

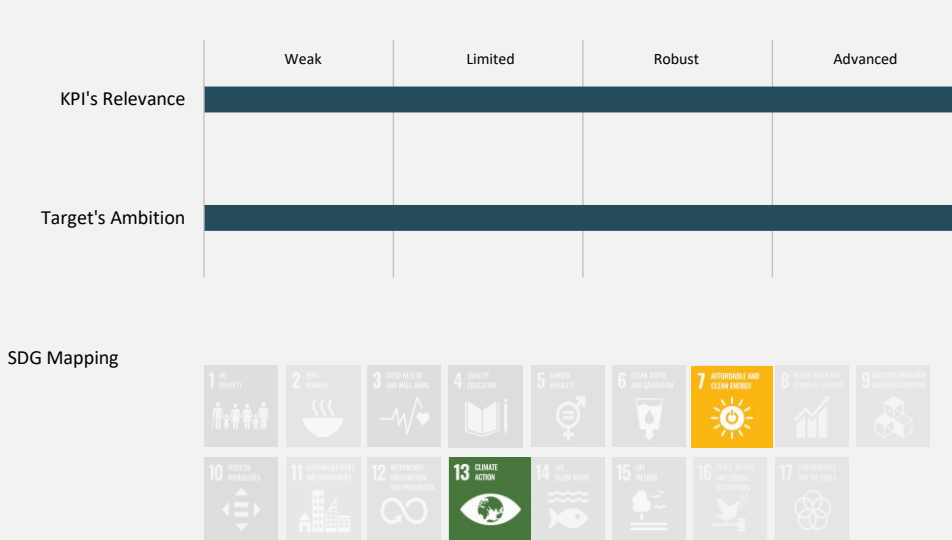
SECOND PARTY OPINION

On the sustainability of NRG's Sustainability-Linked Bond Framework

V.E is of the opinion that NRG's Sustainability-Linked Bond Framework is **aligned** with the core components of the Sustainability-Linked Bond Principles (SLBP) 2020 and is in line with **best practices** identified by V.E



Framework



Characteristics

Audit of the Data	Yes
Three-year Historical Data	Yes
Nature of the Impacts on the Bond's Characteristics	Financial
Disclosure of measures to achieve the SPT	Yes

Sustainability Performance Target (SPT)

KPI 1: Absolute GHG Emissions

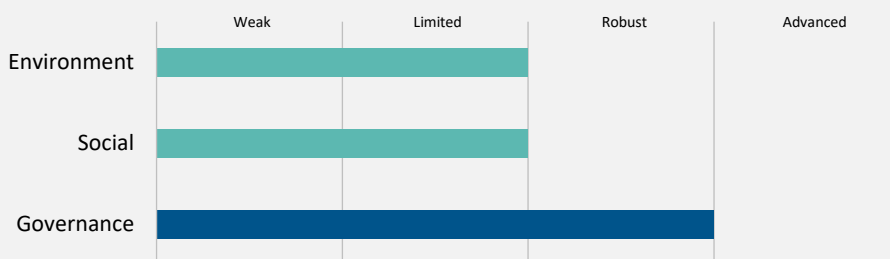
Absolute U.S. based greenhouse gas (GHG) emissions within a full calendar year. Scope 1, 2, and Employee Business Travel (Scope 3) measured in million metric tons of carbon dioxide equivalent (MMtCO₂e).

2014 (Baseline)	2025
63.3 MMt CO ₂ eq	31.7* MMt CO ₂ eq

*Trigger event, represents a 50% reduction

Issuer

ESG Performance as of October, 2020*



Controversies

Number of controversies	None
Frequency	NA
Severity	NA
Responsiveness	NA



- Advanced
- Limited
- Robust
- Weak

Controversial Activities

- Animal welfare
- Cannabis
- Chemicals of concern
- Civilian firearms
- Alcohol
- Fossil Fuels industry
- Coal
- Gambling
- Genetic engineering
- High interest rate lending
- Human Embryonic Stem Cells
- Military
- Nuclear power
- Pornography
- Reproductive medicine
- Tar sands and oil shale
- Tobacco

*The October 2020 ESG (environmental, social and governance) performance rating is a partial update integrating only changes in KPIs up to the end of 2019. It does not integrate NRG's latest GHG reduction targets, assessed in the coherence sub-section.

Keys findings

V.E is of the opinion that NRG’s Sustainability-Linked Bond Framework is **aligned** with the core components of the Sustainability-Linked Bond Principles (SLBP) 2020 and best practices identified by V.E.

Selection of the Key Performance Indicator (KPI) – aligned with the SLBP and best practices identified by V.E

- The KPI is relevant and material from an environmental standpoint.
- The KPI is measurable, externally verifiable and can be benchmarked.
- The KPI’s definition, the rationale behind its selection, the calculation methodologies and coverage are clearly defined.

Calibration of the Sustainability Performance Target (SPT) – aligned with the SLBP and best practices identified by V.E

- The SPT demonstrates an advanced level of ambition.
- The timeline, baseline and trigger events are clearly disclosed.
- The means to achieve the SPT are clearly disclosed.

