


# SECOND PARTY OPINION

## on NOMURA RESEARCH INSTITUTE's Sustainability-Linked Bond Framework

V.E is of the opinion that Nomura Research Institute's (NRI) Sustainability-Linked Bond Framework is aligned with the core components of the Sustainability-Linked Bond Principles (SLBP) 2020.

### Framework

	Weak	Limited	Robust	Advanced
KPI's Relevance				
Target's Ambition				
SDG Mapping				

### Characteristics

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

### KPI 1: Nomura Research Institute Group's Greenhouse Gas Emissions (Scope 1 and 2)

- Decrease NRI Group's greenhouse gas emissions 72% by FY2030, baseline FY2013 (108 kt-CO2e) equivalent to a target of 30 kt-CO2e.

### KPI 2: Renewable Energy in the Data Centers

- Increase Renewable Energy use in the Data Center 70% by FY2030

	FY2013 (Baseline)	FY2015 (Baseline)	FY2030
KPI 1	108 kt-CO2e		30 kt-CO2e
KPI 2		0.1%	70%

### Issuer

#### Controversial Activities

The Issuer appears not to be involved in one of the 17 controversial activities screened under our methodology:

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

#### ESG Controversies

Number of controversies	None
Frequency	NA
Severity	NA
Responsiveness	NA

## Key findings

V.E is of the opinion that Nomura Research Institute's Sustainability-Linked Bond Framework is aligned with the core components of the Sustainability-Linked Bond Principles (SLBP) 2020.

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

- The KPIs are relevant and material from an environmental standpoint.
- The KPI(s) are measurable, externally verifiable and can be benchmarked.
- The KPI's definition, the rationale behind its/their selection, the calculation methodologies and coverage are clearly defined.

### Calibration of the Sustainability Performance Target (SPT) – aligned with the SLBP

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

### Bond Characteristics – aligned with the SLBP

- The nature of the variation in the bond characteristics is clearly disclosed in public documentation.
- The fallback mechanisms in case the SPT cannot be achieved are disclosed and clearly defined
- The variation of the bond financial and/or structural characteristics is meaningful.

### Reporting– aligned with the SLBP

- The intended scope and granularity of the reporting is clear and exhaustive, covering all the required and recommended elements.
- The Issuer commits to annual reporting on all relevant information related to the KPI(s) and its associated SPT(s), including results, underlying methodologies and assumptions.

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

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

## Type of External Reviews supporting this Framework

<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

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V.E was commissioned to provide an independent opinion (thereafter “Second Party Opinion” or “SPO”) on the integration of two environmental factors to the Sustainability-Linked Bonds (the “Bonds”) issued by Nomura Research Institute (“NRI” or the “Issuer”) in compliance with the Sustainability-Linked Bond Framework (the “Framework”) created to govern their issuances. 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 specific targets (“Sustainability Performance Target(s)” or “SPTs”) regarding two environmental key performance indicators (hereafter the “KPIs”) 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/social bonds or green/social loans. The facilities 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(s) to be linked to the variation of the bonds' financial characteristics is/are the following:

KPI 1: Nomura Research Institute Group’s Greenhouse Gas Emissions (Scope 1 and 2), with the following target(s) and trigger event(s):

SPT 1: Decrease NRI Group’s greenhouse gas emissions 72% by FY2030, baseline FY2013 (108 kt-CO<sub>2</sub>e), equivalent to a target of 30 kt-CO<sub>2</sub>e.

KPI 2: Renewable Energy in the Data Centers, with the following target(s) and trigger event(s):

SPT 1: Increase Renewable Energy use in the Data Centers to 70% by FY2030.

Our opinion is established using V.E 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 two environmental factor(s) 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 Nomura Research Institute. 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 management of potential stakeholder-related ESG controversies and its involvement in controversial activities<sup>1</sup>.

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 February 22, 2021 to March 12, 2021. We consider that we were provided with access to all the appropriate documents we solicited. Reasonable efforts have been made to verify data accuracy.

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<sup>1</sup> 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

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The Issuer has described the main characteristics of the Bonds within a formalised Framework which covers the core components of the SLBP 2020 (the last updated version was provided to V.E on March 10, 2021). The Issuer has committed to make this document publicly accessible on V.E.'s website at the first issuance announcement 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(s) are relevant, coherent and material with Nomura Research Institute's sustainability strategy and business strategy.

