreme weather events can impact NRG’s retail electricity providers by causing volatility in energy markets and prolonged customer outages, which lead to lost revenue and increase the likelihood of late bill payments that can impact cash flow. NRG's power generation assets may also be directly impacted by severe weather.

For example, in late August 2017, Hurricane Harvey made landfall on the Texas coast. During the third quarter of 2017, NRG’s Retail business was impacted by Hurricane Harvey by approximately $20 million in part by disruptions in transmission and distribution. This figure was disclosed in NRG's 2017 10-K Annual Report page 68. At the peak, approximately 300,000 customers were without power. During the time that these customers did not have power, NRG lost revenue from the transmission disruption.

Additionally, during Hurricane Harvey NRG's Cottonwood generating station was damaged when the Sabine River Authority opened the floodgates of the Toledo Bend reservoir, which resulted in downstream flooding of the Sabine River. NRG's business continuity plan ensured that essential employees remain at their stations to manage the plant through the weather event. Plant personnel worked on the issues until the generating station was returned to service during the fourth quarter of 2017. A retaining

wall was also built near the plant to protect against future flooding.

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)

Potential financial impact figure – minimum (currency)

0

Potential financial impact figure – maximum (currency)

40,000,000

Explanation of financial impact figure

Financial impact is meant to be illustrative. Based on the $20,000,000 cost to our operations business from damage to the facility and additional $20,000,000 in lost revenue to the retail business due to transmission disruptions, there may be additional similar costs for future impacts of extreme weather events. This figure is disclosed in NRG's 2017 10-K Annual Report page 68.

Cost of response to risk

0

Description of response and explanation of cost calculation

The EVP, Retail and SVP, Business Solutions identify commercial opportunities and risks to all of NRG's retail businesses and overseeing the business continuity plan for their departments. NRG's President and CEO reports to the Board of Directors on any material risks. NRG's EVP Operations and SVP Environmental are responsible for identifying and mitigating environmental risks to operations. The Financial Risk Management Committee manages reputational risks to NRG's brand. The Enterprise Risk Management process enables management to manage uncertainty to enhance or preserve enterprise value and facilitates the functional group's management of risk.

For example, during August 2017, NRG's Cottonwood generating station was damaged when the Sabine River Authority opened the floodgates of the Toledo Bend reservoir, which resulted in downstream flooding of the Sabine River. NRG's business continuity plan ensured that essential employees remain at their stations to manage the plant through the weather event. Plant personnel worked on the issues until the generating

station was returned to service during the fourth quarter of 2017. A retaining wall was also built near the plant to protect against future flooding.

The cost of management is integrated into operational costs, not an additional cost. NRG does not build out new groups to manage extreme weather events. It is part of doing business.

Comment

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Market

Changing customer behavior

Primary potential financial impact

Decreased revenues due to reduced demand for products and services

Company-specific description

In the United States, the demand for electricity has gradually decreased over the years but varies widely across states. Historically, although the economy has continued to grow, growth rates for electricity demand have slowed as new, efficient devices and production processes that require less electricity have replaced older, less-efficient appliances, heating, ventilation, cooling units, and capital equipment. NRG's largest business is the retail segment which includes residential as well and commercial and industrial customers. By using less of what we sell, this could impact our profitability. NRG's largest retail brand, Reliant serves tens of millions of customers in Texas, and these customers (market residential, commercial and industrial) accounted for 84% of NRG's total sales volumes in GWh in 2019. If demand for electricity decreased it would have an adverse effect on NRG's revenue for retail sales.

(The U.S. Energy Information Administration forecasts that although near-term electricity demand may fluctuate as a result of year-to-year changes in weather, trends in long-term demand tend to be driven by economic growth offset by increases in energy efficiency. The annual growth in electricity demand averages about 1% throughout the projection period (2019-2050) in the AEO2020 Reference case.)

Time horizon

Medium-term

Likelihood

About as likely as not

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Potential financial impact is not available due to competitive information.

Cost of response to risk

0

Description of response and explanation of cost calculation

Our shift in focus towards customer energy services is helping to reduce our reliance on revenue from energy supply. For example, NRG acquired Goal Zero, a consumer goods company that specializes in portable power products. NRG also offers a customized energy solution like Asset-Backed Demand Response (ABDR) and other distributed energy resources, which provide many benefits to customers and utilities. ABDR is designed to capture a stack of retail and wholesale economic benefits while enhancing reliability with on-site electric power generation. The NRG solution can be customized to use the business' existing energy resources, or to deploy new energy resources, like an energy storage system or solar panels.

The cost of management is integrated into operational costs, not an additional cost. It is part of doing business and embedded in decision-making processes.

Comment

C2.4

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

Yes

C2.4a

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

Identifier

Opp1

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Products and services

Primary climate-related opportunity driver

Other, please specify

Increased demand for products/services

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

Weather conditions in the regions of the U.S. in which NRG does business influence NRG's financial results. Weather conditions can affect the supply and demand for electricity and fuels. Weather may also impact the availability of the NRG's generating assets. Changes in energy supply and demand may impact the price of these energy commodities in both the spot and forward markets, which may affect NRG's results in any given period. Typically, demand for and the price of electricity is higher in the summer and the winter seasons, when temperatures are more extreme. The demand for and price of natural gas is also generally higher in the winter. However, all regions of the U.S. typically do not experience extreme weather conditions at the same time, thus NRG is typically not exposed to the effects of extreme weather in all parts of its business at once.

To the extent that climate change contributes to the frequency and intensity of weather related events NRG could pick up load in markets where sources are down or offline due to inclement weather. NRG retail operations stand to benefit from any increase in load, for example, extremely hot summers in Texas, while NRG's wholesale operations could benefit from any increase in pricing associated with extreme temperatures.

Additionally, NRG's Retail group offers a range of products and services that are designed to provide emergency power to our customers when normal distribution is not available. Increasing storms and related electrical service disruptions could increase sales.

For residential and small businesses NRG offers a variety of portable power products. The NRG brand Goal Zero offers portable solar, portable batteries, outdoor lighting and chargers. NRG Street Charge is a solar charging station installed in public places for guests to charge their devices free of charge. NRG Go Portable Power allows users to rent an NRG Go Power Pack to keep their devices charged, and then when they are done charging, return the Power Pack to a conveniently located NRG Go Station or mail

the pack in to an office.

For commercial and industrial customers, NRG offers demand-side management helping businesses reduce their energy usage during times of high demand and distributed energy resources for resiliency.

Time horizon

Medium-term

Likelihood

About as likely as not

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Financial impact of this opportunity is not disclosed due to competitive information.

Cost to realize opportunity

0

Strategy to realize opportunity and explanation of cost calculation

NRG retail operations stand to benefit from any increase in load, while NRG's wholesale operations could benefit from any increase in pricing associated with extreme temperatures.