Bond Characteristics – aligned with the SLBP

- The nature of the bonds’ characteristics’ variation is clearly disclosed.
- NRG commits to disclose the actual financial impact in the bond documentation for each issuance. For the first issuance, it is a +25 bps coupon step-up.

Reporting– aligned with the SLBP and best practices identified by V.E

- The internal control and reporting processes are relevant, transparent and support the provision of reliable data.
- NRG commits to annual reporting on all relevant information related to the KPI and its associated SPT, including results, underlying methodologies and assumptions.

Verification– aligned with the SLBP and best practices identified by V.E

- The KPI will be externally verified on an annual basis until maturity of the bonds.
- The achievement of the SPT will be externally verified at least on an annual basis and the verification assurance reports will be made publicly available.

Scope of External Reviews

<input checked="" type="checkbox"/>	Pre-issuance Second Party Opinion	<input checked="" type="checkbox"/>	Independent verification of KPI(s) reported data
<input checked="" type="checkbox"/>	Independent verification of SPT(s) achievement		

Contact

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SCOPE

V.E was commissioned to provide an independent opinion (“Second Party Opinion” or “SPO”) on the integration of one environmental factor to the Sustainability-Linked Bonds (the “Bonds”) issued by NRG Energy, Inc. (“NRG” or the “Issuer”) in compliance with the Sustainability-Linked Bond Framework (the “Framework”) created to govern their issuances¹. The Framework aims to highlight both the Issuer’s sustainability strategy and sustainable finance strategy while demonstrating its alignment with the ICMA’s Sustainability-Linked Bond Principles. In addition, the Framework includes the Issuer’s commitment to achieve a specific target (“Sustainability Performance Target” or “SPT”) regarding one environmental key performance indicator (the “KPI”) proposed as part of its sustainability strategy.

The debt instruments included in the Framework are intended to finance general corporate purposes, as opposed to other sustainable financial instruments such as green bonds or green loans. These instruments are agnostic on how funds are used. The main feature of this type of financing is the variation of the bond’s financial characteristics, depending on whether the Issuer achieves predefined sustainability performance objectives.

For these so-called Sustainability-Linked Bonds, the selected KPI to be linked to the variation of the bonds’ financial characteristics is the following:

- KPI 1: Absolute greenhouse gas (GHG) emissions, MMtCO_{2e} (Scope 1,2 and 3² of U.S. emissions), with the following target and trigger event:
 - o SPT: Decrease NRG’s absolute greenhouse gas emissions by 50% by 2025 compared with the current 2014 baseline, equivalent to a target of 31.7 MMtCO_{2e}.

Our opinion is established using V.E’s Environmental, Social and Governance (“ESG”) assessment methodology and the International Capital Market Association’s (ICMA) Sustainability-Linked Bond Principles (“SLBP”) voluntary guidelines, published in June 2020. This opinion is strictly limited to the integration of one environmental factor in the Bonds. This opinion does not cover the integration of broader sustainability factors (i.e. social and governance), or the labelling of the Bonds where the final decision is left to NRG. This opinion does not constitute a verification or certification.

Our opinion is built on the review of the following components:

1. **Framework**: we assessed the Framework’s alignment with the core components of the SLBP 2020.
2. **Issuer**: we assessed the Issuer’s ESG performance, its management of potential stakeholder-related ESG controversies and its involvement in controversial activities³.

Our sources of information are multi-channel, combining data from (i) public information gathered from public sources, press content providers and stakeholders, (ii) information from V.E exclusive ESG rating database, and (iii) information provided by the Issuer through documents.

We carried out our due diligence assessment from October 19, 2020 to November 4, 2020. We consider that we were provided with access to all the appropriate documents we solicited. We consider that the information made available enables us to establish our opinion with a reasonable level of assurance on its completeness, precision and reliability.

¹ The Issuer reports that issuances will include bonds and credit lines.

² Scope 3 emissions are limited to employee business travel

³ The 17 controversial activities screened by V.E are: Alcohol, Animal welfare, Cannabis, Chemicals of concern, Civilian firearms, Fossil Fuels industry, Coal, Gambling, Genetic engineering, High interest rate lending, Human Embryonic Stem Cells, Military, Nuclear power, Pornography, Reproductive medicine, Tar sands and oil shale, and Tobacco.

FRAMEWORK

The Issuer has described the main characteristics of the Bonds within a formalized Framework which covers the core components of the SLBP 2020 (the last updated version was provided to V.E on October 23, 2020). The Issuer has committed to make this document publicly accessible on its website on the first issuance date, in line with good market practices.

Alignment with Sustainability-Linked Bond Principles

Selection of the Key Performance Indicator (KPI)



COHERENCE

V.E considers that the selected KPI is coherent with NRG's strategy and priorities in terms of sustainability.

In November 2014, NRG set targets to reduce its absolute GHG emissions by 50% by 2030, and 90% by 2050⁴, against a 2014 baseline. In 2015, the company was the first in its sector in the United States, and one of the first ten companies in the world to receive the certification by the Science-based Targets Initiative, in order to align its reduction strategy to the 2° C warming limit set in the Paris Agreement (COP21).

