nationalgrid

National Grid Green Financing Report

Introduction

National Grid plc is one of the world's largest investor-owned energy utilities, committed to delivering electricity and gas safely, reliably and efficiently to the customers and communities we serve. We sit at the very heart of the transition to net zero in the UK and northeast of the US and our assets will play a key role in the decarbonisation of many high-emission sectors, including heating, industry and road transport, among others.

We recognise the significant changes needed to transition the energy system, delivered in a reliable, safe, fair and affordable way for all. To do so, National Grid is investing heavily in the decarbonisation of our networks, and the issuance of Green Financing Instruments supports our efforts and reinforces our commitment to the clean energy transition.

The following pages report on the allocation of proceeds and environmental impact of National Grid plc's (NG plc) Green Bond, issued in January 2023 for €750 million, and New York-based Niagara Mohawk Power Corporation's (NMPC) Green Bond, issued in September 2022 for $500 million. The bonds were issued in accordance with National Grid's Green Financing Framework (The Framework) which was last updated in July 2021. The Framework is aligned with the ICMA Green Bond Principles published in June 2021 and the LMA Green Loan Principles published in February 2021, and the use of proceeds categories have been mapped to the eligibility activities defined by the EU Taxonomy Regulation and the EU Taxonomy Delegated Acts on Climate Change Mitigation and Adaptation. The Framework and corresponding Second Party Opinion (SPO) issued by ISS-ESG are available on our website: **https://www.nationalgrid.com/investors/debt-investors/green-financing**.

PricewaterhouseCoopers LLP (PwC) have provided independent limited assurance over selected information, identified with the symbol within this Green Financing Report. PwC's independent limited assurance report is available on our website: **https://www.nationalgrid.com/investors/debt-investors/green-financing.**

The Chief Financial Officer and Group Treasurer, with delegated authority from the Board of Directors, have reviewed and approved the National Grid Green Financing Report 2022/23 covering the Green Financing Instruments issued in the 12-month period ending 31 March 2023. We confirm the information and data provided is accurate and in line with mandatory requirements and has been independently assured by PwC.

Final terms of National Grid plc's and Niagara Mohawk Power Corporation's Green Bonds

Issuer	National Grid plc (NG plc)	Niagara Mohawk Power Corporation (NMPC)
Rating at issuance (Moody's / S&P / Fitch)	Baa2 / BBB / BBB	Baa1 / BBB+ / -
Documentation	Senior unsecured, Reg S	Senior unsecured, 144A/Reg S
Currency	EUR	USD
Size	750m	500m
GBP equivalent*	665.0m	438.1m
Trade date	9 January 2023	12 September 2022
Settlement date	16 January 2023	16 September 2022
Maturity	16 January 2029	16 September 2052
Coupon	3.875%	5.783%
Denomination	EUR 100,000 + EUR 1,000	USD 2,000 + USD 1,000
Primary listing	London	–
ISIN	XS2575973776	US65364UAS50 (144A) / USU65354AN92 (Reg S)

* GBP equivalent amount is based on the foreign exchange (FX) rate at the settlement date.

Allocation and Impact Report

NG plc bond

Information on allocation principles and eligible categories can be found in The Framework published on our website. The allocation period for this bond is 1 April 2021 to 30 June 2022.

Impact reporting is aligned with the portfolio approach to impact reporting described in the 'Handbook – Harmonized Framework for Impact Reporting' published by the International Capital Markets Association (ICMA) in June 2022.

For more details, please refer to the Impact Methodology section on page 6.

Eligible Green Expenditure and Environmental Impact

The following metrics are calculated to measure the environmental benefits related to Eligible Green Projects funded by the NG plc Green Bond. The reporting period is 1 April 2021 to 30 June 2022, which is aligned with the allocation period described above. Impact calculations are based on the allocated period for each project to measure the impact attributable to the bond on a pro-rata basis.