As part of its sustainability strategy, Nomura Research Institute has defined and disclosed a sustainability strategy in April 2015, "Vision 2022"<sup>2</sup> which formalises the Group's commitment to mobilise and transform its business line in line with the UN Climate Change Paris Agreement. NRI sets out environmental objectives that includes:

1. Regarding Scope 1 and 2: Reducing NRI Group's greenhouse gas by 72% by FY2030, baseline FY2013 and for FY2050 net-zero emissions.
2. Shifting to 70% renewable energy of NRI group by FY2030 and 100% by FY2050
3. Regarding Scope 3: 70% or more of NRI group suppliers and vendors will set SBT-level environmental targets for reducing greenhouse gas emissions by FY2023. Furthermore, NRI's employee travel and commuting emissions will be reduced by 25% by FY2030, baseline FY2013.

The NRI Group reports on an NRI Group Environmental Policy<sup>3</sup> on "Reducing the Burden of Global Environmental Conservation" as a material issue for sustainable growth. The company addresses environmental issues such as climate change and environmental pollution. Moreover, the company is ISO 14001 certified for its data centers.

In 2018, NRI's target for reducing greenhouse gas emissions was certified by the Science Based Targets (SBT)<sup>4</sup> Initiative, as a science-based reduction target for keeping the increase in global mean temperature below 2°C from pre-industrial revolution levels. On February 2021, NRI group's target to reduce GHG emission was verified by SBTi and considered aligned with the 1.5°C scenario. In 2019, NRI joined the RE100<sup>5</sup>, an international initiative by corporations seeking to transition to 100% renewable energy for power used in business activities. Additionally, for two consecutive years starting FY2019, NRI was selected by the international non-profit organization CDP<sup>6</sup> as a Climate Change "A list" company.

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<sup>2</sup> NRI website <https://www.nri.com/en/company/vision> - accessed 24/02/2021

<sup>3</sup> NRI Environmental Policy <https://www.nri.com/en/sustainability/environment/policy> - accessed 24/02/2021



<sup>4</sup> SBT website <https://sciencebasedtargets.org/> - accessed 24/02/2021

<sup>5</sup> RE100 website <https://www.there100.org/> - accessed 24/02/2021

<sup>6</sup> CDP website - <https://www.cdp.net/en> - accessed 24/02/2021

## SDG CONTRIBUTION

The selected KPIs are likely to contribute to two of the United Nations' Sustainable Development Goals ("SDGs"), namely: Goal 7. Affordable and Clean energy and Goal 13. Climate Action.

KPI	SDG	SDG TARGETS
KPI 1: NOMURA RESEARCH INSTITUTE GROUP'S GREENHOUSE GAS EMISSIONS (SCOPE 1+2)	 7 Affordable and Clean Energy	7.2 By 2030, increase substantially the share of renewable energy in the global energy mix. 7.3 By 2030, double the global rate of improvement in energy efficiency
KPI 2: RENEWABLE ENERGY IN THE DATA CENTERS	 13 Climate Action	13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries

KPI 1: NOMURA RESEARCH INSTITUTE GROUP'S GREENHOUSE GAS EMISSIONS (SCOPE 1 AND 2)

KPI 2: RENEWABLE ENERGY IN THE DATA CENTERS

## MATERIALITY

V.E considers that the selected KPI(s) reflect(s) two of the issuer's most material sustainability issues as well as the most material challenge for its sector, namely: atmospheric emissions and energy consumption.

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' ability 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.

In this context, Nomura Research Institute, which is part of the Software and IT Services sector according to V.E ESG methodology, has a major role to play regarding climate change and energy efficiency through the promotion of energy consumption reduction and energy-related emissions of its operations, data centers, transportation and sales. Companies from this sector are also expected to define an overall proactive Environmental strategy with important internal actions and objectives, as well as appropriate measures supervised by a dedicated structure in charge of its implementation.