On September 24, 2019, NRG announced the improvement of its science-based targets. NRG's new goals are to reduce emissions 50% by 2025 on the way to net-zero by 2050, from a 2014 baseline. A 50% reduction in emissions by 2025 is, on an absolute basis, equivalent to a 31.7 MMtCO_{2e} target, in line with the Intergovernmental Panel on Climate Change (IPCC) revised guidance to limit warming to 1.5 degrees Celsius.

In addition, NRG is a member of Ceres, a nonprofit organization based in the United States working with investors and companies to build leadership and drive solutions throughout the economy. Through networks and advocacy, Ceres tackles the world's biggest sustainability challenges, including climate change, water scarcity and pollution, and inequitable workplaces.⁵ Through its participation in Ceres, NRG has the ability to convene a formal Stakeholder Advisory Body, which would include some of its key investors, customers, NGOs, policy groups, and energy experts. As highlighted in NRG's Sustainability-Linked Bond Framework, in 2018 the company conducted climate scenario analysis looking at four specific⁶ temperature scenarios: 1.5 degrees Celsius, 2 degrees Celsius, 3 degrees Celsius and 4 degrees Celsius. 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 Issuer reports the insights from these assessments are 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 recommendations by the Task Force on Climate-related Financial Disclosures (TCFD).



⁴ NRG Sustainability Report - p.33

⁵ <https://www.ceres.org/about-us>

⁶ Scenarios included data from the IEA (2DS, DDPP, B2DS) and US Fourth National Climate Assessment

SDG Matrix

The selected KPI is likely to contribute to two United Nations’ Sustainable Development Goals (“SDGs”), namely SDG 7. Affordable and clean energy, and SDG 13. Climate Action.

KPI	SDG	SDG TARGETS
ABSOLUTE GREEN HOUSE GAS EMISSIONS (SCOPE 1,2 AND 3 ⁷ OF US EMISSIONS)		7.1 By 2030, ensure universal access to affordable, reliable and modern energy services. 7.2 By 2030, increase substantially the share of renewable energy in the global energy mix
		UN SDG 13 consists of taking urgent action to combat climate change and its impacts. Through GHG emissions reduction targets, companies can contribute to integrate climate change into their strategy and planning, and to reduce GHG emissions.

KPI 1: ABSOLUTE GREENHOUSE GAS EMISSIONS (SCOPE 1,2,3⁸ of US emissions)

MATERIALITY

V.E considers that the selected KPI reflects one of the Issuer’s most material sustainability issues as well as the most material challenge for its sector.

The Electric & Gas Utilities sector has a major role to play regarding climate change and energy efficiency through the promotion of renewable energy sources, energy efficiency as well as reduction in greenhouse gas emissions from power plants. Companies are expected to set ambitious climate change strategies, backed by relevant targets and widespread environmental management systems. Indeed, with two-thirds of greenhouse gas (GHG) emissions coming from the energy sector, the IPCC highlights the need for a transformation of the world’s energy system with an immediate, large-scale shift to renewable energy and energy efficiency. Companies are also expected to dismiss their carbon-intensive means of production, meaning dismissing their fossil fuel powered plants.

The Paris Agreement sets out a global framework to avoid dangerous climate change by limiting global warming to well below 2°C and pursuing efforts to limit it to 1.5°C. It also aims to strengthen companies’ abilities to deal with the impacts of climate change and support them in their efforts. The Paris Agreement is the first-ever universal, legally binding global climate change agreement, adopted at the Paris Climate Conference (COP21) in December 2015.

NRG has conducted a Key Issues Assessment which has been disclosed as a materiality matrix⁹ identifying GHG emissions and climate change as its most important issue to address.

MEASURABILITY AND VERIFICATION

⁷ Scope 3 emissions are limited to employee business travel

⁸ Scope 3 emissions are limited to employee business travel

⁹ Sustainability Report 2017 - p28

The KPI is externally verified and measurable on a consistent methodological basis. The selected KPI and its associated targets are included in the yearly Sustainability Report, which has been externally audited since 2014.

The Issuer commits to review the Framework in case of material changes, including the KPI's coverage, calculation methodology, and in particular the SPT's calibration.

CLARITY

The rationale and process for the selection of the KPI is considered relevant and is clearly disclosed within NRG's Framework.

The definition, perimeter and underlying methodologies for the selected KPI are defined in the Framework and in internal documentation. It relies on recognised international standards, which allows it to be benchmarked.

The Issuer refers to the GHG Protocol: A Corporate Accounting and Reporting Standard, Revised Edition, the Global Reporting Initiative (GRI) and the Sustainability Accounting Standard Board (SASB). In particular, NRG refers to the GRI 305 Emissions¹⁰, the Disclosure 305-1 Direct (Scope 1), 305-2 Indirect (scope 2) and 305-3 Indirect (scope 3) GHG emissions.

The Issuer clarifies its scope 3 emissions data cover only business travel in the US.