							Impact analysis			
ICMA/LMA Green Eligible Category	EU Taxonomy[a] Eligibility Category	Invested amount[1] (£ in millions)	Eligibility for Green Financing Instruments (%)	Eligible amount[2] (£ in millions)	Allocated amount (£ in millions)	Share of total allocated portfolio financing (%)	Additional capacity of renewable energy connected to the systems[3] (MW)	Additional renewable generation (MWh)	Estimated tCO_2 emissions avoided[3,4] (tCO_2e)	Contribution to specific UN SDGs
Renewable Energy	4.1 Electricity generation using solar PV technology and 4.3 Electricity generation from wind power[a, d]	466.3	100%	466.3	665.0	68.8%	200	1,754,723	756,261	UN SDG 7, 9, 13
Renewable Energy	4.9 Transmission and distribution of electricity[a, c, e, g]	606.3	34.9%	211.8		31.2%			4,439,857	UN SDG 7, 9, 13
Total		1,072.6		678.1	665.0	100%	200	1,754,723	5,196,118	

1. The invested amount described the total invested amount prior to the green ratio of 34.9% being applied to electricity transmission and distribution capital expenditure (see note C).
2. Note that there may be small differences between values in the Eligible amount column and those calculated using the Invested amount and Eligibility for Green Financing Instruments percentage due to rounding of the values in this table.
3. In line with our wider Responsible Business Report Methodology (https://www.nationalgrid.com/responsibility) and definition of operational control, 100% of Emerald Joint Venture impact data has been included. No impact data has been attributed to the Offshore Wind project due to the early stages of development and lack of operational control.
4. We recognise that the estimated tCO_2e emissions avoided reflects the result of actions undertaken not just by National Grid, but by other stakeholders in the energy industry, including energy producers and consumers. However, as the renewable installed capacity is enabled by our Eligible Green Projects, we claim 100% of the impact attributable to our Green Bond.

Green Funding Allocation

Green Financing Instrument	Amount issued (£ in millions)
XS2575973776	665.0
Total allocated proceeds	665.0
Total unallocated proceeds	0.0
Total Green Funding	665.0

The report includes capital expenditure and capital contributions (see note D below) that occurred between 1 April 2021 to 30 June 2022 and were invested by the New England and National Grid Ventures (NGV) business units of the Group. Spend after 30 June 2022, including forecast spend, is not included. See table below for a summary of allocation to this bond.

Allocation summary

Percentage of Green Financing proceeds allocated to Eligible Green Expenditure	100%
Percentage of Eligible Green Expenditure allocated to Green Bond	98.1%
Percentage of Eligible Green Expenditure not yet allocated[b, f]	1.9%

Allocation and Impact Report continued

NMPC bond

Information on allocation principles and eligible categories can be found in The Framework published on our website. The allocation period for this bond is 1 October 2020 to 30 June 2022.

For more details, please refer to the Impact Methodology section on page 6.

Eligible Green Expenditure and Environmental Impact

The following metrics are calculated to measure the environmental benefits related to Eligible Green Projects funded by the NMPC Green Bond. The reporting period is 1 October 2020 to 30 June 2022, which is aligned with the allocation period described above. Impact calculations are based on the allocated period for each project to measure the impact attributable to the bond on a pro-rata basis.

							Impact analysis			
ICMA/LMA Green Eligible Category	**EU Taxonomy[a] Eligibility Category**	**Invested amount[1] ($ in millions)**	**Eligibility for Green Financing Instruments (%)**	**Eligible amount[2] ($ in millions)**	**Allocated amount ($ in millions)**	**Share of total allocated portfolio financing (%)**	**Additional capacity of renewable energy connected to the systems (MW)**	**Additional renewable generation (MWh)**	**Estimated tCO_2 emissions avoided[3] (tCO_2e)**	**Contribution to specific UN SDGs**
Renewable Energy	4.9 Transmission and distribution of electricity[a, c, e, g]	1,272.6	41.9%	532.8	500	100%			2,935,187	UN SDG 7, 9, 13
Total		1,272.6		532.8	500	100%			2,935,187	

1. The invested amount described the total invested amount prior to the green ratio of 41.9% being applied to electricity transmission and distribution capital expenditure (see note C).
2. Note that there may be small differences between values in the Eligible amount column and those calculated using the Invested amount and Eligibility for Green Financing Instruments percentage due to rounding of the values in this table.
3. We recognise that the estimated tCO_2e emissions avoided reflects the result of actions undertaken not just by National Grid, but by other stakeholders in the energy industry, including energy producers and consumers. However, as the renewable installed capacity is enabled by our Eligible Green Projects, we claim 100% of the impact attributable to our Green Bond.

Green Funding Allocation

Green Financing Instrument	Amount issued ($ in millions)
US65364UAS50 (144A) / USU65354AN92 (Reg S)	500.0
Total allocated proceeds	**500.0**
Total unallocated proceeds	**0.0**
Total Green Funding	**500.0**

The report includes capital expenditure that occurred between 1 October 2020 to 30 June 2022 and was invested by NMPC. Spend after 30 June 2022, including forecast spend, is not included. See table below for a summary of allocation to this bond.

