



2023 | Green Bond Report

redeia

Valuing the essentials



1. Introduction

After releasing its Green Finance Framework in September 2019, Redeia updated its framework in 2021 in order to be aligned as much as possible with the current version of the proposed EU Green Bond Standard and to be fully aligned with the EU Taxonomy Delegated Act for sustainable economic activities.

Regarding Redeia’s Green Bond issuances, the Company has two outstanding issues for a total amount of EUR 1.3 billion under its Euro Medium-Term Notes Programme plus a new Green Hybrid Bond for a total amount of 500 million EUR issued in January 2023. In addition, several loans granted by the European Investment Bank have been incorporated into Redeia's green framework, recognising the contribution of these funds to the development of Red Eléctrica's transmission grid with the aim of maximising the integration of renewable energies into the electricity system.

As set out in Redeia's Green Finance Framework, the net proceeds of Green Finance Instruments will be exclusively used to finance and/ or refinance in whole or in part eligible assets (“Eligible Green Assets”) including related partnerships and joint ventures in the use of proceeds category, together forming the “Eligible Green Asset Portfolio”:

| Use of proceeds category | EU Economic Activity | Detail asset description | ICMA GBP/ LMA GLP |
|--------------------------|--|--|----------------------|
| Electricity network | Transmission and Distribution of Electricity | <ul style="list-style-type: none">• Transmission assets, including projects directly aimed at increasing the production of renewables such as international interconnections, converters and connections, among islands and with mainland. | Renewable Energy |
| | | <ul style="list-style-type: none">• Assets, part of the transmission network, aimed at improving the efficiency of the rail system (high speed rail lines and electrical connections). | Clean Transportation |



The Green Finance Framework sets the basis for the identification, selection, verification and reporting of the Eligible Green Assets as well as the management of the proceeds from Green Finance Instruments.

Within the Framework, the categories relating to Eligible Green Assets are aligned with the Sustainable Development Goals of the United Nations (UN SDGs), in particular Goals 7 on affordable and clean energy and 13 on climate action.

Redeia's Green Finance Framework has been verified with the International Capital Market Association's (ICMA) Green Bond Principles (GBPs) and the Green Loan Principles (GLPs). This information can be found in the corresponding Second Party Opinion (SPO) prepared by Sustainalytics, which is available on the corporate website. [↗](#)

The Eligible Green Asset Portfolio includes mainly tangible green assets and a small amount of intangible green assets. Assets are included in the portfolio at their current IFRS net balance sheet value, which will be updated annually to reflect investment and depreciation under IFRS.

Ernst and Young have provided limited assurance on specific elements related to the use of funds raised by the Green Bonds issuances. The assurance report is attached in the Annexes to this Report.

With this report, Redeia complies with the commitment assumed in its Green Finance Framework to report on the allocation of net

proceeds and the associated environmental impacts annually until the proceeds of each Green Finance Instrument have been fully allocated.

This report contains information on the use of proceeds, allocation and impact reporting of the green finance instruments issued to date.

Also included are case studies on two projects aimed at directly increasing the production of renewable energies. They provide background information on the assets that can be financed by the green finance instruments issued.



2. Allocation report

Use of proceeds Allocation Table (Allocation report Portfolio date: 31 December 2023)

| ICMA GBP Category | Eligible Green Assets Portfolio per 31 december 2023 | Green Funding | | | |
|--|---|----------------------------|------------------|------------------|------------------|
| | Eligible Green Assets (mEUR) | Instrument (ISIN) | Issuance Date | Maturity Date | Amount (mEUR) |
| Renewable Energy (Electricity Network Assets) | 8,607 | XS2103013210 | 24/10/2020 | 24/07/2028 | 700 |
| Clean Transportation | 149 | XS2343540519 | 24/05/2021 | 24/05/2033 | 600 |
| | | XS2552369469 | 07/02/2023 | Perpetua | 500 |
| | | BEI Project VI | 16/12/2020 | 18/12/2028 | 67 |
| | | BEI Project VI | 28/02/2012 | 28/02/20230 | 70 |
| | | BEI Project VI | 28/03/2014 | 30/03/2026 | 33 |
| | | BEI Project VII | 13/01/2017 | 13/01/2042 | 181 |
| | | BEI Project VII | 10/10/2019 | 10/10/2044 | 178 |
| | | BEI France Interconnection | 12/06/2015 | 12/06/2040 | 142 |
| Total Eligible Green Assets | 8,756 | Total Green Funding2,471 | | | |
| | | | | | |
| Percentage of Green Assets Portfolio allocated to Green Finance Instrument | | | | | 28% |
| Percentage of Net Proceeds of Green Funding allocated to Eligible Green Assets Portfolio | | | | | 100% |
| Percentage of Eligible Green Assets Portfolio - Unallocated | | | | | 72% |

Notes to the allocation report

All proceeds from the green instruments issued have been fully allocated to the Eligible Green Assets categories and have been fully used for refinancing purposes except for EUR 41.5 million from the green hybrid bond issued to finance a new project, Tenerife – La Gomera interconnection, described later in the case studies.