EXHAUSTIVENESS

The Issuer reports that the KPI covers the business activity related to its business in the US, which represents approximately 93% of the company's global operations.¹¹

BEST PRACTICES

- ⇒ The selected KPI reflects material ESG challenges for the sector and the Issuer has disclosed its materiality matrix.
- ⇒ The KPI is measurable or quantifiable on a consistent methodological basis and the Issuer commits to review the Framework in case of material changes, including the KPI's coverage, calculation methodology, and in particular the SPT's calibration.
- ⇒ The KPI was previously disclosed and has historical externally verified values covering at least the previous three years.
- ⇒ The KPI definition relies on external references (GRI, GHG protocol, etc.) allowing it to be benchmarked.
- ⇒ The rationale and process for the KPI selected is clearly disclosed in the Framework.

¹⁰ <https://www.globalreporting.org/standards/media/1012/gri-305-emissions-2016.pdf>

¹¹ The Issuer reports the remaining 7% of NRG's emissions results from NRG's minority stake in a power plant in Australia over which it has no operational control.

Calibration of the Sustainability Performance Target (SPT)



AMBITION

KPI 1: GREENHOUSE GAS EMISSIONS AMOUNT (SCOPE 1, 2 and 3¹²)

By using the absolute value of GHG emissions per year, the data set should fairly show positive or negative KPI trends, reflecting the Issuer’s commitment to fight climate change, thus enabling investors to make an appropriate assessment of the overall environmental performance.

Table 1 –Absolute GHG emissions – Scope 1, 2 and 3 (measured in MMtCO₂e)

KPI ¹³	REPORTED DATA						OBJECTIVES	
	2014* (Baseline)	2015	2016	2017	2018	2019	2025**	2050
	63.3	55.8	43.3	42.3	41.9	37.0	31.7	0
Annual variation (%)	NA	-11.9%	-22.4%	-2.2%	-1.1%	-11.7%		
Absolute GHG emissions reduction (in comparison to the baseline)	-50%							
	-41.6%						-8.4%	

* This number may change due to M&A activity over the life of the bonds, but the absolute target will not.

**Trigger event

Based on several points of comparison, we consider that NRG’s target shows an advanced¹⁴ level of ambition.

The selected SPT is consistent with NRG’s sustainability strategy, which is considered ambitious. The objective is to reach 31.7 MMtCO₂e of absolute GHG emissions by 2025, compared to the 2014 baseline which is 63.3 MMtCO₂e. This represents a 50% reduction of absolute GHG emissions, in line with the IPCC revised guidance to limit warming to 1.5 degrees.

The Issuer has provided historical data on the KPI, which shows that between 2014 and 2019, absolute GHG emissions decreased by 41.6% in comparison to the 2014 baseline value. In contrast, the decrease from 2019 to 2025 would represent an 8.4% decrease in comparison to the 2014 baseline value. This historical data indicates that there has been larger decreases in previous years, and the SPT suggests a lower ambition for 2025 than the GHG emissions decrease of previous years. However, the trend shows a consistent decrease, and the SPT is in line with the target of reaching net-zero emissions in 2050.

The SPT demonstrates ambition compared to sector standards, objectives, and targets, by being aligned with a 1.5°C warming scenario. The SPT is viewed by NRG as an intermediary target to the objective of net-zero emissions in 2050.

¹² Scope 3 emissions are limited to employee business travel.

¹³ Of note, the values presented here are rounded to one decimal. Please refer to the Framework for the reference values.

¹⁴ VE scale of assessment: Weak / Limited / Robust / Advanced

These long-term targets were updated in 2019. In 2014, NRG set an original target to reach a 50% GHG emissions reduction by 2030 and 90% in 2050. These targets were certified by the SBTi¹⁵ to be aligned with the 2 degree Celsius scenario. NRG signed up to the Science Based Targets initiative (SBTi) to ensure that the methodology set for its carbon SPTs is ambitious and externally approved to be in line with the Paris Agreement. NRG has reported it is currently in the process of certifying its updated targets by the SBTi as aligned with the 1.5 degree Celsius scenario.

NRG's SPT appears to be more ambitious than the targets of most Electric and Gas Utility companies in North America and in line with the best performers (as compared to the *Top 3 performers* according to the V.E.'s rating methodology). For instance, Sempra Energy aims to reduce the intensity of its carbon emissions (pounds of CO₂ emissions per megawatt-hour) by 35% by 2021, compared to a 2010 baseline. In addition, AES has set a target of a 70% reduction in its carbon intensity (CO₂ per MWh) by 2030 from 2016 levels. Since NRG's targets are set in absolute terms and not as normalized indicators, the SPT appears to be more meaningful as normalized indicators reported by sector peers may not necessarily reflect a decrease in absolute emissions. Overall, NRG demonstrates it has targets that are in line with its sector's best performers and which are considered ambitious both in terms of percentage reduction and absolute emissions.