Allocation summary

Percentage of Green Financing proceeds allocated to Eligible Green Expenditure	**100%**
Percentage of Eligible Green Expenditure allocated to Green Bond	**93.8%**
Percentage of Eligible Green Expenditure not yet allocated[b,f]	**6.2%**

Allocation and Impact Report continued

Notes to the Allocation and Impact Report

a. Information on our compliance with the EU Taxonomy alignment substantial contribution, do no significant harm and minimum safeguards criteria can be found in our **EU Taxonomy Report** for 2022/23.

Note: PwC provided independent limited assurance over our allocated proceeds mapping to the EU Taxonomy eligibility criteria, but its assurance does not extend to assessing alignment with the EU Taxonomy alignment criteria.

b. Any expenditure beyond the bond allocation periods, including forecast spend, has not been included.

c. For the NG plc bond transmission and distribution of electricity projects, the Renewable Energy category includes a percentage of our capital expenditure that is deemed to contribute to maintaining, integrating and enhancing the capacity of renewable energy in our transmission and distribution networks (the Green Ratio). £211.8 million of Green Ratio spend is included within the Renewable Energy category above and relates to expenditure in two of the US operating companies in our New England business unit: Massachusetts Electric Company (MECO) and New England Power Company (NEP). For both companies, we applied the 2022/23 Green Ratio of 34.9% retrospectively to the Eligible Maintenance Capex in the allocation period.

Similarly, for the NMPC bond, $500 million of Green Ratio spend relating to transmission and distribution of electricity projects is included within the Renewable Energy category. The 2022/23 Green Ratio of 41.9% was applied retrospectively to the Eligible Maintenance Capex in the allocation period.

d. On 11 July 2019, National Grid Ventures acquired 100% of the share capital of National Grid Renewables (formerly known as Geronimo Energy LLC) and 51% of Emerald Energy Venture LLC (Emerald), which is jointly controlled by National Grid and Washington State Investment Board (WSIB). National Grid Renewables Development LLC is a leading developer of wind and solar generation, based in Minneapolis in the US, and the acquisition was a significant step in National Grid's commitment to the decarbonisation agenda by developing and growing our renewable generation business in the US and delivering sustainable and reliable renewable energy. Whilst National Grid Renewables develops the assets, the Emerald Joint Venture (JV) has a right of first refusal to buy, build and operate those assets.

Further, RWE and National Grid partnered to jointly develop offshore wind projects in the Northeast US. With this partnership, National Grid and RWE have jointly acquired an offshore seabed lease with the goal of developing, constructing and operating US offshore wind projects. This partnership supports both companies' efforts to advance a clean energy future and achieve net zero in the coming decades. National Grid has a 27.27% interest in this JV.

Therefore, capital contributions into these two JVs between 1 April 2021 to 30 June 2022 have been included as eligible allocated expenditure in the Renewable Energy category. As a result, our solar PV and wind power allocation have been combined to reflect total eligible generation of renewable energy.

e. For our electricity transmission maintenance expenditure, we have removed an estimate of expenditure related to SF_6 gas, which is a highly effective insulator used in our circuit breakers and is necessary for the efficient functioning of our transmission networks, in particular. SF_6 is a greenhouse gas that is over 20,000 times more potent than CO_2. While SF_6-free alternative technologies and solutions are not yet available for most of our assets, we decided to exclude such expenditure by removing the estimated purchase and installation costs of circuit breakers from the eligible transmission projects. In the case of capital expenditure where our Green Ratio is applied, we removed the estimated expenditure related to SF_6 gas before applying the Green Ratio.

f. There is additional eligible green capital expenditure, during the respective allocation periods of the bonds which may be allocated to future green bonds.

g. We have also excluded projects that are specifically financed from customer contributions and from other borrowing sources, and spend recoverable in the short-term through our regulatory mechanisms.

A full listing of Eligible Green Projects is included on **page 05**

List of Eligible Green Projects

The majority of the proceeds allocated to the two Green Bonds issued this year relates to Eligible Maintenance Capex. This is an essential part of our work which contributes to maintaining and improving our electricity transmission and distribution networks, including enhancing their capacity to more efficiently deliver higher levels of variable renewable energy to meet the needs of the future energy system. We recognise that the electricity in our system is generated from a combination of renewable and non-renewable sources, and we therefore apply a Green Ratio to the Eligible Maintenance Capex equal to the renewable proportion of generation over the period covered by the bond. In addition to this Eligible Maintenance Capex, we have allocated 100% green projects which are described below in more detail.

