



NRG.COM

# SUSTAINABILITY-LINKED BOND FRAMEWORK

NOVEMBER 2020



Uniting our net-zero goals and our financing strategy

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This Sustainability-Linked Bond Framework contains certain forward-looking statements that reflect NRG Energy, Inc.'s management's current views with respect to future events and the financial and operational performance of NRG Energy, Inc. These forward-looking statements are based on NRG Energy, Inc.'s current expectations and projections about future events. Because these forward-looking statements are subject to risks and uncertainties, actual future results or performance may differ materially from those expressed in or implied by these statements due to any number of different factors, many of which are beyond the ability of NRG Energy, Inc. to control or estimate precisely, including changes in the regulatory environment, future market developments, fluctuations in the price, impact of climate and other risks mentioned in NRG Energy, INC's Annual Report on Form 10-K for the year ended December 31, 2019 and its Quarterly Reports on Form 10-Q for the quarters ended March 31, 2020, June 30, 2020 and September 30, 2020. You are cautioned not to place undue reliance on the forward-looking statements contained herein, which are made only as of the date of this document. NRG Energy, Inc. does not undertake any obligation to publicly release any updates or revisions to any forward-looking statements to reflect events or circumstances after the date of this document. The information contained in this Sustainability-Linked Bond Framework does not purport to be comprehensive and has not been verified by any independent third party.



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## 1. Introduction

NRG Energy, Inc. (“NRG”) is an integrated power company built on dynamic retail brands with diverse generation assets. NRG brings the power of energy to customers by producing, selling, and delivering electricity and related products and services in major competitive power markets across the U.S. and Canada in a manner that delivers value to all of NRG’s stakeholders.

NRG is a customer-centric business focused on perfecting an 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.

### 1.1 NRG’s Sustainability Strategy

As a power company, NRG recognizes the critical role it plays not only in the lives of its customers, but also in decarbonizing the economy more broadly. NRG understands how stakeholders’ interests converge on the path to long-term value creation — from employees and customers to communities and investors. To enable a sustainable energy future for everyone, NRG has spent the last 10 years incorporating a comprehensive sustainability framework and program.

In 2019, NRG made significant progress toward its goals and commitments while also raising the bar by:

- Expanding its sustainability program and accelerating its greenhouse gas (“GHG”) emissions reduction goals to align with the Intergovernmental Panel on Climate Change’s (“IPCC”) 1.5° Celsius (“C”) imperative;
- Improving its financial resilience and providing clarity on its path to deliver value to its shareholders;
- Contracting more than 1.6 GW of renewables for its customers, with plans for more; and
- Refreshing its company values, including elevating diversity and inclusion and integrating health and well-being into NRG’s safety commitment.

NRG is committed to leading its sector in sustainability transparency and disclosure. NRG follows the leading globally accepted frameworks and standards in order to provide key information to all stakeholders, including being one of the first in its sector to use the Sustainability Accounting Standards Boards (“SASB”) standards and to support the Task Force on Climate-related Financial Disclosures (“TCFD”) recommendations.

NRG actively seeks opportunities to engage with stakeholders and foster a collaborative dialogue. In support of this effort, NRG is a member of Ceres, a non-profit organization whose mission is to “mobilize investor and business leadership to build a thriving, sustainable, global economy.” With Ceres, NRG is able to set up a formal stakeholder advisory body, which would include some of its key investors, customers, leading non-governmental organizations (“NGOs”), policy groups, and energy experts. Additionally, NRG proactively engages with other leading companies and organizations to help advance standards, share best practices, activate stakeholders, and create action toward a sustainable economy.

### 1.1.1 United Nations Sustainable Development Goals

Launched in 2015, the 17 Sustainable Development Goals (“SDGs”) are a global set of goals, targets, and indicators developed by the United Nations to guide countries, communities, and organizations in their work to create a sustainable world by 2030. While NRG recognizes that making progress on all 17 SDGs is vital to creating a sustainable economy, the company strives to focus its resources on the SDGs that are most closely tied to NRG’s business: 3, 5, 7, and 13.