The Electricity Network Assets (transmission infrastructure or equipment) complies with the following criterion:

More than 67% of newly enabled generation capacity in the system is below the generation threshold value of 100 g CO₂e/kWh measured on a life cycle basis in accordance with electricity generation criteria, over a rolling five-year period; but excluding any infrastructure

dedicated to creating a direct connection or expanding an existing direct connection between a substation or network and a power production plant that is more greenhouse gas intensive than 100 g CO₂e/kWh.

All the investments included in the portfolio have been carried out in Spain.

3. Impact report

Impact report (Portfolio date: 31 December 2023)

| ICMA GBP Category | Eligible Green Assets (mEUR) | Share of Total Portfolio Financing | Eligibility for Green Financing Instruments | Renewable energy installed capacity (in GW) | Estimated Renewable energy production (in GWh per year) | Installed capacity (in MVA) | Estimated avoided CO ₂ emissions (in tCO ₂ e per year) ⁽¹⁾ | Contribution to specific UN SDG | Contribution to EU Environmental Objective |
|---|------------------------------|------------------------------------|---|---|---|-----------------------------|---|---------------------------------|--|
| a/ | b/ | c/ | d/ | e/ | ç | e/ | e/ | | |
| Renewable energy - (Electricity Network Assets) | 8,606.6 | 98% | 100% | 77 | 7,246 | | 5,785,093 | UN SDG 7, 13 | Climate Change Mitigation |
| Clean Transportation | 149.3 | 2% | 100% | | | 4,067 | | UN SDG 7, 13 | |
| Total | 8,755.9 | 100% | 100% | 77 | 7,246 | 4,067 | 5,785,093 | | |

(1) All of them are indirect emissions.

a/ Eligible category.

b/ Eligible investments represents the amount legally committed by the issuer for the portfolio or portfolio components eligible for Green Finance Instruments.

c/ This is the share of the total portfolio per Eligible category.

d/ This is the share of the total portfolio costs that is eligible for Green Finance Instruments.

e/ Impact reporting indicators per Eligible category.

Notes to the impact report

The impacts of the green assets are calculated as the sum of various parts of the asset base.

One part of the asset base enables the connection of new renewable capacity (MW) to the transmission grid.

The expected amount of increased production of renewable energy (MWh/year) is calculated by multiplying the installed power capacity by technology (MW), identified for each project, per the average annual production (hours/year).

It is considered an average annual production of 2,310 hours for wind generation and 1,684 hours for photovoltaic generation based on a mid-term horizon forecast analysis.

The estimated amount of CO₂ tons emissions avoided is calculated considering that the new production of renewable energy will replace mainly combined cycle production, that have an emission of 0.355 tCO₂ equivalent/MWh.

A second part of the asset base is enhancing the transmission capacity for renewable energy in the grid.

The impact of these projects is calculated through a cost-benefit analysis. The main indicators are based on the methodology CBA 2.0 of ENTSO-E approved by the European Commission in 2018, and this is the current methodology used by Redeia to calculate environmental impacts in the most relevant projects.

The total of these two parts of the asset base is estimated at 5,785 ktCO₂ equivalent avoided and 7,246 GWh renewable energy generated per annum.

For the remaining part of the asset base, we are calculating the impact as the installed renewable energy capacity that is being connected to the entire asset base over the past years. This is 76.5 GW for the current size of the green asset portfolio.

In the category of Clean Transportation, the assets are aimed at improving the efficiency of the rail system.

The impact of this project is calculated considering the increase in the installed capacity for the rail system over the past years. This is 3,885 MVA for the current size of the green asset portfolio.

4. Case study – Salto de Chira pumped-storage hydropower plant

The Salto de Chira hydropower plant is an essential infrastructure in the push for sustainability of the new energy model in the Canary Islands, based on renewable energies.

This energy storage installation is an effective operation tool of the electricity system for improving supply guarantee, system security and renewable energy integration on the island of Gran Canaria.

The General Directorate for Energy of the Department of Ecological Transition, the Fight against Climate Change and Territorial Planning of the Government of the Canary Islands has issued the administrative authorisation for the Salto de Chira pumped-storage hydroelectric power station project, to be built on the island of Gran Canaria. This is the first major energy storage project in the Canary Islands.

