

REN 



Green
Report

Bond
2022

REN believes that green financing instruments are an effective tool for channelling investment

REN – Redes Energéticas Nacionais (REN) has as its mission guaranteeing the uninterrupted supply of energy to the entire country, while maintaining its commitment to the development of communities and improving citizens' quality of life. This is its mission, which it fulfils by aligning itself with the Sustainable Development Goals (SDGs), namely SDG 4 (Quality Education), 5 (Gender Equality), 7 (Renewable and Affordable Energy), 8 (Decent Work and Economic Growth), 9 (Industry, Innovation, and Infrastructure), 11 (Sustainable Cities and Communities), 13 (Climate Action), 15 (Protect Earth Life), and 17 (Partnerships for the Implementation of the Goals).

It is from this perspective that REN created its "[Green Finance Framework](#)", mainly for the purpose of aligning its financing strategy with its mission, strategy and sustainability objectives. Under its "Green Finance Framework", REN selects and controls a set of projects eligible for green financing, while strictly observing the principles of the ICMA – International Capital Markets Association and of the LMA – Loan Markets Association, with regard to green financing (the so-called "ICMA Green Bond Principles" and "LMA Green Loan Principles").

REN believes that green financing instruments are an effective tool for channelling investment into projects that demonstrate significant benefits with regard to climate action and, therefore, make a valuable contribution to the Sustainable Development Goals.



Category Renewable energy

ELIGIBLE GREEN PROJECTS

- Electricity grid assets built for the sole purpose of connecting renewable energy sources to the grid.
- Electricity grid assets aimed at integrating and enhancing the transmission capacity for renewable energy in the Portuguese electricity grid.



Category Energy efficiency

ELIGIBLE GREEN PROJECTS

- Fibre optic cable and network assets.



Category Green buildings

ELIGIBLE GREEN PROJECTS

- New, existing, or refurbished office buildings (with environmental performance certification).
- Refurbished buildings where the remodelling leads to energy savings of at least 30%.



Category Clean transportation

ELIGIBLE GREEN PROJECTS

- Low-carbon transportation vehicles: fully electrified vehicles within REN's own fleet.

Among the categories listed above, and which are listed in its "Green Finance Framework" REN, for now, has only considered eligible assets under the "Renewable Energy" category.

Following the publication (in February 2021) of its "Green Finance Framework", in April 2021, REN launched its first green bond issue, for an amount of €300 million, with a coupon of 0.50% p.a. and a maturity of eight years.

REN's Green Finance Framework was **subject to a Second Party Opinion** by the Institutional Shareholder Services (ISS-ESG), thus joining the certifications verified by external entities already incorporated in REN's Sustainability Report, namely standard ISAE 3000 (International Standard on Assurance Engagements 3000), with reference to GRI and standard AA1000AP (Accountability Principles – 2018).

This document enables REN to materialise its commitment to annually provide information on the allocation of the green financing made to the eligible assets under consideration and on their associated environmental impacts.

Allocation report

Portfolio date: 31 December 2022

Portfolio of eligible assets		Green financing			
Renewable energy	Value of eligible investments (M€)	Instrument (ISIN)	Issue Date	Maturity	Amount (M€)
Electricity grid assets developed to interconnect renewable energy sources with the grid.	181.2	XS2332186001	14/04/21	14/04/29	300.0
Electricity grid assets aimed at integrating and improving the transmission capacity of energy from renewable sources in the Portuguese electricity grid.	2,489.9				
Total eligible assets	2,671.1	Total green financing			300.0
% of the Portfolio of eligible assets allocated to Green Financing					11.23%
% of Green Financing allocated to the Portfolio of eligible assets					100%
% of the Portfolio of eligible assets not allocated					88.77%

Impact report

Portfolio date: 31 December 2022

Eligible Investments (€M)	2,671.1
% of the Portfolio	11.23%
Evolution of RES Power/Total NES Power ¹	20 p.p. ⁴
Installed Renewable Capacity (MW) ¹	5,497 ⁵
Evolution of Renewable Generation/Total Generation ¹	16 p.p. ⁶
Additional Renewable Generation (GWh/year) ¹	6,847 ⁷
Estimated avoided emissions of the portfolio of eligible assets (tCO ₂ /year) ²	8,355,600
Estimated avoided emissions of the green financing allocated to the portfolio of eligible assets (tCO ₂ /year) ³	938,334
Contribution to the SDGs	7 and 13

(1) Source: REN, Evolution 2012 to 2022

(2) Source: REN, Emissions avoided in 2022 with reference to 2012. Estimated avoided emissions (tCO₂) = [National Electricity Emission Factor 2022 (tCO₂/GWh) – National Electricity Emission Factor 2012 (tCO₂/GWh)] * [Total Portuguese Electricity Production 2022 (GWh)] (considering the imported energy and respective emission factor)
Note: baseline is considered all of the Portuguese Electricity Production 2022 but using the National Electricity Emission Factor 2012