MEASURES TO ACHIEVE THE SPT

The measures to achieve the SPT are credible and disclosed in the Framework. The SPT will be achieved through four main strategies:

Decarbonization

The Issuer reports it is deploying a range of initiatives in order to decarbonize, including the optimization of its existing generation fleet. This strategy includes measures such as:

- Ongoing maintenance capital expenditures and operating expenditures to drive incremental efficiency gains;
- Repowering existing coal-fired 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.

NRG is working to reduce the carbon footprint of its gas-fired generation fleet. NRG is reportedly exploring the potential to upgrade combined cycle gas turbines ("CCGT") to newer technology turbines that can accept alternative low carbon gases such as bio-methane and/or green or blue hydrogen¹⁶ as the company seeks to continue to drive additional GHG emissions reductions.

An area for improvement is to provide specific targets for the less frequent running of fossil fuel generation assets, and the retiring of fossil fuel generation assets.

¹⁵ The SBTi is a collaboration between Climate Disclosure Project (CDP), the United Nations Global Compact, World Resources Institute and the Worldwide Fund for Nature (WWF) that defines and promotes best practices in science-based target setting and independently assesses companies' targets.

¹⁶ 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 &/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 greenhouse gases.

Diversification

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 and reduces the direct emissions from NRG's business activity. Diversification avenues include:

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

The Issuer has stated that its strategy is not to become a developer, owner, or operator of large-scale renewable energy generation as a pathway to decarbonization, but rather to leverage 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 2019, NRG secured 1.6 GW of renewable power through PPAs with third-party project developers and other counterparties and is actively working to contract additional PPAs.

Divestment of high emission assets

In order to meet its net-zero emissions goal by 2050, the Issuer states it will look to exit certain high GHG activities via strategically targeted asset sales where the opportunity generates appropriate risk adjusted returns for shareholders. Since 2014, NRG has divested 27,510 MW net capacity of fossil fuel generation.

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 IEA, Carbon Capture, Use, and Storage (CCUS) technologies are most likely necessary to remain within a 1.5°C global warming limit. NRG has invested in CCUS at its Petra Nova¹⁷ facility, the world's largest post-combustion carbon capture facility located in Houston. The project can capture more than 5,000 tons of CO₂ per day, and since operations began in late 2016, the project has combined carbon capture with enhanced oil recovery (EOR) to increase domestic oil supply, and reportedly captured four million tons of CO₂¹⁸. The Issuer has communicated transparently in its Framework that NRG has not done a life cycle assessment of Petra Nova, and recent academic studies suggest that CO₂ captured and used for EOR can result in net negative emissions on a life cycle basis¹⁹.

Areas for improvement are to commit to undergoing a life-cycle assessment of Petra Nova, to transparently communicate the amount of GHGs that require offsetting and to estimate the quantitative contribution of NRG's transition levers to the achievement of the SPT, in order to properly assess the impact of their decarbonisation, diversification and divestment strategies, compared to offsetting. V.E is of the opinion that offsetting should be marginal compared to the other transition levers, as it represents a transfer of GHG emissions rather than an absolute decrease of emissions on a global scale.

¹⁷ In the current exceptionally low oil price environment, as of May 2020, NRG, JX Nippon Oil and Gas Exploration have suspended carbon capture operations at Petra Nova and the delivery of CO₂ to the West Ranch Oil Field.

¹⁸ The Issuer recognizes that the four million tons of CO₂ 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 CO₂ capture, its use for EOR, and the ultimate use of the oil produced thereby. These other processes include CO₂ capture, CO₂ compression, CO₂ pipeline transport, CO₂ injection, oil processing, CO₂ recycling and dehydration, fugitive emissions, construction, land use, well drilling, oil transport, oil refining, and hydrocarbon product combustion, among other processes.

¹⁹ See Joel Minchak, Sanjay Mawalkar, and Neeraj Gupta, "Large CO₂ Storage Volumes Result in Net Negative Emissions for Greenhouse Gas Life Cycle Analysis Based on Records from 22 Years of CO₂-Enhanced Oil Recovery Operations", *Energy & Fuels*, February 25, 2020 and Vanessa Nunez-Lopez, Ramon Gil-Egui, Pooneh Hosseini-noosheri, Susan D. Hovorka, and Larry W. Lake, "Final Report: Carbon Life Cycle Analysis of CO₂-EOR for Net Carbon Negative Oil (NCNO) Classification", work submitted to U.S. Department of Energy National Energy Technology Laboratory, April 1, 2019.

BEST PRACTICES

- ⇒ The SPTs show an advanced level of ambition compared to sector standards and compared to sector peers.
- ⇒ The measures for achieving the SPTs are disclosed.

Bond Characteristics



The issuer states that the proceeds of any Bond issued under this Framework 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 Bond. 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.

NRG confirms that the bonds issued under this Framework will be subject to variations in their financial characteristics depending on the achievement of the defined trigger events. The exact mechanism and impacts will be detailed for each bond in the pre-issuance template, and publicly disclosed.

V.E considers that the variation of the SLB's structural and/or financial characteristics for the Bond issuance is meaningful. The communicated trigger event is the following:

1. Decrease NRG's absolute GHG emissions in its US operations by 50% by December 31, 2025, equivalent to 31.7 MMtCO₂e target, from the current 2014 baseline.

