Environmental Statement EMAS 2023

March 2024

redeia

Table of Contents

1 Who is Red Eléctrica

Red Eléctrica de España S.A. was set up on 29 January 1985 as the first company in the world dedicated exclusively to the transmission of electricity and the operation of the electricity system.

In 2008, in order to strengthen the transparency and separation of regulated activities (electricity transmission and operation of the electricity system in Spain) from the rest of the business activities, a change was made in the Company's corporate structure with the creation of **Red Eléctrica Corporación**, **S.A.** as the parent company of **Redeia.**

On 1 November 2020, following a resolution of the Board of Directors, the corporatisation process was definitively consolidated by transferring the Corporate Services, encompassed within Red Eléctrica de España, to the parent company: Red Eléctrica Corporación.

Red Eléctrica Corporación, S.A. changed its company name to Redeia Corporación, S.A. on 13 June 2023.

The main activity that falls under company's responsibility is to carry out the functions as sole transmission agent and operator (TSO) of the Spanish electricity system. Its mission is to guarantee the security and continuity of the electricity supply at all times and to manage the transmission of high-voltage electricity. As the operator of the electricity system, it carries out its operational functions through its electricity control centres in order to guarantee the correct operation of the electricity supply process at all times, both in the peninsular system and in the non-peninsular systems.

In its capacity as manager of the high-voltage transmission grid, RE transports electricity from the power generation facilities to the consumption areas through its own extensive transmission grid, which it improves, expands, and maintains by applying uniform standards and efficiency criteria. Furthermore, it is responsible for managing the exchange of electrical energy between external electricity systems through cross-border connections[1] and for guaranteeing third-party access to the grid under equal conditions.

The Company exercises this responsibility with transparency, neutrality, independence, and economic efficiency with the goal of providing an electricity service of the highest quality for society as a whole.

We are therefore responsible for the technical management of the Spanish electricity system, as owners of the Spanish high voltage electricity transmission grid, and the only company in Spain specialising in electricity transmission activities[2].

Our main facilities are comprised of electricity control systems that manage, monitor, and supervise the operation of the system; 45,222 circuit kilometres of power line and 6,357 sub-station bays with a transformer capacity of 94,981 MVA.

Evolution of facilities[3]		2021	2022	2023
Lines (km of line circuit)	Km of line circuit	44,687	45,100	45,222
	400 kV	21,768	22,013	22,057
	220 kV or less	22,821	23,087	23,165
Sub-stations	Total number of bays	6,104	6,213	6,356
	400 kV	1,591	1,628	1,697
	220 kV or less	4,514	4,586	4,660
	Transformer capacity (MVA)	93,496	94,221	94,981

[1] In this regard, since 2008, Red Eléctrica owns 50% of the share capital of INELFE, a company jointly set up with its French counterpart, RTE, to develop electricity interconnections with France.

[2] Clasificación Nacional de Actividad Económica – CNAE (Spain's National Classification of Economic Activities) 35.12: Electricity transmission.

[3] Source: REData and the Spanish Electricity System Report. March 2023

For the **comprehensive** and proper development of the described activity, the participation of both RE (Red Eléctrica) and Redeia Corporación, is essential, each of them intervening in those tasks that are under their responsibility throughout the process.

Therefore, the scope of this environmental statement and the EMAS Register **encompasses the activity of both companies:**

- Transmission and Operation of the Spanish electricity system.
  - Activity carried out by RE according to **NACE[4] Rev.2 code: 35.12. Electricity transmission.**
- Corporate services that support these activities.
  - Activity carried out by Redeia Corporación according to **NACE Rev.2 code: 64.20. Activities of holding companies.**

It should be noted that the ownership of the EMAS Register entry is in the name of the parent company.

The scope of the information provided throughout this document, in terms of the environmental management process and the environmental performance results obtained, **encompasses both companies.** It is not possible to separate the data pertaining to RE with regard to the carrying out of its functions as transmission agent and operator of the Spanish electricity system from that data pertaining to the activities of Redeia Corporación and its personnel regarding its corporate support function for such activities.

In order to make the reading process easier and improve understanding of the document, both companies are hereinafter referred to as **Red Eléctrica** for all activities carried out within the scope of the Environmental Statement.

The name **Redeia** is used in this EMAS report when reference is made to an aspect or subject that encompasses all the companies belonging to the holding company.

[4] Statistical Classification of Economic Activities in the European Community.

2 Environmental management and policy

Environmental policy[5]

Redeia carries out all its activities while taking into consideration environmental protection, in accordance with the principles set out in its environmental policy, updated and approved by the Board of Directors in 2023. The policy includes commitments to preventing contamination, the principle of caution, and concepts that reinforce the Company's dedication and establish the levers for improving environmental management. For example, the life cycle approach, stakeholder expectations, the extension of environmental commitment to the supply chain, and proactive compliance with environmental regulations.

Purpose

To establish environmental principles that ensure Redeia's commitment to the conservation and improvement of the environment in all activities, facilities, or services provided throughout their life cycle, including distribution and logistics, while addressing stakeholders' needs and expectations.

Focusing on and complying with the principles contained within this Policy contribute to achieving business' purpose, as well as to help achieve its strategic objectives, in line with the values, principles, and guidelines for conduct established in Redeia's Code of Conduct and Ethics.

Scope of application

This Policy applies to all Redeia's majority-owned companies. It is the responsibility of all persons at Redeia to comply with this Policy when performing their duties and responsibilities, across all professional areas in which they represent the organisation.

In those investee companies in which Redeia does not have effective control, principles aligned with those established in this Policy shall be promoted. Furthermore, the application of these principles will be promoted among Redeia's business partners, including temporary joint ventures, consortia, or any other equivalent associations. For contractors, suppliers, and those who collaborate with or act on behalf of Redeia, the company will also promote the principles of this Policy.

Principles

- To ensure **compliance with environmental legislation, regulations, and standards** applicable to the activities and facilities in the countries where the Company operates, anticipating as far as possible the application of new regulations when these are more demanding, as well as complying with the **voluntary environmental commitments**.
- To contribute to a model for the execution of activities that is carried out in an environmentally respectful manner, and which considers the **life cycle of infrastructure,** facilities and buildings, and that integrates such infrastructure into the landscape, thus minimising its environmental impact.
- **To prevent** the materialisation of **environmental risks** and the emergence of situations that could lead to environmental emergencies, applying the necessary preventive measures and, where appropriate, responding effectively, mitigating the consequences of such materialisation.
- Strengthen our commitment to the **fight against climate change,** contributing to the energy transition and taking steps towards achieving carbon neutrality, while facilitating the electrification of society and

[5] Environmental policy applicable to all companies that make up Redeia. Third Edition (E-PA011 replacing 2 Edition of Policy PC01) approved by the Board of Directors in May 2023.

the increased integration of renewables. Furthermore, the Company is committed to reducing the emissions associated with its activities through energy efficiency and sustainable mobility as fundamental pillars, while factoring in the impact of the Company's supply chain.

- To consider **biodiversity and natural capital** as key factors in Redeia's strategy, with the aim of generating a net positive impact on the environment in which the Company carries out its activities.
- To integrate **circular economy** criteria in all Redeia's activities with a view to achieving responsible consumption and the sustainable use of resources.
- To guarantee **continuous improvement, risk control and management, the principle of caution, and pollution prevention** in the environmental management of Redeia's companies by implementing and maintaining management systems aligned with the requirements of international standards and consistent with the specificities thereof.
- To incorporate **environmental criteria** and consider environmental risks in **investment and procurement** decision-making processes, as well as in the planning and execution of activities.
- To promote behaviour in accordance with environmental requirements and the principles and commitments undertaken by Redeia with regard to its supply chain and partners, ensuring that its **supplier value chain** adopts these same commitments.
- To foster a culture of respect for the environment through ongoing internal and external **training**, **awareness-raising** campaigns and activities designed to convey the importance of environmental protection and of minimising environmental impact.
- To encourage and contribute to **innovation** aimed at designing and adopting solutions and new ways of working in order to avoid or minimise environmental impact.
- To promote channels of communication to inform, to establish dialogue, and to generate **alliances with stakeholders** that enhance the generation of shared value.
- To promote **visibility and transparency** in terms of the information communicated regarding the results of Redeia's environmental performance.
- To integrate environmental best practices into the activities carried out by the Company and proactively promote the application of the decisions adopted by national and international forums and organisations, which promote and encourage sustainable behaviour and conservation in the field of environmental management, in order to achieve **leadership** in the activities carried out by Redeia's companies.
- To ensure that **collaborating companies** acting on behalf of any of Redeia's companies apply the principles of this Policy.

The Sustainability Committee of the parent company is responsible for periodically supervising and reviewing the content and compliance with this Policy, with the support of the corporate Sustainability Area, which manages Redeia's strategy in this area.

The Policy is published on Redeia's website and corporate intranet, as well as on the intranet of its subsidiary companies.

Sustainability indexes

Redeia's inclusion in the most internationally recognised sustainability indexes shows its firm commitment to sustainability and its commitment to responsible transparency and accountability towards stakeholders.

Additionally, the Company voluntarily joined various initiatives that strengthen its commitment to sustainability, among which we should highlight the United Nations Global Compact Principles, the New European Green Deal, Climate Ambition Alliance, Caring for Climate, the Biodiversity Compact, among others.

Red Eléctrica's determined efforts to become a model company that is responsible, efficient, and sustainable has been recognised by the leading sustainability rating agencies, which has led to the Company being included in some of the main sustainability indexes as a result of its performance in this field. Some of the most noteworthy indexes are:

- Dow Jones Sustainability Index.
- FTSE 4 Good.
- Euronext Vigeo Index (Euro 120, World 120, and Europe 120) of Moody's.
- MSCI (Morgan Stanley Capital International).
- ISS ESG.
- Sustainalytics.
- Bloomberg GEI.
- CDP climate change.

Once again, Redeia has been included in the Dow Jones Sustainability World Index. Moreover, it has been recognised as one of the 10 most sustainable companies in its sector worldwide, according to The Sustainability Yearbook 2023 by S&P Global.

More information can be found at:

https://www.redeia.com/es/sostenibilidad/nuestro-enfoque/excelencia-certificaciones

https://www.redeia.com/es/publicaciones/informe-sostenibilidad-2023

Environmental management system

In order to carry out a continuous improvement of its environmental performance, Red Eléctrica has a certified Environmental Management System in accordance with UNE-EN ISO 14.001:2015 standard, certified since May 1999 and which, since October 2001, has been registered under the EU Eco-management and Audit Scheme (EMAS) with registration number Nº **ESMD000313** (previously *ESSB000013*).

This system covers all the activities and facilities of Red Eléctrica.

- ### Management structure

The Environmental Management System is part of a Comprehensive Corporate Management System which also encompasses the Quality, Occupational Health, and Safety. The aforementioned management systems take into consideration all those regulatory aspects which have been defined as potentially cross-cutting based on the existing processes and resources dedicated to each one of them, with the aim of:

- Orienting processes towards achieving objectives, increasing the client and stakeholder satisfaction.
- Increasing the integration and reliability of operations and effectiveness at a personal and organisational level.
- Creating a culture oriented to safety, excellence, and efficiency.

Specifically, the Environmental Management System comprises all the activities performed by Red Eléctrica in all its facilities and work centres, with special attention to those that result in an interaction with the environment. It is integrated across the board into the decision-making process and in the Company's activities, promoting a business model that takes into account the social, economic, ethical, and environmental dimensions.

- ### Functional structure

The environmental policy stems from the **Board of Directors** as its signatory body.

The sustainability policy also encompasses a comprehensive set of principles, guidelines, and specific criteria for action that guide activities to be conducted in a responsible manner to promote environmental stewardship. These guidelines are established by the **Boards of Directors** and are reinforced through their endorsement and commitment.

The management area responsible for defining and coordinating the development and monitoring of the environmental management system (hereinafter, SIGMA) falls under the remit of the **Sustainability Area**, which is part of the **Sustainability Department.**

The Area is integrated into the **Corporate Sustainability and Research Division** that reports to the **Chairperson's Office.**

The mission of the Sustainability Department is to design, coordinate, and oversee the implementation of the strategies, policies, systems, criteria, and actions regarding the sustainability of Redeia and, as part of its duties and responsibilities, it is also responsible for coordinating the development and monitoring of the Environmental Management System.

Of particular note are the functions carried out in the **Environmental Department's** management system, which belongs to the Management of Facilities Development Support, which is part of the General Director of Transmission. Its role is to integrate the environmental parameters in all phases of the life cycle of the facilities, collaborating in the determination and implementation of sustainability criteria and actions, and reporting all relevant information regarding its management. It also ensures that the competent bodies comply with the required environmental conditions and with internal and external regulations.

Specifically, regarding corporate buildings, responsibility for environmental management falls under the remit of the **Corporate Culture and People Management Area** (REC).

The SIGMA maintenance also involves all the Company's units within the scope of their competences and responsibilities. The **functional guideline manual highlights two functions common to all organisational units that are of a strategic nature** and relevant to the environmental management system in order to:

- Implement management systems in the strategic areas established by the Company that promote continuous improvement and facilitate the achievement of the expected results.
- Guide the execution of all activities towards the fulfilment of the objectives established in the different environmental management plans in order to guarantee the commitment to protecting and respecting the environment.

The objective of the **Board of Directors' Sustainability Committee** is, among other things, to monitor and promote actions related to the environment and to combat climate change within Redeia.

The Committee is responsible for overseeing Redeia's strategy and practices in relation to the **2030 Sustainability Commitment**, monitoring compliance with policies aimed at meeting the Sustainable Development Goals, overseeing stakeholder outreach processes and supervising and coordinating the sustainability reporting process.

Similarly, the Sustainability Steering Committee and the Corporate Sustainability and Research Area play a key role, reinforcing the engagement of the highest levels of decision-making within the Company and including all areas of the organisation in the monitoring, supervision, and implementation of the 2030 Sustainability Commitment.

- Documentation structure

The Environmental Management System is based a set of applicable regulations.

The management processes include the drafting, custody, maintenance, and registration of the documented information necessary for the Environmental Management System. The associated documentation is updated and easily accessible for all personnel in different formats/media.

Redeia's management of internal regulations is outlined in the R-GN01 general procedure, titled 'Management of Internal Regulations'. This procedure serves as a guiding framework that regulates various crucial aspects, including the development, review, approval, repeal, publication, dissemination, updating, and oversight of Redeia's internal regulations.

The regulations of the Environmental Management System are composed of the following documents:

- **Corporate policies:** these encompass a set of fundamental principles that play a pivotal role in achieving the organisation's mission and strategic objectives. These policies are designed to align with the values, principles, and business conduct guidelines outlined in Redeia's Code of Conduct and Ethics.
- **Action guides:** establish clear criteria, guidelines, and action steps for the development of processes and activities within the Company. These guides facilitate the effective implementation of the principles outlined in corporate policies.
- **General procedures**[6]**:** regulate the organisation's processes. They describe the purpose, scope, responsibilities, and the activities and tasks to be followed in each procedure.
- **Technical instructions:** provide detailed descriptions of some of the activities in a process. Their purpose is to explain how the technical tasks are to be performed by Redeia's employees.

[6] Prior to the current edition of the R-GN01general procedure 'Management of internal regulations', procedures were categorised into two types of documents: general and technical, depending on their scope. These documents will be adapted to the current categorisation as they are revised, becoming general procedures, technical instructions or any other regulatory element considered within the typology of internal regulations, where applicable.

- **Technical specifications:** provide a detailed description of the terms and conditions as well as the technical specifications required for the acquisition of goods and services that are regularly requested from external suppliers.
- **Management manuals:** regulate activities related to certifiable or accreditable management systems, as well as control systems. These manuals are aligned with national or international benchmarks.

Changes in the documentation of the environmental management system 2023

In 2023, many of the environmental management system documents[7] were modified in order to keep them updated on an ongoing basis and to introduce management improvements.

Code	Title	Edition	Date published	Approval date	Supersedes
E-AT025	Inspections of high-voltage power lines	5	01-01-2023	03-02-2023	Ed. 4
E-ET042	Felling, pruning, clearing, and street cleaning work on overhead power lines	5	02-03-2023	06-03-2023	Ed. 4
E-ET079	Use of corrosion protection on metal towers	6	12-01-2023	19-01-2023	Ed. 5
E-ET080	Inspection of corrosion protection on power line towers	5	12-01-2023	10-01-2023	Ed. 4
E-ET098	Inspection of felling and street cleaning work on overhead power lines	4	02-03-2023	06-03-2023	Ed. 3
R-PA01	Environmental policy	3	30-05-2023	30-05-2023	Ed. 2
E-GN00	Crisis management at Red Eléctrica (pre-alert, alert, and emergency)	6	12-06-2023	21-06-2023	Ed. 5
E-EA004	Environmental specifications for work in substations, lines, and buildings	6	30-05-2023	14-06-2023	Ed. 5
R-GP005	Training	7	12-12-2023	14-12-2023	Ed. 6
E-IT451	Management of incidents with SF_6 gas in switchgear	2	24-10-2023	26-10-2023	Ed.1
R-IP003	Personnel qualification	3	06-11-2023	06-11-2023	Ed. 2
E-IA018	Management of waste generated at the facilities	2	06-11-2023	30-11-2023	1

[7] The environmental specification *E-IA006-2 'Guidelines for the Burning of Forest Waste'* has been cancelled or annulled. The cancellation is due to the fact that it is no longer applicable.

3 Scope of EMAS Register

Red Eléctrica has an environmental management system that complies with the requirements of Regulation (EC) No 1221/2009 (EMAS III), Regulation (EU) 2017/1505 amending Annexes I, II, and III of the Regulation, and Regulation (EU) 2018/2026 amending Annex IV of Regulation (EC) No 1221/2009, which establishes the requirements for environmental reports, No. ESMD000313. Its scope covers all Company activities (*NACE Rev.2: 35.12. Transmission of Electricity and NACE 64.20. Activities of holding companies*):

- **Transmission and Operation of the Spanish electricity system.**
- **Corporate services that support these activities.**

The aforementioned activities are carried out in:

- **Moraleja Head Office and Central Regional Office:** Paseo Conde de los Gaitanes, 177. 28109 - Alcobendas (Madrid).
- **Albatros Head Office:** C/Anabel Segura, 11. 28109 - Alcobendas (Madrid).
- **CECORE:** Parque Tecnológico de Madrid, C/ Isaac Newton, 1, REE Building. 28760 - Tres Cantos (Madrid).
- **CAMPUS Tres Cantos:** Parque Tecnológico de Madrid, C/ Isaac Newton 2, REE Building. 28760 - Tres Cantos (Madrid).
- **Regional Office and System Operation Department of the Balearic Islands:** Camino Son Fangos, 100, Building A, Floor 2. 07007 – Palma de Mallorca (Balearic Islands).
- **Regional Office and System Operation Department of the Canary Islands** (Main Office in Las Palmas de Gran Canaria): C/ Juan de Quesada, 9. 35001 - Las Palmas de Gran Canaria (Las Palmas)
- **Regional Office and System Operation Department of the Canary Islands** (Main Office in Tenerife): Nuestra Señora de la Ternura (Los Majuelos). 38108 - San Cristobal de la Laguna (Santa Cruz de Tenerife)
- **Northern Regional Office:** Gran Vía, 38. Floor 2. 48009 - Bilbao (Vizcaya).
- **North-Eastern Regional Office:** Avenida Paralelo, 55. REE Building. 08004 - Barcelona (Barcelona).
- **North-Western Regional Office:** C/Gambrinus, 7, 2º Izq. 15008 - La Coruña (A Coruña).
- **Southern Regional Office:** C/Inca Garcilaso, 1. REE Building. 41092 - Isla de la Cartuja (Seville).
- **Eastern Regional Office:** Avenida de Aragón, 30, Floor 14. 46021 - Valencia (Valencia).
- **Ebro Regional Office:** Pl. Aragón, 10, Floor 2, Office 3. 50004 - Zaragoza (Zaragoza).
- **Eastern Regional Transmission Office:** C/ Puebla Larga, 18. 46183 - La Eliana (Valencia).
- **North-western Regional Transmission Centre:** Carretera N-601, Madrid-Valladolid-León, km 218. 47630 - La Mudarra (Valladolid).
- **Northern Regional Transmission Centre:** Carretera Zaragoza-Sariñera, km 9.2. 50162 - Villamayor (Zaragoza).
- **North-Eastern Regional Transmission Centre:** Carretera antigua Castellbisbal-Rubí, S/N Polígono Industrial Can Pi de Vilaroc. 08191 - Rubí (Barcelona).
- **Central Regional Transmission Centre:** Carretera N-I Madrid-Burgos, km 20.7. 28700 – San Sebastián de los Reyes (Madrid).
- **Southern Regional Transmission Centre:** Carretera Sevilla-Utrera, km 17. 41500 - Alcalá de Guadaira (Seville).

- **Balearic Islands Regional Transmission Centre:** (Polígono industrial Marratxi) C/ Gerrers esquina Siurells, Floor 2. Marratxi (Palma de Mallorca).
- **Canary Islands Regional Transmission Centre:** (Polígono industrial Mayorazgo) C/ Laura Grötte de la Puerta, 5. Polígono industrial Mayorazgo (Santa Cruz de Tenerife).

The following facility is excluded from the scope of the EMAS register specifically in those areas where it is located, or through which it crosses (towns indicated)[8]:

Facilities	Town
Salto de Chira (Hydroelectric Power Station)	Mogán and San Bartolomé de Tirajana (Las Palmas)

Additionally, the following facilities or sections of line with sanctioning proceedings resolved during 2023 are excluded:

Facilities	Town
Power line: 220 kV Abadiano-Mondragón	Abadiño (Vizcaya)
Power line: 400 kV Maials-Rubí	Montmell (Tarragona)
Power line: 220 kV Puigpelat-Penedés	Montmell (Tarragona)
Power line: 220 kV Subirats-Bellicens	Masllorenç and Bisbal del Penedès (Tarragona)
Power line: 400 kV Garraf-Vandellós	Bonastre and Sanaüja (Tarragona y Lérida)

[8] Completed proceedings are understood as those in which the following circumstances (all of them) occur together:

1. The Company is declared responsible for the non-compliance.
2. The required amount has been paid.
3. No appeal has been filed or the option to file an appeal at a higher authority is open.
4. The Company has made the decision to assume responsibility for what happened and has chosen not to appeal.

Also excluded from the EMAS register's scope are those facilities or sections of line with sanctioning proceedings that have not yet been resolved (currently being processed):

Facilities	Town
Line: 400 kV Galapagar-Lastras	El Espinar (Segovia)
Line: 220 kV Cartelle-Castrelo 1	Castrelo de Miño (Orense)
Line: 132 kV Puerto del Rosario-Gran Tarajal	Gran Tarajal (Fuerteventura)
200 kV Tomeza electrical sub-station	Vilaboa (Pontevedra)
Turbine installed in the Formentera electricity sub-station[9]	Formentera (Balearic Islands)

[9] The sanctioning procedure has been initiated against GAS ELECTRICIDAD GENERACIÓN S.A. and REE, S.A.U. as jointly responsible parties. Responsibility was attributed to REE due to the fact that the operating regime of the Formentera turbine responds to the strategies derived from REE's new operating procedures that came into force in 2006. However, and as pointed out in the allegations submitted on 5 May 2011, the fact that the System Operator decided to schedule the use of a turbine for electricity system security reasons does not imply responsibility for the condition and maintenance of said turbine. The sole owner of the turbine is GESA ENDESA, and therefore, it is the only entity that has the power to repair or replace it in the event it is in poor condition.

4 2030 Sustainability Commitment. Objectives.

Redeia's 2030 Sustainability Commitment, approved by the Board of Directors, reflects the commitment made by the Company to its long-term continuity and success through a business model capable of creating shared value for all its stakeholders through the responsible execution of its activities.

The Commitment is underpinned by ten principles defined in the Sustainability Policy and is governed by four sustainability priorities, in order to address the challenges facing the organisation and to prioritise existing opportunities, with the aim of occupying a position of reference in the global business context.

This Commitment has been driven by defining eleven sustainability goals for the 2030 horizon that are quantifiable and aligned with the Strategic Plan (*https://www.redeia.com/es/sostenibilidad/nuestro-enfoque/compromiso-2030-plan-23-25*).

These goals, validated by the Sustainability Steering Committee, the Executive Committee, the Board's Sustainability Committee and approved by the Board of Directors, contribute directly to the achievement of the United Nations Sustainable Development Goals (SDGs).

The most relevant 2030 Sustainability Goals for environmental management, associated with the commitment priorities include:

Decarbonisation of the economy

 **Climate change**	**Objective 2030** 55% reduction in Scope 1 and 2 emissions and 28 % reduction in Scope 3 emissions compared to 2019.

Responsible value chain

 **Biodiversity**	**Objective 2030** To generate a positive net impact on the natural capital in the areas surrounding our facilities.
 **Circular economy**	**Objective 2030** • To be a leading company in circular economy. • Redeia: 0% waste to landfill. • Redeia: 6.5 m³ water consumption per employee per year in work centres.
 **Suppliers**	**Objective 2030** To be a driver for change with our suppliers: at least 25 supplies with the greatest impact on the transmission grid with circularity criteria (LCA – Life Cycle Assessment), climate change, and biodiversity.

The 2030 Sustainability Commitment is implemented through multi-year plans. Within the 17 courses of action are the following, directly related to the environment:

- **Adaptation to climate change.**
- **Reduction of the carbon footprint.**
- **Conservation of biodiversity and natural capital. Promotion of biodiversity.**
- **Transformation to a circular economy.**

Aware that the role of companies is key to achieving the UN SDGs, Redeia, based on the nature of its activity and the countries in which it operates, carried out a process to identify the priority SDGs, indicating the impact it may have on each one.

Identification and Prioritisation of SDGs for the RE Group	
SDGs Priorities	

A specific report on the Company's contribution to the SDGs is produced annually (*https://www.redeia.com/es/sostenibilidad/compromiso-con-la-sostenibilidad/contribucion-a-los-ods*)

In 2022, with the aim of continuing to move forward with its 2030 Sustainability Commitment, the Company updated its Materiality Study in order to identify relevant issues in accordance with leading international opinion generators and standards on sustainability, noteworthy among which are the following: Directive (EU) 2022/2464 on Corporate Sustainability Reporting, IQNet SR10 for Social Responsibility Management Systems, ISO 26000 Social Responsibility Guidelines, Global Reporting Initiative (GRI), RobecoSAM, SASB (sector materiality map), and AA1000AS Assurance Standard (principle of materiality).

This analysis led to the identification of a total of **13 relevant issues**.

Among the material issues identified, those with a more significant environmental component and prioritised due to their greater importance in terms of achieving the Company's long-term objectives were the following:

- **Climate change**
- **Biodiversity**
- **Circular economy**
- **Integrating facilities into the landscape**

The environmental variable is also present in a fifth material issue:

- **Social Licence to Operate (SLO)**

The aforementioned material issues serve as the foundational pillars for the seven environmental courses of action that structure the 2023-2025 Sustainability Plan. As of 2023, this Plan incorporates objectives and actions aimed at continuous improvement set for 2025, specifically targeting the mitigation of environmental impacts resulting from the group's activities. These objectives and actions are closely linked to the commitments outlined in the Environmental Policy of the group.

The drafting, during 2022, of the 2023-2025 Sustainability Plan allowed for the definition of mid-term objectives to achieve Redeia's 2030 ambition and, consequently, to update and/or firm up the eleven already existing objectives.

Moreover, the Sustainability Plan is aligned with the group's Strategic Plan and the Sustainability Goals for 2030. The 2023-2025 Sustainability Plan, which includes environmental objectives from 2023 onward, is detailed in section 9.

5 Red Eléctrica's activities and the environment

Red Eléctrica's facilities are located nationwide due to the fact that the aim of the electricity transmission grid is to link the points of energy generation to the electricity distribution points, so it can be provided to consumers.

The presence of electricity infrastructure shall not represent a significant alteration in the way of life of the communities affected under any circumstances.

The interaction of the electricity facilities with the environment is mainly linked to their presence in the territory and to the works associated with their construction and maintenance. In this sense, the main potential environmental impacts on the territory and landscape are related to where the sub-stations are located and the territories through which the HV electricity lines run.

The main measure to reduce and even avoid the undesired effects of the facilities of the Company on the environment and on the local communities/towns is the selection of the site where they are to be located. In this regard, Red Eléctrica considers all environmental and social variables during all the stages involved in the development of the transmission grid. This includes carrying out a viability analysis of the facilities prior to their incorporation into the electricity transmission grid planning proposal that Red Eléctrica, as system operator, submits to the Ministry of Ecological Transition and the Demographic Challenge (MITERD).

Once Transmission Grid Planning is approved, which is subject to the strategic environmental assessment procedure, the Company carries out a detailed study of the territory and **defines the location of sub-stations and the routes the electricity lines** will follow, in coordination with the public administrations and key stakeholders.

Over the last three years, the Company has worked intensively on the infrastructure included in the 2021-2026 Electricity Transmission Grid Planning, approved in 2022, and has held numerous meetings and made many visits to the areas being studied in order to reach a consensus on its future implementation.

Furthermore, with the aim of minimising the potential impact of facilities and lines, the appropriate and necessary preventive and corrective measures to be applied during the construction or maintenance of facilities are established.

The main tool for defining the most appropriate project and establishing suitable preventive and corrective measures is the **Environmental Impact Assessment (EIA)** procedure, which the majority of the Company's projects are legally required to carry out. In addition, those facilities that do not require an environmental procedure, in accordance with current legislation, are voluntarily submitted to consultations with those responsible for the Natura 2000 Network or with the public administration for the assessment of their possible environmental impact and to receive proposals regarding alternative mitigating measures that have been deemed appropriate.

To ensure the implementation and effectiveness of the established measures, the Company defines and conducts **environmental monitoring programmes.** These are applied in the construction of the facilities and in the first years of their operation, and they facilitate the definition of new measures that may be deemed necessary.

For facilities in operation, the Company conducts periodic reviews in order to verify compliance with environmental standards. It should be noted that the Company has a **maintenance management and territorial observatory system** that integrates into the corporate mapping system all the environmental, social, cultural, and technical conditioning factors that must be taken into account when requesting authorisation to carry out maintenance works on facilities (more than 70 layers of information covering 200 metres on each side of the electricity transmission lines).

Among the preventive and corrective measures applied noteworthy are those aimed at the protection of biodiversity, habitats, and species, and those aimed at reducing potential impacts on the socioeconomic environment.