Also, for commercial and industrial customers, NRG offers demand-side management helping businesses reduce their energy usage during times of high demand and distributed energy resources for resiliency. For example, in 2017 NRG and Cummins announced a strategic partnership to deploy a resilient, cleaner and cost-effective distributed energy platform for commercial and industrial customers. The platform architecture allows for more capacity to meet expanding market needs. In 2018 this offering entered the market. With NRG's asset-backed distributed energy solution, we combine the reliable, clean power provided by Cummins natural gas generators with the insights, analytics, tools, and expertise from NRG. This solution is designed to produce meaningful savings for participating customers, offering them a guaranteed outcome

every month on energy expenditures with assets that can be engineered for specific generation needs. Customers will also receive access to our unique Active Management Platform (AMP) dashboard, which can be customized to fit energy concerns and goals. The AMP dashboard offers robust data analytics, including load projections, market summaries, and weather forecasts, that provide a holistic portrait of energy consumption, past and present, so customers can make informed energy decisions.

NRG will own, operate, and maintain the generator—and this behind-the-meter asset will produce electricity to offset power consumption from the grid and contribute revenue through demand response market programs. With NRG's load modification that adjusts the usage profile for a lower commodity cost outcome, organizations are now able to supplement power from the grid, reap the financial benefits of surplus power, and hit sustainability goals as they monitor energy consumption. These companies can expect to see a 10-15% savings on energy costs, and as a result, organizations will be empowered to plan for the future, knowing that their energy expenditures have guaranteed outcomes and backed reliability.

Cost to realize opportunity is embedded into Retail operations costs and not a separate function. When an extreme weather event happens, NRG's operations are already in a position to capitalize on this opportunity and support our customers.

Comment

Identifier

Opp2

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Markets

Primary climate-related opportunity driver

Access to new markets

Primary potential financial impact

Increased revenues through access to new and emerging markets

Company-specific description

Potential opportunities are legislation or policies that enhance investment in and development of new clean technologies, products and services, and customer demand for NRG's products and services and open up new energy markets for competitive power sales.

NRG supports competitive changes to retail and wholesale markets that make it easier to drive sustainable outcomes and save money for consumers. Because oversight of the

electric industry is split between federal and state regulators, the best solutions involve cooperation between both sets of regulators to craft regulations that drive market-based sustainable outcomes.

For example, all of our Retail businesses including Reliant, Green Mountain Energy, and NRG all offer zero-emission or low-emission retail rate plans. All of our retail offerings are regulated by the appropriate State entity. However, those plans are only available to customers in parts of the country that allow retail choice, largely Texas, the mid-Atlantic states, and states in the Northeast. Action at the State level is necessary in other parts of the country to allow customers to choose their provider.

Time horizon

Medium-term

Likelihood

About as likely as not

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Financial impact is variable and forecasts contain proprietary information.

Cost to realize opportunity

0

Strategy to realize opportunity and explanation of cost calculation

NRG engages with policy makers and industry groups to support competitive changes to retail and wholesale markets that make it easier to drive sustainable outcomes and save money for consumers. For example, in 2018 NRG's CEO published an Op-Ed about the need for more retail electricity competition. This article supports legislators, regulators, utilities, competitive retailers and consumer groups joining forces to implement competition for the benefit of consumers. Subsequently, NRG does not support bailouts or subsidies for uneconomic coal and nuclear plants. These issues are continuing to be discussed in policy and regulatory environments.

To see regulatory filings, white papers, presentations and other materials NRG has

prepared and submitted that set forth our positions on a variety of critical subjects driving our business and the industry please visit: https://www.nrg.com/energy-policy.html

Cost to realize opportunity is embedded into operational costs and not a separate function.

Comment

Identifier

Opp3

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

Opportunities in the U.S. are emerging for clean technologies and market expansion. NRG retail business provides home energy and related services as well as personal power to consumers through various brands and channels across the U.S. These brands include Reliant, Green Mountain Energy and NRG offer renewable energy, carbon offset, and smart energy management products that help businesses and consumers reduce their carbon footprint. NRG's consumer product brand, Goal Zero includes portable solar panels, lightweight recharger kits and rechargeable lanterns. Retail customers make purchase decisions based on a variety of factors, including price, customer service, brand, product choices, bundles or value-added features. Customers purchase products through a variety of sales channels including direct sales, call centers, websites, brokers and brick-and-mortar stores.

Time horizon

Medium-term

Likelihood

About as likely as not

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Financial impact is variable and forecasts contain proprietary information.

Cost to realize opportunity

0

Strategy to realize opportunity and explanation of cost calculation

Through its broad range of service offerings and value propositions, NRG's retail business is able to attract, retain, and increase the value of its customer relationships. NRG's retailers are recognized for exemplary customer service, innovative smart energy and technology product offerings and environmentally friendly solutions.

For example, in 2018 NRG contracted a 25 megawatt solar project for Sysco, to power their Texas operations and advance sustainability. Working together with Sysco, NRG is also helping meet the promise of the customer-choice market in Texas, with a truly distinctive, cost-effective solar energy plan – the kind sought by many commercial and industrial customers today. As part of the agreement, three solar garden sites are being constructed in the Houston and Dallas areas, which will support approximately 10 percent of Sysco's U.S. electricity usage. The environmental benefits of this program include reducing approximately 37,000 tons of CO2 emissions a year, which equates to taking more than 7,000 cars off the road. The solar garden sites total 25 megawatts of renewable energy generation and will support the majority of the Company's electricity load in Texas, including the Corporate Headquarters.

Cost to realize opportunity is embedded into operations costs and not a separate function.

Comment

C3. Business Strategy

C3.1

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

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

C3.1a

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

Yes, qualitative, but we plan to add quantitative in the next two years

C3.1b

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

Climate-related scenarios and models applied	Details
2DS DDPP IEA B2DS Other, please specify US Fourth National Climate Assessment	In 2018 NRG conducted climate scenario analysis looking at four specific temperature scenarios: 1.5 degrees Celsius (C), 2 degrees C, 3 degrees C and 4 degrees C. These scenarios incorporated credible climate projections for emissions reductions and climate impacts. One of the objectives of this exercise was to create a shared perspective on key risks, opportunities and options to enhance resilience in the face of climate change. While aspects of this are already part of NRG's routine enterprise risk management process, this exercise allowed the potential for improved futures thinking capability of NRG and a more holistic understanding of emerging issues that will confront the business. In this exercise we use long-term macro-trends relevant to the electric power sector. Numerous variables are influenced by climate change, such as commodity demand or the cost of carbon. The insights developed are still being incorporated into NRG's strategy and risk management processes with more detail to be reported in late 2020.