#### Empowered Employees

- *Power Up My Life* engagement program offers wellness benefits
- *Power Up Nutrition* offers free membership to three different weight management programs
- Non-tobacco user insurance discount
- Support for mental well-being and work-life balance

#### SDG Sub-target Alignment

- 3.8 Access to quality healthcare
- 3.a Tobacco control



#### Power Values

- Diversity & Inclusion included in NRG’s values
- Internal “Women in Power” program trains female employees for leadership roles
- Equal pay study

#### Governance

- Seven of the 11 members of NRG’s board are gender- and/or ethnically-diverse
- Four members of NRG’s board are women (40% of independent directors)
- NRG has a minority CEO

#### SDG Sub-target Alignment

- 5.1 End discrimination
- 5.5 Equal leadership opportunities



#### Empowered Customers

- State-of-the-art retail brands and offerings
- Plans and solutions for all needs and budgets
- Advocate for competitive markets and champion of customer choice

#### Sustainable Products

- Flexible generation matched with retail
- Energy storage
- 100% renewable plans offered in all of NRG’s retail markets, including some plans tailored for electric vehicle charging and rooftop solar
- Demand response

#### SDG Sub-target Alignment

- 7.1 Access to affordable and reliable energy services
- 7.2 Increase share of renewable energy



#### Customer Solutions

- Lower GHG emissions
- Added resilience
- Sustainable energy consulting

#### Company Actions

- Alignment with 1.5° C GHG target
- Science-based target
- Carbon capture innovation
- Commitment to supply chain engagement

#### SDG Sub-target Alignment

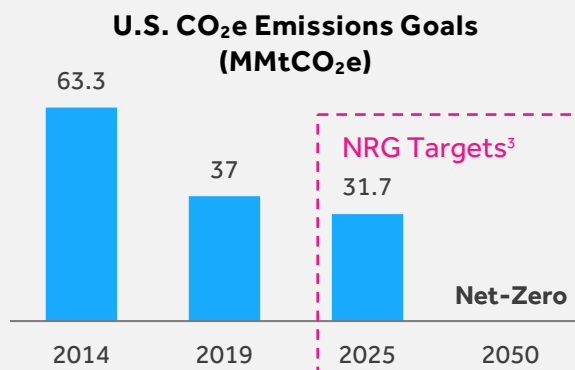
- 13.2 Climate change measures
- 13.3 Improve education, awareness and capacity on climate change

## 1.2 NRG's Climate Transition Strategy and Goals

In November 2014, NRG announced its decarbonization goals to cut GHG emissions by 50% by 2030 and 90% by 2050, from a 2014 baseline. This announcement marked the first time a major US electricity generator and, as a result, a major contributor to GHG emissions, put actual dates and quantities around its transition to a low-carbon energy future. These targets were subsequently validated by the Science Based Targets Initiative ("SBTi") as being aligned with a 2° C scenario.<sup>1</sup> Moreover, NRG was one of the first ten companies in the world to have its targets certified by SBTi.<sup>3</sup>

When the IPCC revised its guidance to limiting warming to a 1.5° C scenario, in keeping with the goals of the Paris Agreement, NRG took the immediate step of re-evaluating its targets.

On September 24, 2019, NRG announced the improvement of its already leading science-based targets. NRG's new goals are now to reduce emissions 50% by 2025 on the way to net-zero by 2050, from a 2014 baseline. (Chart below as of December 31, 2019)



In addition, in 2018 NRG conducted climate scenario analysis looking at four specific<sup>4</sup> temperature scenarios: 1.5° C, 2° C, 3° C and 4° 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.

The insights developed are still being incorporated into NRG's strategy and risk management processes with more detail to be reported in late 2020 or early 2021 including alignment with the TCFD.

### 1.2.1 NRG's Transition Levers

In order to meet NRG's revised net-zero goal, NRG will deploy multiple levers to transition the company onto a 1.5° C pathway. Those Transition Levers can be grouped into four main categories:

- **DECARBONIZATION** of existing business lines
- **DIVERSIFICATION** into low emissions businesses

<sup>1</sup> <https://sciencebasedtargets.org/case-studies-2/case-study-nrg/>

<sup>2</sup> Million metric tons of carbon dioxide equivalent

<sup>3</sup> <https://www.utilitydive.com/news/nrg-national-grid-and-others-commit-to-science-based-carbon-targets-at-pa/410493/>

<sup>4</sup> Scenarios included data from the IEA (2DS, DDPP, B2DS) and US Fourth National Climate Assessment

- **DIVESTMENT** of select high emissions assets
- **OFFSET** of residual emissions

### *Decarbonization of existing business lines*

Over the near-term NRG is deploying a range of initiatives in order to decarbonize, including the optimization of its existing generation fleet. This includes:

- Ongoing maintenance capital expenditures and operating expenditures to drive incremental efficiency gains;
- Repowering existing fossil fuel generators with more efficient gas-fired generators;
- Leveraging new energy technologies, such as battery storage facilities to assist with load management and the incorporation of renewables;
- Running fossil fuel generation assets less frequently or only to meet periods of peak demand; and
- Retiring older fossil fuel generation assets as they approach their economic end of life.