The following diagram schematically illustrates the main environmental criteria applied during the main transmission grid development phases.

Development and implementation phases for transmission grid infrastructure

Infrastructure proposal (*Drawn up by Red Eléctrica)*	Transmission grid planning *(Drawn up By MITERD)*	Project design *(New facilities and modifications)*	Construction or modification of facilities	Maintenance
Environmental feasibility study: • Analysis of all proposals from an environmental perspective. • Only includes environmentally viable projects.	**Strategic environmental assessment of plans and programmes.** **Public consultation and participation of stakeholder groups** through the submission of comments, suggestions, and/or arguments.	**Prior dialogue with stakeholders** before defining the project (Autonomous Communities, local councils, and NGOs). **Environmental impact assessment:** 1. Prior consultation with stakeholders. 2. Defining the alternative with the least impact. 3. Public information. Submission of comments, suggestions, and/or arguments by stakeholders. 4. Proposal for preventive and corrective measures. 5. Publication of results. 6. Environmental permits and authorisations.	**Implementation of preventive and corrective measures.** **Environmental monitoring** (monitoring of preventive and corrective measures). **Monitoring the work of contractors** regarding compliance with environmental requirements. **Environmental certification of works** taking into account compliance with environmental requirements.	**Environmental monitoring programmes** in the initial years of operation of a facility. **Periodic inspections** of facilities to verify compliance with standards and identify improvement measures. **Application of environmental improvement measures.**

Taking the previously shown diagram regarding the environmental criteria applied as a reference, the following are relevant events that occurred during 2023:

1. Transmission grid planning

As a consequence of the obligations derived from the Environmental Report for the 2015-2020 Electricity Transmission Grid Planning period and, previously, from the 2008-2016 Plan for electricity and gas sectors, since 2009 the Company has been collaborating with MITERD to draft the annual environmental monitoring reports consisting of the calculation of a series of performance indicators defined in said Environmental Report. The 2023 report has already been sent to MITERD, however, and as has been the case since 2016, they are not proceeding with its publication on their website.

In addition, in 2021, a Strategic Environmental Statement was issued linked to the Electricity Transmission Grid Development Plan for 2021-2026 (Resolution of 9 December 2021 of the Directorate General for Environmental Quality and Assessment) and, in March 2022, the **Electricity Transmission Grid Development Plan for 2021-2026** was approved.

In this Plan, the Transmission Division carries out feasibility studies on any action before it is incorporated into the planning proposal. This approach ensures that only environmentally and socially viable actions are included.

In 2023, the majority of the files included in this planning were processed after completion of the necessary annual birdlife cycles for environmental impact studies. This resulted in more than 18 Environmental Impact Assessment and 33 Environmental Impact Statements or RN2000 Impact Reports.

2. Project definitions

Environmental processing was initiated for **51 investment projects**:

	Processing initiated		
	2021	2022	2023
Initial document	0	0	0
Environmental Document	0	48	33
Environmental Impact Assessments	6	5	18
Total initiated	**6**	**53**	**51**

Environmental impact assessments filed in 2023

Facilities	AC	Date
Spanish peninsula-Balearic Islands PENBAL II cable	Balearic Islands	Jan-23
400 kV Belinchon-Morata line	Castilla-La Mancha and Madrid	Apr-23
400 kV Manzanares-Manchega line with the E/S in Barataria	Castilla-La Mancha	Jun-23
400 kV Manchega-Romica line	Castilla-La Mancha	Jul-23
Repowering and modification of the 400 kV Moraleja-Villaviciosa line route and repowering of the 400 kV Morata-Villaviciosa line	Madrid	Feb-23
Renovation of the 220 kV Elgea-Itxaso line	Basque Country	Jun-23
Repowering of the 220 kV Mediano-Pont de Suert line	Catalonia	Jun-23
San Antonio 220 kV energy storage battery	Balearic Islands	Mar-23
Mercadal 220 kV energy storage battery	Balearic Islands	Mar-23
220 kV Santa Ponsa power compensator	Balearic Islands	Mar-23
400 kV Moreruela sub-station and E/S 400 kV Grijota-Villarino 2 line	Castilla and León	Nov-23
400 kV Tierra de Campos sub-station and E/S 400 kV Grijota-Villarino 1 line	Castile and León	Nov-23
Expansion of the 220 kV Bessons sub-station	Balearic Islands	Apr-23
Expansion of the 220 kV Dragonera sub-station	Balearic Islands	May-23
Jares 220 kV energy compensator	Canary Islands	May-23
400 kV Sagrajas-San Serván line	Extremadura	Dec-23
220 kV Barranco-Sabinal line	Canary Islands	Feb-23
220 kV Saleres sub-station and E/S 220 kV Gabias-Órgiva line	Extremadura	Oct-23

The evolution of the conclusion of the environmental processing of projects for new facilities in the last three years is as follows:

	Processing completed		
	2021	2022	2023
Positive Environmental Impact Statement	10	10	5
Negative Environmental Impact Statement	0	0	0
Environmental Resolution	6	13	34
Total completed	**16**	**23**	**39**

There has been an increase in the granting of new environmental authorisations by competent environmental authorities over the past two years. This trend has solidified since 2023, and particularly in 2024, as most of the projects have been processed following the approval of the new 2021–2026 plan.

Environmental authorisation was obtained for 39 projects, all of which received a positive environmental impact statement.

Positive Environmental Impact Statement[10]
EIS for the modification of the 220 kV line, S/S Assegador sub-station, and Betxí-La Plana line
EIS for the 220 kV Son Orlandis-Son Reus line
EIS for the Ceuta interconnection (123 kV Algeciras-Virgen de África cable)
EIS for the 400 kV Itxaso and Castejon-Muruarte lines
EIS for the 132 kV Ibiza-Bossa cable

Environmental Impact Statement/Environmental Resolution[11]
AC for the 400 kV Pierola-Vandellos line
AC for the 400 kV Güeñes-Gatika line
AC for the 400 kV Amorebieta-Gatika line
AC for the 220 kV Guadame-Olivares line
AC for the 220 kV El Grado-Monzón line
AC for the 220 V Espartal-Montetorrero line
AC for the 400 kV Aragón-Escatrón line
AC for the 220kV Escatrón-Villanueva de Gállego line

[10] Authorisation resulting from the Complete Environmental Impact Assessment process (Environmental Impact Study).

[11] Authorisation resulting from the Simplified Environmental Impact Assessment process (Environmental Document).

AC for the 400 kV Arañuelo-Morata line
220kV Escatrón-Espartal line
220 kV Villatoro sub-station
AC for the 400 kV Carril-Asomada line
Expansion of the 400 kV Cofrentes sub-station
AC for the 220 kV Mérida-Trujillo line
Bypass + expansion of the Morata 400 kV sub-station
AC for the 220 kV Arkale-Argia line
400 kV Almadén sub-station
AC for the 400 kV Godelleta-Requena line
Decommissioning of the 400 kV Lada-Velilla line
Replacement of the energy conductor of the 400 kV Almaraz CN-Trujillo line

Environmental Impact Statement/Environmental Resolution
220 kV Espinardo sub-station
Repowering of the 220kV Alarcos-Manzanares line
400 kV Abanilla sub-station
Expansion of the 220 kV Alcocero de Mola sub-station
Renovation of the 400 kV Maials-Rubí line
AC for the 400 kV Minglanilla-Olmedilla line
AC for the 220 kV Poza de la sal-T Ayala line
AC for the 400 kV Barcina-Santa Engracia line
AC for the 400 kV Almaraz-Morata line
Renovation of the 220 kV Guillena-Mérida line
Masdenverge sub-station and E/S in the 400 kV La Plana-Vandellós line
AC for the 400 kV Minglanilla-Requena line
AC for the 400 kV Hernani-Argia line

At the end of 2023, **64 investment projects were at different stages of their environmental processing.**

The '*Environmental processing*' section can be consulted in the environmental subsection of the Sustainability Area.*http://www.ree.es/es/sostenibilidad/medioambiente/estado-de-la-tramitacion-ambiental-de-*

proyectos. This web section details the processing procedure for environmental projects, and also provides the documentation for projects that are currently being processed.

3. Construction or modification of facilities

Red Eléctrica performs environmental monitoring on the construction of new electricity lines and sub-stations as well as on expansions, refurbishments, upgrades, and improvements to those facilities already in service. This monitoring mainly consists of verifying that the preventive and corrective measures defined in the project are implemented, checking their effectiveness and defining new measures, if deemed necessary, based on the results obtained.

Additionally, there has been a continued increase in the allocation of resources to the tasks prior to starting works (e.g., inventories of trees felled) and subsequent tasks included in the Environmental Monitoring Programmes to be carried out at the start of the facility's operating phase, primarily due to the increased requirements included in the environmental authorisations.

In 2023, **92 sub-stations** and **1,941 km of lines** (1,862 km investment and 78.8 Refurbishment and Management Projects) were active in the construction phase.

With the aim of ensuring adequate fulfilment of the environmental requirements and verifying the effectiveness of the implemented preventive and corrective measures, **environmental monitoring was performed throughout the year on 100% of all construction works for new infrastructures underway** (for a total of 141).

Permanent environmental supervision, intended to intensify the control and monitoring of measures, covered **93.9%** of total **works** performed.

Environmental monitoring of construction works		2021	2022	2023
Sub-stations	% Permanent environmental monitoring	97.6	92.6	95.6
Lines (km)	% Permanent environmental monitoring	100	100	98

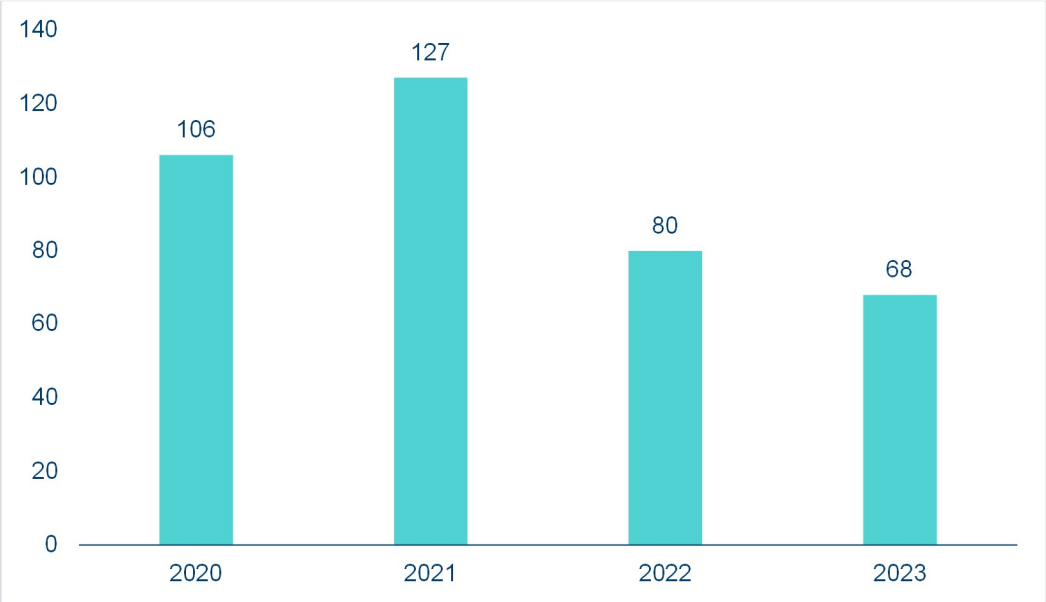
The main impacts to be avoided in works associated with the line construction or facility modification include alteration of the habitat of certain species of fauna and flora, as well as the impact on vegetation due to the opening up of security corridors, necessary for preventing fires during line operation.

The specific preventive, corrective, and offsetting measures carried out in this phase in 2023 can be consulted in the Annex: '*Environmental Actions 2023'*, at the end of this document.

4. Maintenance of facilities

Regarding the maintenance phase, in 2023, a total of **68 environmental inspections** were carried out in sub-stations. This total represents 10% of all the sub-stations in operation (711) in 2023. Over past six years, 592 sub-stations have been inspected, representing 65.2% of the total.

Number of environmental inspections in sub-stations



The results of this supervision allow environmental improvement actions to be identified and considered when planning actions in both the refurbishment and improvement plans, as well as in the maintenance programmes.

In addition, the environmental risk of the work to be carried out during the year is analysed and the environmental supervision of the subsequent works related to facility maintenance is carried out:

- Modification and adaptation work on power regulating equipment (power transformers, reactors, phase shifters, auxiliary transformer units with more than 1,000 litres of oil).
  - Transfer, emptying, and filtering of oil.
  - Replacement of power terminals.
  - Repair of faults or repairs involving the transfer or movement of oil.
  - Transportation/transfer.
  - Decommissioning.
- Construction, adaptation, and/or remodelling of oil tanks and collection pits.
- Remodelling or comprehensive remodelling of buildings in which earthworks/civil works are carried out.
- Characterisation and/or cleaning of soils (excluding incidents).
- Silvicultural operations on the strips of land around the perimeter of sub-stations.
- Works in which asbestos waste may be generated.
- Works in which SF_6 gas is handled by an external company in gas insulated sub-stations.
- Work associated with the repair of damages caused by accidents that have environmental consequences (excluding incidents).

In 2023, there was a total of **72 environmental supervisory operations on maintenance work**s carried out, consolidating the implementation of environmental supervision in activities that have a significant environmental impact.

6 Environmental aspects

During all the activities carried out in the development and implementation phases regarding transmission grid infrastructure (basically, **definition of the project, construction/modification and maintenance of facilities**), Red Eléctrica identifies and evaluates the direct and indirect environmental aspects that may affect the natural environment, resulting in a negative impact, not just under normal operating conditions but also under abnormal conditions and due to emergency situations.

For the identification, assessment, and recording of environmental aspects, it is necessary to indicate that there are differences in the system between the various phases:

- **Definition of projects (new facilities and modifications):** the effects or impacts, and by extension associated aspects, for each one of the new infrastructure projects, are identified in the corresponding Environmental Impact Assessment (EIA) and the appropriate environmental impact statement or resolution, which also include the preventive and corrective measures that shall be adopted in the construction phase of each facility.
- **Construction or modification of facilities:** for each construction project for new lines, new sub-stations or environmentally sensitive expansions, the associated environmental aspects are identified and evaluated. The results of the evaluation are incorporated into the Environmental Monitoring Programme (EMP), and/or the environmental specifications of each project, a procedure that ensures they are properly monitored and that they comply with the preventive and corrective measures defined in the project designs.

  The environmental criteria established for the assessment of aspects under both normal and abnormal operating conditions are: magnitude and intensity.
- **Facility maintenance:** the environmental aspects detected during maintenance are identified and evaluated periodically, under both normal and abnormal operating conditions and at different levels, depending on whether the status of the environmental aspect is of a higher level of assessment (maintenance phase), or at lower level (regional workplace and/or logistics centre/building). The evaluation of environmental aspects is performed annually, after year end.

  For the evaluation of maintenance aspects, the following general environmental criteria have been established:

    - Under normal operating conditions: magnitude, nature/sensitivity, and prevention.
    - Under accidental conditions: probability of occurrence and potential impact.

Environmental aspects considered in the definition of projects for new facilities

The environmental aspects for each of the new facility projects are identified in the corresponding Environmental Impact Assessment (EIA) and the appropriate environmental impact statement or resolution, which also establishes the preventive and corrective measures that shall be undertaken in the construction phase of each facility.

Environmental aspects in the construction of facilities

The construction activities for new lines and sub-stations that are susceptible to generating an environmental impact are:

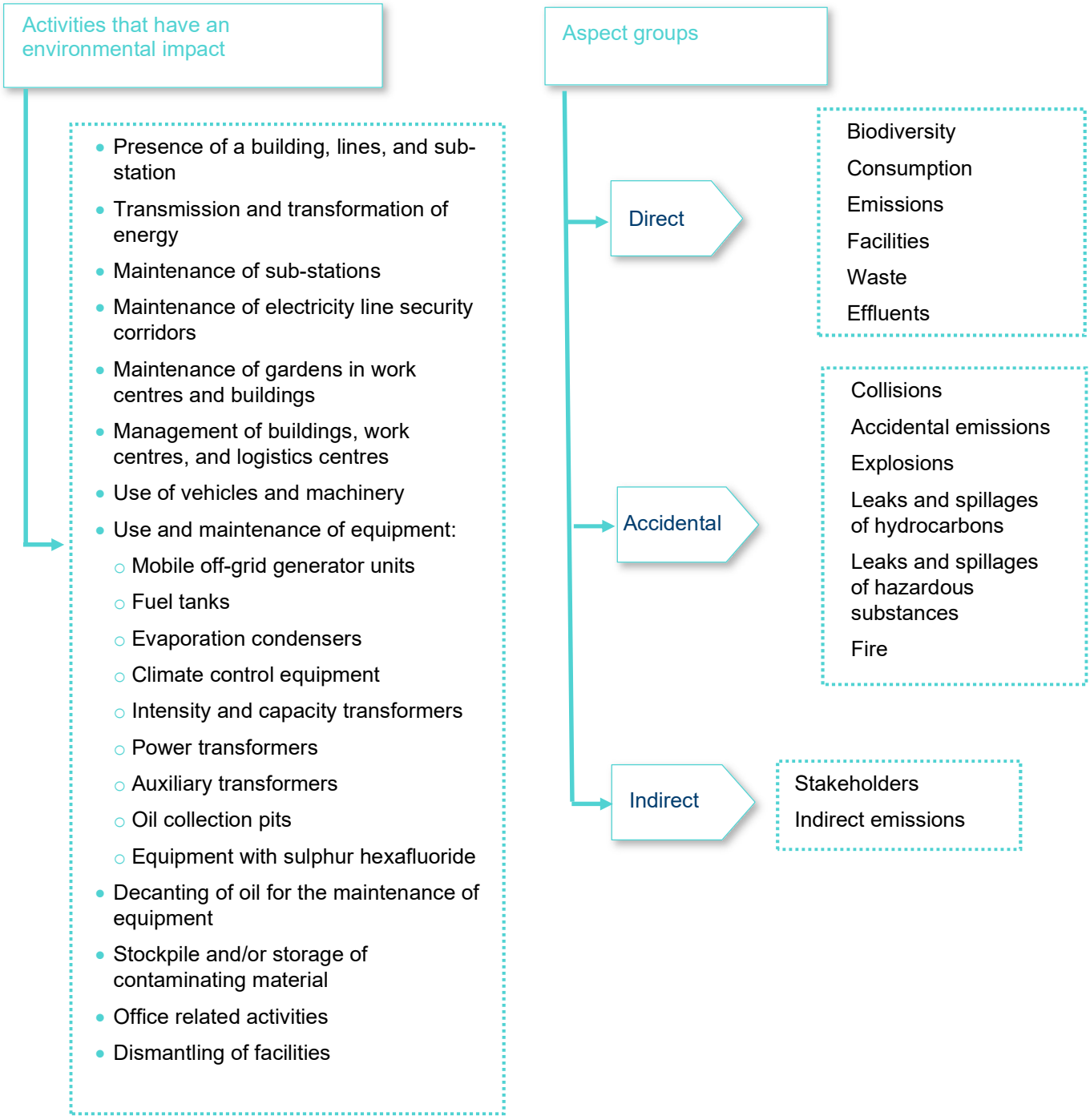
Activities that generate environmental aspects
Storage and transfer of oils and fuels
Storage and management of waste
Work sites (sub-stations)
Land compacting
Clearing, pruning, and felling
Excavation and landfill works
Concreting and cleaning of containers used
Stringing of conductors and grounding cables (lines)
Equipment assembly (sub-stations)
Use of machinery

Although the environmental aspects associated to each of the works are specifically evaluated, those that generally have a significant impact on the construction of new lines and sub-stations are detailed below:

Significant environmental aspects in line and sub-substation construction	Environmental aspects susceptible to impact	Impact
Affecting fauna	Biological	Altering population behaviour
Affecting flora	Biological	Elimination of vegetation
Affecting soil	Physical	Potential modifications to the physical characteristics of soil, erosion, etc.
Affecting historical and cultural heritage	Socio-economic	Potential landscape impact, affecting archaeological sites, crops, etc.
Risk of fire	Physical/Biological/Socio-economic	Potential degradation
Risk of oil and fuel spill when using machinery	Physical	Potential contamination of soil and water
Risk of oil and fuel spill during storage and transfer of oils and fuels	Physical	Potential contamination of soil and water
Risk of oil spill during equipment assembly	Physical	Potential contamination of soil and water
Risk of affecting water during earthworks	Physical	Potential contamination of soil and water
Risk of affecting birdlife	Biological	Potential collisions
Non-hazardous waste	Physical	Potential impact due to inadequate storage
Hazardous waste	Physical	Potential contamination of soil and water sources due to storage and management

Environmental aspects in maintenance activities

The main activities carried out at in-service facilities (sub-stations, lines, work centres, and corporate buildings) that may have an environmental aspect include:



The impact evaluations are conducted annually. The aspects shown in the following table were identified as relevant in the 2023 assessment:

Aspect	Assessment Significant	Environmental aspect susceptible to impact	Impact	Observations[12]
Biodiversity				
Clearing, pruning, and felling	All Regional Areas	Biological	Potential impact on species	The most restrictive criterion was applied for evaluation due to a lack of detailed information and the fundamental nature of this environmental aspect of facility management.
Removal of bird nests	Balearic Islands and Canary Islands	Biological	Potential impact on species	Regarding nature/sensitivity, only stork nests are considered. Since there are no such nests in the Balearics and Canary Islands, evaluating nature/sensitivity as high makes this aspect significant.
Consumption				
Water consumption	Central Regional Area Tres Cantos building	Physical	Reduction of natural resources	These are significant in that consumption increased by 5% or more compared to last year's average value and reduction measures were not implemented or were insufficient. In the Tres Cantos 1 building, water consumption in 2023 was 2,332 m^3, compared to 2,074 m^3 in 2022. This building has high water consumption due to its green roofs. Alternatives are being studied to reduce water demand in gardens and green roofs. In the Central Regional Area, the increase in water consumption was due to the

[12] Some aspects appear repeatedly as they are 'key' environmental aspects for the organisation over which the Company exercises significant management and control, such as clearing, felling and pruning works, and the monitoring and prevention of birds colliding with the electricity lines.

For the evaluation of environmental aspects associated with waste, the concept of prevention is used. The highest value in the prevention evaluation is achieved if at least one instance of waste removal had elimination as its final destination. This decision is aligned with the zero-waste model (zero waste to landfill) that the Company has adopted in its commitment to the circular economy. This has meant the appearance of a greater number of hazardous wastes assessed as significant and allows efforts to be directed in alignment with the Company's policy of zero waste to landfill by 2030.

Both the impact that transmission grid facilities have on birdlife, and the contamination of soil and/or underground water, surface water, or marine water due to leaks or spills of oils, fuels, and hazardous substances, are identified and managed as relevant risks at a corporate level. With regard to clearing, felling, and pruning works (formerly included in the risk '*Potential impact on plant species due to the transmission grid*'), these are also identified and integrated in the corporate risk of '*Fires due to lines and in sub-stations*.'

				newly planted areas in San Sebastián de los Reyes that required frequent irrigation in the summer season, and there were also water leaks in the Villaviciosa sub-station caused by malfunctions.
Switchgear oil consumption	Maintenance (boundaries and buildings)	Physical	Reduction of natural resources	This factor is indeed significant as water consumption increased by over 5% compared to the previous year's average, specifically a 28.57% increase, with less than 50% (32.7%) being regenerated. Oil treatment depends on the condition of the oil in machines, leading to substantial fluctuations between years.
Hazardous waste				
Soil contaminated with hydrocarbons	Canary Islands, Central, Eastern, North-western, and South Regional Areas	Physical	Potential soil and water contamination from its storage and management	due to an issue that has not been able to be valued.
Non-PCB insulating oil	South Regional Area	Physical	Potential soil and water contamination from its storage and management	Managed power machines and the oil they contained.
Water-oil mixtures	South Regional Area	Physical	Potential soil and water contamination from its storage and management	Draining and conditioning of pits.
Laboratory chemicals consisting of or containing hazardous substances	North-western Regional Area	Physical	Potential soil and water contamination from its storage and management	The small amount generated was significant as the final waste destination was elimination.
Materials impregnated with hazardous substances (absorbent/filtering materials, rags, clothes)	East Regional Area	Physical	Potential soil and water contamination from its storage and management	Waste for elimination. Managed at La Plana, Litoral, and Jijona facilities.
Accidental aspects				
Birdlife collisions	Canary Islands, Central, North-eastern, North-western, North, and South Regional Areas	Biological	Potential impact on species	Derived from collisions with unmarked electricity lines or with ineffective marking.
Accidental emissions	East Regional Area	Physical	Potential impact on species	Equipment accidents involving SF_6 at La Muela, Rocamora, Monforte del Cid, and Pinilla sub-stations.

Leaks or spills of hydrocarbons	Balearic Regional Area	Physical	Potential contamination of soil and water	More than two spills/leaks per year, specifically in the San Jorge sub-station (TRP1 and TRP2) and Torrent sub-station (REA 4), thus resulting in a high probability of occurrence and significant aspects.

7 Environmental performance in 2023

The correct operation of transmission grid facilities requires permanent ongoing maintenance, appropriate refurbishment, as well as relevant repairs in the event of a fault, and these activities must be compatible with the environment in which the facilities are located. It is therefore necessary to be aware of both the existing natural values as well as those elements of the activity that could impede the Company from being able to act in the most respectful way possible.

Red Eléctrica actively participates in the energy transition towards an emission-free model, committing to the electrification of the economy and the efficient integration of renewable energy, through a robust and better interconnected grid, the development and operation of energy storage systems, and the promotion of new services and innovative activities that facilitate coordination between the various agents.

Additionally, Red Eléctrica has voluntarily undertaken to work on reducing its own greenhouse gas emissions.

The way in which Red Eléctrica carried out its environmentally related activities in 2023 is encompassed within the set of strategies that allow the environmental variable to be incorporated throughout the entire life cycle of the transmission grid facilities and, therefore, of all the works performed by the Company. These strategies also encompass both raising the awareness of stakeholders and encouraging their participation.

Throughout this section, Red Eléctrica's environmental performance and behaviour in 2023, in relation to all the Company's activities, is set out as per each of the following environmental aspects:

- Climate change and energy efficiency
- Biodiversity-natural capital
- Resource efficiency: water and paper.
- Socio-economic environment.
- Circular economy and waste management.
- Soil.
- Stakeholder groups.
- Innovation

For electricity and water consumption, in those months of 2023 for which actual data was not available at the closing date of this Statement, the value has been estimated[13].

7.1 Climate change and energy efficiency

Climate change is a global challenge that is high on the international agenda. In the context of decarbonisation, the role of the electricity sector is fundamental to achieving transformation of the energy sector.

Red Eléctrica is a **proactive and key player** in the transition towards an emission-free energy model, whose key elements shall be **overall efficiency**, the **electrification of the economy,** and **the maximum integration of renewables into the energy mix,** all while guaranteeing the security of supply at all times.

[13] In those cases where there was no value in the first place, the real data for that month of the previous year was used.

Redeia's activities are crucial for meeting Spain and Europe's climate and energy goals, both medium-term (2030) and long-term (2050 climate neutrality). This is reflected in the group's 2021-2025 Strategic Plan, which focuses on achieving the energy transition in Spain and driving green and digital transformation.

The mechanisms that will be decisive in advancing this transition are the development of a robust, smart and increasingly interconnected transmission grid, the establishment of energy storage systems that maximise the integration of renewables and increase the flexibility, efficiency, and security of the system, and the incorporation of tools that enable the operation of a more complex, dynamic, and digital electricity system of the future.

Since 2011, Redeia has maintained a **public and voluntary commitment to combating climate change**, embodied in its net zero commitment by 2050, emission reduction targets, and **Climate Change Action Plan**, updated to align with the global ambition of limiting the **average temperature increase to 1.5°C.** These targets follow the Science Based Targets initiative (SBTi) criteria.

Redeia's emission reduction targets for 2030, approved by the Science-Based Targets initiative (SBTi)

Commitment to achieving net zero emissions by 2050 compared to 2019 levels

Objectives for 2030	Objectives for 2050
• 55% reduction of Scope 1 and 2 emissions compared to 2019. • 28% reduction in Scope 3 emissions compared to 2019. • Suppliers representing 2/3 of supply chain emissions must have science-based targets (approved by SBTi) in 2026.	• 90% reduction of Scope 1 and 2 emissions compared to 2019. • 90% reduction in Scope 3 emissions compared to 2019.

Note: the targets cover 100% of emissions reported in the GHG inventory with no exclusions. Scope 2 emissions are considered under the market-based approach.

Based on the approved targets, a new Red Eléctrica group Climate Change Action Plan for 2022-2030 has been drawn up, aligned with the internal objectives, those of Spain's National Energy and Climate Plan, and the Company's Strategic Plan.

The **Climate Change Action Plan** is based on four main lines and a cross-cutting line of innovation: **contribution to a sustainable energy model; reduction of the carbon footprint; positioning and dissemination; and adaptation to climate change**.

- ## Contribution to a sustainable energy model

The following are actions related to Red Eléctrica's activity as transmission agent and operator of the Spanish electricity system and which are necessary to achieving Spain's National Energy and Climate Plan (NECP) targets, with a 2030 deadline:

- Develop the **infrastructure to facilitate the electrification of the economy**, connect new renewable energy power capacity, reduce technical constraints, and provide the power to feed the railway network. Noteworthy is the development of electricity interconnections, both international and between islands, which guarantee supply when dealing with the variability associated with renewable generation.

- Achieve the **maximum level of integration of renewable energy** into the electricity system through the optimisation of system operation and the operation of the Control Centre of Renewable Energies (CECRE), the improvement of generation forecasting tools, the greater integration of distributed generation, and the development of **energy storage** systems that will enable the integration of renewables, while guaranteeing the security of the system.
- Make progress in the **efficient management of the grid**, promoting technological innovation (smart grids and digitalisation), incorporating new elements and services, and applying new flexibility measures.
- Red Eléctrica's activities are 100% aligned with the EU taxonomy, significantly contributing to climate change mitigation and adaptation objectives.

Reducing the carbon footprint

Redeia has set ambitious reduction targets for 2030, consistent with its long-term goal of achieving net zero emissions by 2050. This commitment and the one related to the contribution to a sustainable energy model, have been endorsed by the **Science Based Target initiative (SBTi)**. To drive and monitor progress towards these objectives, short-term goals (2025) are defined in the **Sustainability Plan** (2023-2025), detailed in this section.