(3) Source: REN, Emissions avoided in 2022 with reference to 2012

Pro rata considers the percentage of investments compared to the total amount of investments and the correspondent contribution to avoided emissions

(4) Evolution from 58% in 2012 to 78% in 2022 (represents the difference between the ratio of the installed renewable capacity and total installed capacity in 2012 and the same ratio in 2022)

(5) Represents the additional capacity of renewable energy generation connected to our transmission and distribution systems, between 2012 and 2022

(6) Evolution from 44% in 2012 to 60% in 2022 (represents the difference between the ratio of the renewable electricity generation and the total electricity generation in 2012 and the same ratio in 2022)

(7) Represents the additional renewable energy generation between 2012 and 2022

Renewable Energy



Tackling climate change places decarbonisation at the centre of public policies, thus generating significant changes on the energy sector. From an energy transition perspective, therefore, adapting the power grid's infrastructure is critical to achieve Portuguese and European energy policy goals. With regard to the electricity sector infrastructures, the growth targets for Renewable Energy Sources (RES), combined with the decreased of thermal power plant generation, in the current Portuguese National Electricity System (NES), determine that there is a permanent need to adapt and develop transmission network infrastructures

in order to guarantee security of supply. The investments carried out by REN, as the concession holder of the electricity transmission activity through the Portuguese National Electricity Transmission Grid (RNT), in the construction of new infrastructure needed to receive and integrate new renewable generation and the necessary adaptation to guarantee the quality, security of supply, and management of the system have been crucial to enable the goals of energy transition, namely the progressive reduction of Greenhouse Gas (GHG) emissions in the energy sector.

The development and investment plans for the transmission grid include multiple kinds of projects to achieve the decarbonisation goals in the electricity sector. In 2022, the following examples stand out:

I

In the Setúbal peninsula, REN finished the new 150 kV connection between Fernão Ferro and Trafaria substations, which is partially underground

II

Transformation power reinforcements in Falagueira substation, with the third 150 / 60 kV unit, and in Estremoz substation, with the second 400 / 60 kV unit

III

In addition, REN developed projects to uprate and modernize assets at their end-of-life, with emphasis on the uprating of 400 kV Palmela-Sines and Alcochete-Fanhões overhead lines, as well as the completion of several substations and switching stations refurbishments

IV

Also, construction works were carried out for the new 400 kV overhead line between Feira and Ribeira de Pena substations, which is necessary to implement the grid conditions for the full and sustainable integration of new renewable generation in the region of hydro power plants of the Tâmega basin (1,158 MW)

V

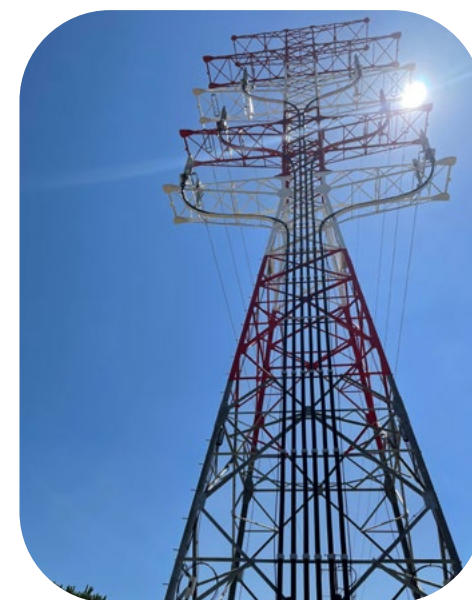
Grid development to create additional capacity for new photovoltaic solar production integration, arising from the competitive procedures, to award capacity reserve for connecting to the electric public grid, launched by the Portuguese State, and related to activities for the connection requests in the form of agreements signed between the Transmission System Operator (TSO) and power plant promoters, new grid studies were and are underway to identify the necessary new grid infrastructure and/ or reinforcement of some existing ones

VI

Reinforcement of RNT within the framework of Sines coal power plant decommissioning. As part of RNT reinforcements in the areas of Lisbon and the south of mainland Portugal, technical-environmental studies of the 400 kV axes are being developed, which will contribute to structurally adapt the network's performance, with emphasis on the 400 kV Ferreira do Alentejo – (Ourique) – Tavira axis, as well as the 400 kV Fanhões – Rio Maior overhead line

VII

For the reinforcement of the interconnection capacity between Portugal and Spain, aiming the implementation of the new 400 kV interconnection, in Minho-Galiza regions, between the future substations of Ponte de Lima, on the Portuguese side, and "Fontefr a", on the Spanish side, environmental and detailed engineering studies were carried out for current environmental assessment procedure phase