If the SPT is not met as of the reference date (i.e. the date on which the relevant target should be achieved), it will trigger a step-up margin or margin adjustment, as applicable, of **+25bps** for the first bond, bringing an increase in the interest rate applicable to interest periods following such reference date.

*V.E considers that, as of today, there is insufficient information and precedents in the market to appropriately assess the potential best practices regarding the bond characteristics' variation. In this sense, the "Aligned" level is currently considered to be the highest level to be achieved by Issuers on this pillar.

Reporting

Not Aligned

Partially Aligned

Aligned

Best Practices

KPI 1: ABSOLUTE GREENHOUSE GAS EMISSIONS (SCOPE 1,2,3²⁰ of US emissions)

REPORTING

The Issuer commits to report on an annual basis on its selected KPI within its yearly sustainability report until Bond maturity. The Issuer commits to review this Second Party Opinion (which is publicly available) in case of material changes, including the KPI's coverage, calculation methodology, and in particular the SPT calibration. NRG reports it has disclosed and verified its GHG emissions from U.S. based operations since 2014.

The process for monitoring is defined in NRG's Emissions Inventory: Sustainability Reporting Protocol. Data gathering is managed by the Corporate Sustainability Department in cooperation with Environmental Compliance, Operations, and Facilities. The Corporate Sustainability Department compiles the complete emissions inventory and delivers it to an external auditor for verification.

Scope 1 fuel combustion emission sources: NRG is required under the U.S. EPA's Acid Rain Program to report hourly CO₂ emissions data to the U.S. EPA emissions tracking system (ETS) for many of its combustion units. For these units, NRG uses CO₂ emissions data reported to EPA using 40 CFR Part 75 for its greenhouse gas emissions inventory in order to maintain consistency with existing legal compliance data. For combustion units not covered by U.S. EPA's Acid Rain Program, CO₂ emissions are estimated based on fuel consumption data. Fuel consumption data are also collected and recorded for units that already report emissions data to the U.S. EPA ETS. This fuel consumption data are used to separately estimate CO₂ emissions, which is then used as a quality control check on continuous emissions monitoring data. Fuel consumption data are also necessary for the purpose of estimating CH₄ and N₂O emissions from all units, as emissions of these pollutants are not reported to U.S. EPA at this time.

Scope 2: NRG Operations personnel collect invoices directly from plants and NRG offices. The data are then entered into the EPA's Simplified GHG Emissions Calculator

Scope 3: NRG's Corporate Sustainability Department employees gather business travel data directly from NRG's authorized travel agent and compile it into a spreadsheet for verification.

Calculation methodologies have not evolved since data was first reported in 2014. The Issuer has committed to publicly disclose any changes in its calculation methodologies.

CONTROL

The KPI is externally verified and measurable on a consistent methodological basis. The selected KPI and its associated targets are included in the yearly Sustainability Report, which has been externally audited since 2014.

ACCESIBILITY OF RESULTS

The Issuer confirms information about absolute GHG emissions (Scope 1, 2, and 3 for business travel only) will be disclosed within the Sustainability Report on an annual basis, from which progress to the 31.7 MMtCO₂e SPT can be inferred. Progress to the 31.7 MMtCO₂e SPT will also explicitly be reported in a separate document and provided on the "Investor" section of NRG's website.

²⁰ Scope 3 emissions are limited to employee business travel.

Reporting *(continued)*

BEST PRACTICES

- ⇒ The reporting will be published annually, and the Issuer commits to update the SPO (which is publicly available) in case of material changes, including the KPI's coverage, calculation methodology, and in particular the SPT calibration.
- ⇒ Reporting on the KPI will be published annually until maturity of the bond

Verification



The performance level against the SPT for the KPI will be externally verified annually until Bond maturity.

The verification of the annual performance on the KPI 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 within five months of financial year end.

BEST PRACTICES

- ⇒ The verification will be conducted annually for the SPT of the KPI until Bond maturity

ISSUER



NRG Energy, Inc. owns and operates a diverse portfolio of power-generating facilities primarily in the United States. The Company offers energy production and cogeneration facilities, thermal energy production, and energy resource recovery facilities.

ESG Performance

The Issuer’s ESG performance was assessed through a complete process of rating and benchmarking.

As of October, 2020²¹, NRG displays a limited ESG performance (42/100), ranking 21st in the Electric & Gas Utilities North America sector (in V.E rating universe), which covers 69 companies. The company is limited in the Environmental and Social pillar, and robust in the Governance pillar.