C3.1d

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

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence

Products and services	Yes	Extreme weather events can impact NRG's retail electricity providers by causing volatility in energy markets and prolonged customer outages, which lead to lost revenue and increase the likelihood of late bill payments that can impact cash flow. NRG's strategy with respect to products and services is to meet the need of its customers by providing a variety of energy products and services. To mitigate the risks of extreme weather events, and other risks, on our customers NRG develops various products and services that are offered throughout NRG's brands. When considering possible solutions, NRG analyzes how a business uses electricity and develops a tailored plan for staying fully operational in an optimal manner. Specifically, one product NRG provides is Distributed Energy Resources. As the climate shifts and creates stronger, more dramatic storms, businesses need to be proactive and forward-thinking with how they approach energy. Employing a distributed energy resource (DER) provides the reliability needed to ensure the power stays on during extreme weather. DERs are power generators installed on-site that either produce or store energy for a business and/or the grid. So, rather than solely consuming energy and subtracting energy from the grid, on-site generation can produce and add energy to it. This is done through four primary strategies: renewable energy, fossil fuel generators, demand response, and microgrids. Our expertise is leading customers to greater levels of cost stability and resilience, expanding their view of what sustainability can mean in the process. In this way, we're bringing real-world value to businesses and communities, by showing them how to combat extreme climate events with reassurance and forward energy planning. The time horizon is short term because extreme weather events are likely to occur. For example, in late August 2017, Hurricane Harvey made landfall on the Texas coast. The relative impact to NRG's operations was of medium magnitude. During the third quarter of 2017, NRG's Retail business was impacted by Hurricane Harvey by approximately $20 million partly because of disrupted downstream transmission and

		distribution. Alternately, extreme heat in the summers drives up demand for electricity and provides an opportunity for increased revenue from retail sales of power.
Supply chain and/or value chain	Yes	NRG's costs, results of operations, financial condition and cash flows could be adversely impacted by disruption of its upstream fuel supplies. NRG relies on natural gas, coal and oil to fuel a majority of its power generation facilities. Delivery of these fuels to the facilities is dependent upon the continuing financial viability of contractual counter parties 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, NRG is subject to the risks of disruptions or curtailments in the production of power at its generation facilities if no fuel is available at any price or if a counter party fails to perform or if there is a disruption in the fuel delivery infrastructure. A potential action to mitigate this risk is the prepurchase of fuel and diversification of fuel mix and supplier base. The time horizon for this event is short term because weather events happen cyclically. For example, water risk regarding the impact for barge delivery is evaluated on a daily basis, with contingency plans developed as needed. NRG assets located along the Eastern or Gulf coast of the U.S. that rely on barge fuel delivery may be impacted if there is a disruption. Specifically, during extreme cold weather events on the ice creates safety hazards for unloading barges and sustained cold closes operations. When the ice melts the river rises and currents are too swift, further hampering deliveries.
Investment in R&D	Yes	Changes in technology may impair the value of NRG's power plants or retail products. Research and development activities are ongoing to provide alternative and more efficient technologies to produce power, including wind, photovoltaic (solar) cells, energy storage, and improvements in traditional technologies and equipment, such as more efficient gas turbines. Advances in these or other technologies could reduce the costs of power production to a level below what the NRG has currently forecasted, which could adversely affect its cash flows, results of operations or competitive position.

		NRG may also potentially be affected by emerging technologies that may over time affect change in capacity markets and the energy industry overall with the inclusion of distributed generation and clean technology. Some emerging technologies like distributed renewable energy technologies, broad consumer adoption of electric vehicles and energy storage devices could affect the price of energy. These emerging technologies may affect the financial viability of utility counterparties and could have significant impacts on wholesale market prices, which could ultimately have a material adverse effect on NRG's financial condition, results of operations and cash flows. The magnitude of the impact could range from high to low depending on the asset or project. For example, at the product level, Goal Zero, a wholly owned subsidiary of NRG, is a portable solar product business and regularly invests resources into developing new products. The ability to innovate and constantly create a better product is essential to staying competitive in the market. The time horizon for this is medium-term.
Operations	Yes	NRG's businesses and operations are subject to physical, market and economic risks relating to potential effects of climate change. The potential physical effects of climate change, such as increased frequency and severity of storms, floods and other climatic events, could disrupt NRG's operations and supply chain, and cause them to incur significant costs in preparing for or responding to these effects. These or other meteorological changes could lead to increased operating costs, capital expenses or power purchase costs. NRG's commercial and residential customers may also experience the potential physical impacts of climate change and may incur significant costs in preparing for or responding to these efforts, For example, during August 2017, NRG's Cottonwood generating station was damaged when the Sabine River Authority opened the floodgates of the Toledo Bend reservoir, which resulted in downstream flooding of the Sabine River. The generating station was returned to service during the fourth quarter of 2017. NRG estimates the impact of the Cottonwood damage and Hurricane Harvey on Gulf Coast Generation to be approximately $20

		million. To the extent that NRG were to acquire a new generating station these and other considerations would be factored into the strategic decision. The time horizon for this risk is short-term as extreme weather events are cyclical.

C3.1e

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

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues	Revenues could decrease or increase depending on the climate-related risk or opportunity. The time horizon is short-term with respect to extreme weather events but long-term with respect to energy policy. For example, extreme physical events could be a risk and decrease revenue. For example, during August 2017, NRG's Cottonwood generating station was damaged when the Sabine River Authority opened the floodgates of the Toledo Bend reservoir, which resulted in downstream flooding of the Sabine River. The generating station was returned to service during the fourth quarter of 2017. NRG estimates the impact of the Cottonwood damage and Hurricane Harvey on Gulf Coast Generation to be approximately $20 million. NRG continues to dedicate resources to business continuity plans to ensure plants are able to run when needed and with the highest degree of safety. Alternately, extreme heat in the summers drives up demand for electricity and provides an opportunity for increased revenue from retail sales of power. Additionally, an opportunity to increase revenue may be possible with favorable energy policy. Demand for NRG's energy-related services could be impacted by consumers' preferences or market factors favoring energy efficiency, low-carbon power sources or reduced electricity usage.

C3.1f

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

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

2014

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 1+2 (market-based)

Base year

2014

Covered emissions in base year (metric tons CO2e)

63,000,000

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

100

Target year

2025

Targeted reduction from base year (%)

50

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

31,500,000

Covered emissions in reporting year (metric tons CO2e)

37,000,000

% of target achieved [auto-calculated]

82.5396825397

Target status in reporting year

Revised

Is this a science-based target?

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

Please explain (including target coverage)

In September 2019 NRG accelerated our absolute emissions reduction goals to 50% by 2025 (previously 2030) and net-zero by 2050 (previously 90%). Progress to date has been made through coal to gas conversions, retirements and decreased utilization due to market demand.

Target reference number

Abs 2

Year target was set

2014

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 1+2 (location-based)

Base year

2014

Covered emissions in base year (metric tons CO2e)

63,000,000

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

100

Target year

2050

Targeted reduction from base year (%)

99

Covered emissions in target year (metric tons CO2e) [auto-calculated]
630,000

Covered emissions in reporting year (metric tons CO2e)
37,000,000

% of target achieved [auto-calculated]
41.6867083534

Target status in reporting year
Revised

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

Please explain (including target coverage)
In September 2019 NRG accelerated our absolute emissions reduction goals to 50% by 2025 (previously 2030) and net-zero by 2050 (previously 90%). Progress to date has been made through coal to gas conversions, retirements and decreased utilization due to market demand.

