2025 TCFD RESPONSE

TCFD RESPONSE

Introduction

NRG Energy, Inc. (“NRG” or the “Company”) is a leading energy and smart home company powering a smarter, brighter future. The Company provides electricity, natural gas, and smart home solutions to approximately 8 million residential customers, along with large commercial, industrial, hyperscale, and wholesale customers across the United States and Canada. NRG serves its customers through well-known brands including NRG, Reliant, Direct Energy, Green Mountain Energy, and Vivint. As of December 31, 2024, the Company’s core power and natural gas business included approximately 13 gigawatts of competitive generation capacity, primarily in Texas, and a natural gas portfolio serving about 1,800 million dekatherms annually.

This report has been prepared in alignment with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) and reflects NRG’s continued commitment to transparency, accountability, and resilience in the face of a changing climate. It outlines how climate-related risks and opportunities are identified, managed, and integrated into the Company’s governance, strategy, risk management, and performance metrics. Through this disclosure, NRG demonstrates how climate considerations are embedded across its business operations and decision-making processes, supporting both the Company’s long-term strategy and its goal of moving the energy transition forward.

GOVERNANCE

Board oversight of climate-related risks and opportunities

NRG takes an integrated governance approach to overseeing environmental and sustainability issues, including climate change. The NRG Board has ultimate responsibility and overall oversight of climate risks and opportunities and their integration into the Company’s long-term strategy.

Certain responsibilities are delegated to Board committees for more in-depth review and analysis:

- **GOVERNANCE AND NOMINATING (G&N) COMMITTEE -** Oversees NRG’s strategies and efforts to manage its environmental, economic, and social impacts, including NRG’s environmental, climate change, and sustainability policies and programs.
- **COMPENSATION COMMITTEE -** Considers environmental key performance indicators (EKPIs) and the effectiveness of our internal sustainability programs as part of NRG’s Annual Incentive Plan (AIP), linking performance on key sustainability metrics to executive compensation.
- **AUDIT COMMITTEE -** Reviews the adequacy and effectiveness of NRG’s disclosure processes and controls, including those pertaining to environmental, social, and governance matters to ensure their accuracy and consistency.
- **FINANCE AND RISK MANAGEMENT COMMITTEE -** Oversees NRG’s policies and procedures for assessing exposure to material risks, including those pertaining to climate change and related matters.

At least once per year, sustainability is formally included as an agenda item at a full Board meeting and is discussed separately by the G&N Committee. Both the full Board and the G&N Committee receive an annual sustainability update and review of sustainability performance, reporting, and progress toward goals. Sustainability matters are also addressed as needed throughout the year and discussed at other Board and Committee meetings as needed. This structure enables the Board and its Committees to effectively oversee sustainability risks and opportunities as part of NRG’s broader strategic and risk management framework.

	OVERSIGHT RESPONSIBILITIES		SELECTED ESG TOPICS ADDRESSED AT LEAST ANNUALLY
BOARD	Overall Oversight of ESG risks and opportunities, and integration of ESG risks and opportunities into the Company's long-term strategy • Annual sustainability update and review of sustainability reporting • Certain responsibilities delegated to board committees for more in-depth review and analysis		• Climate strategy, goals, and progress • Talent and culture • Safety and well-being • Cybersecurity and data analytics • Community relations and philanthropy
COMMITTEES	1 AUDIT	• Oversight of ESG disclosure and processes and controls to ensure disclosures are accurate, consistent, and comparable	• Quarterly review of disclosure in Form 10-K/Qs and earnings releases • Ethics and Compliance
	2 COMPENSATION	• Oversight of accountability for ESG goals and the talent and management succession to execute the ESG strategy	• Review of executive compensation program and succession planning for senior management
	3 GOVERNANCE & NOMINATING	• Oversight of ESG engagement, board composition, and ongoing board education on ESG matters • Oversight of corporate sustainability issues	• Annual sustainability update • Annual review of political spending • Ongoing Board refreshment and director onboarding and training program
	4 FINANCE & RISK MANAGEMENT	• Oversight of risk assessment of material ESG sustainability risks such as climate change	• Review of new and emerging risks