The approval of the preliminary administrative and construction permits, as well as the declaration of Public Utility of the project by the General Directorate for Energy of the Government of the Canary Islands, will allow construction work to begin on the energy storage infrastructure.

The authorised project will take advantage of the fact that there are two large inland reservoirs (the Chira and Soria dams) located on the island in order to build between them a 200-MW pumped-storage hydroelectric power station (equivalent to approximately 36% of the peak demand of the island of Gran Canaria) and an energy storage capacity of 3.5 GWh. Additionally, the project includes the construction of a seawater desalination plant and the associated marine works, as well as the necessary facilities for connection to the transmission grid.

Water will be an essential element for the operation of the new infrastructure, but it is also a scarce resource in the archipelago. Therefore, in order to fulfil its mission as an energy storage facility, the project includes the construction of a water desalination plant in the municipality of Arguineguín, which will guarantee the necessary flow in the reservoirs at all times.

Red Eléctrica will invest more than €600 million in the construction of Salto de Chira, a project that has been declared of general interest by the Government of the Canary Islands. Project execution and completion is expected to take about 70 months as of the date the works commence.

Red Eléctrica will invest more than 600 million euros in the construction of the Salto de Chira power station, a project declared to be of general interest by the Government of the Canary Islands.



Benefits of Salto de Chira

The benefits it will provide to the Canary Islands' electricity system are the following:

- **Increased guarantee of supply** for Gran Canaria, by increasing the installed power capacity and strengthening the security of the electricity system; elements that are essential for an isolated electricity system, as is the case of the Canary Islands system, in order to reduce the vulnerability of the system as a whole. In addition, in the event of a supply interruption, this facility will help speed up and drastically shorten the service restoration times.
- **An increase in the integration of renewable energies** by having an essential facility to take advantage of the surplus of renewable energies and that will help integrate a greater amount of locally produced energy. In 2026, the power station will increase renewable energy production on the island by 37%, over the estimated energy that would be generated without the existence of this facility, would

raise the average annual coverage of the demand using renewable generation to 51%, which at specific times may be much higher. This will lead to an additional reduction in annual CO₂ emissions of 20%.

- **Increased energy independence and savings** in variable generation costs amounting to 122 million euros per year by reducing imports of more expensive and polluting fossil fuels.

Furthermore, it is estimated that the project will generate 4,366 jobs, of which 3,518 will be generated in Gran Canaria (1,423 direct jobs, 1,987 indirect jobs and 109 induced jobs), contributing to the economic recovery of the Canary Islands archipelago in a sustainable manner and in line with the principles of the European Green Deal and the strategic lines and basic principles of the Pact for the Social and Economic Reactivation of the Canary Islands.

You can find more information about the project in the following link [↗](#)

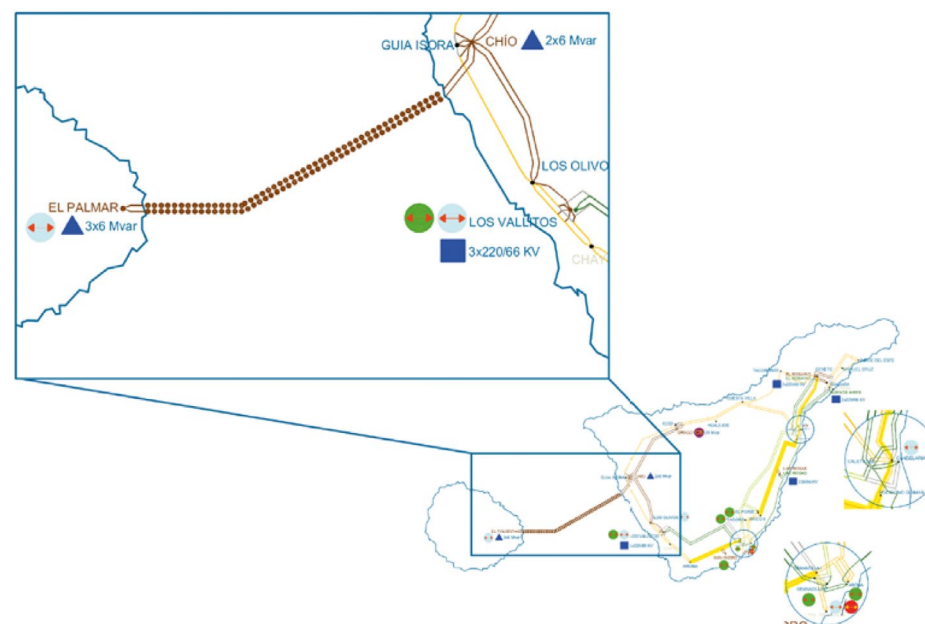
5. Case Study Interconnection between Tenerife and La Gomera

The proposed investment consists of a submarine link between the electricity systems of Tenerife and La Gomera. This requires the following developments:

- New El Palmar 66 kV substation in La Gomera.
- New El Palmar-Chío 66 kV alternating current double-circuit submarine-cable link, with 50 MVA capacity per circuit.
- Extension of the Chío 66 kV substation on Tenerife.
- 5 reactances at 66 kV of 6 MVar.