Going forward, new processes and technology will be required for further decarbonization. External 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. NRG is an active supporter of the climate-tech community, which will help it identify technologies and partners that could help decarbonize its business. In June 2020, NRG became a founding sponsor of Greentown Labs' expansion to Houston. Greentown Labs is the largest climate-tech startup incubator in North America, and brings together startups, corporations, investors, politicians and many others with a focus on scaling climate solutions. Additionally, in September 2020, NRG became a founding supporter of a new clean energy accelerator hosted by the Rice Alliance for Technology and Entrepreneurship (the "Rice Alliance") at Rice University in Houston. The accelerator will support early stage energy startups from around the world, all of which will have access to the Rice Alliance network of energy companies, investors, advisors, and Rice's energy tech venture forums.

NRG is also working to reduce the carbon footprint of its gas-fired generation fleet. The company is exploring the potential to upgrade combined cycle gas turbines to newer technology turbines that can accept alternative low carbon gases such as bio-methane and/or green or blue hydrogen<sup>2</sup> as it seeks to continue to drive additional GHG emissions reductions. For example, at its Astoria Replacement Project in New York City, NRG expects to replace the current 50-year old power generators in 2023 with state-of-the-art technology that lowers peak emission rates by up to 99% per hour, and NRG will use technology that can be fully converted to hydrogen fuel in the future.

NRG is also working to reduce the carbon footprint of its natural gas supply chain. NRG is a founding member of the Natural Gas Supply Cooperative ("NGSC"), a voluntary collaborative of some of the largest natural gas purchasers in the U.S. The NGSC began in 2014 to promote safe and responsible practices for natural gas supply. It has engaged natural gas producers over the last several years as it investigated and promoted voluntary environmental reporting and the use of

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<sup>2</sup> Green hydrogen is hydrogen produced by the electrolysis of water using 100% renewable energy electricity. Blue hydrogen is hydrogen produced using traditional fossil fuel methods (such as Steam Methane Reforming and/or AutoThermal Reactor technology) but captures the resultant GHG emissions, stopping their release into the atmosphere. When hydrogen is used (combusted), it forms water and does not emit GHGs.

best practices. NGSC reviews producers' voluntary disclosures against NGSC performance indicators, while striving to further engage producers.

### *Diversification into low emissions businesses*

Over the medium to long term, NRG is transitioning from a wholesale power generator to an integrated full-service energy retailer, including the provision of energy services. This reduces NRG's reliance on revenue from energy supply while also reducing the direct emissions from NRG's business activities. Diversification avenues include:

- Energy service solutions
- Provision of renewable energy supply

### *Energy service solutions*

NRG offers numerous customized energy solutions and smart energy management products, such as Peak Load Management, supported by distributed energy resources. Peak Load Management is a layered system of smart grid monitoring and service alerts that informs the customer when the grid is at peak demand. This solution captures retail and wholesale economic benefits while enhancing reliability with on-site electric power generation. Peak Load Management can be customized to use the business' existing energy resources, or to deploy new energy resources, like an energy storage system.

### *Renewable energy supply*

All of NRG's Retail brands, including Reliant, Green Mountain Energy, and NRG offer zero-emission or low-emission retail rate plans along with carbon offset services via partner companies for rooftop solar installation and the purchase and charging of electric vehicles.

For NRG's commercial and industrial business ("C&I"), the company acts as an intermediary between renewable developers and electricity consumers through its Renewable Select product. 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 distinctive, in-demand and cost-effective solar energy plan. As part of the agreement, three solar garden sites were constructed in the Houston and Dallas areas, which support approximately 10% of Sysco's U.S. electricity usage. The environmental benefits of this program include reducing approximately 37,000 tons of CO<sub>2</sub> 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 support the majority of the company's electricity load in Texas, including its corporate headquarters.

NRG's strategy is not to become a developer, owner, or operator of large-scale renewable energy generation as a pathway to decarbonization. Rather, NRG leverages its market expertise to partner with developers to bring new, additional renewables to the grid through short and medium-term Power Purchase Agreements ("PPAs"). In 2018, NRG sold its renewable energy platform, including its ownership interest in Clearway Energy, Inc. (formerly called NRG Yield, Inc.), to Global Infrastructure Partners, providing it the capacity to expand the retail business. In 2019, NRG secured 1.6 GW of renewable power through PPAs with third-party project developers and other counterparties and are actively working to contract additional PPAs.