C4.2

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

C4.2b

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

Target reference number
Oth 1

Year target was set
2016

Target coverage
Other, please specify

Target type: absolute or intensity
Absolute

Target type: category & Metric (target numerator if reporting an intensity target)
Engagement with suppliers

Percentage of suppliers actively engaged on climate-related issues

Target denominator (intensity targets only)

Base year

2017

Figure or percentage in base year

0

Target year

2020

Figure or percentage in target year

50

Figure or percentage in reporting year

40

% of target achieved [auto-calculated]

80

Target status in reporting year

Underway

Is this target part of an emissions target?

No

Is this target part of an overarching initiative?

No, it's not part of an overarching initiative

Please explain (including target coverage)

NRG participates in the CDP Supply Chain engagement program. We ask our top suppliers to disclosure information about their climate change performance. Our goal is to have 50% of our top suppliers disclosing to CDP by 2020. In 2019 we had a 40% response rate.

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	0	0
To be implemented*	0	0
Implementation commenced*	0	0
Implemented*	1	1,500,000
Not to be implemented	0	0

C4.3b

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

Initiative category & Initiative type

Fugitive emissions reductions
Carbon capture and storage/utilization (CCS/U)

Estimated annual CO2e savings (metric tonnes CO2e)

1,500,000

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

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

0

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

300,000,000

Payback period

1-3 years

Estimated lifetime of the initiative

16-20 years

Comment

Petra Nova is the world's largest post-combustion carbon capture facility, located at our WA Parish Generating Station southwest of Houston. Since late 2016, the project has combined carbon capture with enhanced oil recovery (EOR) to increase domestic oil supply while decreasing the amount of CO2 released into the atmosphere. The Petra Nova project captures more than 90 percent of the CO2 from a 240-megawatt

equivalent slipstream of flue gas. The project can capture more than 5,000 tons of CO2 per day, and in 2019, the system sequestered more than 1.5 million tons of CO2.

An 80-mile pipeline safely transports the captured CO2 through Fort Bend, Wharton and Jackson counties to the West Ranch oil field. Through EOR, oil production at West Ranch averages more than 5,000 barrels per day from around 300 barrels a day before we began EOR operation. The financial investment required represents just NRG's portion and not other partners. The financial investment Financing of Petra Nova includes equity contributions from both NRG and JX Nippon of approximately $300 million each. NRG's contribution includes investments already incurred during development of the project which will become assets of the joint venture. Annual monetary savings is not available. The values reported and payback period are illustrative and are subject to change. Please read more here: http://www.nrg.com/generation/projects/petra-nova/news/

C4.3c

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

Method	Comment
Employee engagement	'PowerUPmylife' is a web-based and mobile platform where NRG employees can take actions that reflect sustainable choices at work and at home. The program launched at the end of 2014 and continues to be a place where employees engage in topics ranging from water conservation to NRG-specific activities such as wellness programs available to employees. 18% of all employees participate in the program, with the vast majority taking action on a regular basis. Employees have taken over 15,000 actions including energy efficiency, waste management, personal awareness and emissions reduction – for example, unplugging chargers and appliances when not in use, recycling, taking the stairs instead of the elevator and cooking a meat-free meal.
Internal incentives/recognition programs	NRG offers incentives to employees to purchase products that reduce GHG emissions. For example, there is an employee monthly commuter stipend to incentivize using public transportation. Green Mountain Energy has a comprehensive employee engagement program designed to provide employees with options for understanding and taking action to reduce their environmental impact—at work and at home. Program offerings include discounts on renewable energy products, residential solar installations, carbon offsets, and outdoor recreation programs; an employee green team that organizes environmental events and updates internal environmental policies and practices; an incentive-based Green Commuter Program; an office farm food delivery program; and the ability to contribute to environmental non-profits and the Green Mountain EnergyTM Sun ClubTM

	through pay check deductions. Please visit the GME website for more detail: http://www.greenmountainenergy.com/our-story/sustainability/employee-sustainability-programs/ Additionally, NRG Employees receive a discount when purchasing portable solar products from Goal Zero. Through econrg, we promote ecological stewardship among our plant employees with initiatives aimed at improving environmental awareness and education.
Dedicated budget for low-carbon product R&D	Goal Zero, an NRG owned company, offers portable solar power products. Low-carbon product R&D is a key part of Goal Zero's business model. Since 2007, Goal Zero has developed and provided portable equipment to help people all over the world get the power they need.

C4.5

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

Yes

C4.5a

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

Level of aggregation

Company-wide

Description of product/Group of products

NRG's retail products and services provide both retail and commercial & industrial customers with choices for cleaner electricity, systems to track and reduce use and smart energy management products.

For example, Our Green Mountain Energy (GME) brand is the nation's longest serving company dedicated to providing 100% renewable energy to businesses and residents. Primarily leveraging wind and solar sources, GME brings cleaner, greener energy to customers in Texas and 11 other states. In 2018, GME electricity plans enabled business customers to avoid 1.5 billion pounds of CO2 and residential customers to avoid 6.1 billion pounds.

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

Avoided emissions

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

Other, please specify

As, there is not a standard methodology for calculating avoided emissions, NRG used best available data to estimate the impact of our low-carbon products

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

1

Comment

The exact revenues from these low-carbon businesses are not available.

For example, Green Mountain is an office-based corporate entity. Because Green Mountain does not own any generation assets, the operational control approach was chosen for reporting emissions data from direct and indirect sources. We only count the avoided CO2 emissions attributable to “new” renewable energy facilities as defined by the Center for Resource Solutions (CRS) as part of the Green-e Energy National Standard. CRS defines “new” facilities as those that began operation or were repowered within the past 15 years (e.g., 2000 for 2014 sales, 2001 for 2015 sales). The energy generated by these new facilities displaces the need for an equivalent amount of energy from fossil fuel-powered facilities, thereby avoiding the CO2 emissions that would have been created in the absence of the renewable energy generation.

Level of aggregation

Group of products

Description of product/Group of products

Goal Zero develops and offers portable solar power systems. The company provides batteries, power packs, and generators; solar panels; small and large solar kits; lanterns, flashlights, and more; speakers, cables, tripods, light cords and adapters, and inverters and trickle chargers; and apparel. Its products are used in power phones, head lamps, power tablets, laptops, cameras, refrigerators, TVs, and more. The company offers products online. It serves customers worldwide. The company was founded in 2009 and is based in Bluffdale, Utah. As of September 16, 2014, Goal Zero operates as a subsidiary of NRG Energy, Inc.

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

Low-carbon product and avoided emissions

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

Other, please specify

As, there is not a standard methodology for calculating avoided emissions, NRG used best available data to estimate the impact of our low-carbon products

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

1

Comment

The exact revenues from these low-carbon product lines are not available.