Adapting to change

Red Eléctrica is aware of the need to make progress in adapting to climate change, in order to tackle both the inevitable physical changes in climate parameters and the social, economic and regulatory changes associated with the fight against climate change. The Company periodically identifies and assesses both risks and opportunities derived from climate change and applies various measures defined within the framework of this analysis.

Since 2018, Red Eléctrica has integrated the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). As established in said recommendations, the financial impacts of relevant risks and opportunities are quantified, incorporating the consideration of different physical and transitional scenarios.

Positioning and communication

Red Eléctrica works to communicate with stakeholders and involve them in its commitment to climate change. The main objective is to **disseminate knowledge and provide comprehensive and transparent** information on the electricity system and its role in the energy transition, as well as to promote different energy efficiency measures.

Redeia participates in multiple initiatives, including the 2021 publication with seven other European companies of an informative document on the role of Transmission System Operators (TSOs) in decarbonising the energy system.
Since its inauguration in 2022, Redeia's 'Conectados al futuro' (Connected to the Future) exhibition has toured three Spanish cities: Las Palmas de Gran Canaria, Tenerife, and Granada. This interactive and digital experience aims to promote knowledge of the energy transition and the active role that consumers will play in the electricity system in the future.
Red Eléctrica is also a member of the Spanish Green Growth Group, an association for the promotion of public-private collaboration to jointly advance the decarbonisation of the economy, working on aspects related to mitigation and adaptation to climate change and circular economy.

7.1.1 Inventory of CO_2 emissions

Red Eléctrica drafts its emissions inventory based on the GHG Protocol methodology. Since 2013, the inventory has been subject to independent review in accordance with the ISAE 3410 standard.

In addition, the Company has developed methodologies for calculating the carbon footprint associated with the life cycle of the different types of facilities built by Red Eléctrica, the application of which facilitates the identification of improvements and specific reduction measures that can be implemented on a case-by-case basis.

The inventory of Red Eléctrica's greenhouse gas emissions in the last three years is shown in the following tables:

Greenhouse gas emissions ($tCO_2eq.$)[14]	2021	2022	2023
SF_6 [15]	20,299	17,690	25,783
Climate control equipment (HVAC systems)	500	465	221
Fleet vehicles	1,647	1,494	1,674
Mobile off-grid generator units	313	287	315
Total direct emissions (Scope 1)	**22,759**	**19,936**	**27,993**
Emissions associated with electricity consumption[16]	295	308	273
Emissions derived from losses in transmission[17]	634,221	717,707	582,426
Total indirect emissions (Scope 2)	**634,516**	**718,015**	**582,699**
Total (SCOPE 1+2)	**657,275**	**737,951**	**610,692**

[14] The calculation of emissions is performed from an operational control perspective. Information on the scope and methodology of the inventory is available on the corporate website. The inventory has been subject to an independent review in accordance with the ISAE 3410 standard.

[15] The increase in emissions is primarily due to an accident at a sub-station resulting in the release of 122,7 kg of SF_6 (2,883.5 t CO_2 eq). Without the accident, emissions would have been 25,808.5 t CO_2 eq. The 100-year GWP from the IPCC Fifth Assessment Report: 23,500 was used.

[16] The emissions are calculated under the 'market based' approach, applying the emission factors associated with the market agents that supply the electricity. Emissions in 2023 calculated under the location-based approach were 594,320 t CO_2 equivalent.

[17] The emissions associated with transmission grid losses, in the same way as for the emissions associated with consumption of electricity, do not occur during the Company's activities as they take place at the various electricity generation points. The emission factors corresponding to each system (Spanish peninsula, Balearic Islands or Canary Islands) are calculated and taken into account by Red Eléctrica based on the annual balance. The reduction in emissions is mainly due to the improved emission factor of Spain's electricity mix, which in 2023 had a higher share of renewables than in 2022 (average factor 0.122 t CO_2 eq./MWh compared to 0.163 t CO_2 eq./MWh), primarily associated with a 41% increase in hydro generation compared to 2022, a significant 47.6% increase in solar generation, and decreases in combined cycle (32% less than in 2022) and coal generation (50% less than in 2022).

Indirect emissions (Scope 3) (tCO_2 eq.)	2021	2022	2023
Purchased goods and services[18]	222,467	271,521	347,910
Capital goods[19]	193,394	123,689	114,271
Energy generation (not included in Scope 1 and 2)	1,546	809	1,192
Waste	31	48	96
Transportation and distribution (logistics)[20]	1,236	1,000	1,096
Business travel[21]	332	734	877
Employee commuting	1,518	3,205	2,044
Leased assets[22]	163	90	1,114
Investments[23]	-	-	58,583
Total emissions Scope 3[24]	**420,686**	**401,097**	**527,183**

7.1.2 SF_6 emissions

The main direct emissions derived from Red Eléctrica's activities are those arising from the sulphur hexafluoride (SF_6) gas, present in the equipment installed in the transmission grid.

This gas, despite its high global warming potential, has enormous technical advantages. It is a non-toxic gas that allows the distances between the various elements of the facilities to be greatly reduced, which makes reducing the overall size of the facilities possible and, therefore, enabling them to be better integrated into the landscape. The emissions of this gas are associated with small leaks in the equipment, leakages due to gas transfers and those one-off accidents or equipment faults that may occur and which make it difficult to establish reduction measures and targets for these types of emissions.

For Red Eléctrica, this is a priority issue and, therefore, it has various gas reduction initiatives underway, which have been reinforced as part of the Company's Climate Change Action Plan. The most important courses of action are as follows:

[18] For the correct interpretation of the data, it is necessary to consider that the emissions associated with the acquisition of goods and services depend on the characteristics of the specific goods and services purchased each year (which entail different carbon intensities) and the financial amount earmarked for these acquisitions.

[19] For the correct interpretation of the data, it is necessary to consider that the emissions associated with capital goods depend on the characteristics of the specific goods purchased each year (which have different carbon intensities) and the financial amount earmarked for these acquisitions.

[20] Corresponds to emissions associated with internal logistics and other emissions regarding transport of materials.

[21] Includes trips made by train, plane, own vehicle, rental vehicle, and taxi.

[22] All emissions correspond to upstream-leased assets. The increase in emissions in 2023 is mainly due to a review of the methodology, resulting in a reclassification of some emissions previously included in category 1. Emissions related to downstream-leased assets are zero for the historical series.

[23] In 2023 are included emissions of Redeia investee companies.

[24] In 2023, Scope 3 emissions have increased by 32%.

- **SF_6 gas inventory**: Improving procedures for carrying out the inventory, monitoring, and the recording of leaks.
- **Training people involved in gas handling:** Red Eléctrica has two legally recognised training centres with a classroom for theory and a workshop for experiments in which 512 employees have been trained since 2013 (444 of them have already been granted the official SF_6 gas handler certificate). Additionally, to optimise maintenance and leak repair work, specific technical training sessions in GIS technology have been conducted.

- **Renewal/replacement of switchgear:** The gradual renewal of old equipment and equipment with very high SF_6leakage rates represents a significant control measure in quantitative terms. In this regard, it is worth highlighting the start of the project to renovate the equipment in the Litoral 400 KV sub-station, one of the facilities in which, due to its age and environmental conditions, most gas emissions have been generated in recent years.

- **Prevention, detection, and control of leaks:** The efforts made by the Company to reduce leak detection and intervention times, as well as the development of more effective leak repair methodologies, have made keeping SF_6 emissions at t low levels possible, not exceeding an average emission rate of 0.2%.
  The Climate Change Action Plan envisages enhancing the resources dedicated to these actions and includes additional measures. The most relevant in the period 2022-2023 are as follows:
  - Designing protective roofing for existing facilities to prevent degradation of materials due to atmospheric agents and, therefore, reducing leakage.
  - Incorporating requirements in procurement tenders that help minimise gas losses (rapid intervention in cases of leakage and equipment design criteria, among others).
  - Substituting SF_6 gas for nitrogen (N_2) in equipment stored as back-up units.

- **Reduction of SF_6 and the search for alternatives:** The Company is committed to promoting alternatives to SF_6, which are currently under development. To this end, it participates in different technological monitoring groups and exchanges information with other electricity sector stakeholders. One notable example is the 'Mission' project involving research organisations, equipment manufacturers, and other European TSOs, in which field tests are conducted for developing SF_6 alternatives.

  The Company has started evaluating and applying alternative solutions for lower voltages and passive elements in sub-stations. In this context, two significant pilot projects have been launched to use alternative gas in fluid ducts and 400 kV sub-station bars. Additionally, it is also important to note that Red Eléctrica has two 66 kV cubicle-type GIS units equipped with alternative gases, located in the Canary Islands for use as mobile sub-station transformer units.

  In 2023, three SF_6-free AIS circuit breakers (with CO_2 + O_2 technology) were installed, and the technical qualification and approval of new gas-free models will continue.

The Company continues to collaborate with the public administration and other entities in the search for solutions aimed at controlling and reducing these emissions within the framework of the Voluntary Agreement signed in May 2015 between the Ministry of Agriculture, Fisheries, Food and Environment, manufacturers and suppliers of electrical equipment using SF_6, electricity transmission and electricity distribution companies, and waste managers of this gas and of the equipment containing it, in order to achieve comprehensive management of the use of SF_6 in the electricity industry, ensuring that its use is more respectful to the environment. Furthermore, the Company participates in various international working groups aiming to exchange best practices for emission reduction and experiences with SF_6 alternatives.

REDUCTION TARGETS[25]: SF_6 Emissions

25% net reduction in SF_6 emissions compared to 2015 by 2030.

Maximum cumulative emissions in the period 2021-2030: 252,000 t of CO_2.

PROGRESS MADE IN 2023[26]

18.6% reduction in SF_6 gas emissions compared to 2015.

Cumulative emissions in the period 2021-2022: **63,771 t of CO_2 eq.** (64,496 t for Redeia)

	2021	2022	2023
SF_6 installed (kg)[27]	521,311	518,425	523,009
SF_6 emissions/SF_6 installed (%) (including accidents)[28]	0.17	0.14	0.21
Total emissions (kg)	**890**	**753**	**1,097**

[25] The targets are set taking the year 2015 as the base year.

[26] Actions aimed at reducing SF_6 gas emissions are proving to be very effective. However, the probability that SF_6 leakage is directly related to the amount of gas installed and the age of the equipment should be considered. In 2030, a significant increase in installed gas is expected, associated with the development of the transmission grid and an increase in the average age of the installed equipment. Considering these circumstances, we expect an increase in emissions.

[27] The increase in installed gas is mainly due to the commissioning of new facilities and the replacement of old equipment with SF_6 insulated equipment. The commissioning of these facilities is essential for the development of the transmission grid necessary in order to undertake the energy transition. In 2030, a significant increase in installed gas is expected, associated with the development of the transmission grid and an increase in the average age of the installed equipment. Considering these circumstances, we expect an increase in emissions.

[28] The rates shown are calculated based on actual data collected in the field and include, in addition to leakage during maintenance, the estimated emissions corresponding to the end of life of the equipment. The maximum leakage rates for equipment in service included in the voluntary agreement for SF_6 management, signed in 2015, are based on their age. Equipment commissioned since 2008 is associated with a leakage rate of 0.5% per year (older equipment is allowed higher leakage rates). The low emission rates reflect the enormous effort of the Company in improving the management and control of SF_6 emissions. Specifically, the decline shown in recent years due to the breakdown repair work performed since 2018. Furthermore, no accidents involving gas leaks occurred from 2019 to 2022. However, in 2023, an accident occurred, reflected in the increased leak rate for that year.

7.1.3 Energy efficiency

One of the cornerstones of Red Eléctrica's climate change strategy is the commitment to energy efficiency at all levels. As a key player in the electricity sector, the Company places utmost importance on efforts geared towards efficiency and energy savings due to the enormous benefits they represent in economic, social, and environmental terms. The Company has different projects aimed at reducing the consumption of electricity in its different facilities. The increase in efficiency of energy consumption is fundamental when it comes to reducing emissions.

To identify areas with significant energy use and define measures for savings or renewable energy use, Redeia conducts energy audits every four years. The results are included into the Climate Change Action Plan, setting quantified energy efficiency targets and considering measures estimated to save over 1,700,000 kWh for the 2021–2030 period. The progress of these measures is reviewed bimonthly by a specific working group (Water and Energy), which establishes corrective actions as necessary.

7.1.3.1 Electricity consumption – Reduction of electricity consumption

Taking into account all[29] Red Eléctrica work centres, electricity consumption in the last three years has been as follows:

	2021 (kWh)	2022 (kWh)	2023 (kWh)
Total (kWh)	14,055,399	14,763,374	**14,179,164**[30]
Total (Joules) [31]	$4.48*10^{13}$	$5.31*10^{13}$	**$5.10*10^{13}$**

REDUCTION TARGETS (COMPARED TO 2015): Electricity consumption
Reduction of emissions associated with electricity consumption: 90% by 2030.
Reduction of electricity consumption in work centres: 30% by 2030.
PROGRESS MADE IN 2023
Reduction of emissions associated with electricity consumption in work centres: **93.9%.**
12.3% reduction in electricity consumption in Red Eléctrica work centres compared to 2015[32].

7.1.3.1.1. Energy efficiency measures implemented in 2023

The main courses of action regarding the reduction of electricity consumption were the following:

[29] Includes consumption at head office, the electricity control centres (centres that operate 24/7 and have a high energy consumption), and the work centres (regional offices and maintenance centres). Consumption of electric vehicles is included as of 2016. In 2023, 92.2% of the total electricity consumed (work centres + electric vehicle) has come from renewable sources (12,731,903.53 kWH work centres + 341,688 kWH electric vehicles).

[30] For the months in 2023 without actual energy consumption data as of 12/31/2023, values were estimated using the previous year's actual month data, invoices from that month, or the monthly average of available actual values if the former were unavailable.

[31] 1kWh = $3.6*10^6$ Joules; total consumption data in Joules following criteria defined by GRI G4.

Buildings	
Progress in consumption reduction measures for lighting and heating includes:	Replacing most of the interior and exterior lighting with LEDs, installing presence detectors and light sensors in multiple facilities, adding protective elements on windows (awnings and solar panels), and implementing digital timers on heated electrical equipment.
New management measures	Adjusting building temperature setpoints, turning off illuminated signs at night, activating automatic door closures for street access, adjusting HVAC schedules to workspace usage, adjusting lighting in common areas and parking lots, and reprogramming office equipment to reduce standby consumption.
Energy Management System Certified	Energy management system certified under ISO 50001 for the head office and the Red Eléctrica Campus.
Buildings with reduced energy consumption	The building housing the control centre uses geothermal energy and construction measures that significantly reduce their electricity consumption, in accordance with NZEB (Nearly Zero Energy Buildings) criteria. The Red Eléctrica training campus also has a solar photovoltaic installation for self-consumption.
Education	Educational campaigns include specific presentations and monographs on energy consumption for responsible units, emphasising the importance of optimising and reducing energy use for employees. These trainings sessions, resulting in new savings proposals, will continue throughout 2024. Additionally, a good practice guide for greater energy savings in buildings, applicable to all employees, has been developed.
IT Systems	
Renewal of IT equipment and systems in accordance with maximum efficiency criteria.	Use of policies for efficient use of the office equipment.
Consolidation regarding the use of collaborative communication platforms that reduce the need for travel.	This aspect has been especially relevant in the last two years, due to the health situation.
Migration to and intensive use of virtual servers (since 2015).	They represent a 50% reduction in energy consumption compared to physical servers.

Sub-stations	
Rationalisation in the use of lighting	Thanks to improvements in remote control systems for exterior lighting, there are currently 446 sub-stations (20 more than in 2022) where nighttime lighting remains off throughout the night, functioning only in emergencies.

7.1.3.1.2. Use of renewable energy

Red Eléctrica, in addition to having an essential role in the integration of renewables, is committed to the use of renewable energy to cover the energy consumption of its facilities. Most of the electricity supply contracts managed by the Company include guarantees of renewable origin (GdO) or international green energy certificates (IRECs), with only the supplies to rented work centres currently lacking these certificates.

Regarding the use of renewable energy for self-consumption in work centres, headway is being made in the gradual incorporation of solar thermal energy installations for domestic hot water, and three buildings have HVAC installations based on geothermal energy.

Additionally, in 2023, three new solar photovoltaic installations for self-consumption were implemented in work centres. Notably, there are R&D&I projects for the use of portable hybrid solar panels (photovoltaic and thermal) instead of mobile off-grid generator units in cases where the sub-station is not yet connected to the distribution grid. Two projects have been carried out so far (Platea and Aguayo sub-stations) with the aim of expanding their implementation.

Renewable energy use targets

- Contracted renewable energy: 100% renewable by 2024.
- Implementation of self-consumption installations in workplaces: *21.*

- Progress made in 2023:
  - 95% of electricity consumed came from renewable sources. [33]
  - Implementation of self-consumption installations in workplaces: *17.*

Reduction in energy consumption [34]

Estimated annual savings	kWh/year	Joules/year
Equipment replacement measures (lighting and heating)	234,303	$8.4 \cdot 10^{11}$
Energy management measures	844,954	$30.4 \cdot 10^{11}$
Efficiency measures in sub-stations: switching off night-time lighting.	234,303	$37.8 \cdot 10^{12}$

[33] Some work centres do not have an electrical connection and are supplied from the transmission grid; thus they are not considered in the evaluation of objective compliance. In 2023, their consumption accounted for 2% of the total electricity consumption.
[34] The estimated annual reduction derived from the measures implemented in 2021 have been included.

Reduction of greenhouse gas emissions	
Net savings in 2023	**tCO_2 eq.**
Contracting an electricity supply with a Renewable Energy Guarantee of Origin (REGO) certificate[35]	2,350
Implementation of energy self-consumption facilities	12.32
Reduction of emissions as a result of works/actions to repair SF_6 leaks	1,352
Reduction of commuting emissions due to an increase in remote work	939.5
Estimated annual savings[36]	**tCO_2eq./year**
Reduction of SF_6 emissions by replacing old equipment with equipment with lower leakage rate.	99.41
Switching off night-time lighting in substations.	1,284
Implementation of energy efficiency measures and self-consumption (equipment renewal and management)	25.2

7.1.3.2. Sustainable mobility

Red Eléctrica is working on the optimisation of work-related travel and reduction of the emissions associated with them. The Company has a **Sustainable Mobility Plan** in place in order to incorporate a new culture of mobility. Among the most important measures carried out in recent years, the following should be noted:

- **Efficient management of fleet vehicles**. The Company prioritises the best technologies currently available (hybrid, plug-in hybrid, and electric), considering the specific needs of each department and optimising their use through the application of CARS (*Conducción ágil, responsable y segura* - Agile, Responsible, and Safe Driving System), which facilitates the use of efficient routes and promotes responsible driving.
- **80.6%** of the Company's vehicles (including passenger cars, SUVs, vans, derivatives, lorries, shared leasing, executive vehicles, and the pool of electric vehicles) have an **energy rating of 'A.'**
- Since 2015 Red Eléctrica has maintained the 'Ecological Fleet Accreditation' in its 'Master' category (the most demanding one) received from the Fleet Managers Association (AEGFA) and the Institute for Diversification and Energy Saving (IDAE).
- **Provision of a pool of 100% electric vehicles** to cover corporate needs.
- **Measures to optimise business travel** by promoting and improving online/virtual communication tools to reduce travel (video conferences and remote accessibility platforms) and the consideration of sustainability criteria in the Company's travel policy. In this regard, it is worth highlighting the Company's clear stance in favour of the use of the train over other means of transport and the communication of this decision to the workforce.
- **Rationalisation of the use of private vehicles in the daily commute to work centres**. The Company has a corporate bus service and shuttle services connecting the office with various locations and has installed various electric vehicle charging points on their premises for use by employees. Additionally, the transport pass is included among the options of the benefit in kind for employees and the use of car-sharing is promoted.

[35] Electricity supply with a Renewable Energy Guarantee of Origin (REGO) certificate or International Renewable Energy Certificates (IRECs): 0 tCO_2/kWh

[36] The energy efficiency measures that have been implemented in work centres have resulted in insignificant emissions savings, given that most of the energy consumed (saved) is of renewable origin.

Fuel consumption (litres) associated with vehicles during 2023:

	2021	2022	2023
Diesel (l)	332,850	239,850	**287,446**
Gasoline (l)	390,584	417,175	**445,419**
Biodiesel	0	0	**0**
LPG Autogas	0	0	**0**
Total vehicle fuel[37] (l)	723,434	657,025	**732,865**
Off-grid diesel generators[38] (Consumption not associated with vehicles) (l)	153,538	172,139	**146,673**

7.1.4 Carbon footprint in the supply chain

The emissions associated with the supply chain are those that have the greatest impact on the indirect emissions of the Company (Scope 3) and, therefore, the Company has implemented various actions to further reduce emissions in order to meet the targets it committed to in 2021.

In addition to the actions aimed at incorporating circularity and climate change criteria in purchasing decisions, it is worth highlighting the development of a **specific Collaboration Programme with its main suppliers in matters related to reducing the carbon footprint**.

After completing its first phase (2019-2021), in which 35% of participating suppliers improved their climate performance, a second stage began in 2022. In this period, the programme included 26 suppliers, representing over 40% of the supply chain emissions.

The main goal is to promote the fact that suppliers accounting for 2/3 of the supply chain emissions have SBTi-approved targets. To this end, besides identifying and promoting common emission reduction initiatives and projects as well as encouraging suppliers to achieve these objectives, it is crucial to improve the collection of information for calculating emissions.

SCOPE 3 TARGETS

Making suppliers responsible for 2/3 of emissions with SBTi by 2026

28% reduction in Scope 3 emissions compared to 2019 levels[39].

[37] Fuel consumed by Red Eléctrica vehicles (fleet vehicles, shared leasing, and management vehicles).

[38] Until 2019, the data corresponded to the diesel refilled in the fuel tanks in the year indicated. Since 2020, there has been a methodology change: the data reflects the total fuel consumed in the year.

[39] Emissions associated with the supply chain account for 89.7 % of total Scope 3 emissions.

% of supplier emissions covered by the programme[40]	2022	2023
SBTi commitments from suppliers included in the programme	7 approved + 1 commitment	10 approved + 1 commitment
% emissions calculated from direct information (total emissions)[41]	11	22.12
% emissions covered by SBTi total[42]	5.5	7.15

[40] Scope: electricity-related business activities and corporations in Spain (where the programme is being developed). The percentage of supply chain emissions varies each year, depending on the total emissions. These emissions are influenced by the type and volume of goods purchased or services contracted. Additionally, the gradual reduction of emissions from suppliers included in the programme also implies a reduction in their share of the total. (The percentage of emissions from suppliers included in the programme in relation to the group as a whole was 42%).

[41] Scope: Redeia. Direct information obtained from the LCA methodology development project and the programme is included. The value of this indicator is 29.6%, excluding the Amazonas-Nexus project (Hispasat).

[42] Scope: Redeia. The 2023 data includes emissions from all suppliers with SBTi, whether they are in the programme or not. The percentage of emissions from suppliers with SBTi approved would be 9.6%, excluding the Amazonas-Nexus project.

7.1.5 Offsetting emissions

In addition to the measures aimed at reducing emissions and to minimise the carbon footprint of the group as much as possible, specific actions have been implemented to offset emissions. In this regard, and as part of its strategy to move towards climate neutrality, Red Eléctrica is committed to offsetting all direct emissions that it cannot reduce as of 2023.

One of the main offsetting projects is '**Redeia Forest**', which is described in the Conservation of Natural Capital section of this report.

It should be noted that two forests in Loureza (Pontevedra) have been registered in the absorption project section of the Spanish Office for Climate Change (MITERD), with 956 t CO_2 available at the start and 5,257 t CO_2 absorption expected over 45 years.

Additionally, the Company has acquired a total of **24,245 VCU** (Verified Carbon Units) from two avoided deforestation projects (REDD) in Peru (Cordillera Azul National Park) and Brazil, and 3,500 VCU from an afforestation project in Colombia, all verified under the VCS (Verified Carbon Standard).

These credits, together with the absorption of the forest, allowed for the offsetting of 100% of Redeia's Scope 1 emissions in 2023, as well as the emissions associated with corporate events (the General Shareholders' Meeting and the 2nd Sustainability Conference sessions).

EMISSION OFFSETTING TARGETS
Offset 100% of Scope 1 emissions as of 2023

7.1.6 Transmission grid losses

The emissions associated with energy losses in the transmission grid are accounted for within the emissions of Scope 2, as indicated by the GHG Protocol. These emissions are calculated taking into account the energy dissipated in the grid (transmission grid losses) and the emission factor of the energy mix (calculated by Red Eléctrica according to the amount of energy generated by the different technologies). None of these variables can be directly controlled by Red Eléctrica, although it is worth noting that increased efforts to integrate more renewable energy into the energy mix results in a progressively lower emission factor and, consequently, a reduction in emissions associated with losses.

The transmission of electricity inevitably leads to energy losses in the grid. This means that, to meet a given end consumption, a slightly higher level of generation is required.

Several factors generate losses: the Joule effect, the corona effect, and the own consumption of the electricity sub-stations necessary for their correct operation. Of these, the most relevant, without a doubt, is the Joule effect[43], associated with the flow of current through the conductors.

Red Eléctrica works to improve the aspects that depend on its management and that can influence the reduction of these losses. Among them, the following actions are noteworthy:

- Development and meshing of the transmission grid.
- Increase in the number of conductors per circuit.
- Use of technologies and systems with the best performance.
- Maintenance of the facilities in the best conditions to ensure their proper functioning.

The first two measures seek to create parallel routes in order to allow a given intensity to flow, which in turn results in lower resistance and, therefore, reduced losses.

Regarding the use of the best technologies, the **'Dynamic Line Rating (DLR) of Red Eléctrica'** innovation project stands out, which allows calculating the transmission capacity in real time based on the prevailing weather conditions. This enables operating the electrical circuits based on specific conditions in each case, replacing more conservative average calculation hypotheses and generating significant energy savings for the electrical system. It is estimated that DLR values could exceed seasonal transmission capacities, usually operational up to 80% of the time. This project was winner of the **best energy efficiency initiative in 2023** by the *Periódico de la Energía*.

However, all these improvements have a minor impact on the evolution of energy losses, with those other aspects, not controlled by Red Eléctrica, having the greatest influence.

Increased losses are mainly due to the following: distances between generation and consumption points (losses increase notably when there are significant distances), the amount of energy demanded in the year, the electricity generation mix, international electricity exchanges, the shape of the demand curve and weather conditions. It is important to highlight that the evolution of the **electricity system towards a more decarbonised and flexible one** in which the participation of renewables (generation generally far from consumption points), the demand (greater electrification), and international energy flows will **entail a higher level of losses**.

The electricity generation mix and the flows in the transmission grid depend on the rules of the electricity market, regulated by an independent body. The function of Red Eléctrica, as operator of the electrical

[43] Joule effect: the effect whereby, when an electrical current flows through a conductor, part of the kinetic energy of electrons is transformed into heat which thereby raises the temperature of the conductor. Joule effect losses are proportional to the intensity flowing through the conductor and the resistance of the same, the greater the length of the line the greater this resistance is. In view of this, the losses can be understood to be mainly related to the distance between points of generation and consumption, which is determined by the result of the wholesale electricity market.

system, is carried out in accordance with specific and statuary operating procedures. In accordance with these procedures, it is not possible to operate the electricity system based on loss reduction criteria, so the Company has little capacity to act in relation to said reduction.

7.2 Biodiversity-natural capital

For Redeia, natural capital[44] encompasses the set of assets found in nature, including both living (biotic) and non-living (abiotic) elements, which, either individually or collectively, contribute to society's well-being through the provision of ecosystem services. Biodiversity is a shorthand for two words: 'biological' and 'diversity.' Biodiversity refers to the immense range of life forms present on Earth, and it encompasses plants, animals, fungi, and microorganisms, as well as the intricate web of interactions between species and the habitats in which they live.

Biodiversity is an essential part of natural capital as it underpins the services and goods that ecosystems provide, which are necessary for life on the planet and, therefore, are fundamental for generating value for society and the economy. However, it is under increasing pressure: wildlife is disappearing, ecosystems are disappearing, and finite resources are depleting at an unprecedented rate.

This concerning situation is intricately linked with socio-economic activities, the expanding global population, and the increasing demand for resources. As a result, approximately two-thirds of the Earth's marine area and 75% of its land area have been significantly impacted or altered by human activities[45].

The current state of biodiversity loss has reached such an alarming level that the point of no return or system collapse is rapidly approaching. Such is the interdependence between human beings and the natural environment that a collapse in the species we depend upon or the environment we inhabit could have more devastating consequences than economic or health crises, or the impacts of climate change.

The primary factors fuelling the decline and depletion of global biodiversity are the widespread alterations in land and ocean use, which encompass habitat loss and degradation; overexploitation; climate change; pollution; and the introduction of invasive species[46] also significantly contribute to this alarming trend. It is important to recognise that these threats predominantly arise from various socio-economic activities.

In light of the pressing issue of biodiversity loss, it is imperative for all businesses to embrace a commitment to foster an economic system that decouples economic growth from the degradation of natural resources. This entails recognising the need to operate within planetary boundaries while simultaneously ensuring social development.

Redeia is dedicated to establishing a sustainable business model that recognises the importance of biodiversity, natural capital, and the ecosystem services they provide to society. This acknowledgement serves as a fundamental pillar of its business strategy. The Company is keenly aware of the risks associated with biodiversity loss and is committed to directing its activities towards generating a positive impact on biodiversity by adhering to the principles of the mitigation hierarchy.

In order to achieve its objectives, Redeia continually strengthens and optimises its efforts and resources in the realm of biodiversity and sustainability. The Company is committed to maximising efficiency in its pursuit of the proposed goals, by leveraging its environmental policy and through its unwavering commitment to biodiversity conservation.

[44] Definition provided by Natural Capital Coalition: 'Natural capital is another term for the stock of renewable and non-renewable resources (e.g., plants, animals, air, water, soils, minerals) that combine to yield a flow of benefits to people.'

[45] Global Assessment Report on Biodiversity and Ecosystem Services (IPBES, 2019).

[46] Living planet report 2020 (WWF, 2020).

7.2.1 Commitment to biodiversity

The protection and conservation of biodiversity have always been a priority in the Company's environmental management and a key factor in the group's strategy, as manifested in a **specific Biodiversity Commitment updated in 2023.** This commitment includes the goal of generating a positive impact on biodiversity in the areas where we operate by 2030, a challenge under the sustainability objective of achieving a net positive impact on natural capital surrounding new facilities by 2030.