### *Divestment of high emission assets*

On NRG's journey to net-zero emissions by 2050, NRG will also look to exit certain high GHG activities via strategically targeted sales of non-core assets where the opportunity generates appropriate risk-adjusted returns for shareholders. Since 2014, NRG has divested 27,510 MW net



capacity of fossil generation and will continue to monitor the market for future divestiture opportunities.

### *Offset of residual emissions*

NRG's net-zero goal targets an elimination of the company's scope 1, 2, and 3 (employee business travel only) GHG emissions by 2050. Any remaining emissions will therefore require offsetting.

According to the International Energy Agency (IEA), Carbon Capture, Use, and Storage ("CCUS") technologies are most likely necessary to remain within a 1.5° C global warming limit. NRG participates in the development of CCUS technologies. For example, NRG has invested in CCUS at its Petra Nova<sup>3</sup> facility, the world's largest post-combustion carbon capture facility located at its 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 CO<sub>2</sub> released into the atmosphere. The Petra Nova project captures more than 90% of the CO<sub>2</sub> from a 240-megawatt equivalent slipstream of flue gas. The project can capture more than 5,000 tons of CO<sub>2</sub> per day, and since operations began in late 2016, Petra Nova has captured nearly four million tons of CO<sub>2</sub><sup>4</sup>.

Further, NRG supports innovation in the economic and beneficial use of carbon through the Canadian Oil Sands Innovation Alliance ("COSIA") Carbon XPRIZE. The \$20 million NRG COSIA Carbon XPRIZE is a global competition to develop breakthrough technologies that will convert CO<sub>2</sub> emissions from power plants and industrial facilities into valuable products like building materials, alternative fuels and other everyday items. The NRG COSIA Carbon XPRIZE inspires the development of new and emerging CO<sub>2</sub> conversion technologies to help solve climate change. The winner is expected to be announced in the winter of 2021.

NRG also participates in several multi-stakeholder group consortia working to scale CCUS as a decarbonization pathway. These consortia include the Rice University Baker Institute Working Group on CCUS and Hydrogen, the United States Business Council on Sustainable Development's Gulf Coast Carbon Collaborative, the Greater Houston Partnership's Energy 2.0 and Energy Advisory Committees, and the Rice University Carbon Hub.

In October 2020, NRG announced that it will support the Carbon-to-Value ("C2V") initiative, which is a multi-year program driving the creation of a thriving innovation ecosystem for the commercialization of carbontech — technologies that capture and convert carbon dioxide into valuable end products or services. The C2V Initiative is a collaboration among the Urban Future Lab

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<sup>3</sup> In the current exceptionally low oil price environment, as of May 2020, NRG and JX Nippon Oil and Gas Exploration have temporarily suspended carbon capture operations at Petra Nova and the delivery of CO<sub>2</sub> to the West Ranch Oil Field.

<sup>4</sup> NRG recognizes that the four million tons of CO<sub>2</sub> captured by Petra Nova to date is a gross figure because it does not reflect the carbon footprints associated with other processes over the cradle-to-grave life cycle of CO<sub>2</sub> capture, its use for EOR, and the ultimate use of the oil produced thereby. These other processes include CO<sub>2</sub> capture, CO<sub>2</sub> compression, CO<sub>2</sub> pipeline transport, CO<sub>2</sub> injection, oil processing, CO<sub>2</sub> recycling and dehydration, fugitive emissions, construction, land use, well drilling, oil transport, oil refining, and hydrocarbon product combustion, among other processes. Although NRG has not done a life cycle assessment of Petra Nova, recent academic studies suggest that CO<sub>2</sub> captured and used for EOR can result in net negative emissions on a life cycle basis. See Joel Minchak, Sanjay Mawalkar, and Neeraj Gupta, "Large CO<sub>2</sub> Storage Volumes Result in Net Negative Emissions for Greenhouse Gas Life Cycle Analysis Based on Records from 22 Years of CO<sub>2</sub>-Enhanced Oil Recovery Operations", *Energy & Fuels*, February 25, 2020 and Vanessa Nunez-Lopez, Ramon Gil-Egui, Pooneh Hosseinioosheri, Susan D. Hovorka, and Larry W. Lake, "Final Report: Carbon Life Cycle Analysis of CO<sub>2</sub>-EOR for Net Carbon Negative Oil (NCNO) Classification", work submitted to U.S. Department of Energy National Energy Technology Laboratory, April 1, 2019.

at New York University-Tandon, Greentown Labs, and the Fraunhofer USA TechBridge Program, and supported by the New York State Energy Research and Development Authority and the Consulate General of Canada in New York. As a founding member of the initiative, NRG will join the program's Carbontech Leadership Council ("CLC") alongside a select group of corporate, academic, NGOs, and government leaders who will foster commercialization opportunities and identify avenues for technology validation, testing, and demonstration of carbontech. Members of the CLC, which in addition to NRG include Johnson Matthey, Mitsubishi Chemical Corporation, SUEZ, and W.L. Gore & Associates, will create a technology roadmap for the future of the carbontech industry and will have opportunities to engage with the highly selective cohorts of startups chosen for the C2V initiative.