C-EU4.6

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

NRG engages with natural gas producers in its supply chain to reduce methane emissions. For example. to encourage responsible natural gas production, NRG joined with 8 companies that comprise 12% of the market for delivered gas in the U.S. as part of the Natural Gas Supply Collaborative (NGSC). After months of detailed work, the Collaborative issued a report in October 2017 entitled "Environmental and Social Performance Indicators for Natural Gas Production" calling on natural gas producers to disclose information related to methane and air emissions, water, chemicals and community health and safety. NRG is an ongoing member of the NGSC.

Our strategy is to engage with suppliers on natural gas emissions. NRG does not own operations with significant methane emissions. However,natural gas is an increasingly important fuel to keep power affordable and to add flexible fast-start capacity that allows faster scaling of renewables on the grid.

C5. Emissions methodology

C5.1

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

Scope 1

Base year start

January 1, 2014

Base year end

December 31, 2014

Base year emissions (metric tons CO2e)

72,000,000

Comment

Emissions from domestic generation only

Scope 2 (location-based)

Base year start
January 1, 2014

Base year end
December 31, 2014

Base year emissions (metric tons CO2e)
254,000

Comment

Scope 2 (market-based)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

C5.2

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

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
US EPA Mandatory Greenhouse Gas Reporting Rule

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)
42,000,000

Comment
Rounded to nearest million. Includes 37.5 % of a 1613MW capacity coal plant in Australia.

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

187,000

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 refrigerated emissions in the U.S. and Australia and scope 2 purchased electricity in Australia.

Relevance of Scope 1 emissions from this source

Emissions are not relevant

Relevance of location-based Scope 2 emissions from this source

Emissions are not relevant

Relevance of market-based Scope 2 emissions from this source (if applicable)

Emissions are not relevant

Explain why this source is excluded

The emissions from excluded sources are insignificant when compared to Scope 1 and 2 emissions from US domestic generation. The effort to calculate these emissions on an annual basis is disproportionately large compared to the small amount of immaterial information.

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

Relevant, not yet calculated

Please explain

Emissions from goods and services vary annually according to NRG's purchases. In 2017 NRG used a third-party to calculate the footprint based on spend data. This scope 3 was not calculated for 2018 nor 2019 because it was deemed too resource intensive and not as material as scope 1 emissions. We also do not believe that the quality of this data is reliable and thus are not including it in inventory. However we are monitoring this issue if it becomes more relevant.

In 2017 NRG used a third-party technical firm to calculate the estimated carbon footprint for our supply chain. This third-party used spend data from NRG's full supply chain footprint, including those who provide raw materials and services. This third-party removed spend for taxes, payment refunds and similar items that do not relate directly to producing NRG's own market offerings and then eliminated the lowest 10% of expenditures to focus the analysis on the most significant vendors. The remaining spend and associated suppliers was evaluated using both public disclosures and modeled impacts—when public data were not available—to estimate the GHG emissions for each supplier and spend sector. The third-party applied its proprietary environmental economic input output (EEI-O) life cycle based model for quantifying environmental impacts. This technique utilizes extensive government census data for over 464 business sectors and the economic interactions between each sector. It also aligned its GHG calculations with the WRI/WBCSD Greenhouse Gas Protocol for Scope 3, category 1 (purchased goods and services).

Scope 1 GHG emissions are most material for electricity generators to the extent that the US EPA requires reporting under 40 CFR Part 98. Though these sources are

relevant to electricity production, the Scope 3 GHG emissions are not material compared to NRG's Scope 1 GHG emissions.

However, in 2020 we intend to evaluate scope 3 emissions from the sale of gas and electricity and will provide updated information in a subsequent reporting cycle.

Capital goods

Evaluation status

Not relevant, explanation provided

Please explain

NRG defines capital goods as the purchase of equipment and machines. Scope 1 GHG emissions are most material for electricity generators to the extent that the US EPA requires reporting under 40 CFR Part 98. Though these sources are relevant to electricity production, the Scope 3 GHG emissions are not material compared to NRG's Scope 1 GHG emissions

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

Evaluation status

Not relevant, explanation provided

Please explain

NRG defines fuel and energy related activities as fuel transportation. Scope 1 GHG emissions are most material for electricity generators to the extent that the US EPA requires reporting under 40 CFR Part 98. Though these sources are relevant to electricity production, the Scope 3 GHG emissions are not material compared to NRG's Scope 1 GHG emissions.

Upstream transportation and distribution

Evaluation status

Not relevant, explanation provided

Please explain

NRG defines upstream transportation and distribution as third party logistics. Scope 1 GHG emissions are most material for electricity generators to the extent that the US EPA requires reporting under 40 CFR Part 98. Though these sources are relevant to electricity production, the Scope 3 GHG emissions are not material compared to NRG's Scope 1 GHG emissions

Waste generated in operations

Evaluation status

Not relevant, explanation provided

Please explain

NRG defines waste generated in operations as waste management and disposal companies. Scope 1 GHG emissions are most material for electricity generators to the extent that the US EPA requires reporting under 40 CFR Part 98. Though these sources are relevant to electricity production, the Scope 3 GHG emissions are not material compared to NRG's Scope 1 GHG emissions.

Business travel

Evaluation status

Relevant, calculated

Metric tonnes CO2e

10,000

Emissions calculation methodology

Business travel emissions include hotel stays, car rentals and air travel incurred by United States based company employees and booked through NRG's primary travel agent. Emissions are determined using the Carbonfund.org Foundation's transportation calculator. Data are obtained through Adelman, NRG's travel agent provider.

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

100

Please explain

Employee commuting

Evaluation status

Not relevant, calculated

Metric tonnes CO2e

800

Emissions calculation methodology

NRG has calculated employee commuting in the past and employee commuting Scope 3 GHG emissions are not material compared to NRG's Scope 1 GHG emissions. In prior years, NRG has estimated GHG emissions from employee commuting based on internal surveys and dollars spent on public transportation through a company subsidized program. NRG has significantly fewer employees in 2018 than prior years so the number is even smaller.

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

0

Please explain

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

NRG defines upstream leased assets as rental properties. Scope 1 GHG emissions are most material for electricity generators to the extent that the US EPA requires reporting under 40 CFR Part 98. Though these sources are relevant to electricity production, the Scope 3 GHG emissions are not material compared to NRG's Scope 1 GHG emissions.

Downstream transportation and distribution

Evaluation status

Not relevant, explanation provided

Please explain

NRG does not own any transmission or distribution lines.

Processing of sold products

Evaluation status

Not relevant, explanation provided

Please explain

NRG is an integrated power company. The category pertains mainly to financial institutions.

Use of sold products

Evaluation status

Not relevant, explanation provided

Please explain

NRG is an integrated power company. Our wholesale generation business scope 1 emissions are most relevant when it comes to climate action. However, though our retail businesses we are able to sell products that directly reduce our customers' scope 1+2 as well as increase our brand/reputation/social license to operate. As our business grows this category will become more relevant.

End of life treatment of sold products

Evaluation status

Not relevant, explanation provided

Please explain

NRG is an integrated power company. Our wholesale generation business scope 1 emissions are most relevant when it comes to climate action. However, though our retail businesses we are able to sell products that directly reduce our customers' scope 1+2 as well as increase our brand/reputation/social license to operate. As our business

grows this category will become more material. NRG owns Goal Zero which sells portable solar products.