The commitment is underpinned by 5 priority courses of action:

- Positive leadership in biodiversity.
- Management of risks and opportunities related to natural capital and biodiversity.
- Positive impact on habitats and species.
- Promoting biodiversity knowledge and actions.
- Promoting a reduced impact on biodiversity within the supply chain.

In order to achieve its objectives, Redeia continually strengthens and optimises its efforts and resources in the realm of biodiversity. The Company is committed to maximising efficiency in its pursuit of the proposed goals, both in terms of its own operations and those of its suppliers and partners, by leveraging its environmental policy and through its commitment to biodiversity.

Through its commitment to biodiversity, Redeia aims to **contribute to a positive impact on biodiversity** and 'live in harmony with nature' in line with the United Nations Convention on Biological Diversity's 2050 Vision.

Explicitly, and as part of both its Biodiversity Commitment and its Commitment to Combating Climate Change, Redeia also has a specific Commitment to protecting vegetation and to combating deforestation in the execution of its activities and those of its supply chain.

7.2.2 Alliances

The Company maintains alliances in the field of biodiversity conservation with the competent areas of the public administration and other organisations in the various autonomous communities. Other alliances with benchmark organisations are also worth mentioning.

Commitments and memberships

- Biodiversity and natural capital Pact. Red Eléctrica is part of the Spanish Business and Biodiversity Initiative (IEEB) promoted by the Ministry for Ecological Transition since 2013.
    - A new commitment was signed in 2023 under the **ACT** Pledge.
- Business for Nature Initiative. *https://www.businessfornature.org/*
- Global Compact's Sustainable Ocean Principles.
- Transnational Strategy to fight against Cortaderia selloana (pampas grass) in the Atlantic Arc. *http://stopcortaderia.org/estrategia/*
- European Grid Declaration on Grid Development and Nature Conservation.
- European Marine Grid Declaration.

Working Groups

- Biodiversity working group – with MITERD's Sub-directorate General for Terrestrial and Marine Biodiversity.
- Natural Capital in the Spanish energy sector, Natural Capital Coalition.
- Natural Capital of the Spanish Green Growth Group.

- ISO Committee CTN 328 Biodiversity.

Collaboration Framework

- IUCN (International Union for Conservation of Nature) Centre for Mediterranean Cooperation.
- SEO BirdLife (Spanish Ornithological Society).
- Global Nature Foundation.

7.2.3 Objectives related to biodiversity conservation

A series of objectives related to biodiversity have been defined with a scope extending to 2025, aiming to work towards the goal of achieving a positive impact **on biodiversity** by 2030.

Scope of action	Objectives for 2025
Biodiversity impact measurement and assessment.	• Implementation of a system for accounting and valuation of natural capital in biodiversity in Red Eléctrica. • 100% of the group's companies in the electricity business with a baseline regarding the potential impact on biodiversity.
Biodiversity-related risks and opportunities	• Identification of risks and opportunities regarding natural capital and biodiversity in Red Eléctrica.
	• 100% of critical spans marked with bird-saving devices.
Habitat protection and restoration: protected areas or areas of high biodiversity value.	• Development of offsetting projects associated with the commitment to protect vegetation and combat deforestation for 100% of the investment projects.
Recovery and conservation of endangered and vulnerable species	• Recovery projects for 10% of the faunal groups with marine and terrestrial focal species.
Eradication of invasive species associated with electricity transmission infrastructure	• Prevention and control plans for invasive species for at least 30% of the identified area.
Electricity infrastructure as a biodiversity reservoir	• 20% of the km of electricity lines in Spain, identified as 'Biodiversity Islands,' consolidated as a reservoir and corridor of biodiversity and a tool for adaptation to the effects of climate change.

For new energy transmission grid projects in Spain that are submitted for environmental impact assessment, a quantitative impact assessment methodology is used. This method, through preventive measures, **aims to** design projects to have a positive impact (positive net gain) on biodiversity or at least a neutral impact (no net loss). This allows for the design and implementation of specific measures, and for priority locations impacted to achieve the goal of a neutral or positive impact for the entire project.

7.2.4 Biodiversity impacts, dependencies, risks, and opportunities

In 2023, Red Eléctrica conducted a preliminary exercise to identify and assess the most significant biodiversity impacts and dependencies related to its electricity transmission activity, as it is the Company's primary business.

As a result of this exercise, a materiality matrix for environmental impacts on biodiversity was obtained, which includes natural assets such as habitats, species (flora and fauna), and landscapes that experience greater impacts. The Company completed this exercise with an initial identification of priority ecosystem services from an impact materiality perspective.

The results were verified using the ENCORE (Exploring Natural Capital Opportunities, Risks, and Exposure) tool, tailored to energy transmission business (services, electricity services, transmission, and distribution of electric energy).

At the same time, work began in 2023 on an approach aligned with the guidelines established by TNFD (Taskforce on Nature-related Financial Disclosures) and SBTN (Science Based Targets Network) for identifying and assessing impacts, dependencies, risks, and opportunities related to nature from the activities carried out by group companies.

This work will enable us to meet the requirements and demands of biodiversity reporting and sustainability indices in 2024, allowing for the provision of information and action on the evolution of nature-related risks.

Impacts on biodiversity

Although there are key economic sectors that have a great impact on biodiversity, Redeia, specifically in the business of electricity transmission, is not among the productive sectors that contribute the most to direct impacts on biodiversity. Red Eléctrica has identified and established the materiality of potential impacts on biodiversity and nature from its activities to avoid, minimise, remedy, or compensate for corresponding effects.

The ultimate goal is to continue developing the most effective strategies to avoid, minimise, resolve, or offset the associated impacts, in line with the mitigation hierarchy included in the Biodiversity Commitment of Redeia.

Potential impacts or effects derive from the construction, operation, and dismantling phases (direct operations) carried out by the Company, identified through the ENCORE tool with subsequent internal expert analysis, which allowed adjusting the obtained results to the actual Company's activity.

To avoid, minimise, and effectively address any potential impacts that may arise from activities, products, and services throughout the life cycle of the facilities, the materiality (*High, Medium, or Low*) of potential impacts on nature and biodiversity has been identified and established.

Matrix of materiality or relevance of impacts on biodiversity

Aspect	Potential impact	Materiality of the impact
Consumption of resources and waste generation	• Consumption of raw materials by the supply chain necessary for the manufacturing of equipment and materials used by the activity in its different phases. • Generation of hazardous and non-hazardous waste.	Medium
Habitats, species	• Destruction and/or alteration, modification of terrestrial and aquatic habitat conditions. • Fracturing of ecosystems. • Displacement of species. • Collisions of birdlife with grounding cable. • Elimination of protected vegetation/flora. • Occurrence and spread of fires.	**High**
Air quality	• Dust and particulate emissions during the construction phase. • Emission of combustion gases from vehicles.	Low
Noise	• Noise pollution from the transit of machinery on land or use of vessels at sea that generate nuisance or adverse effects on species and the population during construction and maintenance.	Low
Soil	• Change in the use of land. • Soil compaction. • Erosion. • Degradation of the soil environment. • Variations in soil quality due to accidental spills of oils and fuels.	**High**
Water	• Damage to waterways due to the circulation of machinery. • Interruption/modification of the drainage network. • Variations in water quality due to accidental spills of oils and fuels.	Low
Landscape	• Visual impact. • Loss of landscape quality. • Artificialisation of land.	**High**
GHG emissions	• SF_6 emissions • CO_2 emissions	Medium
Electromagnetic fields	• Generation of electric and magnetic fields	Low

Additionally, the Company has identified the priority ecosystem services related to its activities from the perspective of high materiality impacts, based on the Common International Classification of Ecosystem Services (CICES)[47].

[47] https://cices.eu/

Priority ecosystem services

Service	CICES Code	Ecosystem service
Biodiversity conservation	2.2.2.3	Maintaining populations in their early life stages and habitats
	3.2.2.1	Elements in nature we believe should be preserved
	N/A	Habitats and their role in protecting communities from fire
	3.2.2.2	Natural habitats we believe or want future generations to enjoy or use
Relevant supply services (food, water, timber, fisheries)	1.1.1.1	Any harvest and fruits cultivated by people for human consumption
	1.1.1.5	Plants grown in freshwater or saltwater for human consumption
	1.1.1.2	Livestock raised in stables and/or pastured outdoors for human consumption
	1.1.1.6	Animals farmed in fresh or saltwater for human consumption
	1.1.1.3	Food from wild plants
Climate regulation	2.3.5.2 / 2.2.3.2	Regulation of air quality by habitats for people
Carbon capture (foliar structure, shrub, and soil)	2.3.5.1	Regulation of our global climate by determining a level of atmospheric CO2
Flood regulation	2.2.2.1 / 2.2.2.2	Regulation of water flows in our environment
Sediment regulation	2.2.1.1	Control or prevention of soil loss
Pollination	2.2.2.1	Pollinators and seed dispersal
Aesthetic enjoyment of the landscape	3.1.2.1	Nature's capacity to be a source of knowledge through research
	3.1.2.2	Nature's capacity to be a source of knowledge through the transfer of inherited teachings and skills training
	3.1.2.3	Elements of nature that help people identify with the history or culture of where they live or come from
	3.2.1.2	Elements of nature that hold spiritual significance for people
services	3.1.1.1	Using nature for sports and leisure or other social uses
Sediment regulation	5.2.1.1	Physical barriers or soil formations that regulate landslides
Flood regulation	5.2.1.2	Physical barriers or geomorphological formations that regulate runoff
Aesthetic enjoyment of the landscape	6.1.1.1	Elements of the physical environment we can actively enjoy
	6.1.2.1	Elements of the physical environment we can passively enjoy
	6.2.1.1	Elements of the physical environment that are important as symbols
	6.2.2.1	Elements of the physical environment that we believe are important for others and future generations

Biodiversity dependencies

Dependencies can be defined as those assets and ecosystem services that enable the viability and sustainability of business models. Identifying dependencies allows us to determine the most appropriate strategies to reduce risks for the Company derived from these dependencies.

Red Eléctrica has used the evaluation criteria indicated by the SBTN (*Science Based Targets Network*), TNFD's (*Taskforce on Nature-related Financial Disclosures*) proposal, and the guidelines provided by the ENCORE (*Exploring Natural Capital Opportunities, Risks and Exposure*) tool. These were then reviewed internally with expert judgement based on the specific solutions adopted at each stage of the activity. In this regard, the dependencies considered material based on the criteria indicated by the SBTN are attributable, in relation to the main direct activities, to the ecosystem services necessary for the operation of the infrastructure.

Dependency	Materiality	Description of the ecosystem service	Natural assets[48]
Climate regulation	Medium	Global climate regulation is provided by nature through the long-term capacity to store CO_2 in soils, plant biomass, and the oceans. On a regional scale, climate patterns are regulated by the intricate interplay of ocean currents and wind systems. while, at local and micro level, the presence of vegetation has the power to influence and modify temperature, humidity, and wind speeds.	• Atmosphere • Habitats • Soils and sediments • Species • Water
Protection against flooding and storms[49]	**High**	Flood and storm protection is provided through the shelter, buffering and attenuation effects of natural and planted vegetation.	• Habitats
Stabilisation and erosion control	**High**	Erosion stabilisation and control is achieved through protection by vegetation cover and stabilising terrestrial, coastal and marine ecosystems, as well as wetlands and coastal dunes. Vegetation on slopes also prevents avalanches and landslides. Mangroves, seaweed and macroalgae provide protection against coastal erosion.	• Habitats • Geomorphology of the soil • Soils and sediments

Regarding the upstream supply chain, the Company identified that primary dependency lies in the use of raw materials, both mineral and non-mineral, for the construction and operation of electricity transmission lines (both overhead and underground), sub-stations, equipment, etc.

Lastly, a high indirect[50] dependence on ecosystem services linked to the natural asset 'landscape' was identified when mitigating ecosystem services linked to the visual impact that transmission lines may generate, in order to avoid future social conflicts.

[48] Natural assets providing ecosystem services

[49] In ENCORE, this dependency had a very high materiality for the subservice 'Transmission and distribution of electricity'.

[50] Dependencies that arise from the direct impact of an operation on specific elements of natural capital, such as assets or ecosystem services. These dependencies are critical as they can potentially jeopardise the maintenance, regulation, and provisioning functions of the ecosystem, which in turn may have significant consequences for stakeholders and local communities in close proximity to infrastructure related to the business. (Process or operations approach).

Tools and methodologies to address biodiversity impacts and dependencies

The consumption of resources and the waste generation	• **Circular Economy Roadmap.** • **Suppliers' Code of Conduct.** • **Specific criteria for suppliers regarding environmental impacts.**
Habitats, species	• Methodology for analysis and quantification of impacts and dependencies of the ecosystem services. • Methodology for calculating the biodiversity baseline in terms of natural capital.
Soil and water	• Environmental monitoring programmes applied in the construction of the facilities. • Methodology for the assessment of environmental risks in sub-stations and regarding overhead and underwater cables. • Emergency Intervention Service in the event of environmental accidents.
Impact on the landscape	• Landscape analysis and integration methodology. • Methodology for analysing the visible impact of electricity lines.
Contribution to climate change	• Calculation of the Company's carbon footprint. • Alignment with climate risk measurement and reporting tools (TFCD). • Climate risk management, measurement, and monitoring tools to detect opportunities.

Risks to biodiversity

Red Eléctrica has established a Comprehensive Risk Management System that facilitates compliance with the group's strategies and objectives, ensuring that the risks that could affect the group are identified, analysed, assessed, managed, and controlled systematically, with uniform criteria and within the acceptable level of risk approved by the Board of Directors.

Evaluating and managing biodiversity risks related to identified impacts and dependencies are integrated into the group's comprehensive risk management and control system in accordance with ISO 31000 standards on risk management principles and guidelines.

In the case of biodiversity risks, an approach aligned with the guidelines set out in the TNFD and SBTN proposal began to be implemented.

During 2024, risk management principles related to nature aligned with TNFD will be implemented once their final version is released at the end of 2023.

Risks to biodiversity

	Level of risk
• Impact on vegetation due to fire (habitats)_*1OPE06*	Medium
• Impact on birdlife regarding transmission grid facilities (species)_*1OPE07*	Low
• Contamination of soil and/or ground, surface or marine water due to leaks or spills of oils, fuels, and hazardous substances (soil)_*1OPE16*	Medium

For the dependencies identified, the risks that could derive from them are initially aligned with some of the **physical risks** associated with climate change identified by the Company following the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD)[51].

	Associated risks[52]	Classification	Potential impact in the business	Type of financial impact	Mitigating actions
Physical risks	Impact on outdoor facilities (electricity lines) due to extreme events (*wind, storms, etc.*).	Medium-high 	• Damage to infrastructure. • Increase in maintenance cost. • Impact on the electricity supply. • Reputational impacts, associated with power outages. • Impacts on third parties or the environment (in the case of fire).	- Increase of costs[53]	- Projects for the improvement and strengthening of transmission grid facilities. - MANINT project, to optimise the management of transmission grid assets. - Tree-felling and pruning back (forestry) plans. VEGETA project - Innovation. PRODINT Project and Bseed WATCH®. - Contingency plans. - Insurance policies.
	Fires beneath electricity lines and in the vicinity of electricity substations.	Medium-high 			
	Damage to equipment belonging to the transmission grid located outdoors due to high temperatures.	Medium-high 	• Increase in costs of repair and reposition of equipment and reduction of its useful life. • Increase in equipment cost due to design modification to improve resilience.	- Increase in costs - Reduction of income[54]	- Detailed review of technical specifications (design) of equipment - Incorporation of additional technical requirements, if necessary. (4) - Insurance policies

Risk and impacts on biodiversity in the supply chain (*upstream activities*)

Redeia continuously identifies and monitors sustainability risks and impacts. It includes those related to biodiversity, from the supply of equipment and/or materials, as well as services and works, and, therefore, determines any necessary requirements to be imposed.

The main risks are dealt with through the management systems in place and via regular audits and after which recommendations and improvement areas are identified, analysed, and implemented with a view to continually improving processes. For identification of a high impact, the Company can establish an action plan with the supplier, closely monitoring its implementation and reserving the right to take action if necessary.

The identification and prioritisation of risks and impacts in the supply chain have allowed the Company to establish proper measures for their mitigation.

In this regard, for each of the risks identified, including those **affecting biodiversity**, the organisation implements a comprehensive approach that encompasses qualification, monitoring, development, and training of suppliers. The Company also identifies the impacts and effects on biodiversity associated with each of the incidents managed in order to have more information and be able to measure the impact of such incident.

[51] For climate risks, the Company follows the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD) in their management by means of a methodology aimed at their identification, prioritisation, and economic quantification.

[52] Risks identified as high, or medium-high for a specific deadline or scenario have been included.

[53] The annual financial impact for each of the risks is less than 2% of Redeia's results. The calculation of the impact takes into account the results of the mitigation measures implemented. For example, for risks, financial impact is significantly reduced thanks to insurance policies

[54] Capitalisation has not been carried out for they are risks that only come up in the long term.

Risks and impacts on biodiversity in downstream activities

Due to its role as the electricity Transmission System Operator (TSO) in Spain, Red Eléctrica's primary activity involves energy transmission from generators to distribution grids for consumers across the **country**.

The downstream activities within the Company's value chain are constituted by the use of electrical energy by both distributors and end consumers in their respective activities.

This broad and extensive scope makes it impossible to identify the impacts and risks on biodiversity downstream of Red Eléctrica's operations.

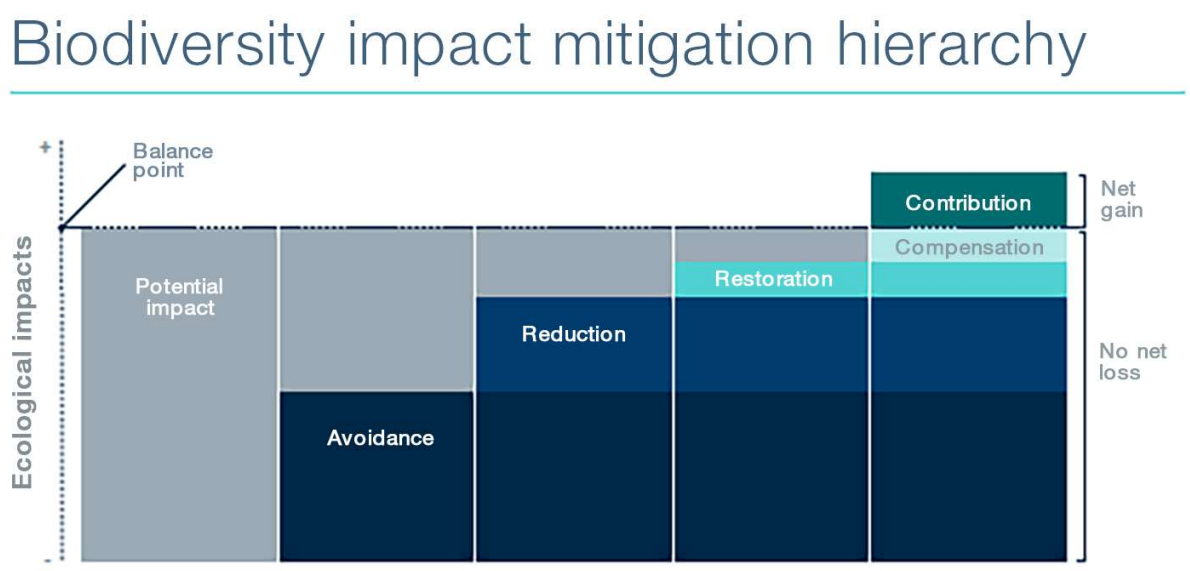
7.2.5 Biodiversity management: mitigation hierarchy

The potential effects of direct activities on biodiversity are associated with the presence of the facilities in the territory and with the construction and maintenance said facilities. To achieve a net positive impact, the Company manages biodiversity according to the impact mitigation hierarchy approach.

Avoiding areas rich in biodiversity is one of the priority criteria taken into account and the first consideration for determining the location of facilities, both in the grid planning phase as well as in the definition of each project. However, bearing in mind that 25% of the surface area of Spain has some form of environmental protection, it is inevitable that, in some cases, infrastructure will cross or be located in protected areas or areas with species of interest.

On these occasions, Red Eléctrica implements all the preventive and corrective measures required to minimise the potential impacts, including habitat restoration measures, where possible, or regeneration measures that improve the biophysical function of existing processes and the ecosystem's productivity.

Finally, any residual impacts that may still occur despite these measures having been applied are compensated through several environmental improvement actions and projects to promote biodiversity around the facilities. This promotes the development of measures and projects while working with the public administration, non-governmental organisations, research bodies, and other stakeholders. These measures and projects aim to offset negative impacts, generating positive impacts on biodiversity.



The main effects of activities on biodiversity include affecting habitats and species. The effects on habitats are primarily associated with vegetation, caused by felling and pruning to create security corridors along power lines to prevent fires, while the effects on species involve a risk of birdlife collisions with ground cables.

Red Eléctrica uses a **methodology for quantitative valuation of impacts (negative and positive) on biodiversity.** This methodology is applied in the environmental impact assessment of **new power line and sub-station projects**. It defines the baseline impact and establishes different measures during the design phase to achieve a positive impact on biodiversity throughout the life cycle.

The methodology began implementation in early 2023 for **new** electricity transmission grid **projects** in Spain submitted for environmental impact assessment. It enables measuring progress through a bottom-up approach and ensures compliance with the group's biodiversity impact goal for 2030 (REDEIA).

The process design is based on a natural capital approach intended to offset the project's **residual impact** on different **natural assets**, allowing projects to be designed with positive biodiversity criteria.

This approach to new energy transmission grid projects in Spain incorporates nature and biodiversity into the Company's decision-making processes in line with the demands, recommendations, and guidelines (regulatory, financial, and voluntary) at the European and international levels from stakeholders.

The assessment methodology provides a quantitative understanding of the residual impact of a project on natural assets, allowing for the design and establishment of compensation measures **to achieve a positive impact on biodiversity.**

The natural biodiversity assets based on which Red Eléctrica has designed its impact assessment and mitigation hierarchy methodology are those that can potentially continue to be subject to significant residual impacts throughout the project's life cycle, contributing to biodiversity loss drivers:

- Natural asset: **habitat** (natural forest, non-forest, agricultural [vegetation], and land use)
- Natural asset: **species** (specifically birdlife)
- Natural asset: **atmosphere**

Currently, Red Eléctrica's facilities make up only **0.08%** of the Spanish Natura 2000 Network. Of all the existing infrastructure, only **15.45%** of total lines and **5.63%** of sub-stations are located in protected areas (Natura 2000 Network).

Red Eléctrica de España	2021	2022	2023
Km of lines in Red Natura/km of total lines (%)	15.45	15.45	**15.40**
Number of sub-stations in Red Natura/number of sub-stations (%)	5.67	5.51	**5.63**
Area of facilities in Red Natura/total area of Red Natura (%)	0.08	0.08	**0.08**

Mitigation measures

Throughout the life cycle of both its activities and the different development phases of its facilities, Red Eléctrica establishes a series of mitigation measures aimed at reducing its impact and dependency on biodiversity. The following are examples of the most important mitigation measures it carries out:

	Main mitigation measures
Prevent	***Main prevention measures***
	• Introduction of modifications in the design and layout of the facilities. • Preliminary surveys to identify the presence of protected fauna and flora. • Detailed field studies on specific issues related to biodiversity. • Construction of decanting units and filtering systems to prevent contamination of waterways. • Use of sensitivity and risk maps that identify species and habitats or sensitive areas (mapping of bird flight paths). • Signposting/marking-off and protection of habitats and specimens of ecological value. • Use of construction techniques that minimise earthworks and land occupation: hoisting structures with a boom crane, hanging of line by hand, and carrying out works using helicopters or drones. • Recovery of topsoil and its storage for use for landscaping actions. • Transplanting of species that may be affected by the work to other areas. • Biological stoppages in 100% of the works during breeding or nesting periods. • Stoppage of works in periods or situations of high fire risk. • Provision of resources and specific training for the prevention of forest fires.
Reduce	***Main reduction measures***
	• Recovery of affected areas through the restoration of slopes, sowing of seed, and the planting of flora. • Carrying out selective pruning, preventing felling of wooded and leafy areas and plant formations of interest. • Preventive clearing in forested areas that represent a fire risk: elimination of scrub associated with pastures that have high density and height. • HABITAT Project. • Implementation of the multi-year (2016-2025) line marking plan that involves the installation of bird flight diverters. • ALERION Project: early detection system for bird collisions with high voltage lines. • PRODINT: system for the early detection of forest fires using IoT sensors. • Integrated management of each type of habitat identified with the aim of guaranteeing correct management and preservation during the maintenance of the facilities. • Under-line vegetation treatment task optimisation (VEGETA Project).
Restore	***Main restoration measures***
	• Projects for the conservation of focal birdlife species. • Redeia Forest Project. • Marine restoration (Posidonia Oceanica). • Mareta del Río marsh/wetland restoration project (in Tenerife in collaboration with SEO BirdLife). • Eradication of invasive species - Pampas Grass (*Cortaderia seollana*) – in collaboration with SEO BirdLife. • Eradication of invasive species – Elephant Grass (*Arundo donax*) - in collaboration with Fundación Limne. • Research on invasive species – microalgae (*Rugulopteryx okamurae*) – in collaboration with the University of Seville.

Regenerate

Main regeneration measures

- BIORED-Green Infrastructure Project.
- Biotransporte Project.
- Naturaleza en Red Project.
- Pastoreo en RED Project.
- Life BooGI-BOP Project.

Noteworthy regeneration measures

The management of under-line vegetation promotes an increase in pollinating insects and butterflies, which improves the productivity of nearby crops dependent on pollinators while creating spaces that allow grazing activities.

One of the notable regeneration measures is the Pastoreo en Red project, which the Company undertakes to improve the biophysical function of existing processes and the productivity of an ecosystem.

Through this project, ecosystem services are promoted, improving natural resources and human well-being in the vicinity of the transmission grid facilities, relying on the use of nature-based solutions (NbS).

The development of controlled vegetation treatment with widespread use of local livestock in a way that is adjusted to the ecosystem's environment enhances the grassy composition and pastures, increasing the presence of pollinators. It also promotes water infiltration and erosion mitigation, which, stimulated by the topography and the nature of the materials, can be a determining factor in the landscape. Pastures fix atmospheric carbon in the soil due to the large amount of organic matter they accumulate among the roots, and maintenance of soil fertility is positively impacted due to the cattle and their contribution of organic matter. All these regulation services have increased.

In 2023, measures included in the Pastoreo en Red project have been implemented in León and Galicia (Spain).

This project has been described as a nature-based solution according to the IUCN standard.

Transformation measures

As part of its commitment to biodiversity, Redeia undertakes actions aimed at driving cultural transformation and focused on contributing to change in the system and tackling the fundamental causes or factors that drive nature loss.

To undertake **cultural transformation** actions that contribute to system change and address the root causes or fundamental factors driving nature loss, the company is involved in the '**Zero Fires**' initiative. This is a climate change adaptation solution, born within the framework and as a result of the development of the LIFE SORIA ADAPT project (***https://www.soriaforestadapt.es/***). This project was created by the Global Nature Foundation, which combats biodiversity loss and revitalises rural areas by fighting potential fires.

Fires resulting from a lack of forest cleaning are one of the most significant causes of biodiversity and nature loss. These can be increased by the consequences of climate change, which is one of the main threats to forest preservation. Additionally, rural depopulation plays a key role in the increase in biodiversity loss due to fires, as preventive measures traditionally carried out by rural societies are being lost—measures that currently protect us and could protect us in future from the impacts of the climate emergency and biodiversity loss.

Preventive forest management measures (*Cinturones contra el Fuego*) have been developed on the Red Natura 2000 (Natura 2000 Network). Specifically, the largest and best-preserved representation of Spanish juniper (*Juniperus thurifera*) in the entire country can be found in the ZEC ES4170029 Sabinares Sierra de Cabrejas. These measures include:

- Clearing invasive shrubs.
- Adjusting tree density.
- Pruning lower branches to create vertical discontinuity.
- Removing and shredding debris.
- Introducing widespread use of livestock for maintenance purposes: as an ally and as a measure that allows jobs and life in rural areas to be maintained.

These measures represent a transformation solution in the territory that aims to combat the cause of fire outbreaks as a source of biodiversity loss, protect nature while utilising the forest, conserving the rural economy by involving the local population, and promoting forest adaptation due to climate change.

Furthermore, Redeia has joined the global Business for Nature coalition (*https://www.businessfor-nature.org/*) and has signed an appeal to governments to adopt policies aimed at reversing nature loss this decade. The coalition drives reliable business actions and ambitious policies to achieve a nature-positive economy for all by 2030.

7.2.5.1 Protection of birdlife

The main impact of Red Eléctrica's facilities on the fauna is the risk of birdlife colliding with the grounding cables that protect the lines from electrical discharges during storms. The main measure for reducing this risk is the **marking of the grounding cables** using devices that increase their visibility.

Thanks to the 'Birds and power lines: mapping of bird flight paths' project, which was updated in 2021, the Company identified a set of focal species prone to collision. It selected them according to various criteria (52 species) and drew up sensitivity maps (areas where these species may be found and which must be considered for the definition of new power line routes) and risk maps (sensitive areas where there are also factors that influence the probability of accidents occurring).

Based on this information, the 2016-2023 multi-year line marking plan was defined, which prioritises actions on the sections of line with the greatest potential impact on birdlife. It is expected that the progressive marking of the lines will reduce the potential risk of collision with the electricity transmission grid to 39.7%.

Collaboration with regional administrations and the development of specific projects makes it possible to update this line marking plan and incorporate risk areas or line sections to be marked when deemed necessary.

In 2023, noteworthy was the analysis—started in 2022—of the flight paths and transit areas of the Bearded vulture, which was developed in collaboration with the Bearded vulture Foundation and has resulted in the marking of 160 km of line in the Picos de Europa area, Pyrenees, El Maestrazgo, and Sierra de Cazorla for the specific protection of this species. As a result of this initiative, the Company, together with the Bearded vulture Foundation, was nominated for the European Natura 2000 Award in the category of 'Working together for Nature.'

In 2023, Redeia was invited to participate in conferences and events organised by NGOs, both in Spain and in other countries. The aim was for the Company to explain its contribution to the reduction of collisions, including a detailed example of the analysis of the bearded vulture's flight path data carried out in 2022 and 2023. Consequently, other organisations wanted to adopt this idea and offer their data to analyse them and define a specific action plan.