Moreover, companies should build a better structured strategy to minimise energy-related emissions, by setting quantified targets and by favouring renewable energy generation and use for data centres, including servers and cooling systems. The sector requires significant IT infrastructure (data servers, cloud computing energy, computers, etc.). As enterprise and home users continue to move their IT services to the cloud, data centre-based services are expected to grow. The amount of power that a data centre uses on a day-to-day basis shall determine the quantity of fossil fuels it consumes and the quantity of carbon emissions it is responsible for. Data centers utilize different information technology (IT) devices to provide these services, all of which are powered by electricity. Servers provide computations and logic in response to information requests, while storage drives house the files and data needed to meet those requests. Network devices connect the data center to the internet, enabling incoming and outgoing data flows. The electricity used by these IT devices is ultimately converted into heat, which must be removed from the data center by cooling equipment that also runs on electricity. According to the Energy Innovation policy and technology<sup>7</sup>, on average, servers and cooling systems account for the greatest shares of direct electricity use in data centers, followed by storage drives and network devices. Some of the world's largest data centers can each contain many tens of thousands of IT devices and require more than 100 megawatts (MW) of power capacity enough to power around 80,000 U.S. households. According to the International Energy Agency<sup>8</sup> (IEA) global data centre electricity demand in 2019 was around 200 TWh, or around 0.8% of global final electricity demand.

Furthermore, the substantial electricity use of data centers also gives rise to concerns over their carbon dioxide (CO<sub>2</sub>) emissions. According to the International Energy Agency (IEA) companies and industries are increasingly setting voluntary

<sup>7</sup> <https://energyinnovation.org/2020/03/17/how-much-energy-do-data-centers-really-use/>

<sup>8</sup> <https://www.iea.org/reports/data-centres-and-data-transmission-networks#abstract>

efficiency and CO2 emissions targets. In February 2020, the Information and communications technology (ICT) industry agreed on a science-based target to reduce GHG emissions by 45% between 2020 and 2030. In the European Union and the United States, companies have adopted voluntary agreements to improve the efficiency of connected set-top boxes. According to GeSI Smarter 2030<sup>9</sup>, the digital sector is one of the most energy-intensive. Comprising 34 billion pieces of equipment, more than 4 billion users, plus network infrastructures and data centers, it is responsible for 2.3% of global greenhouse gas emissions. Additionally, according to Green IT, in terms of the environmental impact of data centers, for 2020 they account for 0.5% of CO2 emissions. And according to the Renewables 2020 Global Status Report<sup>10</sup>, renewable energy is procured increasingly for use in data centres, which account for around 1% of global electricity use. Because of advances in hardware and infrastructure efficiency, overall energy use in this area did not rise between 2015 and 2018, even as the service demands on data centres doubled.

As a consequence, KPI1 and KPI2 are identified as environmental indicators of great impact within the Software and IT Services sector.

## MEASURABILITY AND VERIFICATION

The KPI(s) are externally verifiable and measurable on a consistent methodological basis. The selected KPIs and their associated targets are included in the ESG Data Book Report, which has been externally audited since 2015.

The Issuer commits to review the Framework and to conduct a post-issuance review (which will be made available to bondholders) in the 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(s) is considered relevant and is clearly disclosed within NRI Framework.

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

The Issuer disclosed that KPI 1 is calculated using the GHG protocol in accordance with the Science Base Target's (SBT) 1.5°C target certification criteria. KPI 2 follows the procurement standards for renewable energy established by RE100.

## EXHAUSTIVENESS

The Issuer reports that the KPIs covers the business activity related to its data centers and all operations, which represents approximately 100% of the company's global operations.

The Issuer reports that the coverage of the KPIs will not be subject to modifications.

## BEST PRACTICES

- ⇒ The selected KPIs appropriately reflect material sustainability challenges for the company and the company has disclosed its materiality matrix.
- ⇒ The Issuer has communicated clearly to investors the rationale and process according to which KPIs have been selected.
- ⇒ The KPIs is measurable or quantifiable on a consistent methodological basis and the Issuer commits to conduct a post-issuance review (which will be made available to bondholders) in case of material changes to the KPI's coverage, calculation methodology, and in particular the SPT calibration.
- ⇒ The reporting perimeter covers more than 90% of the related indicator on total absolute amount (e.g. total GHG emissions, and energy consumption, etc.) of the company.
- ⇒ The KPI definition relies on external references allowing it to be benchmarked.
- ⇒ The KPI 1 was previously disclosed and has historical externally verified values covering at least the previous 3 years.