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

NRG is an integrated power company. NRG has some rental properties that we sublet but these are not relevant to our primary business of retail and wholesale electricity.

Franchises

Evaluation status

Not relevant, explanation provided

Please explain

NRG does not have franchises.

Investments

Evaluation status

Not relevant, explanation provided

Please explain

NRG defines investments as financial transactions. Scope 1 GHG emissions are most material for electricity generators to the extent that the US EPA requires reporting under 40 CFR Part 98. Though these sources are relevant to electricity production, the Scope 3 GHG emissions are not material compared to NRG's Scope 1 GHG emissions

Other (upstream)

Evaluation status

Not evaluated

Please explain

Other (downstream)

Evaluation status

Not evaluated

Please explain

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

0.0039

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

39,187,000

Metric denominator

unit total revenue

Metric denominator: Unit total

9,821,000,000

Scope 2 figure used

Location-based

% change from previous year

12.8

Direction of change

Decreased

Reason for change

The primary factor leading to the decreased emissions intensity include switching units from coal to natural gas fuel, and reductions in fleet wide annual net generation due to a continued market-driven shift towards increased generation from natural gas over coal and an increase in revenue. 2018 scope 1 global and scope 2 emissions were approximately 42 mmt CO2e. 2018 revenue was $9,478 million.
42,000,000/9,42,000,000=.0044. .0044/.0039-1*100=12.8%
(Assets included based on equity ownership as of Dec. 31, 2019)

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	38,287,043	Other, please specify (Mandatory GHG Reporting Tule, 40 CFR Par)
CH4	83,159	Other, please specify (Mandatory GHG Reporting Tule, 40 CFR Par)
N2O	156,025	Other, please specify (Mandatory GHG Reporting Tule, 40 CFR Par)
CO2	3,242,975	Other, please specify (Mandatory GHG Reporting Tule, 40 CFR Par) - International/Austrialia asset

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)	38,287,043	3,666		38,290,709	
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)

North America [1]	39,000,000
Australia [2]	3,000,000

[1] Values have been rounded

[2] Values have been rounded

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	42,000,000

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	Comment
Electric utility activities	42,000,000	Values have been rounded

C7.9

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

Decreased

C7.9a

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

	Change in emissions	Direction of change	Emissions value (percentage)	Please explain calculation

	(metric tons CO2e)			
Change in renewable energy consumption	521	Decreased	0.01	In 2019 , NRG's headquarters in Princeton, New Jersey produced enough solar energy to meet 27% of the facility's annual demand. Total global GHG emissions for NRG in 2019 were 42,000,000 globally so this is <1% total reduction.
Other emissions reduction activities	1,100	Decreased	0.01	Energy efficiency projects reduced local emissions at generating stations through NRG's econrg program. Some of these activities included installing solar-powered lighting and LED lighting in the facilities. Global GHG emissions for NRG in 2019 were 42,000,000 so this activity is <1% reduction.
Divestment	4,049,100	Decreased		divested LaGen assets (Big Cajun I, II, Bayou Cove, Sterlington) in 2019 - based on 2018 actuals. Per GHG protocol this assets's emissions are removed from inventory.
Acquisitions				
Mergers				
Change in output	5,000,000	Decreased	11	2018 Scope 1&2=42000000 (5,000000/42000000)*100=11.9 (mostly due to lower coal generation)
Change in methodology				
Change in boundary				
Change in physical operating conditions				
Unidentified				
Other				

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 0% but less than or equal to 5%

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)		132,138,586.87	132,138,586.87
Consumption of purchased or acquired electricity			404,672	404,672

Consumption of self-generated non-fuel renewable energy				
Total energy consumption			132,543,258	132,543,258

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.

Fuels (excluding feedstocks)

Coal

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

83,196,304.23

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

Emission factor

0.314

Unit

metric tons CO2e per MWh

Emissions factor source

Emissions factor calculated by taking CO2e in metric tons (from 2019 GHG Report) and divided by the total fuel consumed in section 8.2C
26,194,121/83196304 = .314

Comment

reference 2019 Operating Report for MWh calculation using fuel HHV, fuel use, caloric value and density

---

Fuels (excluding feedstocks)

Natural Gas

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

48,738,707.42

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

Emission factor

0.216

Unit

metric tons CO2e per MWh

Emissions factor source

Emissions factor calculated by taking CO2e in metric tons (from 2019 GHG Report) and divided by the total fuel consumed in section 8.2C
10,539,816/ 48,738,707.42 = 0.216

Comment

reference 2019 Operating Report for MWh calculation using fuel HHV, fuel use, caloric value and density

---

Fuels (excluding feedstocks)

Fuel Oil Number 2

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

36,859.41

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

Emission factor

0.141

Unit

metric tons CO2e per MWh

Emissions factor source

Emissions factor calculated by taking CO2e in metric tons (from 2019 GHG Report) and divided by the total fuel consumed in section 8.2C (includes #2 and #6 FO)
(5,188+48,083)/ 36,859.41 = 0.141

Comment

reference 2019 Operating Report for MWh calculation using fuel HHV, fuel use, caloric value and density

Fuels (excluding feedstocks)

Jet Kerosene

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

8,235.27

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

Emission factor

0.319

Unit

metric tons CO2e per MWh

Emissions factor source

Emissions factor calculated by taking CO2e in metric tons (from 2019 GHG Report) and divided by the total fuel consumed in section 8.2C

2,633/ 8,235.27 = 0.319

Comment

reference 2019 Operating Report for MWh calculation using fuel HHV, fuel use, caloric value and density

Fuels (excluding feedstocks)

Fuel Oil Number 6

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

158,477.6

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

Emission factor

0.303

Unit

metric tons CO2e per MWh

Emissions factor source

Emissions factor calculated by taking CO2e in metric tons (from 2019 GHG Report) and divided by the total fuel consumed in section 8.2C (includes #2 and #6 FO)
48,083/158,477 = 0.303

Comment

Fuels (excluding feedstocks)

Other, please specify

Other Purchased Energy - fuel source unknown

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

404,672

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

Emission factor

Unit

Emissions factor source

unknown

Comment

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)

7,304

Gross electricity generation (GWh)

28,732

Net electricity generation (GWh)

26,419

Absolute scope 1 emissions (metric tons CO2e)

26,194,121

Scope 1 emissions intensity (metric tons CO2e per GWh)

911.67

Comment

Nameplate capacity from NRG Capacity Rating Sheet, generation from Quarterly Generation file, CO2e from 2019 GHG Voluntary Reporting file.

Scope 1 emissions intensity calculated by metric tons CO2e divided by Gross Generation

Lignite

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Oil

Nameplate capacity (MW)

32,381

Gross electricity generation (GWh)

63.2

Net electricity generation (GWh)

13.6

Absolute scope 1 emissions (metric tons CO2e)

55,905

Scope 1 emissions intensity (metric tons CO2e per GWh)

871.8

Comment

Nameplate capacity from NRG Capacity Rating Sheet, generation from Quarterly Generation file, CO2e from 2019 GHG Voluntary Reporting file.