Management's role in assessing and managing climate-related risks and opportunities

Management accountability for climate and sustainability begins with the CEO, who reviews strategies, goals, and metrics and submits them for approval to the G&N Committee and the full Board. The CEO regularly evaluates and, when appropriate, proposes updates to NRG's climate-related goals and strategies to ensure continued alignment with the Company's broader business strategy. For example, in 2019, the CEO proposed — and the Board approved — accelerating NRG's emissions-reduction pathway to align with the global goal of limiting warming to 1.5°C. The CEO also manages annual budgets for climate mitigation and adaptation activities.

The Chief Sustainability Officer (CSO) and the sustainability team lead strategy development, implementation, and reporting. This team develops NRG's climate-related policy positions, coordinates policy and commercial initiatives, engages stakeholders, and advises on decarbonization pathways and low-carbon business and residential energy solutions. The sustainability group maintains direct communication with the CEO through regular one-on-one meetings, ensuring climate-related oversight and management remain fully integrated across the organization.

STRATEGY

Climate-related risks and opportunities identified over the short, medium, and long term

NRG has analyzed its climate-related risks and opportunities to understand how climate factors may impact its business across multiple time horizons. Using qualitative scenario analysis informed by globally recognized climate pathways, NRG identified both physical and transition risks and opportunities relevant to its operations.

PHYSICAL RISKS

In a high-carbon scenario, which assumes continued unabated fossil fuel use and high global greenhouse gas (GHG) emissions, extreme weather events are projected to become more intense and frequent, temperatures are expected to rise, and precipitation patterns are likely to shift. These chronic and acute hazards pose four physical risks and opportunities for NRG:

Short to long term [now-25 years]

1. Extreme weather events may cause operational disruptions and outages at generation plants, with regional severity increasing over time; for example, the Northeast is expected to experience more frequent extreme precipitation, and the Gulf, Central, and Southern United States face greater risks of drought and heat waves.

Medium to long term [3-25 years]

1. Increasing extreme heat may reduce natural gas generation efficiency and adversely impact outdoor worker safety.
2. Extreme weather may delay or limit access to fuel supplies, leading to potential fuel shortages and/or delivery delays.
3. Transmission and distribution infrastructure may face greater disruption risks due to weather-related damage, resulting in possible delays in energy delivery to customers.

TRANSITION RISKS & OPPORTUNITIES

In a low-carbon scenario, which assumes rapid global decarbonization, the policy, market, and technology shifts in support of clean energy create both business risks and opportunities.

Short-long term [now-25 years]

1. Opportunity: Increasing electrification and customer demand for clean energy may create new opportunities for NRG to enter emerging markets, invest in grid flexibility and agile trading practices, and secure additional clean energy contracts.

Medium to long term [3-25 years]

1. Risk: Carbon regulations, and emissions limits, may reduce margins for unabated thermal generation assets.
2. Risk: As renewable generation expands and customer preferences potentially shift toward cleaner energy, unabated thermal assets may experience reduced market demand and lower utilization rates, raising the risk of stranded assets.
3. Opportunity: Rising demand for distributed, efficient, and clean energy could enable NRG to grow its smart home customer base, diversify products, and enhance grid flexibility services such as Virtual Power Plants (VPPs).

Impact of climate-related risks and opportunities on the businesses, strategy, and financial planning

Climate-related physical and transition risks are assessed and integrated into our Enterprise Risk Management (ERM), portfolio strategy, investment decisions, and consumer solutions. ERM reviews seasonal extreme weather risks and conducts market scans to identify transition risks and opportunities.

Procurement supports business continuity through supplier engagement, strategic sourcing decisions, and cost management strategies. Additionally, NRG develops and executes hedging strategies to financially prepare the business for potential disruptions caused by weather events, fuel price volatility, and market fluctuations.