NG plc bond

Business unit	Project name	Eligible Category
National Grid Ventures	Emerald Joint Venture (JV)[1] • National Grid has a 51% membership interest in the Emerald JV, whose sole purpose is to build renewable wind and solar PV projects, developed by National Grid Renewables.	Renewable Energy
National Grid Ventures	Offshore Wind JV[1] • National Grid has a 27.27% interest in the Offshore Wind JV with RWE to jointly develop offshore wind projects in the Northeast US.	Renewable Energy

1. For clarity, we have not included joint venture expenditure in our EU Taxonomy disclosure, in line with the relevant legislation. Refer to our **EU Taxonomy Report** for more details.

NMPC bond

All use of proceeds allocated to the NMPC bond relates to Eligible Maintenance Capex, thus no specific green projects were included.

Impact Methodology

NG plc bond

Additional capacity of renewable energy generation connected to the systems (MW)

Emerald Joint Venture
For the acquisition and subsequent capital contributions into Emerald JV, the total installed capacity can be calculated as the sum of all installations for the period in question.

Additional renewable generation (MWh)

Emerald Joint Venture
The generation from our Emerald JV projects can be calculated by summing the hourly generation data from the installed capacity.

Estimated tCO_2e emissions avoided (tCO_2e)

Emerald Joint Venture
The estimated tCO_2e avoided represents the tCO_2e savings from the added installed capacity of renewable energy compared to the amount of CO_2 that would have been emitted by a generation plant of average carbon intensity. This is calculated as:

i) the sum of the actual energy generation (MWh) produced from completion of relevant capital works to 30 June 2022,

ii) multiplied by the relevant carbon intensity factor (see 'Sources').

Offshore Wind
The Offshore Wind project is still in the build phase and, therefore for the period 1 April 2021 to 30 June 2022, there have been no emissions avoided, renewable capacity added or additional renewable generation. This project will in due course provide significant benefits against all three of these metrics.

MECO and NEP
For transmission and distribution projects, the Renewable Energy category includes a percentage of our capital expenditure that is deemed to contribute to maintaining, integrating and enhancing the capacity of renewable energy in our transmission and distribution networks (the Green Ratio).

For eligible capital expenditure (as described above) which does not represent 100% renewable energy capital expenditure, estimated tCO_2e avoided is calculated as the annual tCO_2e savings from having a share equivalent to the New England Green Ratio, or 34.9%, of the reported customer load (MWh) from connected renewables generation compared to the amount of CO_2e that would have been emitted if the average production mix – and the relevant carbon intensity factor for the applicable state – had been used.

NMPC bond

Estimated tCO_2e emissions avoided (tCO_2e)

For transmission and distribution projects, the Renewable Energy category includes a percentage of our capital expenditure that is deemed to contribute to maintaining, integrating and enhancing the capacity of renewable energy in our transmission and distribution networks (the Green Ratio).

For eligible capital expenditure (as described above) which does not represent 100% renewable energy capital expenditure, estimated tCO_2e avoided is calculated as the annual tCO_2e savings from having a share equivalent to the New York Green Ratio, or 41.9%, of the reported customer load (MWh) from connected renewables generation compared to the amount of CO_2e that would have been emitted if the average production mix – and the relevant carbon intensity factor for the applicable state – had been used.

Sources

National Grid Ventures (NGV)
The US Environmental Protection Agency (EPA) Greenhouse Gas Equivalencies Calculator uses the AVoided Emissions and geneRation Tool (AVERT) US national weighted average CO_2 marginal emissions rate to convert reductions of kilowatt-hours into avoided units of carbon dioxide emissions. We have applied its latest emissions factor for electricity reductions which uses 2019 data of 7.09x10-4 metric tons of CO_2/kWh: Source **Greenhouse Gases Equivalencies Calculator – Calculations and References | US EPA**. Confirmation that this is figure is still the latest revised figure: Source **Greenhouse Gas Equivalencies Calculator – Revision History | US EPA**.

National Grid plc
1–3 Strand
London
WC2N 5EH
United Kingdom
Registered in England and Wales

No. 4031152

nationalgrid.com