<sup>9</sup> <https://smarter2030.gesi.org/>

<sup>10</sup> [https://www.ren21.net/wp-content/uploads/2019/05/gsr\\_2020\\_full\\_report\\_en.pdf](https://www.ren21.net/wp-content/uploads/2019/05/gsr_2020_full_report_en.pdf)

## Calibration of the Sustainability Performance Target (SPT)



## AMBITION

### **KPI 1: NOMURA RESEARCH INSTITUTE GROUP'S GREENHOUSE GAS EMISSIONS (SCOPE 1 AND 2)**

By using the absolute value of GHG emissions (Scope 1 and 2) 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 –KPI 1 Nomura Research Institute Group's Greenhouse Gas Emissions (Scope 1 and 2) (measured in kt-CO<sub>2</sub>e)<sup>11</sup>**

	REPORTED DATA						OBJECTIVE
KPI	FY2013 (Baseline)	FY2015	FY2016	FY2017	FY2018	FY2019	FY2030
	108	86.6	78.9	75.6	66.7	60.7	30
Annual variation (%)	N/A	-20%	-9%	-4%	-12%	-9%	
Absolute GHG emissions reduction (%) (baseline FY2019)							51%
Absolute GHG emissions reduction (%) (baseline FY2013)	N/A	20%	27%	30%	38%	44%	72%

The selected SPT is consistent with NRI sustainability strategy. The objective is to reach 30 ktCO<sub>2</sub>e of absolute GHG emissions (Scope 1 and 2) by FY2030, compared to the FY2013 baseline which is 108 ktCO<sub>2</sub>e. This represents a 72% reduction of absolute GHG emissions (Scope 1 and 2), in line with the target certified by the Science Based Targets (SBT) to limit warming to 1.5 degrees.

V.E considers the SPTs to be advanced<sup>12</sup>, as a result of the analysis of the three benchmarking approaches recommended by the SLBP.

## Business-as-usual Trajectory Benchmark Analysis

The Issuer has provided historical data on the KPI, which shows that between FY2013 and FY2019, absolute GHG emissions decreased by 44%. In contrast, the decrease from FY2019 to FY2030 would represent a 51% decrease. Annual decrease of each period above indicates that there has been a larger decrease between FY2015 and FY2019 and that the SPT suggests a lower percentage decrease on an annual basis between FY2019 to FY2030. That said, the trend shows a consistent decrease, and the SPT is in line with NRI's target of reaching net-zero emissions by FY2050.

<sup>11</sup> <https://www.nri.com/en/sustainability/environment/data>

<sup>12</sup> VE scale of assessment: Weak / Limited / Robust / Advanced

### Sector Peers Benchmark

NRI's SPT appears to be more ambitious than the targets of most V.E Software & IT Services sector companies and in line with the best performers (as compared to the Top 3 performers according to the V.E's rating methodology) which are SAP, Sopra Steria Group and Indra Sistemas. Regarding the 3 Top performers, SAP commits to make its operations carbon neutral by 2025<sup>13</sup>; this target includes all direct emissions from running its business as well as a selected subset of indirect emissions from supply chains and services. In addition, the company has set a Science Based Target to reduce its GHG emissions (scope 1, 2 and 3) by 40% by 2025 and by 85% by 2050, compared to 2016 levels. The Sopra Steria Group has set a target to reduce its scope 1 and 2 greenhouse gas emissions by 42% by 2025, from a 2015 base-year. Moreover, Indra Sistemas has set a target to reduce its CO2 emissions per employee by 75% between 2013 and 2030.

Furthermore, NRI's Top 2 direct competitors are NTT DATA and Fujitsu. Regarding the performance of these companies, NTT DATA is targeting 32% reduction of GHG emission by 2022 for scope 1 & 2 against the 2016 baseline, and Fujitsu has specified medium to long-term targets in accordance with SBT to reduce GHG emissions from their business sites by 33% by FY 2030 and 80% by 2050 in comparison to 2013. Since NRI 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.

Of note, according to V. E's research, the Software & IT Services sector could significantly improve its energy transition performance, in particular companies should implement important measures to minimise environmental impacts from energy use. As of today, generally speaking, the commitments and results achieved by the sector to reduce the energy consumption and related emissions are considered insufficient.

### Official International Targets and Scenarios Benchmark Analysis

The SPT appears to be in line with sector standards, objectives, and targets, by being aligned with a 1.5°C warming scenario. The long-term goal was updated in February 2021, setting a target of reducing greenhouse gas emissions by 72% by FY2030 and 100% by FY2050; the FY2030 goal was certified as a 1.5°C goal by the SBT Initiative in February 2021.