Previous extreme weather disruptions, including Hurricane Harvey and Winter Storm Uri, have caused infrastructure damage, operational efficiency loss, energy price fluctuations, and disruptions in energy delivery to consumers. While NRG is not directly responsible for the transmission and distribution of energy to end-use customers, these broader industry disruptions impact our customers. In response, NRG has integrated seasonal preparedness procedures and recovery initiatives to strengthen asset resilience. NRG continues to strategically address climate resiliency through agile procurement, operational readiness, and financial hedging practices.

To manage transition risks, NRG retired the three coal plants in Illinois - Joliet, Waukegan, and Will County, and acquired natural gas plants, reducing fleet emissions intensity. To maintain resilience under potentially stringent carbon regulations, NRG continuously evaluates the feasibility of carbon-reducing solutions such as carbon capture and sequestration (CCS), renewable natural gas (RNG), or blending hydrogen.

NRG's emissions-reduction strategy prioritizes direct emissions reductions, operational efficiency, and emerging low-carbon technologies. While the Company does not currently rely on carbon offsets, offsets are considered a viable complementary tool that may be evaluated as part of a broader, flexible decarbonization approach.

To capture emerging opportunities, NRG is expanding its generation fleet to address projected load growth and electrification demand, providing natural gas to customers, offering smart products and distributed behind-the-meter products (BTM) aimed at reducing energy use, and increasing grid flexibility services by enhancing Virtual Power Plant (VPP) and battery storage capacity.

Resilience of the organization's strategy under different climate-related scenarios

STRATEGIC RESILIENCE TO CLIMATE SCENARIOS

NRG has evaluated climate resilience under multiple climate scenarios, including an ambitious 1.5°C low-carbon scenario and an above 4°C high-carbon scenario. This assessment examined how varying policy, market, and physical climate outcomes could influence the Company's operations, portfolio, and long-term financial performance.

Under a low-carbon scenario, NRG's strategic investments in flexible energy solutions, distributed energy resources, and customer-focused clean energy offerings position the Company to benefit from decarbonization and electrification trends. Under a high-carbon scenario, NRG's planning for extreme weather, operational preparedness measures, and financial risk management, including market hedging, support continued stability in the face of higher climate variability.

Continuous assessment of climate-related risks and opportunities allows NRG to identify evolving vulnerabilities and potential adaptation or mitigation measures. While uncertainties remain in policy, technology, and market dynamics, NRG continues to enhance its scenario analysis to inform strategic planning and investment decisions.

SCENARIO ANALYSIS APPROACH

NRG conducted a qualitative scenario analysis to assess the potential impacts of climate-related risks and opportunities on its business. Two sets of extreme climate scenario pathways were considered:

Physical risks[1]:

- IPCC's RCP2.6 SSP1 pathway, aligned with <2°C warming by 2100
- IPCC's RCP8.5 SSP5 pathway, aligned with 4°C+ warming by 2100

[1] IPCC = Intergovernmental Panel on Climate Change; RCP = Representative Concentration Pathways; SSP = Shared Socioeconomic Pathway Risk

Transition risks[2]:

- IEA Net-Zero 2050 scenario pathway, aligned with limiting warming to below 1.5°C by 2100

Identified risks and opportunities were analyzed across three-time horizons, defined as: short-term (0 - 3 years), medium-term (3 - 10 years), and long-term (10 - 25 years)[3]. These horizons were established in collaboration with the Enterprise Risk Management (ERM) team to reflect business planning cycles, asset lifespans, risk management timelines, and emissions-reduction targets.

The scenario analysis incorporated internal expertise and stakeholder perspectives from relevant business functions to evaluate potential impacts within each time horizon. Insights from this analysis feed directly into NRG's broader risk management framework, ensuring climate considerations are embedded in strategic and operational decision-making.

RISK MANAGEMENT

Identifying and assessing climate-related risks

NRG actively monitors climate-related developments that could impact its business and regularly engages with a diverse set of stakeholders to inform this process. These engagements help identify and pursue opportunities to decarbonize operations and enhance customer value.