### *Just transition*

As part of NRG's commitment to the Paris Agreement, the company acknowledges the necessity of providing quality jobs in the power sector and the effect that the decarbonization imperative has on traditional generation. In the event of a large downsizing at a plant (or plant closure), NRG's Plant Operations leadership team works with Human Resources to take a proactive approach to ensure that employees have the most options available to them during this transition. This includes meeting with union leadership, if applicable, on the effects of the transition, meeting with all impacted employees to assess if they are interested in another role at NRG, ensuring that impacted employees are aware of openings, giving preference to displaced qualified internal employees for open roles at other facilities, and when the employee is willing, offering to relocate impacted employees to take those roles. In addition, NRG offers outplacement services, resume writing skills workshops, and tuition assistance for retraining.

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## 1.3 Governance

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Since 2016, NRG's board's Governance and Nominating ("G&N") Committee has officially overseen 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 a full board meeting and is reviewed separately by the G&N Committee, in addition to being part of a general review of projects and transactions.

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

The head of the Corporate Sustainability Department leads all implementation of, and is responsible for developing, NRG's climate change policy positions and coordination between policy and commercial initiatives. This includes 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 the Corporate Sustainability Department is responsible for executing on

NRG's science-based targets to reduce emissions 50% by 2025 and achieve net-zero emissions by 2050, as well as 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.

In addition, all Plant Operations employees, including the Management Group, have a portion of their compensation based on environmental KPIs that include GHG reduction measures. The head of the Corporate Sustainability Department's incentive compensation includes the attainment of NRG's emissions goals.

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### 1.4 External ESG Rating and Analysis

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NRG believes not only in the importance of a clear and impactful sustainability strategy, but also in upholding its integrity and accountability in a fully transparent manner. To continue in this effort, NRG has solicited an updated ESG risk rating from Sustainalytics, a leading global provider ESG and Corporate risk analytics.

Sustainalytics has reviewed various ESG factors relevant both generally across industries and specific to NRG's business and has provided an ESG Risk Rating score of 31.8 on a scale of 0-100, representing a significant 7.9-point improvement from its 2019 risk rating of 39.7.<sup>5</sup> NRG is in the 36<sup>th</sup> percentile (172<sup>nd</sup> out of 483 companies) of its industry group (Utilities) and in the 16<sup>th</sup> percentile (10<sup>th</sup> out of 59 companies) within its sub-industry group of Independent Power Producers and Traders. In its prior review of NRG, Sustainalytics ranked NRG in the 56<sup>th</sup> percentile (268 out of 486 companies) of its industry group and in the 36<sup>th</sup> percentile (23<sup>rd</sup> out of 63 companies) within its sub-industry. Note that a lower number for the risk rating score and both percentile and absolute company rank within industry and sub-industry group represents *lower* risk.

The rating provider has noted that NRG exhibits strong corporate governance performance, which reduces its overall risk. The Carbon – Own Operations category is NRG's second most material ESG issue after Emissions, Effluents and Waste, and this Framework outlines the steps NRG is taking to address this issue. Furthermore, NRG is noted for not having experienced significant controversies.

## 2. NRG's Sustainability-Linked Bond Framework

NRG believes the issuance of Sustainability-Linked Bonds ("SLBs") will support its efforts to achieve its climate transition strategy and reinforce its commitment towards a low emissions future. Such bonds represent the next step in aligning NRG's business and financing with its commitments and values by creating a direct link between its climate and funding strategies.

This Sustainability-Linked Bond Framework ("Framework") will apply to any forthcoming SLBs. The aim of this Framework is to provide transparency and disclosure of NRG's SLBs to its investors and stakeholders, following the industry best market practices and subject to future market developments and expectations.

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<sup>5</sup> Please refer to Sustainalytics' ESG Risk Rating Summary Report for additional details.

The Framework defines a set of guiding principles for bonds linked to the achievement of material, quantitative, pre-determined, ambitious, regularly monitored and externally verified sustainability objectives through Key Performance Indicators (“KPIs”) and Sustainability Performance Targets (“SPTs”), with no specific dedicated use-of-proceeds.

NRG has designed this Framework in compliance with the Sustainability-Linked Bond Principles 2020<sup>6</sup> (“SLBP”) as published by the International Capital Market Association (“ICMA”), in order to be aligned with market best practices.