VIII

In 2022, two hydro power plants with a total of 1,110 MVA and five photovoltaic parks with a total of 189 MVA completed the process of connection to RNT. Three added equipment of wind farms were also completed, increasing the installed capacity by 63 MW

IX

REN is fully committed, within the scope of its competences, to the objectives foreseen for offshore wind production, and also to creating conditions for the connection of multiple consumption projects, in particular for the production of green H₂ for the decarbonisation of the industry, in line with the guidelines of the Portuguese State

X

In addition to RNT development investments, several projects are underway to modernize transmission grid assets, by refurbishment and replacing of high and very high voltage equipment in substations, protection, automation and control systems, power transformers and overhead lines

XI

At the end of 2022, were in the process of connecting to the transmission grid several new power plants, mainly from solar energy source





Ernst & Young
Audit & Associados - SROC, S.A.
Avenida da República, 90-6º
1600-206 Lisboa
Portugal

Tel: +351 217 912 000
Fax: +351 217 957 586
www.ey.com

Independent Limited Assurance Report

To the Board of Directors of
REN - Redes Energéticas Nacionais, S.G.P.S., S.A.

Scope

We have been engaged by REN - Redes Energéticas Nacionais, S.G.P.S., S.A. ("REN") to perform a limited assurance engagement, as defined by International Standards on Assurance Engagements, to report on the Green Bond Report 2022 ("Green Bond Report") for the year ended 31 December 2022.

Criteria applied

REN prepared the Green Bond Report in accordance with the REN Green Finance Framework (the "Criteria").

Responsibilities of the Management

REN's management is responsible for selecting the Criteria, and for preparing the Green Bond Report in accordance with that Criteria, in all material respects. This responsibility includes establishing and maintaining an appropriate internal control system, maintaining adequate records and making estimates that are relevant to the preparation of the Green Bond Report, such that it is free from material misstatement, whether due to fraud or error.

Responsibilities of the Auditor

Our responsibility is to examine the Green Bond Report prepared by REN and to issue a limited assurance report based on the evidence obtained.

Our engagement was conducted in accordance with the International Standards for Assurance Engagements Other Than Audits or Reviews of Historical Financial Information - ISAE 3000 (Revised) issued by the International Auditing and Assurance Standards Board (IAASB) of the International Federation of Accountants (IFAC) and other technical standards and recommendations issued by the Portuguese Institute of Statutory Auditors (*Ordem dos Revisores Oficiais de Contas*). These standards require that we plan and perform our engagement to obtain limited assurance about whether, in all material respects, the Green Bond Report is prepared in accordance with the Criteria.

Procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. In these circumstances, our independent review procedures comprised the following:

- ▶ Conducting interviews with management and other personnel involved in the preparation of the Green Bond Report, in order to understand the characteristics of the (re)financed projects and how the information system is structured;
- ▶ Inquiries with the personnel responsible for preparing the Green Bond Report in order to understand the processes for collecting, collating, reporting and validating the allocation and impact report data for the reporting period;
- ▶ Checking the Green Bond net proceeds allocation in the eligible project portfolio has been made in accordance with the Criteria;
- ▶ Performing analytical review procedures to support the reasonableness of the allocation and impact report data, including information related to indicators disclosed in the report;
- ▶ Verification of the conformity of the Green Bond Report with the results of our work and with the Criteria applied.



REN - Redes Energéticas Nacionais, S.G.P.S., S.A.
Independent Limited Assurance Report
31 December 2022

We consider that the evidence obtained is sufficient and appropriate to provide the basis for our conclusion.

Quality and Independence

We apply the International Standard on Quality Control 1 and, accordingly, maintain a system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

We comply with the independence and other ethical requirements of the *Ordem dos Revisores Oficiais de Contas'* Code of ethics and of the International Code of Ethics for Professional Accountants (including international independence standards) (IESBA Code), which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentially and professional behavior.

Conclusion

Based on our work and evidence obtained, nothing has come to our attention that cause us to believe that the Green Bond Report, for the year ended 31 December 2022, has not been prepared, in all material respects, in accordance with the Criteria.

Lisboa, 23 March 2023

Ernst & Young Audit & Associados - SROC, S.A.
Sociedade de Revisores Oficiais de Contas
Represented by:

Manuel Ladeiro de Carvalho Coelho da Mota - ROC n.º 1410
Registered with the Portuguese Securities Market Commission under license nr. 20161020



Green Bond Report

2022



Avenida Estados Unidos da América, 55
1749-061 Lisboa
Telephone: +351 210 013 500

www.ren.pt