In addition, work is being carried out on the development of tools for collision detection, in particular, the ALERION project. Through devices installed on the fibre optic cable of the lines, it will be possible to obtain early information that could promote the recovery of individual birds that have collided with the lines and that are still alive.

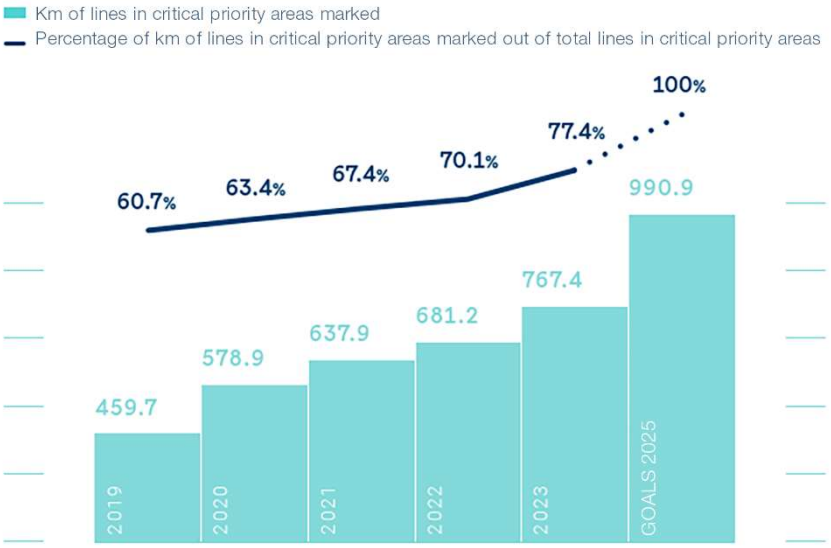
In 2023, 767.4 km of line were marked with bird-saving devices. The percentage of kilometres marked with respect to the total kilometres of overhead lines stood at **20**% (5,943 km of line marked).

Marking lines with bird-saving devices[55]

Please note: data is accumulated at the end of each year. This data refers to the route; that is, the length of the lines regardless of the number of circuits they support. In addition to the lines marked in Spain's transmission grid, there are 57.37 km of lines marked in Red Eléctrica Andina S.A. (Peru), corresponding to 3.39% of the total lines, and 70 km of lines marked in Red Eléctrica Chile SpA., corresponding to 14.49% of the total lines.

[55]Cumulative data at the end of each year. This data refers to the route, i.e., the length of the lines irrespective of the number of circuits they have.

Marking lines with bird-saving devices in critical priority areas



Please note: data is accumulated at the end of each year. This data refers to the route; that is, the length of the lines regardless of the number of circuits they support.

(1) The percentage of marking refers to the target value defined each year. The target value is marking 100% of the km of lines in critical priority areas, although it is slightly modified each year. The modification is based on variations in Red Eléctrica's installations (new lines and modifications to existing ones) and the update of technical information from the 'flight paths' project.

In 2022, significant variations were associated with the number of new focal species. There was an increase in species (from 46 to 52), and variations in the distribution of some of these species were recorded, either because they appeared in new territories or because more precise information was available than in the previous edition of the project.
Consequently, the 2021and 2020 signalling data has been recalculated using updated data from the 2022 'flight paths' project and the latest and most complete information on species distribution patterns and the availability of new sensitivity and risk maps.

7.2.5.2 Protection of habitats and species

Regarding works associated with the construction of lines or the modification of facilities, the main impacts to be prevented include the alteration of the habitat of certain species of fauna and flora, as well as the impact on vegetation due to the opening up of security corridors, necessary for minimising the risk of fires that may occur during the operation of the electricity line.

The **Habitat Project** (2015-2021) was developed and implemented with the aim of guaranteeing the correct management and preservation of priority habitats/sites of community importance (SCI) and other plant formations of interest when performing maintenance work on the Company's facilities/infrastructure. In collaboration with the different regional government administrations and experts in the field, all the vegetation formations in the vicinity of 100% of the transmission lines in Spain were mapped and characterised and have now been consolidated in a data layer compatible with the corporate geographic information system. Additionally, an integrated management scheme is available for each type of habitat, therefore facilitating decision-making when carrying out the work.

Among the **measures applied to protect habitats and species**, noteworthy are the following:

- Preliminary surveys of *Caralluma burchardii* (maura) and subsequent marking in projects on the Canary Islands.
- Thorough surveys conducted before the start of work to identify possible nesting sites for birdlife species of interest.
- Constructive improvements in the execution of directional drilling significantly enhance the recirculation of drilling fluids, minimising their impacts.
- Biological stoppages in a dozen ongoing activities, adjusting to the phenological periods of each species of interest.
- Experimental treatments with a more selective and precise approach, such as endotherapy, for the eradication of invasive exotic species in the public water domain.

7.2.5.3 Biodiversity and natural capital conservation

Red Eléctrica actively contributes to the conservation of biodiversity, implementing various environmental improvement measures and promoting different projects for this purpose.

One of the challenges that Redeia undertakes in line with its commitment to biodiversity is to generate a net positive impact on biodiversity around its facilities. With this goal in mind, the group participates and collaborates with the public administration, NGOs, and other stakeholders in different projects that promote the development of the environmental and social landscape, mainly focused on the aspects most closely related to the Company's activities' impacts: the conservation of birdlife, particularly focal species (those more susceptible to collisions), and the protection and restoration of habitats.

Additionally, Redeia has launched several projects aimed at determining and enhancing the capacity of infrastructure as biodiversity reservoirs and natural capital generators, as well as actions aimed at restoring degraded habitats, including the Redeia Forest project and the marine forest.

The Company maintains alliances in the field of biodiversity conservation with the competent areas of the public administration and other organisations in the various autonomous, as well as with leading organisations in nature conservation.

7.2.5.3.1 Conservation of birdlife

The main objective of birdlife conservation projects is to collaborate in the conservation or reintroduction of endangered species. It should be noted that the electricity transmission grid infrastructure plays an important role as dominant surveillance points, lookout points, refuge, resting and roosting areas, and even as nesting sites for some species.

The following is a brief summary of the **noteworthy projects carried out in 2023 for the conservation of focal and endangered species:**

- **Use of towers by the golden eagle (*Aquila chrysaetos*) in Navarre:** the radio-monitoring project of the Golden Eagle in Navarra with the Regional Government of Navarre has confirmed the use of towers as dominant surveillance points, roosting areas, and/or lookout points for stalking, by the three monitored eagle pairs.

- **Osprey (*Pandion haliaetus*) nesting platforms in Cádiz (Andalusia):** since 2010, four nesting platforms have been installed on Red Eléctrica's towers in the Barbate reservoir area (Cádiz) and chicks have been ringed, in collaboration with the Migres Foundation and the Andalusian Regional Government. The osprey, which has not reproduced in Andalusia since the 1980s, is again nesting in the region. Since the installation of the nesting platforms in 2010, the hatching of 53 chicks has been recorded on Red Eléctrica towers. In 2023, 10% of the breeding pairs and 12% of the chicks in all of Andalusia used Red Eléctrica's transmission towers.

- **Space use and behaviour analysis of great eagles around energy transmission infrastructure in the** Valencian Community: the project, developed in collaboration with the University of Valencia, determines and quantifies the foraging areas and space use in seven territories of 16 ringed Bonelli's eagles (*Aquila fasciata*) and 11 golden eagles (*Aquila chrysaetos*), increasing knowledge of the habits of these species. Potential risks are analysed, considering areas marked with bird-saving devices versus unmarked areas. The aim is to establish priorities for future corrective actions and improve the environmental management of the facilities. The results have shown an increase in flight height when eagles fly over marked power lines (greater in males than in females). Additionally, the flight height of eagles over power lines also increases after marking.

- **Monitoring actions for the conservation and protection of the Montagu's harrier** (*Circus pygargus*), Marsh harrier (*Circus aeruginosus*), and Hen harrier (*Circus cyaneus*) species in Extremadura: The initiative seeks to understand the status of breeding and wintering harrier populations in Extremadura and to establish actions to halt their population decline. It also looks to increase information and awareness among farmers and agricultural associations about the importance of Montagu's harriers and their conservation in the field, not only because of their significant role in Extremadura's ecosystems but also for their role in controlling small animals harmful to crops. The action areas of this agreement encompass around 97% of the total breeding harriers in Extremadura. A total of 158 pairs of Montagu's harriers and 10 pairs of marsh harrier have been located, with protective fencing installed around 117 nests.

- **Use of sub-stations as roosting sites during the summer migration of lesser kestrel (*Falco naumanni*) in Aragón and Navarre:** the project, carried out in collaboration with GREFA (Group for the Rehabilitation of Native Fauna and its Habitat), aims to estimate the size of the lesser kestrel roosts in electrical sub-stations, determining if there is differential use of the various elements of the facilities. If any risks to the kestrel are detected, the study will determine improvement measures. Moreover, habitat use around the sub-stations will be characterised, and potential benefits in terms of ecosystem services that the facilities may provide to the species will be identified. Initial results have recorded more than 300 kestrels using the installation as a roost (specifically the Magallón sub-station in Zaragoza). The behaviour of kestrels at dusk has been found to include first arriving at the electrical towers and using them as perches before moving inside the sub-station gates to sleep.

- **Monitoring, conservation, and recovery of the Spanish imperial eagle (*Aquila adalberti*) population in Doñana:** support has been provided for the management of the Spanish imperial eagle population, as well as supplemental feeding by providing rabbits at feeding stations located within each breeding territory. Supplemental feeding for this eagle is carried out during the breeding season. Furthermore, collaboration includes the provision of an all-terrain crane capable of navigating the challenging sands and dunes of Doñana to carry out specific actions at the nests. In 2023, 31 chicks born in Doñana National Park located in 20 nests were checked and ringed, with 17 GPS transmitters placed on them.

7.2.5.3.2 Habitat conservation

- The 'Redeia Forest'

The Redeia Forest is an ongoing project, initiated in 2009, which aims to offset part of the Company's emissions through the planting of trees and the recovery of degraded natural areas on publicly owned land, thus contributing to the conservation of biodiversity. In addition, this initiative aims to support the development of local economies by contracting the work to companies or associations in the area, as well as to raise awareness of the importance of forests by involving the local population, mainly students, and company employees.

Since the start of the project, the company has contributed to the recovery of 21 forests in Spain. In 2023, 39,574 trees (pines, chestnuts, oaks, and birches) were planted over 47.8 ha in 3 new forests: Nieva (Lugo), Gamalleira (Lugo), and Loureza (Pontevedra).

The 'Redeia Forest' in figures (2009-2023)

Trees and shrubs planted	852,546 units
Surface area recovered/restored	1,041 ha
Emissions offset	269,825 t of CO_2 eq.
Investment	€3,051,433

- The 'Redeia Marine Forest'

The 'Redeia Marine Forest' is a worldwide pioneering innovation project. Between 2012 and 2016, the Company developed an R&D+i project in collaboration with the Mediterranean Institute of Advanced Studies (IMEDEA- CSIC-UIB) on the use of seeds or fragments of Posidonia oceanica in the restoration of degraded areas of its natural habitat.

In 2017 an agreement was signed (CSIC-IMEDEA-UIB, the Balearic Islands Government, and the Pollensa military air base) for the restoration of 2 ha. of Posidonia in the Bay of Pollensa, with the work completed in 2020. Researchers from IMEDEA are monitoring the planting to determine survival rates, growth rates of each plant, CO_2 uptake, and associated epifauna. The survival rates of rhizome pieces in 2023 will continue to be at the upper end of those obtained in previous planting projects.

The Marine Forest project won the 2023 '10th Anniversary All-Star Awards' from RGI, becoming the best practice implemented in European energy transmission grids over the past decade.

To raise more awareness about the conservation of marine environments, Redeia participates in the promotion of various educational programmes:

- 'Bringing Posidonia into the classroom' in collaboration with the teaching community of the Balearic Islands and IMEDEA to carry out informative sessions and field visits for students in the region. In 2023, following the project's inclusion in the environmental education activities catalogue by the Conselleria de Medi Ambient, a total of 1,057 students participated in the project.
- Collaboration with the marine interpretation centre 'Aula de la Mar' in Majorca provides educational centres and the public with interpretive elements and activities related to the coast and marine environment. Thanks to increased support from technical staff in 2023, it was possible to expand the educational course to include more participants and new activities. Two new spaces were added to the 'Posidonia Forest' project: one with an aquarium of common species and another with an interpretive mural of microscopic species living on the leaves and rhizomes of the plant.
- Virtual exhibition on Posidonia oceanica and the 'Red Eléctrica Marine Forest', published on the corporate website: *https://www.redeia.com/es/sostenibilidad/naturaleza/proyectos/posidonia-oceanica*

7.2.5.3.3 Invasive exotic species

One of the main problems affecting the most vulnerable habitats and ecosystems is the presence of invasive species. This is one of the drivers of biodiversity loss and ecological change. The loss of biodiversity due to these species can also negatively affect agricultural and livestock activities, as well as public health.

The most notable actions in this regard in 2023 were:

- **Pampas grass (*Cortaderia seollana*).** Red Eléctrica committed to the Transnational Strategy to fight against Cortaderia seollana in the Atlantic Arc, committing itself to work in the areas within its reach to control and eradicate this species to prevent it from spreading to areas of high environmental value. Through a pilot project, innovative methods and materials for the eradication and control of pampas grass were tested, removing 3 ha under power lines. Combined methods of clearing, chemical treatment, and planting of native vegetation were used, complemented by control treatments over two years. This pilot project was developed as part of the the LIFE STOP Cortaderia project.

  Redeia will collaborate with this project in the coming years, specifically through: ***Control and elimination of Cortaderia in anthropic corridors: electrical infrastructure.*** This action will eliminate around 100 ha of pampa grass located in areas occupied by our infrastructure, allowing control of its spread and improving the environmental condition of the affected areas.

- **Black locust trees (*Robinia pseudoacacia*).** This fast-growing species prevents the regeneration of native vegetation.In 2023, several control treatments were applied to power lines in the Basque Country. A mixed method without revegetation over an area of 5,000 m² was used and regrowth monitoring was conducted over an area of 350 m² where restoration was carried out using a combination of mixed treatment and planting of hazel and willow.

- **Invasive macroalgae (*Rugulopteryx okamurae*).** An ecological research study on this invasive species along the Tarifa coast was conducted in collaboration with the Marine Biology Laboratory of the University of Seville through the University of Seville Research Foundation (FIUS).

- **Fountain grass** (*Pennisetum setaceum* and *Pennisetum villosum*). In 2024, efforts will begin to eliminate this invasive species identified in the Balearic Islands around an electrical sub-station. Work will be carried out jointly with the public administration to ensure the correct control methods are applied to the species.

- **Horseshoe whip snake (*Hemorrhois hippocrepis*).** This species arrived in Ibiza (Balearic Islands) in 2003 inside olive tree trunks imported for gardening. Since 2010, it has spread rapidly, posing a threat to the only endemic vertebrate on the island and currently in regression, the Ibizan lizard (*Podarcis pityusensis*). Its presence has been detected during maintenance work in the Bessons, Cala Mesquida and Torrent sub-stations. Through the installation of cages, we collaborate with COFIB (Consortium for the Recovery of Fauna of the Balearic Islands) to capture specimens.

7.2.5.3.4 Innovation projects for the management, protection, and conservation of biodiversity

The **BIORED** framework considers the electricity transmission grid as a reservoir of biodiversity and a generator of natural capital.

The aim of this initiative is to identify, diagnose, and assess the effectiveness of electricity lines (tower bases and security corridors) and sub-stations as biodiversity reservoirs that facilitate the connectivity of fauna between the different protected natural areas.

The management of the areas below the electricity lines and in the vicinity of sub-stations as 'biodiversity islands,' and the use of electricity line corridors as a connecting element between biodiversity spaces, could be an optimal solution to facilitate the mobility of the various species currently under pressure due to the fractioning and reduction of their natural habitats. Additionally, other more general species (not affected by territorial dispersal movements) would benefit from the presence of a varied ecosystem, increasing the biodiversity in the area. Thus, what we know today as 'grey infrastructure' used essentially to supply power to the industry in general, could be perceived as 'green.'

Innovation projects for the management, protection, and conservation of biodiversity	
Biotransport	An analysis at Doñana Biological Station (CSIC) regarding how to maximise the use of a given number of electricity towers as biodiversity islands (stepping-stones) yielded very satisfactory results: an increase in the abundance and biodiversity of birdlife as well as in the number of micro mammals and invertebrates (mainly pollinators). It has been estimated that these types of actions could be considered as an initiative that promotes the connection of around 60% of the spaces in the 2020 Natura Network, thus benefiting a multitude of species, both directly and indirectly.
Pastoreo en RED	Maintenance of vegetation beneath high voltage electricity lines with widespread use of livestock farming. This project has been described as a nature-based solution according to the IUCN standard.
Life BooGI-BOP Project[56]	This initiative is part of an EU Life project, in collaboration with Ecocasa and the Polytechnic University of Madrid, which seeks to incorporate green spaces in urban and industrial environments into the network of ecological corridors. The recommendations resulting from the initial assessment have been applied in the gardens of two work centres.
Naturaleza en RED	Naturaleza en RED project, in collaboration with the Autonomous University of Barcelona, seeks to assess the potential of the transmission grid as a corridor and reservoir of biodiversity associated with the security corridor and the base of the electricity line towers. Data analysed by the project to date show that areas with forest management under electricity lines act as biodiversity islands, serving as reservoirs for open-space species, which are very important in the overall ecosystem. Additionally, a model is being developed to evaluate the Integrated Biological Diversity Index (IDBI). This model will allow, through the use of cartographic tools, the comparison of biodiversity under a power transmission line against biodiversity in a reference habitat adjacent to the area, covering the entire power transmission grid in Spain. It will also identify areas with the highest biodiversity potential, helping to prioritise management and planning actions under power lines while ensuring quality environments for pollinators and other species of fauna and flora.

[56] Aligned with the State Green Infrastructure Strategy and Ecological Connectivity and Restoration (EEIV) of the Ministry of Ecological Transition and the Demographic Challenge (MITERD).

The main results of the project are: between 200% and 2,000% more butterflies; 500%-700% greater abundance of pollinators; between 120% and 2,000% greater butterfly diversity; and between 2,000%-4,000% greater abundance of flowers under the power lines compared to the adjacent forest area.

7.2.5.3.5 Most relevant impacts on birdlife

With regard to accidents related to birdlife in 2023, 35 bird deaths of species categorised as vulnerable and/or in danger of extinction according to the regional catalogue, national catalogue and/or IUCN Red List were detected.

Threatened species affected	No. of birds affected
Montagu's Harrier (*Circus pygarnus*)	2
Great bustard (*Otis tarda*)[57]	4
Houbara bustard (*Chlamydotis undulata*)[58]	3
Black vulture (*Aegypius monachus*)[59]	1
Red kite (*Milvus milvus*)[60]	1
Scopoli's shearwater (*Calonectris diomedea*)[61]	4
Cory's shearwater (*Calonectris boralis*)[62]	12
Black-bellied Sandgrouse (*Pterocles orientalis*) [63]	1
Canary Islands stonechat (*Saxicola dacotiae*)[64]	1
Little bustard (*Tetrax tetrax*)	1
White-faced storm petrel (*Pelagodroma marina*)[65]	1
Iberian grey shrike (*Lanius meridionalis*) [66]	3
Eurasian stone-curlew (*Burhinus oedicnemus distinctus*) [67]	1

[57] Vulnerable species according to the IUCN Red List.

[58] Vulnerable species according to the IUCN Red List. Species in danger of extinction according to the national catalogue of endangered species.

[59] Vulnerable species according to the national catalogue of endangered species.

[60] Species in danger of extinction according to the national catalogue of endangered species.

[61] Vulnerable species according to the national catalogue of endangered species.

[62] Vulnerable species according to the IUCN Red List.

[63] Vulnerable species according to the national catalogue of endangered species.

[64] Vulnerable species according to the national catalogue of endangered species.

[65] Vulnerable species according to the national catalogue of endangered species.

[66] Vulnerable species according to the IUCN Red List.

[67] Vulnerable species according to the national catalogue of endangered species.

7.2.5.3.6 Most relevant impacts on vegetation

During line construction, modification of facilities or their operation, the main impacts to be avoided include alteration of the habitat of certain species of fauna and flora and the impact on vegetation resulting from the opening of safety corridors. Although avoiding areas rich in biodiversity is a priority criterion and all the necessary preventive and corrective measures are implemented to minimise the possible effects on habitats, it is sometimes impossible to avoid the impact.

Most relevant impacts on terrestrial vegetation

- *66 kV El Rosario-Guajara line.* Transplantation of four Canary Island date palms (*Phoenix canariensis*).
- Dismantling of incoming and outgoing lines at the Sabinal sub-station. Transplantation of 105 balsam spurge (*Euphorbia Balsamifera*).
- *66 kV Granadilla-Chayofa/Granadilla-Los Olivos line.* Transplantation of 17 Canary Island shrub (*Reseda scoparia*), 3 Canary Island spurge (*Euphorbia Canariensis*), and 25 common marguerite daisies (*Argyranthemum frutescens*).

Most relevant impacts on marine vegetation

- *66 kV Chio-La Gomera circuit.* Leakage of 600 m³ of bentonite (*) into the marine environment at the exit point of the horizontal directional drilling on the island of Tenerife. The spill is estimated to cover an area of approximately 1,200 m². The affected area is within the ZEC ES702001 'Teno-Rasca Marine Strip.' During environmental supervision tasks, non-protected or sensitive species were observed in the project execution area and, therefore, in the affected area. Cleanup of the area will proceed in 2024 by removing the spilled bentonite using the Air-Lift system to prevent environmental impact.

    - Bentonite is a very fine-grained clay used in drilling to lubricate drilling elements and stabilise the borehole walls. It is included in the list of substances approved for use in the sea by the OSPAR Commission (Commission on the Protection of the Marine Environment of the North-East Atlantic) due to its low or negligible environmental risk. It is also classified as a non-hazardous waste according to the European Waste List (LER). The impact of this substance lies in its ability to form a stable mass on the seabed, hindering marine organisms' respiration and collapsing various biological communities buried beneath it.

- *132 kV Ibiza-Formentera circuit.* Impact on 1,571 m² of seagrass meadows and 1,319.71 m² of areas with slander seagrass (*Cymodocea nodosa*). Once final data from environmental monitoring reports is available and the natural colonisation area is defined, necessary restoration and regeneration measures will be addressed.

Additionally, in 2023, there were four incidents within protected areas/facilities. All were due to small spills of 1-5 litres of hydrocarbons (hydraulic oil and diesel) on bare soil from machinery breakdowns and the refuelling of the mobile off-grid generator units. The other cause was due to a minor leak from a chemical toilet during the construction of the 400 kV San Fernando de Henares sub-station located in ZEC (ES3110006) Vegas, Cuestas, and Páramos del Sureste de Madrid. In all cases, cleanup was carried out by removing the affected soil and ensuring no residual impact remained there.

7.2.6 Protection of vegetation and combating deforestation

The correct selection of the location for infrastructure, the design of facilities and the application of the aforementioned preventive and corrective measures make it possible to prevent and reduce the impact on vegetation as much as possible, without causing a significant loss of forested areas and ensuring that the group's activities do not involve deforestation, and therefore, prevent an impact on biodiversity. This enables the Company to maintain a **commitment to net zero deforestation**, in terms of both its activities and its supply chain.

Given that forest fires are one of the greatest threats to forest preservation, it is worth noting the Company's intensive work in their prevention. In order to minimise the risk of fire associated with the presence of transmission grid facilities, strict compliance with rules regarding safety distances between flora and infrastructure is critical. Red Eléctrica ensures this compliance through the proper design and maintenance of the security corridor of overhead lines and of the perimeter areas around electricity sub-stations located in forested areas.

Despite applying best practices for avoidance and prevention, respecting small and slow-growing tree species, it is inevitable to remove species incompatible with safety, as well as highly flammable species or those contributing a high biomass rate. The objective of forest management is to reduce fire risk without forgetting sustainability and biodiversity protection.

In these circumstances, the Company compensates for the total number of trees removed through specific actions aimed at conserving native forests, in addition to those carried out under the Redeia Forest project, ongoing since 2009.

It is worth noting that in facilities commissioned by Red Eléctrica in 2023, **there was no impact on the trees.**

In 2023, 40,724 trees and shrubs (pines, chestnuts, oaks, birches, poplars, ash trees, hawthorns, and others) were planted over 47.8 ha in Lugo, Ourense, and Pontevedra as part of the Redeia Forest project and 8 ha in San Fernando de Henares (Madrid).

Regarding forest fire prevention, in addition to maintaining security corridors, the Company has strict protocols, as well as firefighting, training, and raising awareness resources for employees and contractors. In addition, active and continuous collaboration is maintained with the public administrations involved in forestry management, formalised through **collaboration agreements for the prevention and fight against forest fires**. In 2023, the Company monitored the agreements in force and promoted the start of research, training, and awareness-raising projects on the prevention and fight against forest fires linked to these agreements. No new agreements were signed. Currently, there are five agreements in effect while nine are in the process of renewal.

Notable actions in 2023 to protect vegetation and combat deforestation

Measures for the prevention of forest fires

- Procurement of computer equipment for the prevention, support, monitoring, and planning of forest fire suppression in Extremadura.
- Procurement of fire prevention and suppression equipment for the emergency services in Guipúzcoa,
- Navarre and La Palma.
- Preventive clearing in forest risk areas: elimination of gorse and dry heather (*Ulex ssp.* and *Erica ssp*.) in the mountains of Navarre (15 ha) and Vizcaya.

Training and awareness-raising activities

- Training and professional development for 15 firefighters from the Provincial Council of Álava and 105 technicians from the forest fire prevention and extinction measures team of the Forestry Service of the Provincial Council of Bizkaia.
- Training in educational centres and the design of materials for raising awareness of fire prevention methods in the Balearic Islands.
- Citizen awareness campaign 'Yo me enchufo a la prevención' (I am plugged into prevention) in Castilla and León. Creation of awareness-raising materials on prevention for the public, educational materials for fire-fighting crews, and the publication of the 'Castilla and León Forest Fire Organisation Manual' for documentation and reinforcement of training activities at the Castilla and León Fire Control Centre.
- 7th Technical Conference on Forest Fires in Castilla-La Mancha and presentation of the International Wildfire Awards.

Other relevant projects

- Agreement with the Polytechnic University of Valencia for modelling and mapping live fuel moisture in the Valencian Community. In 2023, work continued on validating the model and incorporating it into the classification of fire spread risk levels.

7.3 Savings of resources: water and paper

Water consumption[68]

	2021	2022	2023
Head office (m^3)	7,305	8,237	**8,662**
Head office (m^3/employee)[69]	6.84	7.41	**7.50**
Total work centres [70](m^3)	**17,045**	**21,153**	**21,917**

Withdrawal by source (%)	2021	2022	2023
Rainwater collection tanks[71]	0	0	**0**
Cisterns	2.68	2.47	**2.06**
Wells	16.20	14.34	**11.34**
Municipal water mains	**81.12**	**83.19**	**86.58**

Paper consumption (publications)

	2021	2022	2023
kg	4,192	5,290	**5,719**
kg/employee[72]	**2.14**	**2.64**	**2.80**

[68] In the case of water consumption in those months of 2023 for which actual data was not available at the closing date of this Statement, the value has been estimated.

[69] As of 2021, the calculation takes into account all personnel (employees, interns, temporary workers and collaborators – for a total of 1,068 people in 2021, 1,111 in 2022, and 1,155 in 2023) working in the head offices of the Moraleja and Albatros buildings. In previous years, only the head office building in the Moraleja was included.

[70] The data provided has a coverage of 100%, in terms of personnel (taking into account all personnel that work in the different work centres in Spain: group employees, interns and collaborators, as well as personnel contracted from temporary employment agencies).

[71] In some centres there are rainwater collection tanks for sanitary use, fire prevention, and irrigation. Collection tanks do not have mechanisms to account for stored water, so the percentage of rainwater use cannot be calculated.

[72] Includes RE and Redeia employees, interns, and collaborators, as well as personnel contracted from temporary employment agencies: 2,040 people.

	2021	2022	2023
kg[73]	1,100	809	**891**
% FSC[74]	0.00	0.00	**0.00**
% FSC 100% Recycled	0.00	100.00	**100.00**[75]
% FSC 60% Recycled	0.00	0.00	**0.00**
% FSC Mixed	100.00	0.00	**0.00**
% Ecological paper used in publications	**0**	**0**	**0**

7.4 Socio-economic scope

7.4.1 Protection of archaeological and ethnological heritage

The protection of archaeological and ethnological heritage is an important factor in the design and construction of Red Eléctrica facilities.

Before carrying out any earthworks, the Company carries out an archaeological survey of the land/terrain, whose intensity and scope depend on the probability that there is material of interest in the area. According to the results, the need for the continuous presence of an archaeologist during the works is determined and, if necessary, the preventive and corrective measures to be applied during the works are defined. These measures primarily consist of avoiding, protecting, and restoring certain elements of the cultural heritage present, although sometimes excavation is necessary for cataloguing and museum display.

In 2023, **archaeological supervision** was carried out in the construction **of 22 new lines** or for the adaptation of existing lines (88.8% of the adaptations were carried out with the continuous presence of an archaeologist during the earthworks phase, in the entirety of or in part of the route) **and in 5 sub-stations** or for enlargement works of existing sub-stations (90% were carried out with the continuous presence of an archaeologist during the earthworks).

In this regard, notable actions in 2023 include the cleaning, restoration, and enhancement of three World War II fortifications located in the town of La Oliva on the island of Fuerteventura (Canary Islands).

Additionally, paleontological findings and Civil War trenches were detected along the 400 kV Mezquita-Platea line.

The knowledge provided by the **corporate cartographic map** of the **ArqueoRED** project allows the Company to know the catalogued cultural heritage information throughout the national territory. This information is crucial for the management and maintenance work of the transmission grid installations. It also helps define necessary preventive measures in each case to avoid potential impacts on catalogued cultural heritage assets.

Moreover, Red Eléctrica actively collaborates with competent public administrations in cultural heritage conservation, developing projects, and promoting the signing of heritage collaboration agreements around its existing and planned installations.

In 2023, a GIS (Geographic Information System) of cultural heritage for the entire Castilla-La Mancha region was developed.