For all SLBs, NRG asserts that it will adopt the following as set out in this Framework:

1. Selection of KPIs
2. Calibration of SPTs
3. Bond characteristics
4. Reporting
5. Verification

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### 2.1 Selection of Key Performance Indicators (KPI)

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NRG may choose to incorporate one or more KPIs in future sustainability-linked financing transactions.

#### 2.1.1 KPI 1: Absolute greenhouse gas (GHG) emissions, MMtCO<sub>2</sub>e (Scope 1, 2 and 3<sup>7</sup> of U.S. emissions)

The KPI is:

1. Relevant, core and material to NRG’s overall business, and of high strategic significance to the company’s current and/or future operations. It measures the results of NRG’s efforts to achieve net zero emissions by 2050, and acts as a result-based key performance indicator of progress towards that target;
2. Measurable or quantifiable on a consistent methodological basis, as further explained below;
3. Externally verifiable by NRG’s independent auditor; and
4. Able to be benchmarked with NRG’s own performance (since 2014) and, to a certain extent, taking into account differences in scale and methodology with peers in the sector. The accurate and transparent calculation of NRG’s GHG footprint is a critical input for its roadmap to reach net zero emissions by 2050. NRG’s direct and indirect emissions are subject to verification under GHG Protocol: A Corporate Accounting and Reporting Standard, Revised Edition, 2004.

KPI 1 is structured under the following parameters (*expanded in Appendix 1*):

- Absolute U.S. based GHG emissions within a full calendar year
- Units will be million metric tons of carbon dioxide equivalent
- Will contain scope 1, 2 and 3 emissions identified as:

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<sup>6</sup> <https://www.icmagroup.org/green-social-and-sustainability-bonds/sustainability-linked-bond-principles-slbp/>

<sup>7</sup> Scope 3 emissions limited to employee business travel

- Scope 1 GHG emissions represent GHG emissions that occur from fuel combustion in boilers, turbines and engines used for the production of wholesale electric power at facilities owned or controlled by the Company.
- Scope 2 GHG emissions represent the generation of purchased electricity consumed by the Company and are determined using the guidance of the GHG Protocol Scope 2 Guidance, an amendment to the GHG Protocol Corporate Standard, 2015.
- Scope 3 GHG emissions encompass employee business travel only and are compiled by NRG's primary travel agency for air travel, hotel, car and train travel.

*NRG's decarbonization evolution*

*NRG's Historic U.S. GHG Emissions (Metric tons CO<sub>2</sub>e)<sup>8</sup>*

	2014	2015	2016	2017	2018	2019
<b>Total Scope 1</b>	63,049,000	55,517,000	42,980,000	42,100,000	41,670,000	36,790,000
<b>Total Scope 2</b>	254,000	237,000	308,000	229,000	189,000	187,000
<b>Total Scope 3 (employee business travel only)</b>	12,000	18,000	17,000	15,100	13,000	10,000
<b>Total GHG Emissions</b>	<b>63,315,000</b>	<b>55,772,000</b>	<b>43,305,000</b>	<b>42,344,100</b>	<b>41,872,000</b>	<b>36,987,000</b>

In the future NRG may decide to expand the number of KPIs at its disposal to include a number of additional means or results-based indicators. At such a point in time this Framework will be updated and any external review (see below) updated accordingly.

**2.2 Calibration of Sustainability Performance Targets**

The SPTs will be set in line with NRG's Climate Transition Strategy outlined at the beginning of the Framework, which aims to reach net-zero emissions by 2050 with the intermediary step of a 50% reduction in absolute GHG emissions by 2025 against a 2014 baseline.

NRG considers its current Climate Transition Strategy to be ambitious and in-line with a 1.5° C scenario. NRG's prior targets (-50% by 2030, -90% by 2050) were certified by SBTi as being aligned with a 2° C scenario back in 2014.

**SPTs for KPI 1**

SPTs related to KPI 1 for any specific SLB will vary based on the maturity of the instrument but will be calibrated off the 2025 and 2050 decarbonization targets and set as an absolute emissions target (MMtCO<sub>2</sub>e). For the avoidance of doubt, any divestments or acquisitions over the life of an SLB would not result in a recalibration of the SPT's absolute emissions target, in keeping with the overall net-zero ambition.

The external review provider has also confirmed the relevance, coherence and materiality of the selected KPIs, the advanced level of ambition of the SPTs, and the credibility of NRG's strategy to meet the SPTs.

<sup>8</sup> As of Dec. 31, 2019. Historical emissions have been adjusted for divestments and acquisitions per the GHG Protocol.