DOMAIN	COMMENTS	OPINION
Environment	<p>NRG’s performance in the Environmental pillar is considered limited. Its score is above the sector average.</p> <p>NRG commits to all its responsibilities in terms of climate change, its carbon factor is still relatively high.</p> <p>In terms of the company’s overall environmental management, NRG reports on its CO₂ emission performance against its targets. Furthermore, it has set in place a tool to communicate and track each power generation facility’s completion of mandatory environmental Initiatives, as designed by the company for improved environmental performance. The company has external verification of its environmental reporting.</p> <p>In 2019, NRG had a total net generation of 54,370 MWh. From this, 48.6% were sourced from Coal, 33.2% from Natural Gas, 17.8% from Nuclear energy, 0.02% from Renewables sources and 0.38% from Oil. The company’s carbon factor of thermal facilities stood at 876 kg CO₂ per MWh in 2019, in the bottom quartile of the sector.</p> <p>NRG also disclosed quantitative targets related to energy demand-side management.</p> <p>Of note, the October 2020 ESG performance rating does not integrate NRG’s latest GHG reduction targets, which have been assessed in the coherence section.</p>	Advanced
		Robust
		Limited
		Weak

²¹ Of note, the October 2020 ESG performance rating is a partial update integrating only changes in KPIs up to the end of 2019. It does not integrate new policies/strategies formalized by the company since April 2019.

DOMAIN	COMMENTS	OPINION
Social	<p>NRG's performance in the Social pillar is considered limited. Its score is above the sector average.</p>	Advanced
	<p>NRG's performance in terms of Human Rights is limited. The Company is silent on its efforts to promote labour rights. On non-discrimination, no specific training or monitoring of salary disparities appear to be in place, but the percentage of women in management and ethnic minorities in staff increased between 2017 and 2019.</p> <p>The company's performance on Human Resources is limited. NRG does not seem to have in place relevant HR policies with the exception of a safety policy. Despite recent reorganisations, NRG does not report on how it worked to limit its impacts on affected employees. NRG has managed to decrease the accident rate among its employees; however, no data on contractor safety are disclosed. Employee representation structures continue to represent a minority of employees by the end of 2017.</p>	Robust
	<p>NRG's performance in Community Involvement is limited. NRG does not report on indicators to reflect its efforts to promote access to energy and prevent fuel poverty. On the promotion of local social and economic development, the Company has put in place measures such as capacity building programmes and social impact assessments but the coverage of these measures remains unclear. Lastly, the Company operates in a jurisdiction considered not compliant enough by the OECD without justification.</p>	Limited
	<p>NRG's performance in the integration of social issues in the supply chain is robust. The Issuer has a formalized commitment towards this issue and has extensive measures that include social factors in supply chain management such as risk assessments, and the integration of social issues in its contractual clauses.</p>	Weak
Governance	<p>NRG's performance in the Governance pillar is considered robust. Its score is above the sector average.</p>	Advanced
	<p>NRG's Corporate Governance performance is robust. The Audit Committee has a comprehensive role in overseeing internal and external controls, and the internal control system covers CSR risks related to climate change and pollution prevention. CSR issues appear to be discussed at Board level. Furthermore, health and safety objectives are considered in the determination of variable remuneration of senior executives. In terms of Shareholders' rights, there are no major restrictions on shareholders' abilities to vote.</p>	Robust
	<p>NRG's performance in the Business Behaviour domain is limited. Although internal controls to address corruption and anti-trust issues have been set by the Company, the data on internally-reported incidents are not disclosed. NRG is transparent on its lobbying expenditures</p>	Limited
		Weak

Management of ESG Controversies

As of October 2020, the review conducted by V.E did not reveal any ESG controversy against NRG over the last three years.

Involvement in Controversial Activities

NRG is involved in three of the 17 controversial activities screened under our methodology, namely:

- Major involvement in Fossil Fuels Industry: NRG has an estimated turnover from fossil fuels which is over 50% of total turnover. This turnover is derived from fossil fuel-powered electricity generation.
- Major involvement in Coal: NRG has an estimated turnover from coal which is between 20% and 33% of total turnover. This turnover is derived from coal-powered electricity generation.
- Minor involvement in Nuclear Power: NRG has an estimated turnover from involvement in nuclear power which is between 5% and 10% of total turnover. This turnover is primarily derived from nuclear-powered electricity generation, as well as from services provided to the nuclear power industry.

NRG appears to be not involved in any of the other 14 controversial activities screened under our methodology, namely: Alcohol, Animal welfare, Cannabis, Chemicals of concern, Civilian firearms, Gambling, Genetic engineering, High interest rate lending, Human Embryonic Stem Cells, Military, Pornography, Reproductive medicine, Tar sands and oil shale, and Tobacco.

The controversial activities research provides screening of companies to identify involvement in business activities that are subject to philosophical or moral beliefs. The information does not suggest any approval or disapproval of their content from V.E.

METHODOLOGY

In V.E' view, Environmental, Social and Governance (ESG) factors are intertwined and complementary. As such they cannot be separated in the assessment of ESG management in any organisation, activity or transaction. In this sense, V.E provides an opinion on the Issuer's ESG performance as an organisation, and on the processes and commitments applicable to the intended issuance.