[73] Evolution of paper consumption in publications for the period 2021-2023.

[74] Ecological paper certified to Forest Stewardship Council standards.

[75] All publications have used exclusively FSC Recycled paper.

7.4.2 Electric and magnetic fields (EMFs)

Thanks to the criteria applied by Red Eléctrica in the design of its facilities, the levels of electric and magnetic fields (EMFs) stay below those recommended by the Council of the European Union (The Official Journal of the European Communities 1999/519/EC: establishes exposure limit values for the public in sites where they may remain for a period of time at 5 kV/m for electric fields and 100μT for magnetic fields). The main criteria applied are the following:

- Construction of double circuits and transposition of phases in lines.
- Increasing the height of towers, thus increasing the safety distances.
- Minimum distance of electricity lines from population nuclei and isolated houses.

In order to verify compliance with the recommendation, Red Eléctrica has a tool that uses specific line parameters to precisely calculate the maximum EMF levels that said facilities could generate, meaning that it is not necessary to carry out on-site measurements except when the values of the parameters necessary for the calculation are not available (as is the case of very old facilities for which a specific EMF measurement plan has already been implemented).

In 2023, this tool was used to estimate the field generated by the compacting of a 220 kV line (Mangraners-Begues double circuit) with another 400 kV line (Maials-Rubí), as requested in an Environmental Impact Statement (EIS).

During the same year, the height of tower 109 of the double circuit 400 kV José Cabrera-Loeches line was increased because, despite complying with EMF values, the Transport Consortium had constructed non-compliant bus stops due to their proximity to the conductor.

Red Eléctrica carried out one-off measurements at the request of interested parties. However, it did not happen in 2023.

Additionally, aware that electromagnetic fields are a topic of great interest in the areas where electrical installations are located, the Company addresses this issue with particular attention paid to main lines of action:

- Participation in national and international forums and working groups (ENTSO-e, CIGRE, and EPRI) and collaboration with the public administration (MITERD) and prestigious entities such as the Salvador Velayos Institute of Applied Magnetism. In this regard, it is worth highlighting the project launched in 2022, financed by Red Eléctrica and led by the Ministry of Health in which various scientific groups and Universities are participating to determine the distribution and intensity of extremely low frequency (ELF) magnetic fields in several geographical locations. Knowing the values to which the population in Spain is exposed in different environments (urban, residential, and rural) allows the degree of compliance with Recommendation 1999/519/EC to be verified and to have rigorous and recent data available to assess a possible legislative proposal to reduce the social controversy regarding electromagnetic fields. In 2023, the study was completed, and its conclusions were presented, highlighting that the usual values we are exposed to in an urban environment are similar to those found near electrical transmission installations.
- Information is conveyed to stakeholders, by means of:
  - The corporate website: *https://www.ree.es/es/sostenibilidad/medioambiente/campos-electricos-y-magneticos* for disseminating updates on scientific research in this regard.
  - In 2020, the publication on the effects of electromagnetic fields on human health was updated.
  - Responding to enquiries received through the Corporate DÍGAME (Tell me) Service

7.4.3 Noise pollution

On occasions, electricity substations can be an annoyance for the neighbours, due to the noise generated by some of its elements. Red Eléctrica worked on implementing the most effective measures for mitigating noise pollution.

In 2019, a noise analysis study was carried out on the 134 sub-stations that have power transformers onsite, using a combination of direct measurements and the use of predictive software, provided with data from the ACURED innovation project (2016-2018).

Following the noise analysis produced by the 134 sub-stations with power transformers, a programme of direct measurements was established in the 55 facilities with population in their vicinity, which was completed in 2022 with the measurement of 9 sub-stations.

Despite adjustments made to some transformers to reduce their noise emission levels, there are still four substations that exceed the desired limits for land designated for residential use. In 2022, acoustic imaging cameras were used to identify the specific sources of noise in each case in order to establish the corresponding action plan in 2023.

This plan involved starting the implementation of two acoustic screens and a silencer on the two main noise sources at the La Eliana sub-station (Valencia) and replacing the fans with more efficient ones in the San Jorge transformer (Balearic Islands). These tasks were completed in the first quarter of 2024, as well as tendering work at two other sub-stations: Can Barba (Catalonia) and Grijota (Castilla and León), to install the screens in 2024.

7.5 Circular economy

As part of the path towards a sustainable energy model, the Company is committed to the integration of the circular economy in the development of its activities. In this regard, since 2018, the group has been a member of the **Pact for a Circular Economy**.

In order to become a leading company in circular economy by 2030, Red Eléctrica has a **Circular Economy Roadmap** that establishes the objectives to be achieved and the actions to be carried out in order to progress towards their fulfilment. This means working to achieve 100% circular supplies, i.e., that the equipment and materials used are manufactured from recycled or reused materials and 100% resource recovery, which means reducing, reusing, recycling, and energy recovery of all waste generated, extending the useful life of materials and equipment and reducing water consumption as much as possible.

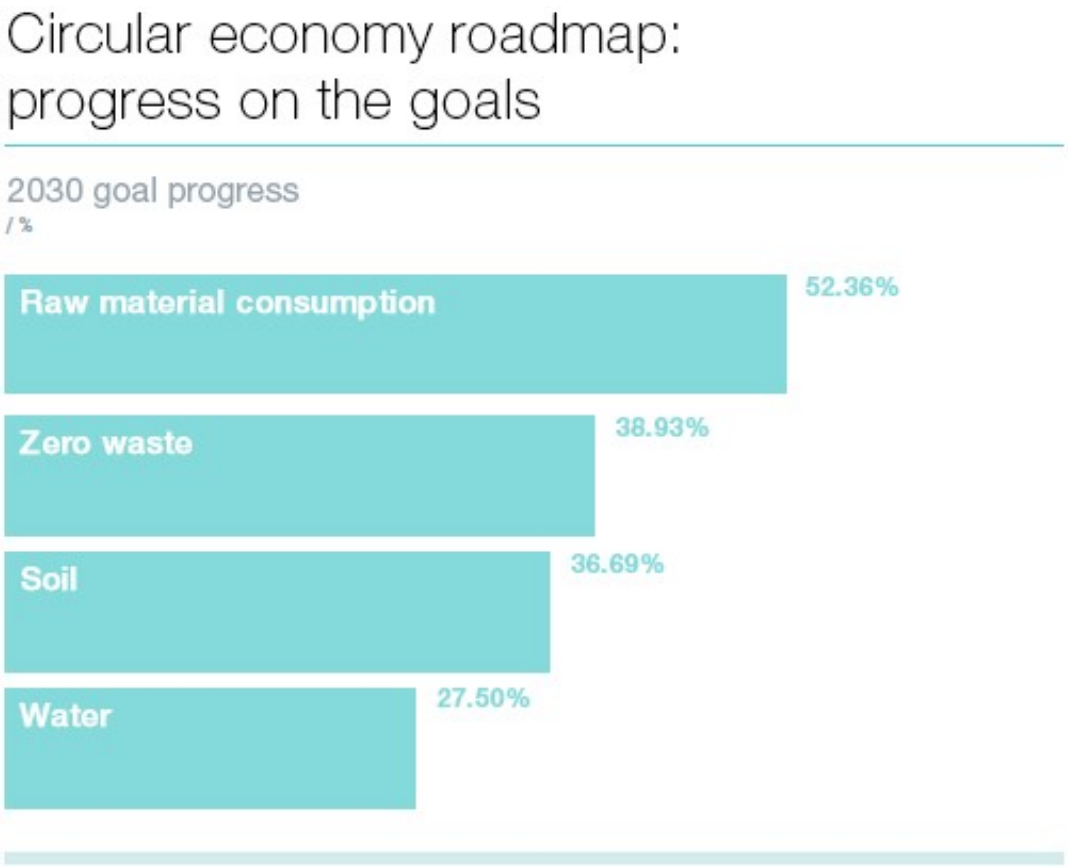
The most relevant dimensions are highlighted below:

OBJECTIVES OF THE CIRCULAR ECONOMY ROADMAP

CONSUMPTION OF RAW MATERIALS	
2025	**2030**
• 10 supplies with the greatest impact on the transmission grid with circular, climate change, security, diversity, and biodiversity criteria. • 0% single-use plastics. • 100% eco-friendly packaging, recycled, recyclable, and reusable packaging in the supply of equipment and materials.	• Creation of a network of circular supplies: 25 supplies with the greatest impact on the transmission grid with circular, climate change, security, diversity, and biodiversity criteria. • Identification of the environmental impacts of equipment and materials from their origin (LCA of supplies). • Sustainable transformers (use of vegetable esters instead of mineral oils).
ZERO WASTE	
2025	**2030**
• 0% of Red Eléctrica's waste to landfill. • Implementation of the SF_6 reuse procedure. • Reduction of hazardous land waste with the strategy of zero accidents and zero contaminated sites.	• 0% waste to landfill. • 100% SF_6 waste reduction. • 100% reduction of soil waste.
SOILS	
2025	**2030**
• Zero serious environmental accidents at the facilities. • Zero contaminated sites. • Identification of alternatives to plant protection products.	• Action plan for the prevention of hydrocarbon leaks and mitigation of their impacts. • Decontamination of 100% of the soils affected by accidental hydrocarbon spills. • 100% reduction in the use of phytosanitary products in substations.

WATER	
2025	2030
• Reduction of water consumption in all Red Eléctrica's work centres to 6.5 m³/employee/year. • 100% of the water from the Salto de Chira construction process to be reused.	• Reduction of water consumption in all workplaces to 6.5 m³/employee/year.

Since its launch in 2020, Redeia has achieved 38.9% overall progress in its Road Map for the Circular Economy 2030.



7.5.1 Zero waste to landfill

The approach to waste management focuses on proper management and eliminating and/or reducing its production whenever possible.

The generation of waste in the Company is related to the number of construction and maintenance activities carried out each year, so it is difficult to predict the evolution of the quantities produced. Furthermore, the development of these activities is essential for the security of the electricity system or facilities and, in many cases, is also linked to the reduction of environmental risks, which is why they cannot be limited. Generally, Redeia always analyses and attempts to restructure and redesign all its operations to eliminate and/or reduce waste from the very beginning. However, it is often not possible to reduce annual generation, especially if the volume of maintenance operations, renovations, and improvements to installations increases during the year. Residual waste is also generated in the buildings where activities are conducted.

The group's objectives, included in the **Zero Waste Programme**, are focused on achieving management that completely eliminates waste destined for landfills, reducing certain types of waste, including SF_6 waste and contaminated soils, and promoting alternative and innovative treatments. In order to find economically and environmentally viable technological solutions, it is necessary to have a thorough knowledge of the nature and sources of waste generation, aspects on which the Company has been working since 2018 through this programme.

Redeia has had an **Action Plan** since 2021 to reduce and recover 100% of waste from all group companies by 2030. Its implementation in 2023 made it possible to increase the amount of waste (hazardous and non-hazardous) whose final destination was recycling to 98.4% (this generic category includes reuse, recycling, composting, anaerobic digestion, and regeneration treatments).

The Company also allocates financial resources to minimise waste through R&D&I projects. For example, sustainable treatment methods for soils and groundwater affected by dielectric oils or hydrocarbons, avoiding sending contaminated soils to landfills.

In 2023, a campaign was conducted to raise awareness among the responsible units, through monographs and specific presentations on waste generation and management, conveying to employees the importance of reducing waste from the source and ensuring proper management and final disposal. This training will continue throughout 2024.

Redeia also focuses on its supply chain, requesting in its tenders that the equipment and materials used are recycled, reused, or recovered at the end of their useful lives.

7.5.2 Waste management in 2023

Regarding the generation of waste, most of these do not follow a fixed pattern of behaviour, which is largely dependent on the number of construction and maintenance activities carried out throughout the year. Therefore, the interpretation of the data obtained and the comparison with previous years presents difficulties.

The waste generated by Red Eléctrica represents 96.1% of the total waste generated by the group.

There was an increase of 2,853 tons of hazardous and non-hazardous waste (1,530 tons managed in 2022 and 4,383 in 2023). The waste generation at Red Eléctrica is associated with maintenance and construction activities required to keep the assets in optimal condition. The nature of these activities makes it very difficult to predict the amounts of waste produced since they are linked to the number and type of operations carried out each year. In other words, it is not possible to reduce waste without cutting down the necessary maintenance tasks and facility adaptations.

In 2023, the total amount of hazardous waste generated by Red Eléctrica increased significantly by 3,077 tons compared to 2022. The increase is due to the return to normal/regular maintenance actions and renovation and improvement projects, thus reflecting waste generation figures similar to those registered in the pre-pandemic period (2019).

Regarding the final destinations of waste, it is also worth mentioning the reduction in 2023 of the percentage of hazardous waste sent for disposal compared to 2022. It dropped from 6.79% in 2022 to 1.01% in 2023, while the percentage of non-hazardous waste disposal decreased from 7.62% in 2022 to 2.51% in 2023. This significant reduction is due to the implementation of the 'Zero waste to landfill' project, which includes measures such as incorporating recycling and recovery requirements into waste management and service contracts and installing composters for organic waste at four work centres.

In the case of hazardous waste, meaning waste that, due to current regulations, must be taken to landfill sites (PCB waste), were excluded. Also excluded from the target are asbestos waste, soil contaminated with hazardous substances, and hazardous absorbent materials in those locations where there is no optimal waste management.

The final destination of waste in 2023 was similar to that of the previous year, with increases in the percentage of hazardous waste destined for recycling (3.84%) and regeneration (5.41%) compared to 2022.

The fall in the percentage destined for elimination is linked to the implementation of some of the measures under the 'Zero-waste to landfill' project.

Detailed below is the data regarding waste management and its evolution over the last three years:

Non-hazardous waste[76]	2021	2022	2023
Total (t)	520.6	750.6	**525.9**

Hazardous waste	2021	2022	2023
Total (t)	576.2	780.1	**3,857.7**

Total waste Non-hazardous + hazardous	2021	2022	2023
Total (t)	1,096.8	1,530.7	**4,383.6**

[76] Vegetable waste is not included as it cannot be quantified: most of it is incorporated into the land, or delivered back to the landowners, as this is the most appropriate form of management.

- Total amount (tonnes) managed in 2023 by type of management

Waste management method (%)[77]	Non-hazardous (%)	Hazardous (%)
Reuse	0.00	0.00
Recycling, Composting, Anaerobic Digestion	95.53	90.15
Regeneration	1.96	8.84
Energy recovery (Waste-to-Energy)	0.00	0.00
Elimination (any method)	2.51	1.01

The Annex of this Statement provides more specific data on waste management and its final destination over the last three years.

[77] The management of the waste corresponds to that contained in the legal documentation of the same.

7.5.3 Reduction in the consumption of raw materials

In order to reduce the consumption of raw materials and prioritise the use of recycled, recyclable, and reusable products, it is necessary to make progress on issues related to establishing **eco-friendly designs** and the consideration of environmental impacts throughout the life cycle of equipment and materials. This progress will only be possible through advances in the relationships with suppliers and through collaborations with other key actors while promoting innovation and technological development.

In this regard, it is worth highlighting the Company's efforts along with its supply chain to identify the impacts of equipment and materials from their manufacturing process using an **Analysis of the Life Cycle** developed in 2022, aimed at promoting eco-design and innovation in its equipment.

This methodology, developed with the main suppliers, assesses aspects such as the use of recycled and recyclable materials, their origin, lifespan, repairability, carbon footprint, and water footprint, enabling quantification of the main environmental impacts and facilitating decision-making aimed at the acquisition of more efficient and sustainable supplies.

In 2023, requirements were successfully implemented in four critical supplies, and a roadmap was developed to implement sustainability requirements in ten critical supplies by 2025, thus advancing the group’s goal of having a circular supply network by 2030.

7.5.4 Sustainable management of soil/earth affected by oil and fuel spills

The electricity transmission activity performed by Red Eléctrica is carried out using equipment containing significant amounts of dielectric oil, including power machines (transformers and reactors), current/voltage/capacitor transformers and Oil-Filled cables. Despite the design of facilities, established measures and preventive maintenance work, it is difficult to completely eliminate the risk of incidents regarding oil leaks or spills.

When an oil leak or spill occurs, both the soil and groundwater can be affected, and it is necessary to act quickly and effectively in order to help reduce the impact as much as possible and to correct its impact, and to look for those actions that will ensure the sustainable recovery of the affected area.

Red Eléctrica has set, within the scope of the Circular Economy Roadmap, the objective that 100% of the soil affected by leaks and spills that occur in the facilities in 2030 will be treated in some way, in order to prevent affected soils being sent to landfills and, as such, contribute to the group's ambition of becoming a leading company in the circular economy by 2030.

For this reason, an innovation project has been developed, included within the scope of the framework agreement signed between Red Eléctrica, TAUW IBERIA, and the University of Barcelona. Its objective is to provide new specific treatment methods for the soils affected by the pollutants most used in Red Eléctrica's facilities, which allow them to be cleaned up firstly where the leak occurred *in situ*, or otherwise, it is managed on site, and this replaces the alternatives used in the past. The alternatives used to date, including excavation and management as waste in landfill sites, will be replaced in order to obtain a greater degree of sustainability from an environmental and economic point of view. This will allow the sustainable management of soils affected by oils and fuels.

Tests have been carried out with different types of mineral oil, as this can vary depending on the facilities and their application (insulating/cooling oils). The priority treatment tested was that of bioremediation, as a green technology, which in addition to detoxifying the soil, restores its ecological properties (soil as natural capital), by developing microbial consortiums whose specific degrading capacity is optimum for the oils used by Red Eléctrica in its equipment, with a view to possible future uses in real conditions.

In addition, alternative tests have also been carried out for the application of surfactants to increase oil extraction rates in recovery actions based on pumping out and treating the product and the affected groundwater, as well as chemical oxidation tests for the reduction/elimination of contaminants by injecting oxidants.

After the analyses, the applicability of the techniques tested (biodegradation, application of surfactants, and chemical oxidation) for the remediation of sites affected by the specific oils used has been confirmed. The tested techniques can be applied both *in situ* in the field and on site, i.e., excavated and treated directly in the location.

In 2023, a pilot test for the recovery and sustainable treatment of soil *in situ* at a facility affected by an accidental spill began. The pilot test will conclude in 2024, and its effectiveness will be evaluated based on the results obtained.

7.6 Prevention of contamination of soil and/or groundwater

Red Eléctrica includes among its environmental risks the risk of contamination of soil and/or groundwater from leaks or spills of oils, fuels, and hazardous substances.

The activity of Red Eléctrica within the context of Royal Decree 9/2005 and through Order PRA/1080/2017, of 14 January, is set out in Annex I as 'Potentially soil contaminating activity,' encompassed within the National Classification of Economic Activities (CNAE-2009: 35.12 and 35.13) with the following scope of activity: 'Electricity sub-stations and power transformers or reactors.'

Red Eléctrica has put in place numerous preventive and corrective measures to prevent contamination of soil and groundwater by leaks or spills of oils, fuels, and substances.

Red Eléctrica continues to work on the soil concept at various levels:

- Purchase of new land or the execution of works to be carried out on existing facilities (sub-stations) or adjacent areas

Prior to the formalisation of the purchase of new land for the construction of a new sub-station, and in conjunction with the geotechnical studies, a soil and groundwater characterisation study is carried out in order to ascertain the state of the soil and groundwater and to be able to detect any possible impacts beforehand. It has also been established that whenever a geotechnical study is carried out on an existing facility, it should be accompanied by soil and/or water sampling in order to find out, easily and at a relatively low cost, the possible state of the land on which the sub-station or possible extension areas are located. The aim is to confirm or rule out the presence of contaminants in the subsoil, identify potential sources of contamination, and assess the possibility of anthropogenic effects resulting from activities that may have been carried out on the site previously.

40 characterisation reports were drawn up in 2023. None of said reports recorded any pollutant values that pose an unacceptable risk to health.

- Submission of preliminary soil reports (PSR/SR) and request for information/actions based on said reports

Since 2005, in accordance with the provisions set out in the legislation, preliminary soil reports (PSRs) in the case of new sub-stations and mandatory periodic updates (situation reports or SRs) have been presented with the frequency established by the various autonomous communities that cover different cases for which they are necessary.

In 2023, five PSR/SR of transmission grid sub-stations were submitted (Xove, Tias, Robla, Lomba, Jinamar, and Montearenas sub-stations).

- Preventive and mitigating measures in the event of leaks or spills

The following table lists the specific soil characterisations carried out in 2023:

- ✓ Gran Tarajal sub-station: the diesel tank of a truck broke during the work. Excavation and a soil report were drafted.
- ✓ Vic sub-station: soil sampling was conducted as part of the follow-up programme for an old case, whose favourable results finally closed that case.

Since 2020, The Company have been offering the **Emergency Intervention Service** for land-based environments that allows a prompt and effective response to accidental spillages and the urgent recovery of any potential environmental damage at the site of the incident, thus minimising possible risks and damage to the environment. Additionally, annual spill drills and specific training in this area are conducted.

Furthermore, after evaluating the level of environmental risk from the perspective of soil impact at its facilities (sub-stations and oil-filled cables) and identifying environmental liabilities, the organisation has implemented several measures to reduce, control, or eliminate the potential identified risks.

Notable measures include:

- Characterising soil and groundwater at existing and new sub-stations to identify incidents prior to Red Eléctrica's activities.
- In 2023, spill drills for power transformers continued at the Son Orlandis, Viladecans, and Vitoria sub-stations, along with training sessions at several work centres.

- Intensification of inspections at high-risk facilities
- Blue Filtering Project: installation of hydrocarbon separator filters at the outlet of oil collection tanks. This additional containment measure guarantees the quality of the discharge and will be applied in both new and existing sub-stations. In relation to the latter, 32 new separators were installed (16 new sub-stations and 16 existing sub-stations) during 2023.
- Conducting tests with different methodologies for extracting insulating fluid from OF cables to eliminate environmental risks once these cables are out of service. Different pilot projects were carried out in 2023 to eliminate the environmental risk of oil leaks.

- Actions related to soil/groundwater as a result of accidents occurred in previous years

  - **Environmental recovery after the Cala'n Bosch environmental accident**

In January 2016, an incident in the Menorca-Majorca connection on the stretch of land in Menorca produced a leak through a hole in the lead shield of the cable sheath. REE followed the procedure for the voluntary environmental recovery of soil and groundwater. The extent of the impact (according to the latest estimated official data) was between 1,200-1,600 m^2 of soil, while the area of groundwater affected was estimated at about 2,200-2,600 m^2. The fault was located in an urban area near the sea where residential and tourist activities usually take place. Since it began operation in 2016, the remedial system put in place (treatment plant and the use of skimmers) has extracted a total of 37,201 litres of free phase oil.

The pumping of groundwater and free phase oil, in addition to the extraction process for the separation and storage of free phase oil, entails the treatment of the water for its subsequent discharge (ensuring a discharge with no more than 600 µg/l [0.6 ppm]). A total of 20,301 m^3 of groundwater has been treated. On the site there is still free phase oil of a few millimetres thick in the site's piezometers (residual phase) and there is also oil in a water-soluble state.

The General Directorate for Environmental Education, Environmental Quality and Waste approved the Cala'n Bosch Recovery Plan in 2022. This plan incorporates the decontamination techniques to be used and the definitive pollutant reduction targets.

In 2023, a recovery system was installed, while Phase 1 of surfactant injection and product recovery was completed with satisfactory results, meeting the defined objectives. Phase 2 of the recovery project is underway.

7.7 Stakeholder groups

The aim of Redeia's Stakeholder Management Model is to achieve a relationship based on trust with a focus on the creation of shared value.

The design of this Model has taken into account the indications of the main reference norms and standards in stakeholder management, such as AA1000, ISO 26000, IQNet SR10, and the Global Reporting Initiative (GRI). Its goal is to ensure that the Company analyses the main impacts on its stakeholders derived from its business activities, as well as the influence that these stakeholders have, or could have, on the Company. In this way, Redeia focuses its relationship on the creation of shared value, strengthening the positive impacts and quickly identifying the negative impacts that could affect the relationship, in order to minimise them.

In 2020, Redeia initiated the review of the group's Stakeholder Management Model. In 2022, the update affected the electrical business in Spain (Red Eléctrica), while in 2023 work was done to implement the model in different entities.

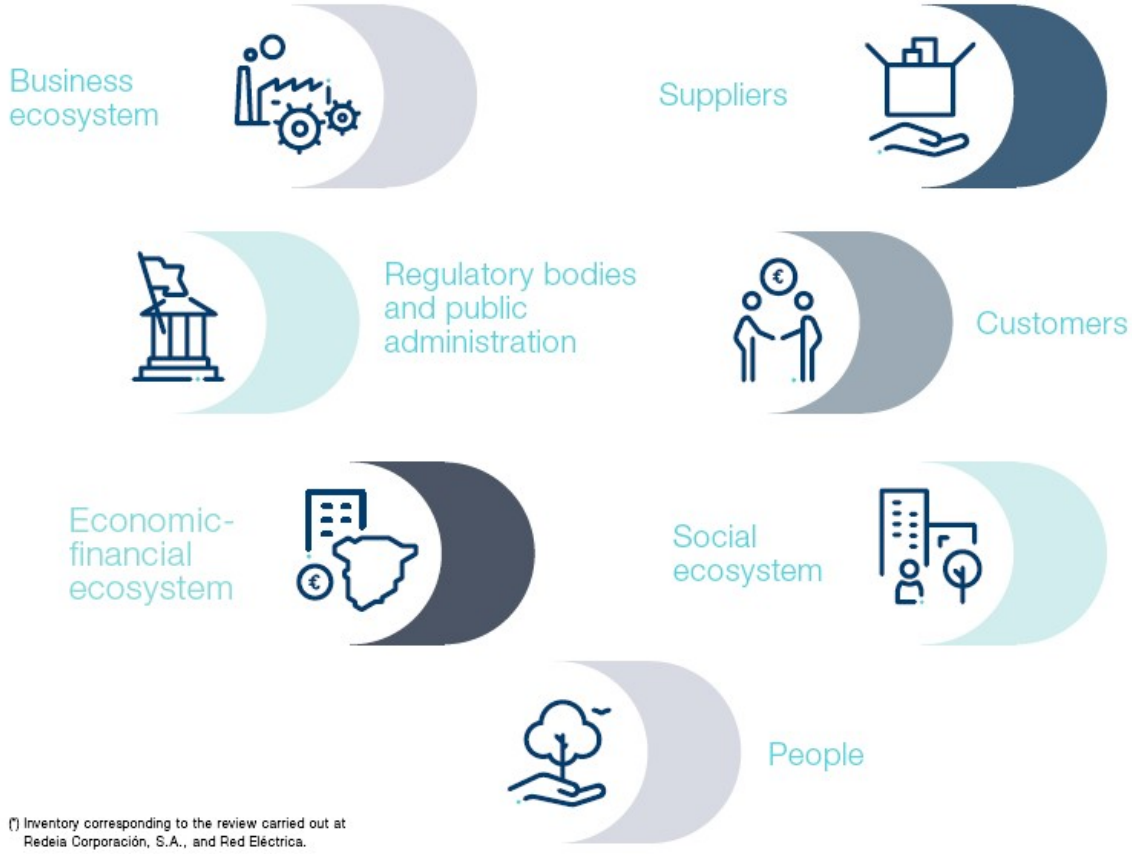
This model encompasses the following phases:

- Phase 1. Identify and segment: identify the groups that constitute stakeholders, based on the analysis of the interrelationships between the Company's processes and activities with the socio-economic environment, and segment them according to the reason why they are of interest.
- Phase 2. Prioritise stakeholders: their relevance is determined based on the three prioritisation factors: Impact of the Company on the stakeholder, influence of the stakeholder on the Company, and tension. The result is a prioritised inventory.
- Phase 3. Define relationship framework (relationship levels, channels, commitments): the definition and deployment of the optimal stakeholder relationship framework will depend, firstly, on the commitments assumed by the Company with the stakeholder and, furthermore, on its level of priority and the level of engagement considered appropriate.
- Phase 4. Review, establish, and define improvements to the relationship framework: each entity and stakeholder group establishes a framework for relationships. The aim is to promote dialogue with stakeholders and generate improvements in response to the reason for the relationship, relevant issues, and their needs and expectations, maximising positive impacts and minimising negative impacts. Redeia transfers its sustainability commitment to all business areas and organisational levels to ensure the creation of value for all our stakeholders.
- Phase 5. Evaluate stakeholder management: the evaluation of stakeholder management is based on the systematic and periodic identification of stakeholder requirements and expectations through different methodologies based on the framework of the relationship with each stakeholder group. From this assessment, action plans emerge, aimed at responding to the relevant issues, and to the needs and expectations identified.
- Phase 6. Evaluate and review the management model: periodic reviews of the stakeholder management model consider relevant changes in the Company's external or internal context, thus ensuring that the model is relevant to business reality and useful as a management tool.

The stakeholder inventory has been updated[78], which is now composed of the following categories: regulatory bodies and the public administration, the financial and economic ecosystem, the business ecosystem, suppliers, clients, employees, and the social ecosystem.

[78] Inventory corresponding to the update carried out in Red Eléctrica Corporación, S.A. and Red Eléctrica de España, S.A.U.

Stakeholder groups



- Stakeholders of an environmental nature

In 2023, environmental stakeholders were identified, and a relational Action Plan was designed. Key action areas and tasks to be developed over the coming years were established to engage with identified key stakeholders.

The main lines of action to be addressed are:

- Environmental studies: investment projects
- Marine environment
- Birdlife
- Fire
- Electromagnetic fields
- Institutional

The main actions involved are:

- Visits to facilities
    - CECOEL/CECRE
    - Hispasat
    - Campus
    - Facilities

- Training sessions

- Institutional meetings
  - Independent meetings
  - Working lunch and breakfast
  - Visits to the area
  - Acts and events

- Collaborations and projects
  - Countervailing measures
  - Environmental projects
  - Technical presentations
  - Attendance and participation in conferences
  - Agreements

Considering actions taken in 2023, there are 171 projected actions within this Plan, with the main objectives during 2023-2024 being actions related to the processing of files and during 2024-2025 actions related to the execution of works.

7.7.1 Management of enquiries and claims

The Dígame service has guaranteed, since 2008, the professional management of enquiries related to Red Eléctrica's services regarding the operation of the national electricity system and the management of the transmission grid submitted by external stakeholders through the group's various communication channels available (phone, e-mail, online web form, and post or registered fax). This service is staffed by personnel from the Juan XXIII Roncalli Foundation, a non-profit organisation that facilitates the professional integration of diverse-ability people.