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<sup>13</sup> <https://news.sap.com/2017/05/sap-to-go-carbon>



## KPI 2: RENEWABLE ENERGY IN THE DATA CENTERS

By using the % of renewable energy in the data centres, 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 2 –KPI 2 Renewable Energy in the NRI's data centers (measured in %)<sup>14</sup>**

KPI	REPORTED DATA					OBJECTIVES
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2030
	0.1%	0.1%	0.1%	0.1%	0.1%	70%

The selected SPT is consistent with NRI sustainability strategy. The objective is to reach 70% renewable energy in all the data center by FY2030, compared to FY2015 which is 0.1%. This is in line with any national or international renewable energy initiatives such as RE100.

V.E considers the SPTs to be advanced<sup>15</sup>, as a result of the analysis of the three benchmarking approaches recommended by the SLBP:

### Business-as-usual Trajectory Benchmark Analysis

The Issuer has provided historical data on the KPI, which shows that between FY2015 and FY2019 there was a 0.1% of renewable energy installed each year in all the Data Centres. The increase from the last reported data in FY2019 (0.1%) to FY2030 (70%) would represent a 70% increase. This represents a significant and material improvement compared to the company's past performance. In addition, NRI's SPT is in line with the target of reaching/achieving NRI Group's Renewable energy use rate 100% in FY2050.

### Sector Peers Benchmark

NRI's SPT appears to be in line with some of the best performers of the V.E Software & IT Services sector companies which are SAP, Sopra Steria Group and Indra Sistemas. Regarding the 3 Top performers, SAP has already reached its RE100 goal of powering all facilities and data centers with 100% of renewable electricity in 2014. The Sopra Steria Group disclosed a 2020 target in which the company commits to increase the share of energy from renewable sources in the Group's electricity consumption to 85% by 2020. Moreover, Indra Sistemas appears not to have a visible renewable energy target, yet the company discloses that in 2019, the purchase of green electricity accounted for 57% of the energy consumed by the company. Furthermore, NRI's SPT(s) show an advanced level of ambition compared to Japanese sector peers' performances including NTT DATA and Fujitsu. NTT DATA does not appear to have a specific renewable energy target while Fujitsu has set a medium-term goal of 40% renewable energy in FY 2030.<sup>16</sup> <sup>17</sup>NRI is more ambitious compared to NTT DATA and Fujitsu.

An area for improvement consists in selecting a baseline that is relevant and reliable

### Official International Targets and Scenarios Benchmark Analysis

The SPT appears to be in line with sector standards, objectives and targets. The SPT is viewed as an intermediary target to the objective of 100% of renewable energy in all NRI's Group in FY2050. In 2019, NRI joined RE100<sup>18</sup> which is a global initiative in partnership with the Carbon Disclosure Project<sup>19</sup> (CDP) to accelerate change towards zero carbon grids at scale, especially on renewable electricity. In January 2017, the RE100 initiative disclosed a report called the "RE100 Joining Criteria"<sup>20</sup> in which

<sup>14</sup> [https://www.nri.com/-/media/Corporate/en/Files/PDF/sustainability/library/back\\_number/ESG\\_Databook\\_2020\\_e.pdf?la=en&hash=44B4AE96AD5D0039F0F0D01788AD1D99B7C60FD](https://www.nri.com/-/media/Corporate/en/Files/PDF/sustainability/library/back_number/ESG_Databook_2020_e.pdf?la=en&hash=44B4AE96AD5D0039F0F0D01788AD1D99B7C60FD)

<sup>15</sup> V.E scale of assessment: Weak / Limited / Robust / Advanced

<sup>16</sup> <https://www.fujitsu.com/global/about/environment/renewable-energy/>

<sup>17</sup> <https://www.nttdata.com/global/en/sustainability/environment/target>

<sup>18</sup> <https://www.there100.org/>

<sup>19</sup> <https://www.cdp.net/en>

<sup>20</sup> <https://www.there100.org/sites/re100/files/2020-10/RE100%20Joining%20Criteria.pdf>

the minimum requirements of renewable energy criteria are mentioned, based on a renewable power strategy from corporate members that includes credible deadlines for achieving, that are:

- Achieve 100% of Renewable Electricity by 2050, with interim steps of at least:
  - Achieve 60% of Renewable Electricity by 2030
  - Achieve 90% of Renewable Electricity by 2040

NRI reports that the growth of renewable energy in all the Data Centers for FY2030 will represent 70%, which represents an improvement of -10% compared to the RE100 criteria of 60% of Renewable Electricity by 2030.