## 2.3 Bond Characteristics

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Unless otherwise stated, the proceeds of any SLB will be used for general corporate purposes. NRG will assign structural and/or financial implications to the non-achievement of the SPT in the legal documentation of any SLB. These implications could include, but are not limited to, a coupon-step up, increased redemption fee, or changes to the tenor of the bond. Any financial and/or structural characteristics will be commensurate and meaningful relative to the original financing's financial characteristics.

For any SLBs where a coupon step-up may occur:

- Each SLB may have one or more observation dates where step-ups could be triggered.
- A step-up would be applied from the first coupon date (and applied retroactively for the related interest period including the Notification Date, or apply to future interest periods, as specified in the SLB) following the Notification Date until the remaining maturity of the SLB if an SPT is missed on an observation date, as described in the SPT documentation.
- For the avoidance of doubt, in the case where the SLB allows two or more observation and step-up-dates, then these step-ups would be cumulative.

The exact mechanism and impacts of the achievement or failure to reach the pre-defined SPTs will be detailed for each bond in the pre-issuance template. Such documents will detail the KPI definition, calculation methodologies, SPTs and trigger events, financial/structural characteristic variation mechanisms, as well as where needed any fallback mechanisms in case the SPTs cannot be calculated or observed in a satisfactory manner, and language to take into consideration potential exceptional events or extreme events, including drastic changes in the regulatory environment that could substantially impact the calculation of the KPI or the restatement of the SPT. Where relevant, NRG may include potential exceptional events that could substantially impact the calculation of the KPI and SPT in the legal documentation of the SLB.

Any future SLBs with the same KPI(s) and SPT Observation Date must utilize an SPT of equal or greater climate ambition. In addition, at the issuance of such an SLB, any outstanding SLBs would have their equivalent SPT adjusted to reflect the greater ambition – clause of “the most ambitious target” – for three key reasons:

1. To enable the increase of ambition over time, and allow NRG to adapt to new circumstances
2. To avoid the coexistence of SLBs with different SPTs at the same dates for the same KPIs
3. To facilitate the reporting exercise – avoiding the need to validate the KPI against multiple targets

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## 2.4 Reporting

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On an annual basis, NRG will disclose performance of the selected KPI(s) within its yearly sustainability report. This report will be made available within five months of each fiscal year end and will include information on drivers of the KPI outcomes.

For each Sustainability-Linked Financing, NRG will disclose within the Sustainability-Linked Financing's legal documentation the following:

- A SPT Observation Date, where the company's performance of each KPI against the predefined SPT will be observed

- A SPT Notification Date, where the company will report on actual performance compared to the SPT

NRG will report on the performance of each KPI against the predefined SPT within five months of the Target Observation Date and disclose this in a document posted on NRG’s website.

## 2.5 Verification

Verification of the annual performance on the KPIs will be conducted to a reasonable assurance by the company’s external auditor under the SSAE 18 – AT-C210 Standards (or equivalent) and published as a standalone document on NRG’s website.

NRG’s external auditor will provide reasonable assurance on the performance of the company to the designated SPT annually at the Reference Date. This verification will be posted on the company’s website within five months of fiscal year end.

## 2.6 External Review

NRG has obtained a Second Party Opinion from Vigeo Eiris (“V.E”) to evaluate this Framework, its transparency and governance as well as its alignment with the SLBP. V.E is of the opinion that NRG’s Framework is aligned with the core components of the SLBP and is in line with best practices identified by V.E.

NRG commits to update the Second Party Opinion whenever this Framework is updated.

## 2.7 Pre-Issuance Template

Prior to the issuance of any SLB, NRG will provide the following information to investors in a format similar to the template in Appendix 2.

# Appendix 1: KPI Structural Considerations

## KPI 1: Absolute Greenhouse gas emissions, MMtCO<sub>2</sub>e (Scope 1, 2 and 3<sup>9</sup>)

<b>Definition</b>	<b>NRG’s absolute U.S. based GHG emissions in a calendar year</b>
<b>Units</b>	Million metric tons of carbon dioxide equivalents (MMtCO <sub>2</sub> e)
<b>Scope</b>	<p><b>Scope 1 GHG Emissions</b>  <i>Scope 1 GHG emissions represent GHG emissions that occur from fuel combustion in boilers, turbines and engines used for the production of wholesale electric power at facilities owned or controlled by the Company.</i></p> <p><i>The Scope 1 GHG emissions were determined by using methods specified by the Environmental Protection Agency within Title 40, Chapter I, Subchapter C, Part 98, Subparts A, C and D of the Code of Federal Regulations.</i></p>