We monitor and attend to all enquiries and claims of an environmental nature which are sent to us by interested parties. Enquiries submitted are classified either by their nature (includes complaints, queries, suggestions, requests for information, and recognition) or as claims.

In 2023, a total of **30** enquiries regarding environmental issues were received (46 in 2022), 5 of them were classified as applicable claims.

The areas addressed by stakeholders towards Red Eléctrica in the last three years include:

	Evolution of enquiries[79]			Evolution of applicable claims[80]		
	2021	2022	2023	2021	2022	2023
Birdlife	6	9	3	1	0	0
Electromagnetic fields	9	9	4	1	0	0
Consumption/Energy efficiency	0	0	0	0	0	0
Environmental investment and expenditure	0	0	0	0	0	0
Emissions/Climate change	1	0	0	0	0	0
Impact on the landscape	1	1	2	0	0	0
Facilities	1	0	2	0	0	0
General environmental information	1	0	0	0	0	0
Waste	0	2	0	0	1	0
Noise	12	12	13	1	6	3
Environmental management system	1	1	0	0	0	0
Flora/Vegetation	15	12	6	6	0	2
Total	47	46	**30**	9	7	**5**

Notable requests received by different organisational units due to impacts on vegetation, noise, and electromagnetic fields.

Only one claim registered in 2023 remains open. DIRE2368743, concerning the noise and visual impact of the Bunyola-Inca power line.

[79] The data shown includes all requests received (enquiries + claims). All enquiries that are not classified as a claim are classified in the same group called 'Enquiry.' The different types of enquiries are: complaint, query, suggestion, request for information, and recognition.

[80] The cases that may involve sanctions are detailed in another section of this Environmental Statement. It includes only claims classified as applicable according to procedure IQ002.

7.7.2 Supply chain

Red Eléctrica considers its suppliers as an essential link in the execution of their activities and, therefore, its commitment to the environment extends to each and every one of them.

Red Eléctrica voluntarily participates in various initiatives and professional associations that strengthen the extension of its commitment to sustainability to suppliers, among which it is worth highlighting the commitment to the principles of the United Nations Global Compact.

Our **Supplier Code of Conduct**, derived from Red Eléctrica's Code of Ethics and Conduct, establishes the minimum ethical, social, and environmental requirements that every supplier must accept and adhere to in order to work with Red Eléctrica, committing to extend these requirements to their own supply chain.

In 2023, a review of the code was conducted. Specifically, the following new requirements were added: regarding its relationship with employees and contractors, no workers should suffer any form of harassment and employees should be provided with training in physical and mental health. As for its relationship with the environment, there is a focus on efficient resource use, promoting energy savings, and implementing preventive measures to avoid or minimise deforestation and soil and environmental degradation.

The Company requires a **documented or third-party-certified environmental management system** from 100% of suppliers providing services or products likely to affect the environment.

In addition to the total number of suppliers registered with Repro, **65.8**% (433) have a management system certified by a third party (ISO 14001 or EMAS).

One of Red Eléctrica's priorities has been to establish **criteria** that allow for the integration of **sustainability requirements to be considered in procurement decision-making.**

Redeia aims to incorporate sustainability criteria into at least ten supplies by 2025 and 25 by 2030

The Company continues to work on all initiatives outlined in its **Road Map for the Circular Economy** 2030. In order to reduce the consumption of raw materials and prioritise the use of recycled, recyclable or reusable products, it is necessary to make progress on issues related to establishing eco-friendly designs and the consideration of environmental impacts throughout the life cycle of equipment and materials. This progress will only be possible through advances in the relations with suppliers and through collaborations with other key actors while promoting innovation and technological development.

In 2022, a pilot project was carried out to identify potential criteria/requirements in terms of circularity and climate change to be included in tenders, for which information was requested in order to ascertain the degree of maturity of suppliers and to be able to analyse the results obtained and the criteria to be included in future purchasing processes. Sustainable purchasing criteria have been seamlessly integrated into the General Conditions of Contract, encompassing aspects such as circularity and carbon footprint. These criteria have been incorporated into the General Conditions of Contract and bidding documents for the procurement of large equipment (such as power machines, switch disconnectors, and transformers) to ensure their inclusion in purchasing strategies. By factoring in these criteria during procurement decisions, the aim is to promote the acquisition of more sustainable and efficient services, equipment, and materials, thereby progressing towards the **Redeia's Circular Economy Roadmap's** key objective of establishing a circular procurement network by 2030.

The development of a **methodology for life cycle analysis (LCA)** and the preparation of a matrix for assessing the LCA of supplies for taking three relevant supplies as a reference was also carried out. This methodology, developed with the main suppliers, assesses aspects such as the use of recycled and recy-

clable materials, their origin, carbon footprint and water footprint, enabling quantification of the main environmental impacts and facilitating decision-making aimed at the acquisition of more efficient and sustainable supplies and, therefore, progress towards the group's objective of having a circular procurement network by 2030.

Additionally, equipment and materials that reach the end of their useful life in the Company are dealt with as a priority with a focus on sustainable recovery, with the aim of them being reused. This type of initiative, as opposed to waste management scenarios, is a substantial improvement.

In the **fight against climate change**, in 2023, Red Eléctrica continued to carry out its **collaboration programme** with its suppliers. The actions included in the programme are aimed at making progress in meeting the targets that Redeia has set itself regarding Scope 3 emissions:

After completing its first phase (2019-2021), in which 35% of participating suppliers improved their climate performance, a second stage began in 2022. During this period, 26 suppliers, representing over 40% of supply chain emissions, were contacted and agreed to participate.
The main goal is to promote the fact that suppliers accounting for 2/3 of the supply chain emissions (Scope 3) have SBTi-approved. To this end, besides identifying and promoting common emission reduction initiatives and projects as well as encouraging suppliers to achieve these objectives, it is crucial to improve the collection of information for calculating emissions.

The main **risks** are **dealt with through the management systems** in place and via **regular audits**. Afterwards, recommendations and improvement areas are identified, analysed, and implemented with a view to continually improving processes. In the case of identification of a high impact, the Company can establish an action plan with the supplier, closely monitoring its implementation and reserving the right to take action if necessary.

The identification and prioritisation of risks and impacts of the supply chain have allowed the Company to establish adequate controls to minimise them. In this regard, for each of the risks identified, the Company works on the qualification, monitoring, training, and development of suppliers.

The Company has identified the impacts and effects on sustainability (ethics, occupational health & safety, and the environment) associated with each of the incidents managed in order to have more information and the ability to gauge this type of incident.

It is worth noting that, for the contracting of some services, the requirements, in terms of environmental training and specifications linked to the execution of the works, are part of the contractual documentation. For activities with the greatest potential impact, such as construction, enlargement, refurbishment of facilities, and some maintenance activities, part of the payment of the contracted work is conditional on the result of the relevant environmental certification process, which implies a thorough monitoring of the established environmental requirements.

Lastly, in 2021, a new supplier **evaluation model regarding sustainability, incorporating an updated ESG scoring system was introduced.** This model revolves around three core pillars of sustainability, represented by the acronym ESG (Environmental, Social, and Governance). The scoring process entails a comprehensive 58-point questionnaire, some of which will require the mandatory submission of supporting documentation or evidence, which will enable suppliers to be evaluated in terms of sustainability. This model will enable the identification of a supplier's degree of maturity in ESG aspects, as well as a comparison with the average obtained by suppliers belonging to the Repro community.

Within the framework of the annual social audit plan for suppliers with ESG risk for Redeia, 16 audits were conducted on suppliers with defined ESG risks during 2023. 61.5% of suppliers within the ESG audit plan were audited. The plan will continue the next year.

7.7.3 Internal training and education

Red Eléctrica considers environmental training as a strategic line to form a team which is increasingly more aware of environmental protection. The training given is beyond merely a professional level; its aim is also to contribute to improving environmental habits in both the daily work and family life of each employee.

The percentage of staff of Red Eléctrica who received specialised environmental training during 2023 was **19.9%** (compared to 15.8% in 2020), corresponding to 341 people and a total of 1,033 hours of training (compared to 3,840 in 2022).

Training represents **1.6%** of the total training provided in 2023.

7.7.4 Stakeholder relations

Participation in working groups

Working Groups	Organiser
WG C3-9 (A) Sustainable Corridor management	CIGRE (International Council on Large Electric Systems)
WG C3.12: Methodologies for Greenhouse gas inventory and reporting for electricity transmission and distribution companies	
WG C3.16: Interaction between electricity infrastructure and wildlife	
WG C3.17 Interaction between wildlife and emerging renewable energy sources and associated Insulated Cables	
WG C3.19 Responsible management of the Electric and Magnetic Fields	
WG C3.20 Sustainable Development Goals in the Power Sector	
WG C3.22 Vegetation management in sub-stations	
WG C3.23 Eco-design methods for TSOs/DSOs under environmental transition	
JWG B1-C3.85 Environmental impact of decommissioning underground and submarine cables	
CIGRE: Technical Council (Chairpersonship SC3 - Chair of the Environmental Study Committee)	
Strategic Advisory Group (SAG-C3)	
National CIGRE committee (Environment committee member)	
Environment Community. Committee member and participation in WGs	AEC (Spanish Association for Quality)
WG Assets Implementation and Management (AIM), RDIC WG-1 (various SF_6 topics)	ENTSO-E
Working Group: SF_6: Common position, emissions, and alternatives gases in HV equipment	ESAM
Whitepaper on reduction of GHG emissions	CEOS Group
Biodiversity Management Observatory Consultation Committee Energy Efficiency Observatory Sustainable Mobility Observatory	CES (Excellence in Sustainability Club)
Spanish Green Growth Group. Various working groups: Natural Capital WG, Climate Policies WG	Spanish Green Growth Group
Climate Change Cluster and Circular Economy Action Working Group	Forética
Natural Capital and Energy Working Group of the Spanish Energy Sector	Natural Capital Factory
Workshop for the analysis and renewal of the corporate commitment for a new IEEB (Spanish Business and Biodiversity Initiative).	Biodiversity Foundation
ISO Committee. CTN 328 'Biodiversity'	UNE

7.7.5 Communication and dissemination of environmental information

The main channels of communication Red Eléctrica has for stakeholders regarding information pertinent to the environmental performance of the organisation are the following:

- Corporate reports. Red Eléctrica makes a significant effort to publish and disseminate publications as a key tool for communication with its various stakeholders. Among these reports, the **Sustainability Report** stands out as the main channel to transmit to the stakeholders the Company's commitments to sustainability and the activities carried out in this area. The Sustainability Report is verified externally in relation to the ISAE3000 standard in order to ensure the reliability of the information, as well as its adaptation to international reporting standards.
- The **EMAS Environmental Statement** through which information is provided regarding the environmental impact and behaviour of the organisation in addition to data regarding the continuous improvement in the field of environmental performance within the organisation and this is verified externally in relation to the European EMAS Regulation.

External communication

The corporate website is a communication tool that is developed under criteria of transparency and continuous improvement. The following sections should be highlighted in the environment section of Red Eléctrica's website *https://www.ree.es/es*:

- The project map includes, among others: Red Eléctrica Forest and Pastoreo en Red: *https://www.ree.es/es/sostenibilidad/proyectos-destacados*
- The section and subsections related to energy transition and climate change: *https://www.ree.es/es/sostenibilidad/descarbonizacion-de-la-economia/transicion-energetica-y-cambio-climatico*
- The section dedicated to electromagnetic fields: *https://www.ree.es/es/sostenibilidad/medioambiente/campos-electricos-y-magneticos*

In 2023, the total number of users who consulted the environment section of the corporate website was 17,875 (down 11.5% compared to 2022 (19,924) with a total of 26,218 pages checked, which represents a decrease of 3.4% compared to the previous year. *(www.ree.es).*

Additionally, a total of 24 press releases with environmental content and 53 environmental news related to the Company were written and published on the corporate website, and 61 articles through the 'red 2030' blog.

Internal communication

The Company has a corporate intranet called NuestraRed, for which data is available regarding the impact on internal environmental communication:

- News of an environmental nature (includes environmental management, biodiversity, climate change, energy efficiency, sustainability, and sustainable mobility) published in NuestraRED:
- 50 news items published in the 'Carousel' (compared to 37 published in 2022).

7.8 Innovation

In 2023, expenditure on innovation of an environmental nature increased to €24.9 million. With the collaboration of all the areas involved, the following innovation projects stand out from a sustainability and environmental point of view (some have already been mentioned in other sections of this report):

Projects of an environmental nature	
CICA Project	New design of insulating braces to reduce the footprint of high-voltage lines, cutting down easements.
PLATEA RENOVABLE Project	Use of an auxiliary hybrid autonomous power system based on photovoltaic technology and batteries, enabling a sub-station—the Platea sub-station—to have a more sustainable auxiliary power supply.
MISTRAL Project	Improved sensor technology for submarine cables using fibre optics.
met4DLR Project	Development of new dynamic line rating prediction models integrating thermal ampacity models directly into the prediction algorithm, improving efficiency.
PRODINT	A system developed by Red Eléctrica for early detection of forest fires that uses the towers of the transmission lines and IoT sensors that capture fire radiation and automatically send warnings.
Bseed WATCH®	Bseed WATCH® is a comprehensive forest fire risk management tool capable of calculating the risk of fire and its destructive potential up to 10 days in advance. It also has early detection systems, thanks to its temperature, CO and CO2 sensors, which alert the citizens of the area and local emergency authorities within seconds. In the event of a fire, it provides high-quality information on weather conditions in the area, the location, and progress of the fire in real-time and control of evacuation routes, which is freely available to the population and those responsible for extinguishing the fire.

8 Environmental risks

Red Eléctrica has a comprehensive risk management system in place in order to facilitate compliance with the group's strategies and objectives, ensuring that the risks that could affect them are identified, analysed, assessed, managed, and controlled systematically, with uniform criteria and within the level of acceptable risk approved by the Board of Directors.

The management system is implemented in accordance with the ISO 31000 standard on risk management principles and guidelines and is of a comprehensive and ongoing nature, with its management being consolidated per business unit, subsidiary and all support areas at corporate level.

Additionally, the Company has a Comprehensive Risk Management Policy (revised and updated in 2021) and a general Procedure for comprehensive risk management, based on the Comprehensive Risk Management Framework COSO (Committee of Sponsoring Organisations of the Treadway Commission) 2017 ERM-Enterprise Risk Management-Integrated Framework.

The General Comprehensive Risk Management and Control Procedure regulates the process of identification, analysis, assessment, and management control of the relevant risks faced by Red Eléctrica. This process is developed in order to ensure that the different levels of responsibility of the Company are aware of and assess the risks that threaten the strategies and objectives, and that the management of such risks is carried out within the limits of the acceptable risk levels established.

The Company has a taxonomy or classification of risks in order to facilitate a more complete identification of the same and to allow a more detailed analysis. This structure allows the risks identified to be classified into three levels of aggregation (Operational, Financial and Strategic). Operational risks include environmental risks associated with in-service assets. These risks are mainly related to the environment in which activities are carried out.

The Risk Management System establishes a methodology for determining the level of risk. In this way, all risks identified are classified individually into three categories: high-level, medium-level, and low-level.

In 2023, the assessment of risks related to the environment and climate change was updated in collaboration with the Risk Control, Compliance and Quality Department.

The main **environmental impact risks** identified for the Company are those shown in the tables below; there are no relevant changes in their evaluation and classification with respect to 2022. The risks associated with climate change are treated separately from the rest of the risks associated with the environment.

Relevant risks derived from climate change with an impact on a time horizon of one year are included in the **Corporate Risk Map**, and therefore the same governance model applies to them as to all the risks included therein. The process of identifying and assessing risks associated with climate change is carried out annually.

The tables shown on the following page outline the main risks and actions identified from an environmental point of view.

Environmental impact risks	Main actions applied in the management of risks
• Risks of impact on vegetation species • Impact on birdlife • Pollution of soil and/or water • Impact on archaeological heritage • Risk of fire	• Environmental policy • Application of strict environmental criteria in all phases of planning, development, and maintenance of facilities • Environmental supervision of construction works. • Inspection in facilities (lines and sub-stations) • Biodiversity strategy and actions • Development of research projects and fire prevention plans • Projects for birdlife conservation • Environmental training courses for field staff • Environmental awareness of suppliers • Implementation of the Environmental Work Certification • Establishment of collaboration agreements on environmental protection with the various autonomous communities • Definition Plan of measures for the prevention of forest fires (2023-2025) • Fire protection plans • Contingency plans • Environmental Management System certified in accordance with ISO 14001 • Emergency Intervention System (SIU) for oil spills due to breakdowns • Planning of preventive maintenance activities aimed at managing the risk of the asset (SAGA) • VEGETA project to optimise annual vegetation treatment cycles • DALIA Project, which facilitates inspection work through image processing by means of artificial intelligence • Contracting insurance policies to cover possible damages that can be derived from an incident

In 2023, the Company continued to work on the identification and analysis of potential **emerging risks**, understood as those new risks whose origin differs from those traditionally managed, resulting from economic, social, technological, political, and environmental transformation and with possible impacts particularly relevant to the organisation which, given their nature, are difficult to predict, estimate, and assess, and the time frame is uncertain.

This category of risks also refers to those that already exist and have been identified but which may undergo significant changes in the medium and/or long term, either due to their scope or to a considerable change in the consequences they generate.

Moreover, in 2023 progress has been done in the project to identify and analyses trends and scenarios in the long term (2050 horizon), carrying out different micro studies focused on identifying potential future risk trends that could Company.

Risks associated with climate change

The Company follows the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) in its management of climate risks and has a methodology for its identification, prioritisation, and economic quantification, which it began to apply for the electricity business in 2019 and transferred it to its business activities in Latin America and the telecommunications business in 2021.

The Company has identified a total of **47 potential risks related to the electricity business** in Spain which are evaluated considering the criteria of exposure, sensitivity, and adaptability. It should be noted that the procedure takes into account both economic variables and other business indicators (impact on electricity supply, impact on the telecommunications service, or impact on reputation). Furthermore, as included in the TCFD recommendations, different physical and transition scenarios are considered in the analysis.

As a result, risks are classified into four categories (low, medium-low, medium-high, and high) with high and medium-high risks being considered relevant for the business, which will be monetised to quantify their financial impact. Given Red Eléctrica's status as a regulated activity, not all priority risks for Redeia necessarily imply a financial impact for the organisation. Physical & transitional risks **are set out below**.

	Relevant risks associated with climate change	Potential impact on the business	Mitigating actions
Physical risks	• Impact on outdoor facilities (electricity lines) due to extreme wind • Damage to lines and sub-stations due to fire	- Damage to infrastructure - Increase in maintenance costs - Impact on the electricity supply. - Reputational impacts (associated with power outages) - Possible impact on third parties or the environment (in the case of fire)	- Projects for the improvement and strengthening of transmission grid facilities - MANINT project to optimise the management of transmission grid assets - Tree-felling and pruning back (forestry) plans Vegeta project - Innovation Prodint Project and Bseed Watch - Contingency plans - Insurance policies
	• Damage to equipment belonging to the transmission grid located outdoors due to high temperatures	- Increase in repair and replacement costs of equipment and reduction of its useful life - Increase in the cost of equipment due to design modifications to improve resilience	- Detailed review of the technical specifications (design) of the equipment - Incorporation of additional technical requirements, if necessary - Insurance policies
	• Decrease in the efficiency of photovoltaic generation due to a rise in temperatures • Reduction in the availability of water resources for hydropower generation	- Impact on the operation of the electricity system due to the reduction in the availability of generation - Impact on the operation of the electric system, reduction of availability of generation, lack of firm power, and lack of resources for pumping (flexibility tool)	- Improvement of prediction systems - Availability of alternatives to cover demand - Development of flexibility measures: storage, reserves, and other
	• Increase in work absenteeism associated to climate change	- Availability of personnel to perform generation works	- Consolidation of health and well-being policies - Structural changes in HR policies and labour practices to adapt to chronic absenteeism

	Relevant risks associated with climate change	Potential impact on the business	Mitigating actions
Transition risks	• Insufficient real-time operational information due to the increase in renewable generation facilities below 1 MW (current observation threshold by the system operator) • Disconnections of generation due to high penetration of renewables lacking the necessary technical capabilities for proper behaviour during disturbances	- Increased difficulty in terms of system operation (volatility of production, lack of monitoring, etc.) - Increased risk of incidents in system operation that may affect the supply - Increased production constraints and restrictions - Increase in the number of claims/grievances - Impact on reputation	- Development of system operation tools and the safe integration of renewables (Control Centre of Renewable Energies, CECRE) - Strengthening of monitoring and control systems - Development of prediction models regarding renewable generation - Collaboration in the development of the relevant regulations that allow more flexibility and requiring adequate technical skills to the different industry agents Adaptation to Operation Procedures (OP) Dialogue with regulators - Development of the grid to adapt it to higher penetration of renewable energies - Development and inclusion of other elements, such as synchronous compensators in the electricity systems in island territories
	• Increase in claims/grievances due to limitations to renewable production and incidents that may impact the security of supply in the Canary Islands, associated with the noteworthy increase in the share of renewables in the energy mix foreseen in the coming years It is foreseen that it will increase from 17% to over 50% in the 2030 horizon	- Increased difficulty in system operation (volatility of production, lack of monitoring...) - Increased risk of incidents in system operation that may affect the supply - Increased production constraints and restrictions - Increase in the number of claims/grievances - Impact on reputation	- Development of system operation tools and the safe integration of renewables (Control Centre of Renewable Energies, CECRE) - Strengthening of monitoring and control systems. - Development of prediction models regarding renewable generation - Collaboration in the development of the relevant regulations that allow more flexibility and requiring adequate technical skills to the different industry agents Adaptation to Operation Procedures (OP) Dialogue with regulators - Development of the grid to adapt it to higher penetration of renewable energies

			- Development and inclusion of other elements, such as synchronous compensators in the electricity systems of the non-peninsular territories
Transition risks	• Loss of staple generation sources associated with the closure of coal-fired, combined cycle, and nuclear power stations.[81].	- Greater difficulty in the operation of the system (reduction of firm power and balance capacities) - Increased risk of incidents in system operation that may affect the supply - Impact on reputation	- Strengthening of international cross-border connections - Promotion of demand-side management initiatives and smart grids - Development of large-scale energy storage projects (Chira-Soria pumped-storage hydroelectric power station) and energy storage batteries in non-peninsular territories and in networks at an end user level (innovation projects) - Development of solutions based on power electronics (Road2GFM project)
	• Overload of grid access procedures associated with high interest from renewable energy developers and the development of consumption and storage facilities	- Increase in the number of claims/grievances. Possible penalties and reputational impact	- Support and collaboration in the development of the regulatory framework Collaboration and contact with the regulator - Progress in digitalisation and automation of processes

[81] No financial risk for the organisation

	Relevant risks associated with climate change	Potential impact on the business	Mitigating actions
Transition risks	• Long time for the commissioning the infrastructure needed for the energy transition: international interconnections (mainly linked to the social opposition to this type of infrastructure and the long periods of time needed to process the permits required for its development)	- Economic impact due to delays in incorporating the assets into the remuneration model, or total loss of remuneration due to not being able to commission them - Increase in the number of claims/grievances - Impact on the Company's reputation - in the case of delays in the development of infrastructure required for Spain's National Energy and Climate Plan (NECP)	- Communication plan regarding the transmission gird planning process - Feasibility study regarding the infrastructure proposed for the transmission grid planning process - Stakeholder management model related to transmission grid investment projects - Development of public participation/consultation processes - INTEGRA project to facilitate the adequate planning for the supply of services and material needs
	• Increased legal requirements associated with the use of fluorinated gases (SF_6)*	- Increase in costs associated to taxes related to the use of gas/gases - Increase in costs costs associated with higher requirements related to leakage monitoring and control - Technical difficulties and costs associated with potential restrictions on gas use	- Voluntary agreement for the comprehensive management of SF_6 in the electricity industry, between the Ministry of Ecological Transition, equipment manufacturers (AFBEL), UNESA, REE, and waste management companies - Development of leakage repair methodology - Renewal of equipment - Training and accreditation of personnel - R&D in the search for alternatives to SF_6 gas - Participation in working groups - Monitoring and participation in regulatory development processes
	• Cybersecurity threats in a more digitalised system	- Increase in costs	- Technology watch in relation to alternatives - Monitoring of regulatory processes

Risks arising from legal requirements and other requirements

The anti-bribery and crime prevention compliance system of the Redeia in Spain complies with the provisions of article 31 bis of the Criminal Code and the Circular of the State Attorney General's Office 1/2016 on the criminal liability of legal persons, as well as the UNE 19601 and ISO 37001 standards on criminal and anti-bribery compliance management systems.

The Criminal and Anti-bribery Compliance System of Red Eléctrica is certified in accordance with the UNE 19601 and ISO 37001 standards. The entity AENOR has done the certification process and it has certified Red Eléctrica Corporación and Red Eléctrica's Criminal and Anti-bribery Compliance System, in accordance to said standards. In 2023 the company successfully passed the follow-up audit carried out by this entity, verifying the conformity and efficacy of its system.

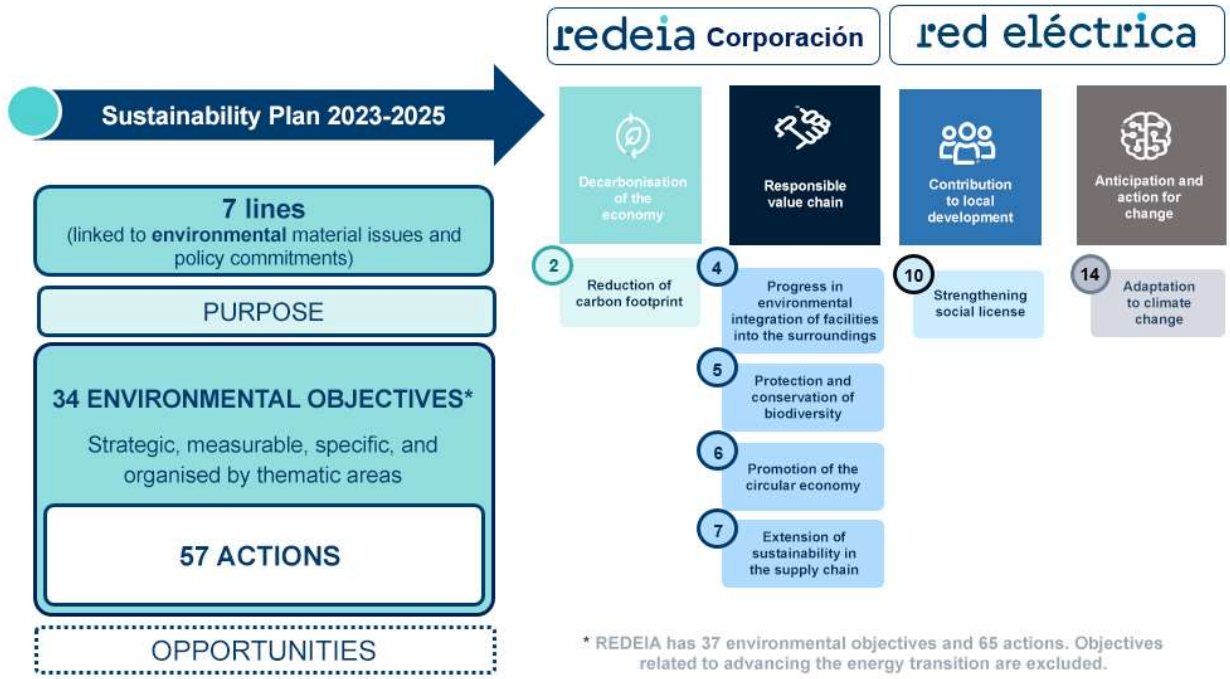
One of the regulatory areas that underpins the compliance system is the **natural environment**. One of the key objectives is based on promoting a global and anticipatory vision of compliance risks, ensuring an efficient control of said risks, guaranteeing the coordination and standardisation of its management at a corporate level, as well as improving internal control in the organisation.

9 Objectives. Sustainability Plan

The **Sustainability Plan 2023-2025**, in those **aspects directly related to the environment**[82], establishes objectives and continuous improvement actions to minimise the environmental impacts generated by the Company's activities, linked to the commitments of Redeia's Environmental Policy requirements from 2023.

Of the 14 action lines, **seven** are linked to environmental material issues and/or the Company's environmental policy commitments. These lines are broken down into **environmental objectives** carried out through **voluntary actions**.

Sustainability Plan 2023-2025: environmental objectives



The Sustainability Plan is not an exhaustive compilation of all environmental activities undertaken by Redeia but highlights the main ones. The plan **coexists with more actions** derived from the continuous improvement processes of management systems, direct relationships with stakeholders, and those included in specific plans.

Both Circular Economy and Biodiversity, Climate Change, and the Integration of facilities within the environment are considered material issues that require specific management, primarily to meet the requirements of various stakeholders.

To this end, the Company has set two specific commitments: commitment to biodiversity (updated in 2020) and climate change commitment plus several roadmaps and action plans:

- Climate change action plan (2022-2030)
- Biodiversity action plan (2023-2025)
- Roadmap for the Circular Economy 2030

[82] Climate Change, Biodiversity, Circular Economy, Integration of Facilities into the Environment, and Social License.

- Action Plan for Integration of Facilities into the Environment (2023-2025)

These plans include the objectives to be achieved and the main actions to reach them, integrated as RELEVANT. Actions for each year are specified and become part of the Sustainability Plan. This change will make it possible to bring together, through a single plan, the fulfilment of all issues related to sustainability in the Company, in addition to a single, centralised monitoring system.

All the defined objectives, and thus the actions/projects identified, are aligned with the Strategic Plan and its 2030 Sustainability Commitment, as well as with the other various strategies and programmes that the Company currently has in force, therefore highlighting the growing environmental dimension of the Company and contributing to making progress in the defined courses of action that will help guarantee the success and achievement of common goals.

The Company has identified among its material issues, the following with a more significant environmental component for the achievement of its long-term objectives:

- **Climate change**
- **Biodiversity**
- **Circular economy**
- **Landscape integration of facilities**
- **Social Licence to Operate (SLO)**

These issues form the basis of the seven environmental courses of action that are instrumental to articulating the Sustainability Plan 2023-2025 in its environmental aspect.

The lines break down into 34 environmental objectives. In 2023, 82% of objectives were met or on track (compared to 68.6% in 2022).