Scope 1 emissions intensity calculated by metric tons CO2e divided by Gross Generation

Gas

Nameplate capacity (MW)

10,276

Gross electricity generation (GWh)

19,496

Net electricity generation (GWh)

17,137

Absolute scope 1 emissions (metric tons CO2e)

10,313,684

Scope 1 emissions intensity (metric tons CO2e per GWh)

529

Comment

Nameplate capacity from NRG Capacity Rating Sheet, generation from Quarterly Generation file, CO2e from 2019 GHG Voluntary Reporting file.

Scope 1 emissions intensity calculated by metric tons CO2e divided by Gross Generation

Biomass

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Waste (non-biomass)

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Nuclear

Nameplate capacity (MW)

1,125

Gross electricity generation (GWh)

10,162.5

Net electricity generation (GWh)

9,695

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Nameplate capacity from NRG Capacity Rating Sheet, generation from Quarterly Generation file, CO2e from 2019 GHG Voluntary Reporting file.

Scope 1 emissions intensity calculated by metric tons CO2e divided by Gross Generation

Fossil-fuel plants fitted with CCS

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Geothermal

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Hydropower

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Wind

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Solar

Nameplate capacity (MW)

348

Gross electricity generation (GWh)

398

Net electricity generation (GWh)

398

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

includes 50% Ivanpah solar, and Guam and Stadiums

Marine

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Other renewable

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Other non-renewable

Nameplate capacity (MW)

2

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

battery storage

Total

Nameplate capacity (MW)

11,751

Gross electricity generation (GWh)

58,851.7

Net electricity generation (GWh)

53,662.6

Absolute scope 1 emissions (metric tons CO2e)

36,563,710

Scope 1 emissions intensity (metric tons CO2e per GWh)

621.28

Comment

Scope 1 emissions intensity calculated by metric tons CO2e divided by Gross Generation

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 total planned CAPEX in your current CAPEX plan for power generation.

Primary power generation source	CAPEX planned for power generation from this source	Percentage of total CAPEX planned for power generation	End year of CAPEX plan	Comment
Coal – hard	93,806,000	25	2024	
Gas	177,495,000	47	2024	
Oil	20,237,000	6	2024	
Nuclear	83,817,000	22	2024	TBD - $60M estimate set as placeholder EXCLUDES REFUELING

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	An integrated provider of supply and distributed energy resources, NRG's Business Solutions focuses on distributed products and services as businesses seek greater reliability,	0	0	2020

	cleaner power or other benefits that they cannot obtain from the grid. These solutions include system power, distributed generation, solar and wind products, carbon management and specialty			

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

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

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

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

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

Technology area	Stage of development in the reporting year	Average % of total R&D investment over the last 3 years	R&D investment figure in the reporting year (optional)	Comment
Carbon capture and storage/utilisation	Applied research and development	≤20%		NRG supports the COSIA Carbon X-PRIZE. The $20 million NRG COSIA Carbon XPRIZE is a global competition to develop breakthrough technologies that will convert CO_2 emissions from power plants and industrial facilities into valuable products like building materials, alternative fuels and other every day items. The NRG COSIA Carbon XPRIZE inspires development of new and emerging CO_2 conversion technologies to help solve climate change. The Carbon XPRIZE is in the final round of competition, in which finalist teams are challenged to scale-up up

				their carbon conversion technologies under real world conditions at industrial test centers to compete for one of two grand prizes. Five teams will demonstrate their technologies at the Alberta Carbon Conversion Technology Centre in Calgary, and five will exhibit at the Wyoming Integrated Test Center in Gillette. Finalists are preparing to make the move to these test centers and are expected to begin demonstrating in the summer of 2019. More info please visit: https://carbon.xprize.org/prizes/carbon

C10. Verification

C10.1

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

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

C10.1a

(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

NRG GHG Report Statement FY2019.pdf

Page/ section reference

Page 2

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

NRG GHG Report Statement FY2019.pdf

Page/ section reference

Page 2

Relevant standard

Attestation standards established by AICPA (AT105)

Proportion of reported emissions verified (%)

100

C10.1c

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

Scope 3 category

Scope 3: Business travel

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

NRG GHG Report Statement FY2019.pdf

Page/section reference

Page 2

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, but we are actively considering verifying within the next two years

C11. Carbon pricing

C11.1

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

Yes

C11.1a

(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.

California CaT - ETS

RGGI - ETS

C11.1b

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

California CaT

% of Scope 1 emissions covered by the ETS

2

% of Scope 2 emissions covered by the ETS

0

Period start date

January 1, 2019

Period end date

December 31, 2019

Allowances allocated

0

Allowances purchased

904,828

Verified Scope 1 emissions in metric tons CO2e

904,828

Verified Scope 2 emissions in metric tons CO2e

0

Details of ownership

Facilities we own and operate

Comment

Includes emissions from California assets owned as of Dec. 31, 2019.

RGGI - ETS

% of Scope 1 emissions covered by the ETS

2

% of Scope 2 emissions covered by the ETS

0

Period start date

January 1, 2019

Period end date

December 31, 2019

Allowances allocated

0

Allowances purchased

1,003,795

Verified Scope 1 emissions in metric tons CO2e

1,003,795

Verified Scope 2 emissions in metric tons CO2e

0

Details of ownership

Facilities we own and operate

Comment

Total global Scope 1 emissions rounded to 42,000,000 mmt CO2e

C11.1d

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

NRG operates generating units in Connecticut, Delaware, Maryland, and New York which are subject to RGGI, which is a regional cap and trade system for CO2. In 2013, each of these states finalized a rule that reduced and will continue to reduce the number of allowances through 2020. The nine RGGI states re-evaluated the program and published a model rule to further reduce the number of allowances. The revisions being currently contemplated could adversely impact NRG's results of operations, financial condition and cash flows. California has a CO2 cap and trade program for electric generating units greater than 25 MW. The impact on NRG depends on the cost of the allowances and the ability to pass these costs through to customers.

NRG's strategy involves complying through purchasing allowances. For example, in the California AB32 market we were not allocated any allowances so we purchased 2,206,270 to comply with the rule.

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?

No, but we anticipate doing so in the next two years

C12. Engagement

C12.1

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

Yes, our suppliers

Yes, our customers

C12.1a

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

Type of engagement

Information collection (understanding supplier behavior)

Details of engagement

Collect climate change and carbon information at least annually from suppliers

% of suppliers by number

25

% total procurement spend (direct and indirect)

90

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

0

Rationale for the coverage of your engagement

NRG's supply chain consists of a wide range of procurement activities, including fuel purchases, operations and maintenance, renewables, capital projects and services. In 2017, we broadened our reporting efforts by becoming the first U.S. power producer to participate in the CDP Supply Chain Program. As part of this initiative, we encouraged more than 300 suppliers representing 90% of supply chain spend to disclose information about their climate change performance. In 2017 the suppliers were elected based on those representing 90% of supply chain spend.