NRG's Enterprise Risk Management (ERM) process systematically identifies, assesses, and prioritizes climate-related risks alongside other enterprise risks. Risks, including those related to climate change, are evaluated based on potential impacts including — reputational, health, and safety implications — and their likelihood of occurrence. The ERM process assesses risks before and after mitigation to determine inherent and residual exposure, informing strategic and operational decision-making.

ERM facilitates collaboration across business functions to address root causes, understand interconnections between risks, and develop effective mitigation strategies. Risks are prioritized by score, with the highest-ranking items included in NRG's enterprise risk register for active management. Emerging, high-impact, and low-probability risks are tracked separately for ongoing monitoring.

NRG evaluates the potential size and scope of climate-related risks and opportunities through a qualitative assessment informed by internal expertise and stakeholder feedback. NRG considers existing and emerging regulatory requirements, including those governing emissions limits, carbon pricing mechanisms, and climate disclosure mandates, as well as voluntary frameworks like the TCFD. These factors are integrated into strategic planning and risk management processes, supporting NRG's ability to adapt to evolving policy and market conditions across both regulated and deregulated markets.

Managing climate-related risks

NRG uses a comprehensive, structured approach to managing climate-related risks, grounded in a three-lines-of-defense model that integrates risk identification, oversight, and independent assurance. Each risk is evaluated for severity and strategic implications, then addressed through mitigation, transfer, acceptance, or control. Climate-related risks are prioritized based on their inherent and residual scores, likelihood, and potential enterprise impact. Stakeholder input helps refine prioritization, and high-priority risks are captured in the enterprise risk register, which is reviewed and updated quarterly. NRG's management approach is tailored to address the unique characteristics of physical and transition risks, as well as to capture emerging opportunities.

[2] IEA = International Energy Agency

[3] NRG's Enterprise Risk Management (ERM) defines time horizons as short-term (<1 year), mid-term (2–3 years), and long-term (>3 years). Longer horizons are used in climate scenario analysis to reflect the extended nature of climate risks and opportunities.

Category specific approaches:

- Physical risks: Management strategies focus on asset resilience, operational continuity, and supply chain robustness in priority geographic areas.
- Transition risks: Strategic planning incorporates regulatory monitoring, market adaptation, and short-, medium-, and long-term investment planning to address evolving policy and market conditions.
- Opportunities: Market and technology opportunities, such as low-carbon solutions and behind-the-meter services, are evaluated for integration into NRG's growth strategy.

Identifying, assessing, and managing climate-related risks and integration into Enterprise Risk Management (ERM)

Climate-related risks and opportunities are embedded within NRG's multi-disciplinary, company-wide processes for risk and opportunity identification, assessment, and management. NRG's Enterprise Risk Management (ERM) process systematically identifies, assesses, and prioritizes climate-related risks alongside other enterprise risks. Each risk is evaluated for potential impacts such as financial, reputational, health and safety considerations, and its likelihood of occurrence.

NRG manages climate-related risks through ongoing cross-functional risk assessments, regular risk register updates, and quarterly reviews of the enterprise risk register through executive-level risk governance, ensuring integration into strategic planning, capital allocation, and operational-resilience initiatives. The ERM team, comprised of senior management and key personnel within the finance, commercial operations, and risk functions, reports to the Finance and Risk Management Committee on a regular basis. The Chief Sustainability Officer (CSO) participates in enterprise risk management discussions when sustainability or climate-related risks are under review, ensuring that climate considerations are appropriately integrated into enterprise risk oversight.

Climate-related risks are aggregated with other enterprise risks for Board and committee oversight, ensuring integration into strategic planning, capital allocation, and operational-resilience initiatives. This structured and integrated approach positions NRG to address both the risks and opportunities associated with evolving energy demand, supporting long-term business resilience and competitive advantage.