The main goals of this project are:

- Integrate the currently independent electricity systems of La Gomera and Tenerife, increasing the quality and security of supply.
- Reduce the overall production costs of the new joint system by improving generation efficiency.
- Enable greater RES integration, especially in La Gomera, and to reduce CO₂ emissions.
- Reduce installed generation power requirements in the joint system.



Cost-Benefit Multi-Criteria Analysis

Benefits



8 M€/year
Socio-economic
welfare



21,506 MWh/year
Additional RES
integration



208 h/year^(*)
Reduction of
ENS



16 kt/year^(*)
Reduction of
CO₂ emissions



-3.093 MWh/year^(*)
Reduction of
system losses



14 MW
Reduction of needed
installed generation
capacity

(*) A negative value means existing increased emissions, losses or ENS.

The total investment amount of this project is currently estimated in almost 175 million EUR, and it is expected to be finished in 2025.

You can find more information about the project in the following link. [↗](#)

Table of physical units

| | 66 kV |
|---------------------|-------|
| Bays (units) | 14 |
| Reactance (Mvar) | 30 |
| Submarine Link (km) | 84 |

Note: The table covers all assets included in the investment under study, regardless of the Year of commissioning (detailed below) and whether costs for the system or third parties are involved. This table shows circuit kilometres, whereas the detailed table shows right-of-way kilometres.

Detailed list of investments

| New substations | Type | Year |
|------------------------------|----------|------|
| El Palmar de La Gomera 66 kV | Building | 2025 |

| Substation extension | units | Type | Driv. | Year |
|------------------------------|-------|-------|-------|------|
| Chío 66 kV | 4 | GIS | TN | 2025 |
| Chío 66 kV | 2 | Conv. | TN | 2025 |
| El Palmar de La Gomera 66 kV | 5 | GIS | TN | 2025 |
| El Palmar de La Gomera 66 kV | 3 | Conv. | TN | 2025 |

| New lines/cables | MVA [win.] | MVA [sum.] | km (±10%) | Type | Driv. | Year |
|--|---------------|---------------|--------------|-------|-------|------|
| Chío - El Palmar de La Gomera 66 kV, cto 1 | 50 | 50 | 42 | Subm. | Link | 2025 |
| Chío - El Palmar de La Gomera 66 kV, cto 2 | 50 | 50 | 42 | Subm. | Link | 2025 |

| New reactances | MVar | Type | Driv. | Year |
|--|------|------|-------|------|
| Chío 66 kV, REA1 (1) | 6 | - | Link | 2025 |
| Chío 66 kV, REA2 (2) | 6 | - | Link | 2025 |
| El Palmar de La Gomera 66 kV, REA1 (3) | 6 | - | Link | 2025 |
| El Palmar de La Gomera 66 kV, REA2 (4) | 6 | - | Link | 2025 |
| El Palmar de La Gomera 66 kV, REA3 (5) | 6 | - | Link | 2025 |

Notes: (1) (2) (3) (4) Reactance associated with the link. (5) Busbar reactance.



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LIMITED ASSURANCE REPORT INDEPENDENT OF THE GREEN BONDS REPORT

To the Management of Redeia Corporación, S.A.:

Scope

In accordance with your request, we have carried out a limited assurance engagement on the information contained in sections 2 "Fund allocation report" and 3 "Environmental impact report" (hereinafter, the "Subject matter under analysis") that is included in the 2023 Green Bond Report of Redeia Corporación, S.A. and subsidiaries (hereinafter Redeia or the Group) for the period from January 1, 2023 to December 31, 2023 (the "Report").

The Report includes additional information that does not fall within the scope described in the previous paragraph and on which we have not carried out any procedure, so we do not express any conclusions about such information.

Criteria applied by Redeia

To prepare the Report, Redeia has applied the provisions of the "Green Finance Framework" published by the company and available on its website https://www.redeia.com/sites/webgrupo/files/06_ACCIONISTAS/Documentos/Red_Electrica_Group_Green_Finance_Framework.pdf, (hereinafter, the criteria) as detailed in section 1 "Introduction" of the Report.