Our Second Party Opinions (SPOs) are subject to internal quality control at three levels (Analyst, Project Manager and Quality Reviewer). If necessary, this process is complemented by a final review and validation by the Expertise Committee and Supervisor. A right of complaint and recourse is guaranteed to all companies under our review, following three levels: first, the team in contact with the Issuer; then the Executive Director in charge of Methods, Innovation & Quality; and finally, V.E' Scientific Council. All employees are signatories of V.E' Code of Conduct, and all consultants have also signed its add-on covering financial rules of confidentiality.

ISSUANCE

Alignment with the Sustainability-Linked Bond Principles

Scale of assessment: Not aligned, Partially aligned, Aligned, Best Practices

The Framework has been evaluated by V.E according to the LMA's Sustainability-Linked Loan Principles – May 2020 ("SLLP") and the ICMA's Sustainability-Linked Bond Principles - June 2020 ("SLBP") and on our methodology based on international standards and sector guidelines applicable in terms of ESG management and assessment.

Selection of Key Performance Indicators (KPIs)

KPI's materiality and coherence with the Issuer overall sustainability strategy, KPI's measurability and clarity, internal and external control over the KPI's data, exhaustiveness of the perimeter.

Calibration of Sustainability Performance Targets (SPTs)

Coherence of the SPTs with the overall sustainability strategy, ambition of the SPTs (compared the Issuer's own performance, sector peers and relevant international standards), trigger events' disclosure, means credibility (including scope and geographical coverage of the means).

Bond characteristics

Disclosure of the bond characteristics' variation, meaningfulness of these variation.

Reporting

Reporting process formalisation and verification, data's accessibility.

Verification

Verification of the performance against the SPTs.

ISSUER

Issuer's ESG performance

Scale of assessment of ESG performance: Weak, Limited, Robust, Advanced

NB: The Issuer's level of ESG performance (i.e. commitments, processes, results of the Issuer related to ESG issues), has been assessed through a complete process of rating and benchmarking developed by V.E.

The Issuers ESG performance has been assessed by V.E on the basis of its:

- Leadership: relevance of the commitments (content, visibility and ownership).
- Implementation: coherence of the implementation (process, means, control/reporting).
- Results: indicators, stakeholders' feedbacks and controversies.

Management of stakeholder-related ESG controversies

A controversy is an information, a flow of information, or a contradictory opinion that is public, documented and traceable, allegation against an Issuer on corporate responsibility issues. Such allegations can relate to tangible facts, be an interpretation of these facts, or constitute an allegation based on unproven facts.

V.E reviewed information provided by the Issuer, press content providers and stakeholders (partnership with Factiva Dow Jones: access to the content of 28,500 publications worldwide from reference financial newspapers to sector-focused magazines, local publications or non-government organizations). Information gathered from these sources is considered as long as it is public, documented and traceable.

V.E provides an opinion on companies' controversies risks mitigation based on the analysis of three factors:

- **Frequency:** reflects for each ESG challenge the number of controversies that the Issuer has faced. At corporate level, this factor reflects on the overall number of controversies that the Issuer has faced and the scope of ESG issues impacted (scale: Isolated, Occasional, Frequent, Persistent).
- **Severity:** the more a controversy is related to stakeholders' fundamental interests, proves actual corporate responsibility in its occurrence, and have caused adverse impacts for stakeholders and the Issuer, the higher its severity is. Severity assigned at the corporate level will reflect the highest severity of all cases faced by the Issuer (scale: Minor, Significant, High, Critical).
- **Responsiveness:** ability demonstrated by an Issuer to dialogue with its stakeholders in a risk management perspective and based on explanatory, preventative, remediating or corrective measures. At corporate level, this factor will reflect the overall responsiveness of the Issuer for all cases faced (scale: Proactive, Remediate, Reactive, Non- Communicative).

The impact of a controversy on an Issuer's reputation reduces with time, depending on the severity of the event and the Issuer's responsiveness to this event. Conventionally, V.E' controversy database covers any controversy with Minor or Significant severity during 24 months after the last event registered and during 48 months for High and Critical controversies.

Involvement in controversial activities

17 controversial activities have been analysed following 30 parameters to screen the Issuer's involvement in any of them. The Issuer's level of involvement (Major, Minor, No) in a controversial activity is based on:

- An estimation of the revenues derived from controversial products or services.
- The specific nature of the controversial products or services provided by the Issuer.

DISCLAIMERS

Transparency on the relation between V.E and the Issuer: V.E has not carried out any audit mission or consultancy activity for NRG. No established relation (financial or commercial) exists between V.E and the Issuer.

This opinion aims at providing an independent opinion on the sustainability credentials and management of the Bond, based on the information which has been made available to V.E. V.E has neither interviewed stakeholders out of the Issuer's employees, nor performed an on-site audit nor other test to check the accuracy of the information provided by the Issuer. The accuracy, comprehensiveness and trustworthiness of the information collected are a responsibility of the Issuer. The Issuer is fully responsible for attesting the compliance with its commitments defined in its policies, for their implementation and their monitoring. The opinion delivered by V.E neither focuses on the financial performance of the Bond, nor on the effective allocation of its proceeds. V.E is not liable for the induced consequences when third parties use this opinion either to make investments decisions or to make any kind of business transaction.

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