In 2019 we continued this engagement using the same filter of 90% of supply chain spend. We chose to use 90% of spend because that accounts for the majority of our suppliers and the most material environmental impacts.

Impact of engagement, including measures of success

Non-monetary incentives include opportunities for recognition in NRG communications and potential partnerships for collaboration to further reduce environmental impact. For example, NRG Business Solutions has renewable energy and low carbon services for commercial and industrial customers. Success is measured by tracking against our goal

to receive CDP GHG disclosure from 50% of our major suppliers by 2020. In 2019 we received GHG data from 40% of major suppliers.

As part of this ongoing project corporate sustainability is working with the supply chain department to evaluate how to incorporate specific questions about environmental, social and governance indicators . Specifically for natural gas producers, NRG is working with the Natural Gas Supply Collaborative to engage natural gas producers on disclosing environmental and social indicators that would impact future purchasing decisions. While the culmination of the project is years away, the goal would be to award contracts to those natural gas companies that are taking action to reduce their climate impacts.

Comment

C12.1b

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

Type of engagement

Education/information sharing

Details of engagement

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

% of customers by number

5

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

10

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

The percentage of customers engage varies by type of engagement. Due to the varying nature of the engagements within different NRG businesses the percentage of scope 3 emissions, business travel for customer engagement, are estimated

NRG's customers for these engagements include large commercial and industrial customers or residential customers and small businesses. NRG Retail provides energy and related services to residential, industrial and commercial consumers through various brands and sales channels across the U.S. The scope of the engagements vary from the publication of white papers and blogs on the NRG website, to speaking at conferences and consulting services on energy management. These are ongoing engagements across multiple businesses directed at customers. For details visit:

https://www.nrg.com/insights/sustainability.html

Residential and small commercial (Mass Market) consumers make purchase decisions based on a variety of factors, including price, customer service, brand, product choices and value-added features. These consumers purchase products through a variety of sales channels, including direct sales, call centers, websites, brokers and brick-and mortar stores. Through its broad range of service offerings and value propositions, Retail is able to attract, retain, and increase the value of its customer relationships. Retail's brands are recognized for exemplary customer service, innovative smart energy and technology product offerings and environmentally friendly solutions.

Also included in Retail is NRG's Business Solutions group, which includes demand response, commodity sales, energy efficiency and energy management solutions. An integrated provider of supply and distributed energy resources, Business Solutions focuses on distributed products and services as businesses seek greater reliability, cleaner power or other benefits that they cannot obtain from the grid. These solutions include system power, distributed generation, solar and wind products, carbon management and specialty services, backup generation, storage and distributed solar, demand response and energy efficiency and advisory services. In providing on-site energy solutions, NRG often benefits from its ability to supply energy products from its wholesale generation portfolio to commercial and industrial retail customers.

Impact of engagement, including measures of success

The measurement of success and impact of engagement is variable and depends on the specific business transaction. NRG may track the number of downloads of a white paper or clicks on a certain blog. Anecdotal evidence of success campaigns include feedback received from business partners and asking new customers why they chose NRG for their energy solutions. Leads generated from speaking at a conference are also tracked.

C12.3

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

Direct engagement with policy makers
Trade associations
Funding research organizations

C12.3a

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

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Clean energy generation	Support	NRG has engaged by meeting directly with policymakers in Washington and indirectly through	NRG supports meaningful Congressional and regulatory actions to mitigate GHG emissions,

		groups such as the American Council on Renewable Energy (ACORE), the Renewable Energy Markets Association the US Partnership for Renewable Energy Finance (USPREF), the Electric Power Supply Association, and various informal organizations. NRG collaborates where possible with major environmental groups on clean energy and climate solutions. (NRDC, EDF, TNC, NWF).	and supports policies that foment the development and deployment of competitive low-carbon power generation technologies. To this end, NRG has actively engaged in EPA GHG rule development by working with other companies, the EPA and states to develop appropriate frameworks for use under section 111(d) of the Clean Air Act. Previously, NRG supported climate change legislation and incentives for clean energy solutions. NRG also engages with local and national environmental groups to seek feedback on new business initiatives and collaborate on ways to work together for the environment, such as through exclusive renewable energy product offerings for members.
Other, please specify GHG regulation	Support	NRG has engaged by meeting directly with policymakers in Washington and indirectly through groups such as the Electrification Coalition, which supports policies promoting electric vehicles, Resource for the Future, which conducts prominent economic studies on national climate policies; Princeton University Adglinger Center for Energy and the Environment, which develop solutions and inform policies through researches in engineering and economics. Green Mountain Energy continues to support the future of clean energy and the smart grid as a sponsor and active participant in the nationally acclaimed Pecan Street Project. Pecan Street Inc. is a research and development organization focused on developing and testing advanced technology, business	NRG believes in economically efficient and innovation-driving policies to support competitive clean energy generation. NRG is an active thought leader on policies aimed at supporting both utility-scale renewables and customer-facing, distributed energy technologies like rooftop solar. NRG recognizes the benefits afforded by policies like the investment tax credit, retail net energy metering.

		model and customer behavior surrounding advanced energy management systems.	

C12.3b

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

Yes

C12.3c

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

Trade association

Electric Power Supply Association (EPSA)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

EPSA members support policies that give all suppliers an equal opportunity to compete and give all customers an equal opportunity to reap the benefits of competition. For more information, please go to http://www.epsa.org/about/.

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

NRG participates in meetings and conferences with trade groups and organizations similar to SEIA and EPGA to engage in dialogue on policy solutions.

Trade association

Solar Energy Industries Association (SEIA)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The SEIA's mission is to ensure continued incentives for the deployment of solar technologies coupled with effective regulation of GHGs from existing power plants under Section 111(d) of the Clean Air Act. For more information please go to http://www.seia.org/

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

NRG participates in meetings and conferences with trade groups and organizations similar to SEIA and EPGA and engage in dialogue on policy solutions. NRG works

through SEIA to generate support for government incentives, mandates and procurements that help grow the solar energy market.

C12.3d

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

Yes

C12.3f

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

The development of all significant policy positions are coordinated through appropriate senior management. ensuring overall consistency with NRG's climate change management strategy. All NRG's policy positions that are published or disclosed go through a consistent review process involving NRG's Investor Relations, Legal, Marketing and Communication teams. The strategy is consistent across all business divisions and geographies.

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

2019-nrg-sustainability-report.pdf

Page/Section reference

All

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

Publication
In mainstream reports

Status
Complete

Attach the document
2019_NRGEnergyInc.pdf

Page/Section reference
Page 20

Content elements
Emissions figures
Emission targets

Comment

C15. 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.

C15.1

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

	Job title	Corresponding job category
Row 1	President & CEO	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 am submitting to	Public or Non-Public Submission
I am submitting my response	Investors	Public

Please confirm below

I have read and accept the applicable Terms