<sup>9</sup> Scope 3 emissions limited to employee business travel



	<p><i>GHG emissions from combustion of fossil fuels used for other activities or equipment, such as auxiliary boilers, starter engines, mobile sources and offices are not included because they are not material sources of emissions.</i></p> <p><b>Scope 2 GHG Emissions</b>  <i>Scope 2 GHG emissions represent the generation of purchased electricity consumed by the Company and are determined using the guidance of the GHG Protocol Scope 2 Guidance, an amendment to the GHG Protocol Corporate Standard, 2015. Metered electricity purchases from United States based electricity distribution utilities are multiplied by appropriate regional United States Environmental Protection Agency eGRID emissions factors. These factors were sourced from EPA Center for Corporate Climate Leadership and used factors published in 2018.<sup>10</sup></i></p> <p><i>Emissions factors used to calculate market-based emissions, including both utility specific factors and residual mix, are not as widely available in the United States, therefore only location-based factors are used which may result in double counting between electricity consumers.</i></p> <p><i>Where utility metering and invoices are not available, some facility estimates of electricity usages were made using average electricity usage per square foot by region observed at other NRG facilities of similar type or provided by building owner/operator. Estimates for plants are made using available historical values and applying linear adjustment for Net Capacity Factor (NCF). If there is no historical information, then values are estimated based on 1) fuel type, 2) size of plant, and 3) technology of the plant.</i></p> <p><b>Scope 3 GHG Emissions (business travel only)</b>  <i>Scope 3 GHG emissions were compiled by NRG's primary travel agency for air travel, hotel, car and train travel. NRG's travel policy requires all business-related travel to be booked through Adelman Travel Group (Adelman). However, business does not include international travel, or domestic travel booked outside of the Adelman agency. Additionally, NRG has made recent acquisitions where employees used legacy travel agencies for business travel. Business travel booked through legacy travel agencies is not included in the report Scope 3 emissions. Due to the electronic tracking of nights booked, some room stays booked late in a given calendar year, but which were actually scheduled to take place early the following calendar year, may be included.</i></p> <p><i>Adelman used the Carbonfund.org Foundation's calculator<sup>11</sup> to determine the GHG emissions for air travel and car rental emissions booked through the travel agency. Hotel stays reported by Adelman also use the Carbonfund.org Foundation's methodology for hospitality assuming the upscale hotel emission rate of 26.6 kg CO<sub>2</sub> per room day.</i></p>
<p><b>Method</b></p>	<p><i>The Statement of GHG Emissions include the following greenhouse gases: carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O).</i></p>

<sup>10</sup> EPA Center for Corporate Climate Leadership. (2018, Feb). Emission Factors for Greenhouse Gas Inventories. Retrieved March 2019, from [https://www.epa.gov/sites/production/files/2018-02/documents/egrid2016\\_summarytables.pdf](https://www.epa.gov/sites/production/files/2018-02/documents/egrid2016_summarytables.pdf).

<sup>11</sup> How We Calculate - Carbonfund.org. (n.d.). Retrieved May 2016, from <https://carbonfund.org/how-wecalculate/>



	<p><i>Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), Sulphur Hexafluoride (SF<sub>6</sub>), and Nitrogen trifluoride (NF<sub>3</sub>) emissions have been omitted as they are not material sources of greenhouse gases for the Company.</i></p> <p><b>Global Warming Potentials</b>  <i>GHG emissions were calculated using the Global Warming Potentials (GWP) from the International Panel on Climate Change Fifth Assessment Report for CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O.</i></p>
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## Appendix 2: Pre-Issuance Template

	Template
Issuer	NRG Energy, Inc.
Use of Proceeds	[●]
Issue Date	[DATE]
Maturity Date	[DATE]
Tenor	[YEAR]
Issue Size	[●]
Currency	[●]
Reoffer price	[●]
Coupon	[●]
KPIs to be included	[●]
<b>KPI 1:</b> [ABSOLUTE GHG EMISSIONS]	[KPI # FROM FRAMEWORK]
Targeted SDG	SDG [●]
KPI Definition and description	[KPI DEFINITION FROM FRAMEWORK]
KPI Calculation Methodology	As per Framework Appendix 1
KPI Long Term Trajectory	[●]
Number of SPTs for KPI 1	[●]
SPT 1	[●]
SPT 1 Observation Date	[DATE]
SPT 1 Notification Date	[DATE]
Mechanism Description	[●]
Coupon Step-Up 1 (basis points per annum)	[●]
1 <sup>st</sup> Coupon Payment Date after the SPT 1 Notification date	[DATE]

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