#### MEASURES TO ACHIEVE THE SPT

The measures to achieve the SPT(s) are credible and disclosed in internal documentation. The SPT(s) will be achieved through NRI's main strategies:

- Since 2016, the NRI has relocated and consolidated operations into data centers and offices with high environmental performance. The company has moved to an office building with better energy efficiency and has transitioned to data centers that are environmentally sound in order to lower the GHG emission.
- NRI has acquired ISO 14001 certification for its data centers, which are the main source of CO2 emissions. For offices, NRI introduced an environmental management system in FY2016, and is gradually rolling it out to overseas locations.
- NRI Group has already reduced its greenhouse gas emissions by approximately 44% compared to 2013. However, the current energy-saving measures alone will limit the reduction to 48%, therefore NRI plans to achieve the remaining 24% of the 72% by procuring electricity from renewable energy sources.
- With regard to the procurement of renewable energy, NRI will establish a cross-organizational system as a subordinate organization of the Sustainability Promotion Committee and start full-scale studies in fiscal 2021.

## Bond Characteristics



NRI confirms that the bonds issued under this Framework will be subject to variations in their financial characteristics depending on the achievement of the defined financial events. The Issuer commits that the exact mechanism and actual financial impacts will be detailed for each bond in their legal documentation, and publicly disclosed.

The fallback mechanisms in case the SPT cannot be calculated or observed, are disclosed and clearly defined in the Framework.

The communicated trigger events are the following:

1. NRI can exercise call option and choose early redemption on September 30<sup>th</sup>, 2031 in case of NRI achieves both of SPT1 and SPT2 as of March 31, 2031.
2. NRI cannot exercise the call option unless both targets are met as of March 31, 2031.
3. In case of failure to achieve either of SPT1 or SPT2, NRI cannot execute early redemption on Sep. 30, 2031 and therefore makes payments of step-up coupon on each interest payment date and redemption date for the period from Oct. 1, 2031 to Mar. 31, 2033.

NRI reports that the Bond is callable<sup>21</sup>, and has a step-up coupon<sup>22</sup> which will be paid semi-annually between October 1<sup>st</sup>, 2031 and March 31, 2033. Due to this financial characteristic, NRI could exercise the call option if both SPTs will be achieved or exceeded. If this applies, the financial characteristics of the Callable-Bonds and the coupon payments to investors will be reported in the Financial Term Documentation.

\*V.E. considers that, as of today, there is insufficient information and market precedent 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. In addition, the meaningfulness of the variation of the SLB's structural and/or financial characteristics of the Bond cannot be assessed due to a lack of comparison data.

<sup>21</sup> <https://corporatefinanceinstitute.com/resources/knowledge/trading-investing/callable-bond/>

<sup>22</sup> [https://financial-dictionary.thefreedictionary.com/Step-Up+Coupon+Securities#:~:text=Up%20Coupon%20Securities\)-,Stepped%20Coupon%20Bond,or%20a%20dual%20coupon%20bond](https://financial-dictionary.thefreedictionary.com/Step-Up+Coupon+Securities#:~:text=Up%20Coupon%20Securities)-,Stepped%20Coupon%20Bond,or%20a%20dual%20coupon%20bond)

## Reporting

Not Aligned

Partially Aligned

Aligned

Best Practices

### KPI 1: NOMURA RESEARCH INSTITUTE GROUP'S GREENHOUSE GAS EMISSIONS (SCOPE 1 AND 2) AND KPI 2: RENEWABLE ENERGY IN THE DATA CENTERS

#### REPORTING PROCESS

The Issuer commits to report on an annual basis on its selected KPIs within its yearly ESG Data Book until Bond maturity. Data gathering is managed from the end of April to the beginning of May every year. The NRI Environmental personnel at each site collect the environmental data and delivers it to the Sustainability Responsibility Group. After receiving data from each site, the person in charge of the Sustainability Responsibility Group calculates the greenhouse gas emissions of the entire NRI Group. The results of the calculations will be reported and approved by the Sustainability Activities Committee chaired by the Officer in charge of corporate affairs.

#### CONTROL

The selected KPIs are internally verified through the Issuer's operational processes. In addition, the achievement of each SPT will be verified on an annual basis by an External Verifier.