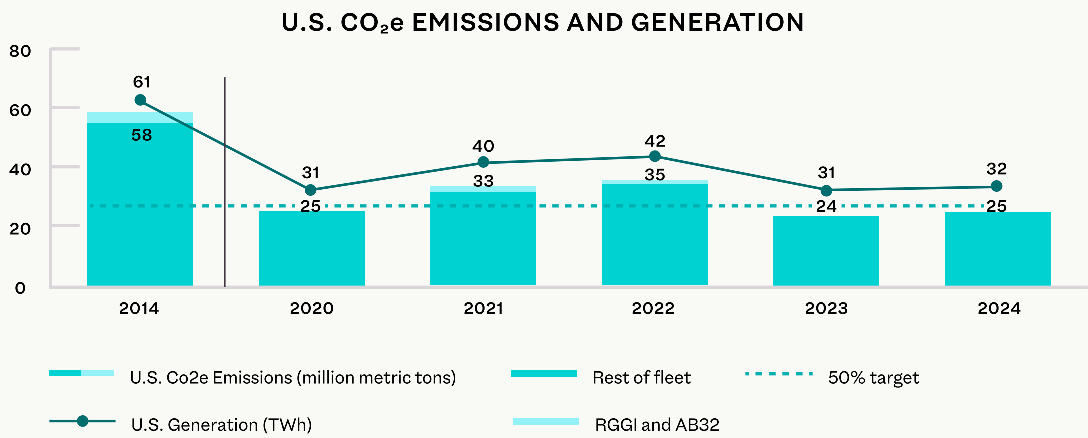
METRICS AND TARGETS

Metrics used to assess climate-related risks and opportunities

NRG uses a set of greenhouse gas emissions and intensity metrics to evaluate and monitor climate-related risks and opportunities in alignment with its overall strategy and risk management processes. The following metrics provide visibility into operational performance, regulatory exposure, and progress toward long-term decarbonization goals.

Key metrics include:

- GHG emissions (metric tons of CO_2e)
- Scope 1 emissions (metric tons of CO_2e)
- Scope 1 emissions intensity (metric tons of CO_2e per MWh of net generation)
- Scope 1 emissions covered under emissions-reporting regulations (%)
- Scope 2 emissions (metric tons of CO_2e)
- GHG intensity of total electricity sales (metric tons of CO_2e per MWh of total electricity sold)
- GHG emissions intensity per revenue (metric tons of CO_2e/ $M revenue)
- Water withdrawn (million cubic meters)
- Water consumed (million cubic meters)
- Coal combustion residuals generated (metric tons)
- Coal combustion residuals recycled (%)



Scope 1, 2, and 3 GHG emissions and related risks

Greenhouse gas emissions included in NRG's net-zero goal encompass direct emissions (Scope 1), purchased electricity (Scope 2) and business travel (Scope 3, category 6 – business travel). Other Scope 3 categories are not currently included in the target but may be considered in futured updates. Following the acquisitions of Direct Energy and Vivint, NRG's indirect emissions profile changed, and the Company is conducting an updated analysis of these emissions.

Targets used to manage climate-related risks and opportunities and performance against targets

NRG's climate goals are designed to reduce carbon emissions of power generation, with a target to achieve a 50% reduction from a 2014 baseline and net-zero emissions by 2050.

From the 2014 base year through 2024, NRGs directly controlled CO2e emissions decreased from 58 million metric tons to 25 million metric tons, representing a 57% cumulative reduction. This reduction reflects a combination of lower fleet-wide generation and a continued market-driven transition from coal to natural gas.

NRG continues to monitor market volatility and regulatory changes that may influence progress toward its long-term goals. The Company is also evaluating an updated interim target to guide continued progress toward its 2050 net-zero ambition.

FORWARD-LOOKING STATEMENTS

This report contains forward-looking statements that may state NRG's or its management's intentions, beliefs, expectations, predictions, targets, or goals for the future. Such forward-looking statements are subject to certain risks, uncertainties and assumptions, and typically can be identified by the use of words such as "will," "expect," "estimate," "anticipate," "forecast," "plan," "believe," and similar terms. Although NRG believes that its expectations are reasonable, it can give no assurance that these expectations will prove to have been correct, and actual results may vary materially. Factors that could cause actual results to differ from those implied by the forward-looking statements in this report are set forth in the Company's most recent Annual Report on Form 10-K, quarterly and other periodic reports, current reports and other filings with the Securities and Exchange Commission at www.sec.gov. 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.