Reining Responsibilities

Redeia's Management is responsible for the selection of the criteria, as well as for the presentation of the Report in accordance with these criteria, in all significant aspects. This responsibility includes the implementation and maintenance of internal controls, the maintenance of appropriate records and the making of the estimates that are applicable for the preparation of the Sustainability Report in such a way that it is free from material misstatement, due to fraud or error.

Our Responsibility

Our responsibility is to express a conclusion about the presentation of the Report based on the evidence we have obtained.

We have conducted our limited assurance engagement in accordance with International Standard for Assurance Engagements (ISAE) 3000 (Revised) "Assurance Engagements Other Than Auditing and Review of Historical Financial Information" issued by the International Auditing and Assurance Standards Board (IAASB) of the International Federation of Accountants (IFAC), in accordance with the terms of our engagement letter dated January 15, 2024. This standard requires us to plan and carry out the engagement to express a conclusion as to whether we are aware of any material modifications that need to be made to the Report to bring it into line with the criteria, and to issue a verification report. The nature, timing and extent of the procedures selected depend on our judgment, including an assessment of the risk of material misstatement, due to fraud or error.

Domicilio Social: Calle de Raimundo Fernández Villaverde, 65, 28003 Madrid - inscrita en el Registro Mercantil de Madrid, tomo 9.364 general, B.130 de la sección 3ª del Libro de Sociedades, folio 68, hoja nº 67.692-1, inscripción 1ª, C.I.F. B-18979706.

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We consider that the evidence we have obtained provides a sufficient and adequate basis for our conclusion of limited assurance.

Our Independence and Quality Management

We have complied with the independence and other ethical requirements of the International Code of Ethics for Accounting Professionals of the International Standards Ethics Board for Accountants (IESBA Code of Ethics), and we have the necessary skills and experience to perform this assurance engagement. There is no conflict of interest in the process of reviewing sustainability indicators.

Our firm applies the International Standards on Quality Management (ISQM) 1 which requires the firm to design, implement and operate a quality management system that includes policies or procedures relating to compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

The team has been made up of professionals who are experts in reviewing non-financial information and, specifically, in economic, social and environmental performance information.

Procedures Performed

In a limited assurance engagement, the procedures carried out vary in their nature and timing, and are shorter in length, than those performed in a reasonable assurance engagement. Consequently, the degree of security that is obtained in a limited assurance engagement is substantially less than the degree of security that would have been obtained if a reasonable assurance engagement had been performed. Our procedures were designed to obtain a limited degree of certainty on which to base our conclusion and do not provide all the evidence that would be required to provide a reasonable degree of certainty.

Although we consider the effectiveness of management's internal controls in determining the nature and extent of our procedures, our assurance engagement was not designed to provide assurance about internal controls. Our procedures did not include testing controls or procedures related to verifying the aggregation or calculation of data within Information Technology systems.

A limited assurance engagement consists of the formulation of questions, mainly to the persons responsible for the preparation of the subject matter under analysis and the related information, and in the application of certain analytical and other appropriate procedures.

Our procedures have included:

- ▶ The analysis of the processes of collection and internal control of quantitative data related to the environmental impact indicators reflected in the Report in terms of the reliability of the information, using analytical procedures and review tests based on sampling.
- ▶ The review of the key environmental performance indicators in section 3 "Environmental Impact Report of the Report.
- ▶ Verification that the investments undertaken by REDEIA, S.A. included in the project portfolio have been carried out in accordance with the criteria of the "Green Finance Framework".
- ▶ The traceability of the funds allocated to the refinancing of the projects included in section 2 "Report on the allocation of funds" of the Report.

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Limited Assurance Report Independent of the Green Bonds Report

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- ▶ Reading the information included in the Report to determine if it is in line with our general knowledge and experience, in relation to Redeia's sustainability strategy and objectives.
- ▶ Obtaining a letter of statements from the Directors and the Management.

In addition, we have carried out those other procedures that we have deemed necessary.

Conclusion

Based on the procedures applied and the evidence obtained, no aspect has been revealed that leads us to believe that the subject matter of the analysis has not been prepared, in all material aspects, in accordance with the provisions of the "Green Finance Framework", including the reliability of the data, the adequacy of the information presented and the absence of significant deviations and omissions.

Use and Distribution

This report has been prepared in response to the requirement set out in the commercial regulations in force in Spain, so it may not be suitable for other purposes and jurisdictions.

ERNST & YOUNG, S.L.

(Free translation from the Original Report on Independent Review in Spanish dated March 7th, 2024. In the event of a discrepancy, the Spanish version always prevails.)

19 April 2024

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