#### ACCESIBILITY OF RESULTS

The issuer confirms information about absolute GHG emissions (Scope 1, 2) which will be disclosed within the ESG Data Book on an annual basis. SPT 1 is expected to achieve 30 ktCO<sub>2</sub>e emissions by FY2030 and SPT 2 is expected to achieve 70% Renewable Energy use in the Data Centers by FY2030. Progress of KPI1 and KPI2 will be reported explicitly in the ESG Data Book on an annual basis.

#### BEST PRACTICES

- ⇒ KPIs data undergoes both internal and external verification
- ⇒ The intended scope and granularity of the reporting is clear and exhaustive, covering all the required and recommended elements
- ⇒ Reporting on the KPIs will be published annually until maturity of the bond

Verification



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

The verification of the annual performance on the KPIs will be independently assured by an external auditor Ernst & Young ShinNihon LLC and published in the ESG Data Book available in its website on an annual basis.

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

# ISSUER

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## Management of ESG Controversies

As of today, the review conducted by V.E did not reveal any ESG controversy against Nomura Research Institute (NRI) over the last four years.

## Involvement in Controversial Activities

The Issuer appear to be not involved in any of the 17 controversial activities screened under our methodology, namely: Alcohol, Animal welfare, Cannabis, Chemicals of concern, Civilian firearms, Coal, Fossil Fuels industry, Unconventional oil and gas, Gambling, Genetic engineering, Human embryonic stem cells, High interest rate lending, Military, Nuclear Power, Pornography, Reproductive Medicine 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 on their content from V.E.

# METHODOLOGY

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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.

## FRAMEWORK/ISSUANCE

### Alignment with the Sustainability-Linked Bond Principles

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

*The Framework/Bond has been evaluated by V.E according to 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 and with the Issuer sector's main sustainability challenges. KPI's measurability and clarity, internal and external control over the KPI's data, exhaustiveness of the KPI's coverage.

### 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, disclosure and credibility of the means for achievement (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 and disclosure of the assurance reports.

## ISSUER

### 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 3 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.

## V.E'S ASSESSMENT SCALES

Scale of assessment of the KPI(s) materiality and the associated SPT(s) ambition.		Scale of assessment of financial instrument's alignment with Sustainability-Linked Bond and Loan Principles	
Advanced	The selected KPI(s) reflects the most material issues for the Issuer's core sustainability and business strategy and address the most relevant environmental, social and/or governance challenges of the industry sector.	Best Practices	The Instrument's practices go beyond the core practices of the ICMA's Sustainability-Linked Bond Principles and/or of the Loan Market Association's Sustainability-Linked Loan Principles by adopting recommended and best practices.
	An advanced ambition is achieved when the SPT(s) can demonstrate the following: (i) alignment with the 2D scenario/recognized sector standards (ii) a top performance in comparison to sector peers, and (iii) an improvement of the company's performance.		
Robust	The selected KPI(s) reflects material issues for the Issuer's core sustainability and business strategy and address relevant environmental, social and/or governance challenges of the industry sector.	Aligned	The Instrument has adopted all the core practices of the ICMA's Sustainability-Linked Bond Principles and/or of the Loan Market Association's Sustainability-Linked Loan Principles.
	A robust ambition is achieved when the SPT(s) can demonstrate at least two out of three of the following items: (i) alignment with the 2D scenario/recognized sector standards (ii) a performance in line with the average performance of sector peers, and (iii) an improvement of the company's performance.		
Limited	The selected KPI(s) does not appropriately reflect material issues for the Issuer's core sustainability and business strategy and partially address relevant environmental, social and/or governance challenges of the industry sector.	Partially Aligned	The Instrument has adopted a majority of the core practices of the ICMA's Sustainability-Linked Bond Principles and/or of the Loan Market Association's Sustainability-Linked Loan Principles, but not all of them.
	A limited ambition is achieved when the SPT(s) can demonstrate only one out of three of the following: (i) alignment with the 2D scenario/recognized sector standards (ii) a performance in line with the average performance of sector peers, and (iii) an improvement of the company's performance.		
Weak	The selected KPI(s) does not reflect material issues for the Issuer's core sustainability and business strategy and do not address relevant environmental, social and/or governance challenges of the industry sector.	Not Aligned	The Instrument has adopted only a minority of the core practices of the ICMA's Sustainability-Linked Bond Principles and/or of the Loan Market Association's Sustainability-Linked Loan Principles.



	A weak ambition is achieved when the SPT(s) (i) is not aligned the 2D scenario/recognized sector standards (ii) is below the average performance of its sector peers, and (iii) shows a negative trend in the company's performance.
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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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