Red Eléctrica's environmental objectives included 57 tasks to be carried out in 2023 under seven strategic lines, with priority objectives linked to each strategic line. In 2023, 96.3% of objectives were met or on track (compared to 80.3% in 2022).

Some of the most relevant tasks carried out in 2023 by Red Eléctrica in each of the lines are highlighted below.

Line	Tasks/activities	Results obtained
Reduction of the carbon footprint	Reduce energy consumption in buildings and increase renewable energy.	In 2023, energy criteria for new, renovated, and acquired buildings were reviewed and formalised. Self-consumption facilities were implemented in 15 buildings (DT Baleares – Torrent, DT Canarias – Mayorazgo, D.T. Centre – S. S. Reyes, D.T. Centre – Villaviciosa, among others). In 2024, the remaining energy efficiency measures and the study of energy audits and photovoltaic installations will be implemented.
	Reduce and control SF_6 leaks Subtask: Inclusion of criteria in the specifications that contribute to or imply a subsequent reduction in SF_6 emissions.	Criteria have been defined, and specifications for gas-insulated switchgear (GIS) have been approved and published in the internal regulatory pyramid.
Progress in the environmental integration of facilities into the surroundings	Develop and consolidate the plan of measures for the prevention of forest fires.	According to the plan. Measures defined in the strategy are being executed. Strategy (plan) for measures for the prevention of forest fires (2023-2025) has been developed and approved.
	Implement the Action Plan for the prevention of hydrocarbon leaks.	Task completed. Action plan implemented during the first quarter of 2023.
	Design special towers with greater social acceptance. Phase 1. Technical-economic feasibility study of the special tower. Phase 2. Complete development of the special tower.	Phase 1 completed. The economic study determines that this technology is slightly more expensive than metal lattice towers, so it has been decided to move forward with the development of phase 2.
	Blue Filter Project: installation of filtering systems in sub-stations with power machines.	32 filters installed in 2023.
	Improve the effectiveness of cleanup actions for areas impacted by accidental oil (and diesel) spills in sub-stations: execution of a pilot test.	100% of phase 1 of the pilot test completed in 2023.
Protection and conservation of biodiversity	Design and implement a system for accounting and valuation of natural capital in biodiversity at Red Eléctrica.	A first biodiversity accounting system (biotic resource of natural capital) has been implemented and applies to any project in the H2021-2026 planning. This system includes new projects outlined in Annex I submitted for environmental processing since July 2023. A global digital system is planned for 2024.
	100% of the critical spans are marked (Red Eléctrica).	Marking of 86 km in critical priority areas, achieving 77.4% of critical spans marked.
	Map the operating transmission grid installations that could be biodiversity reservoirs and corridors.	It is estimated that layers covering 30% of Spain are available. In 2023, mapping of Catalonia was completed.

Line	Tasks/activities	Results obtained
Promotion of the circular economy	. Execution of a pilot test for sustainable soils at the La Mudarra sub-station (Phase 1-2023).	Therefore, in 2023, the following actions are noteworthy: Preliminary campaign: execution of drilling and installation of injection and extraction wells, Phase 1: Pilot tests of surfactant injection and treatability tests (development of a degrading consortium and identification of molecular markers).
Extension of sustainability in the supply chain	Identify criteria (circularity, diversity, safety, biodiversity, and climate change) that: (1) if widely implemented in the supplier portfolio, can be included in the purchase process, either in technical specifications and/or in the qualification profile and/or as a weighted award criterion; (2) or, if not widely implemented in the supplier portfolio, can be promoted through supplier development actions.	Requests For Information (RFIs) were launched, information received, and documentation on supports, conductors, transformers, and GIS analysed. The proposal for criteria and the implementation roadmap until 2025 were approved.
Adaptation to climate change	Preparation of a wind map for different climate scenarios for the 2060-2070 horizon. Consideration of results in risk analysis. Proposal of adaptation measures, if applicable.	Wind map data for the 2060-2070 horizon is available for loading into GeoRED and drafting of the final report in the first quarter of 2024.

10 Accidents with environmental impacts

At Red Eléctrica we are well aware of the consequences that an accident may have on the environment. For this reason, we apply preventive measures to reduce the likelihood of them happening, or in the event they might occur, minimise the impact on the environment. The evolution of incidents with environmental impact in the last three years is reflected in the following table:

Incidents reported	2021		2022		2023	
	Accidents	Incidents	Accidents	Incidents	Accidents	Incidents
Construction work activities	**3**	**20**	**4**	**15**	**4**	**37**
Fires due to line faults	0	0	0	0	0	0
Fires due to sub-station faults	0	0	0	0	0	0
Leaks and spills of oil due to error in the filling of transformers	0	0	0	0	0	0
Leaks and spills of oil and hydrocarbons due to minor breakdowns during the use of machinery in construction works	3	19	1	12	0	20
Oil leaks and spills due to improper use of machinery	0	0	0	0	0	1
Leaks and spills of hazardous substance due to explosion of equipment	0	0	3	2	0	1
Fuel leaks and spills due to machinery failure	0	0	0	0	0	3
Fuel leaks and spills due to handling, transfer, and storage of fuels (including equipment breakdown/breakage)	0	0	0	0	1	6
Hazardous leaks and spills due to improper use of machinery	0	0	0	0	0	1
Hazardous substances leaks and spills due to machinery failure	0	1	0	0	0	2
SF_6 leaks	0	0	0	0	0	0
Impacts on vegetation/fauna (not birdlife)	0	0	0	1	3	3
Maintenance activities	**10**	**10**	**11**	**28**	**13**	**28**
Fires due to line faults	2	0	2	0	0	0
Fires due to sub-stations faults	0	0	1	0	1	0
Towers brought down due to severe weather conditions	0	0	0	0	0	0

Leaks and spills of oil and hydrocarbons during the use and maintenance of sub-station equipment	4	9	7	26	0	4
Oil Leaks and spills due to explosion/breakage of equipment containing oil	0	0	0	0	2	1
Oil leaks and spills due to failure	0	0	0	0	0	12
Oil leaks from the hydraulic section of cables	0	0	0	0	1	0
Oil leaks and spills due to explosion	0	0	0	0	2	3
Leaks and spills of hydrocarbons due to handling, transfer, and storage of fuels	0	0	0	0	0	1
Leaks and spillages of hydrocarbons due to failure	0	0	0	0	0	2
Oil **leaks** in lines	1	0	0	0	0	0
Floods	0	0	0	0	0	0
SF_6 leaks due to explosion of equipment or other accidents	3	0	1	0	4	0
SF_6 leaks due to equipment breakdown or failure	0	0	0	0	3	1
Leaks and spills of hazardous substances	0	1	0	0	0	4
Impacts on vegetation/fauna (not birdlife)	**0**	**0**	**0**	**2**	**0**	**0**

A new category has been identified in order to improve the prevention of accidents and the management of environmental risks associated with accidental events. This category has been called 'Near Accident' which is defined in the internal regulations as: 'that event that has the potential to cause an accident or incident of an environmental nature without it actually materialising. It does not generate damage, but it has the potential to generate it.' In 2023, no near accidents were registered.

Construction

In the construction phase, there were four accidents with environmental consequences during 2023 and 37 incidents, representing 50% of the total environmental incidents (construction + maintenance) during 2023.

There were two significant accidents. Firstly, at the Gran Tarajal sub-station site, the diesel tank of a truck broke, resulting in the spill of 150 litres of diesel. The total contaminated area was 90 m². The affected area was cleaned up. The other incident occurred at the Chío-La Gomera submarine cable site, where a bentonite spill occurred during directional drilling. Although bentonite is an inert substance, when it comes into contact with seawater, it forms a mass that covers the seabed. In this case, it affected 1,200 m². All the spilled bentonite was cleaned up.

The two minor accidents were: another bentonite spill in the other directional drilling of the previous site, but with a smaller quantity and lesser impact; and at the Chira-Soria site, where a Canary Island palm tree was affected during horizontal drilling preparation (excluded from the EMAS scope).

Nearly all the incidents correspond to leaks and spills of oils and hydrocarbons. The main causes were the rupture of flexible hoses or small leaks and drips from the machinery used in the construction of electricity lines and sub-stations.

Maintenance

In the maintenance phase there were 13 accidents and 28 incidents.

The accidents were related to: seven SF_6 leaks (54%), five oil and hydrocarbon leaks and spills (38%), and one sub-station fire (8%).

One of the accidents was rated as major (8%), five as significant (38%), two as low relevance (15%), and five as minor (38%).

The accident classified as major was the following:

- Equipment failure at La Muela sub-station with an SF_6 leak. There was an overpressure in the pole of the phase 4 circuit breaker, releasing 122 kg of gas into the atmosphere through the overpressure valve.

The five accidents classified as significant are the following:

- Spill of 750 litres of dielectric oil due to breakage of the terminal bottle of a cable affecting a surface area of 150 m^2. The necessary tasks are being carried out to clean up and restore the affected soil (Tarifa sub-station).
- Petrelab 550® dielectric oil spill due to cable leak at Badalona-Guixeres. The exact volume of the spill is unknown, but the maximum volume of the rupture is 1,700 litres. Based on this, the incident was rated as significant. Contaminated soil was removed from the splicing chamber where the leak occurred. The cable is out of service.
- 4,200 litres of dielectric oil spilled due to radiators breaking in the Olmedilla sub-station reactor. Almost the entire spill fell into the collection beaker under this power machine. It is estimated that the wind affected about 15 litres, contaminating a soil surface of 8 m^2. The soil contamination, which was very superficial with only drops due to the wind's effect, was cleaned up, and the pit was emptied and cleaned.
- 3,500 litres of dielectric oil spilled due to the breakage of a terminal of a power transformer at the Mudarra sub-station. The entire spill fell into the collection beaker under this power machine. The surrounding soil was not affected. The deposit was cleaned and emptied.
- 23 kg of SF_6 leaked at the Jundiz sub-station due to the explosion of a phase compartment of a circuit breaker. The affected area from the explosion was cleaned.

The two minor accidents were one due to the breakage of a capacity transformer at the Castellón CT sub-station, causing a 20-litre spill, and the other due to a slope fire at the Asomada sub-station caused by a cable breakage affecting 380 m^2. The minor accidents were caused by SF_6 leaks at the Pinilla, Monforte del Cid, Santiponce, SS. Reyes, and Rocamora sub-stations.

In the case of incidents, the situation is very similar to that of construction. Of the 28 incidents, most are related to oil and hydrocarbon leaks and spills during the use and maintenance of sub-station equipment and machinery failures. No serious accidents occurred in 2023.

11 Legal compliance assessment

In relation to legal, regulatory, and other mandatory requirements, the Company assumes as a commitment, as part of the group's Environmental Policy, to comply with the environmental legislation, regulations, and other mandatory requirements applicable to the activities it carries out.

In order to identify and assess the applicable legal requirements, Red Eléctrica has implemented a process that systematically covers all the phases of the activity. It considers not only the requirements originating from European, national, regional, and local regulations, but also those obligations derived from the Environmental Impact Statement and other administrative authorisations, as well as the voluntary commitments that the organisation subscribes to (pacts, agreements, etc.).

For the identification and evaluation of the legal environmental requirements that apply to the different phases involved in the development and implementation of transmission grid infrastructure, in their respective scopes of applicability: European, national, regional and local, the following process has been implemented:

- **Definition of Projects:** those facilities that have an 'Environmental Impact Study' incorporate the applicable environmental legislation during the design phase of the project and in any case, all applicable requirements are registered through an IT application.
- **Construction or modification of facilities:** during the construction phase, the applicable environmental requirements (internal and external) are set out in the environmental specifications of each project and/or in the construction Environmental Monitoring Programme (EMP), if applicable. In order to guarantee and reinforce the process, prior to the start of the execution of a construction project, an initial assessment will be carried out regarding the legal environmental compliance with all the applicable legal requisites (including those at the municipal level), in order to detect potential shortcomings prior to the execution. Subsequently, an assessment is performed one year after the start of the project, during each environmental supervision visit, and once it is finished. In addition, in those works where supervision needs to be both intensive and permanent in nature, monthly reports are drafted to monitor the work, which include the evaluation of the legal requirements that apply to the construction activity of the facility being supervised, ensuring legal compliance and the application of corrective and preventive measures in the course of the activity.
- **Maintenance of infrastructure/facilities:** during the maintenance of infrastructure/facilities, apart from the applicable regulations, environmental requirements derived from the Environmental Monitoring Programme for the operation phase (in facilities with Environmental Impact Statement - EIS) and in the transfer document for maintenance. All facilities have a transfer document, which includes all the requirements, and internal and external environmental commitments (among them, the ones defined in the EIS for the operation phase). In addition, the infrastructure/buildings shall meet the requirements set out in the authorisations for felling and pruning, removing nests, wells, septic tanks, waste generation, and fuel tanks.

Once the results of the legal compliance reports are available, solutions are analysed and established for those cases where deviations occur with respect to what was foreseen. Depending on the case, tasks and actions are established or corrective actions are adopted that allow the activities to be adapted to that set out in the legal and regulatory requirements.

In addition, activities are carried out regarding the identification, registration, updating, compliance assessment, and reporting of requirements related to any agreements, contracts, and voluntary engagements of an environmental nature.

The activities carried out by Red Eléctrica comply with the applicable environmental requirements of a European, national, regional, and local nature, as well as the voluntary requirements undertaken.

Those practices potentially considered inadequate by the public administration and that result in administrative proceedings (claims/cases) that are granted leave to be heard, are always settled with administrative sanctions of a low monetary value.

The table on the following page details the type of infringement committed and the total cost (as a result of the administrative proceedings already **settled** with a sanction in the period **2017-2023** (the figures shown in blue correspond to administrative proceedings resolved in 2023).

Type of sanction	2017		2018		2019		2020		2021		2022		2023	
	No. of claims/cases	Amount (€)	No. of claims/cases	Amount (€)	No. of claims/cases	Amount (€)	No. of claims/cases	Amount (€)	No. of claims/cases	Amount (€)	No. of claims/cases	Amount (€)	No. of claims/cases	Amount (€)
Risk of fire					2	370.46			1	90.15			4	1,262.14
Unauthorised clearing, pruning, and felling			2	1,451	2	1,667.04	1	10,800						
Deterioration of habitat of interest for priority protected species.											1	3,001		
Works in protected areas without authorisation					1	4,800								
Unauthorised works					1	24,001 (**)								
Opening up of a forest trail without authorisation														
Use of a helicopter in a critical birdlife area without authorisation														
Electricity line crossing livestock trail without authorisation														
Incorrect waste management														
Environmental liability							1 (*)	56.110.90 (*)						
Non-compliance with waste permit											1	1,020		
Total No. of claims/cases/€			**2**	**1,451**	**6**	**30,838.5 (**)**	**2**	**66,910.90 (*)**	**1**	**90.15**	**2**	**4,021**	**4**	**1,262.14**

(*) Claim/Case appealed in contentious-administrative proceedings.

(**) Case on appeal.

12 Environmental investment and expenditure

In 2023, Red Eléctrica made environmental investments totalling **2,938,138.94 euros** in new facilities, equating to **0.34%** of the total amount invested in the transmission grid (864 million euros). These investments correspond to the execution of Environmental Impact Assessments of all projects, implementation of preventive and corrective measures, environmental monitoring of electricity facilities under construction, and the application of compensatory measures related to environmental aspects.

Similarly, in 2023 expenditure totalling **24,946,751.42** euros was spent on the improvement and protection of the environment, representing **2.43%** of the total operating costs.

The following table shows the evolution of environmental expenditure over the last three years:

	2021	2022	2023
INVESTMENTS	3,338,603.91	4,268,491.16	**2,938,138.94**
Engineering and construction of facilities[83]	3,338,603.00	4,268,491.16	2,938,138.94
EXPENDITURE[84]	22,686,787.68	22,598,459.06	**24,946,751.42**
Development of methodology and systems[85]	180,677.00	265,239.00	294,753.44
Environmental studies and analyses[86]	143,965.15	12,459.00	47,680.00
Environmental actions in in-service facilities	19,153,184.58	19,230,121.38	22,238,974.57
Prevention of contamination[87]	1,353,148.04	1,662,210.15	1,872,388.04
Protection of biodiversity, landscape[88]	16,692,115.53	16,217,446.5	19,181,560.65

[83] Corresponds to the cost of engineering and construction of facilities. Environmental documentation of projects (Environmental Impact Studies, Environmental Studies, Landscape Simulations, Archaeological Studies...), processing of Environmental Impact Statements (EIS), environmental supervision of works, and environmental monitoring programmes.

[84] Corresponds to the sum of the costs of '1. Development of methodologies and systems'; '2. 'Environmental studies and analysis'; '3. Environmental actions in in-service facilities'; '4. Innovation and development'; '5. Training and communication'; '6. Environmental taxes and levies,' and '7. Cost of personnel and others dedicated to activities of an environmental nature.'

[85] Management system certification audits (ISO 14001 and EMAS); Maintenance and evolution of the environmental management software tool (SACORP). Support for corporate management systems and self-managed global team.

[86] Development and maintenance of the Company's Geographic Information Systems and Environmental Planning Reports.

[87] Environmental management of maintenance, environmental supervision of sub-stations and buildings.

[88] Projects associated with Biodiversity agreements, projects linked to specific agreements, Natural Capital Conference, projects associated with forest fire prevention agreements, regulatory maintenance of safety corridors/accesses (opening up of corridors) and inspections of electricity lines, marking of electricity lines, environmental conditioning of facilities, and making good of access roads.

Climate change[89]	644,723.84	802,401.76	620,867.46
Waste reduction and management[90]	463,197.17	548,062.97	564,158.42
Research and development[91]	1,144,538.64	1,779,647.47	106,451.52[92]
Training and communication	352,437.06	353,109.70	336,504.74
Environmental training and awareness programmes	30,361.06	30,790.70	24,513.91
Communication[93]	322,076.00	322,319.00	311,990.83
Environmental taxes and levies[94]	109,153.28	797,022.18	53,619.42
Cost of personnel dedicated to activities of an environmental nature	1,602,831.97	1,940,507.65	1,868,767.71
	26,025,391.59	26,866,950.22	**27,884,890.36**

The following table shows the evolution of the environmental expenditure and investments in environmental aspects as a percentage of the total expenditure, and the investment in the transmission grid, respectively:

Percentage of investment and expenditure on the environment		2021	2022	2023
Percentage of investment on the environment	Environmental investment/total investment in the transmission grid	0.85	0.8	**0.34**
Percentage of expenditure on the environment	Environmental expenditure/total operating costs	2.68	2.49	**2.43**

[89] The Redeia Forest, offsetting of emissions, support for calculating the CO_2 footprint, verification of the Carbon Footprint, energy efficiency measures, climate change action plan and sustainable mobility (fleet of electric vehicles).

[90] Waste management of facilities and an office waste management service.

[91] R&D projects of an environmental nature; examples: sustainable transformer, PRODINT, VEGETA, towers unique designs, sustainable water, SF_6 sensors, SF_6 leakage repair methodology in sub-stations with Gas Insulated Switchgear, etc.

[92] Elewit

[93] Publications, videos, and dissemination of other informative materials of an environmental nature.

[94] Municipal taxes on waste, water, occupation of public utility woodland, and felling works.

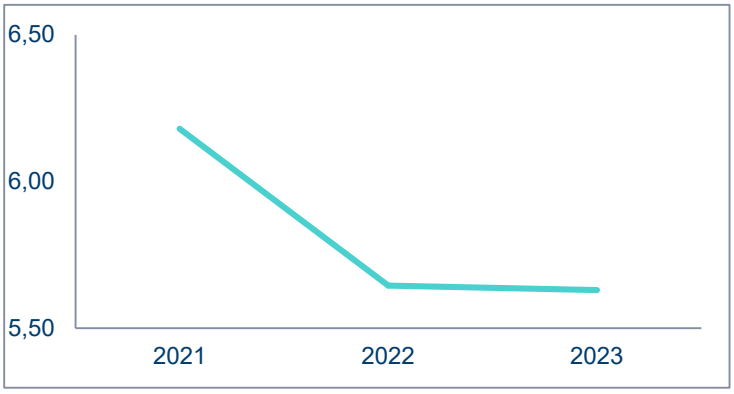
13 Performance Indicators

Main indicators

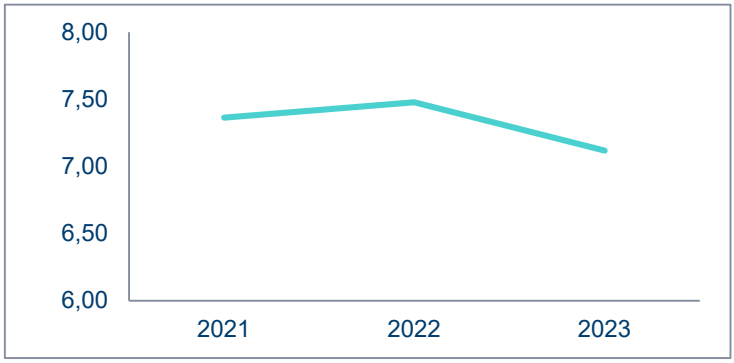
In relation to electricity and water consumption in those months of 2023 for which actual data was not available at the closing date of this Statement, the value of the electricity and water consumption has been estimated[95].

Energy

Electricity consumption at the Head Office			
A			MWh consumed
B			Total employees at Head office[96]
Indicator			A/B
Year	**2021**	**2022**	**2023**
A	7,320	7,065	6,509
B	1,068	1,011	1,155
Indicator	6.85	6.36	**5.64**



Red Eléctrica electricity consumption			
A			MWh consumed[97]
B			Total employees at Red Eléctrica[98]
Indicator			A/B
Year	**2021**	**2022**	**2023**
A	14,195.71	14,974.33	14,520.85
B	1,928	2,002	2,040
Indicator	7.36	7.48	**7.12**



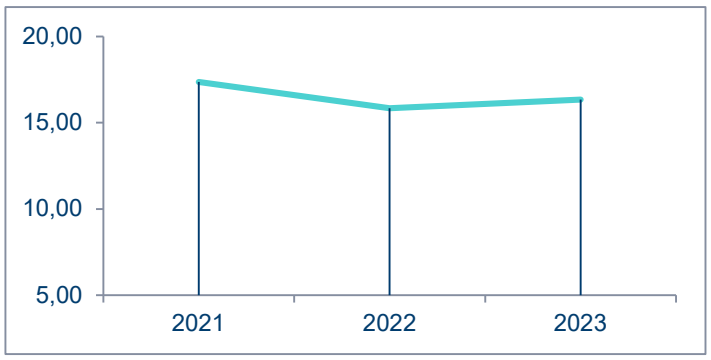
[95] In those cases where there was no value in the first place, the real data for that month of the previous year was used. In the event that there was no real data for the previous year, the direct value of the invoice was taken. If there was no real data or invoice data, the average for the year was calculated by selecting the months that had real data.

[96] La Moraleja and Albatros buildings. It includes interns and collaborators, as well as contracted personnel, as they also consume electricity.

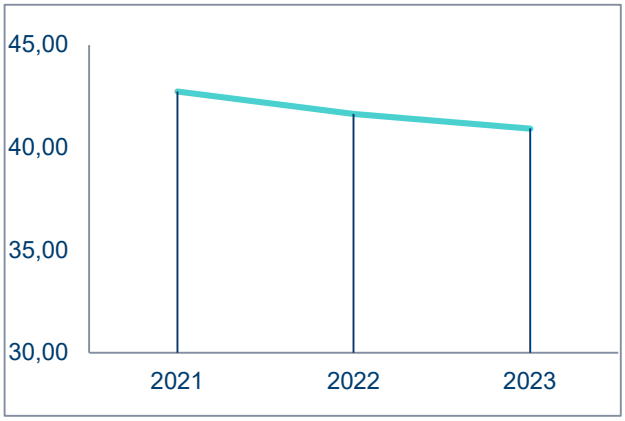
[97] It includes consumption at the Head Office, the electricity control centres (centres that operate 24/7 and have special energy consumption), and work centres (regional offices/work centres and maintenance centres). Electric vehicle consumption has also been included. In 2023, 92.2% of the total electricity consumed (work centres + electric vehicles) has come from renewable sources (12,731,903.53 kWh work centres + 341,688 kWh electric vehicles).

[98] For the calculation, all personnel working in the work centres and corporate buildings (employees, interns, and collaborators, as well as personnel contracted from temporary employment agencies) are taken into account

Fuel consumption[99]			
A	GJ (Gigajoules) consumed[100]		
B	Total no. of employees[101]		
Indicator[102]			A/B
Year	**2021**	**2022**	**2023**
A	31,276	29,427	31,207
B	1,801	1,858	1,910
Indicator	17.37	15.84	**16.34**



Total energy consumption[103]			
A	GJ (Gigajoules) consumed[104]		
B	No. of employees at Red Eléctrica[105]		
Indicator[106]			A/B
Year	**2021**	**2022**	**2023**
A	82,381	83,335	83,482
B	1,928	2,002	2,040
Indicator	42.72	41.62	**40.92**



[99] Fuel consumed by Red Eléctrica vehicles (fleet, shared leasing, and management/executive vehicles) and the total amount of fuel consumed by mobile off-grid generator units.

[100] 1 kWh= 36 * 10^5 joules; 1 litre of diesel= 37 * 10^6 joules; litre of gasoline= 34 * 10^6; 1 litre of gas oil= 37 * 10^6 joules; 1 litre de biodiesel= 32.79 * 10^6 joules; 1 litre of LPG=25.7 * 10^6 joules.

[101] Number of employees in the workforce that can use vehicles (without taking into account interns or collaborators).

[102] Red Eléctrica value.

[103] Electricity consumption and fuel consumed by Red Eléctrica vehicles (fleet, shared leasing, and management/executive vehicles) and the total amount of fuel consumed by mobile off-grid generator units.

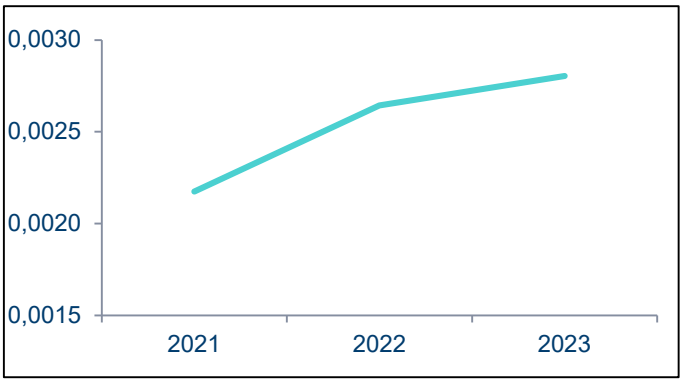
[104] 1 kWh= 36 * 10^5 joules; 1 litre of diesel= 37 * 10^6 joules; litre of gasoline= 34 * 10^6; 1 litre of gas oil= 37 * 10^6 joules; 1 litre de biodiesel= 32.79 * 10^6 joules; 1 litre of LPG=25.7 * 10^6 joules.

[105] For the calculation, all personnel working in the work centres and corporate buildings (employees, interns, and collaborators, as well as personnel contracted from temporary employment agencies) are taken into account.

[106] Red Eléctrica value.

Materials

Paper consumption			
A			Tonnes (t) consumed
B			Total no. of employees [107]
Indicator			A/B
Year	**2021**	**2022**	**2023**
A	4.192	5.290	5.719
B	1,928	2,002	2,040
Indicator	0.002	0.003	**0.003**



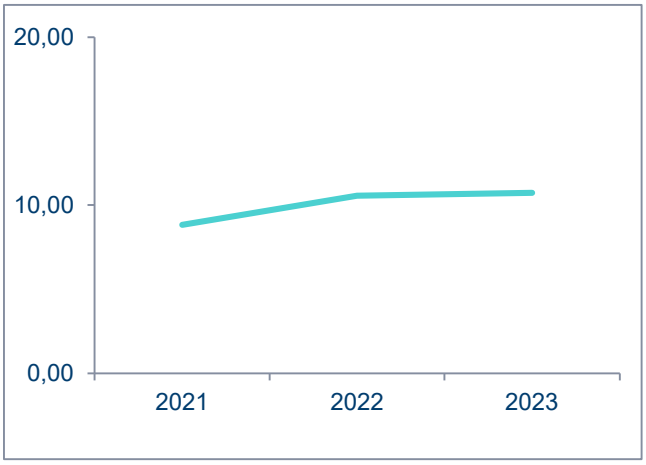
The activity of Red Eléctrica (electricity transmission and electricity system operation) is not one that consumes materials/raw materials in a direct manner. The possible consumption of materials is related to the use and maintenance of equipment/devices acquired from different manufacturers.

For this reason, only the consumption of paper used in office tasks is considered possible material consumption DIRECTLY linked to the Company's activity.

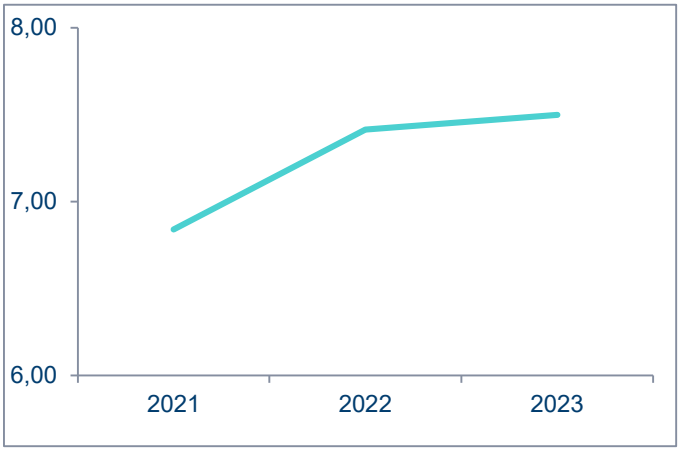
[107] Includes interns and collaborators, as well as personnel contracted, as they may also consume paper.

Water

Total water consumption			
A			m^3 consumed
B			Total no. of employees[108]
Indicator			A/B
Year	**2021**	**2022**	**2022**
A	17,045	21,153	21,917[109]
B	1,928	2,002	2,040
Indicator	8.84	10.57	**10.74**[110]



Water consumption at the Head Office			
A			m^3 consumed
B			Total employees at Head office[111]
Indicator			A/B
Year	**2021**	**2022**	**2023**
A	7,305	8,237	8,662[112]
B	1,068	1,111	1,155
Indicator	6.84	7.41	**7.50**



Waste

[108] Taking into account all the personnel that work in the various work centres: employees, interns, and collaborators, as well as personnel contracted from temporary employment agencies.

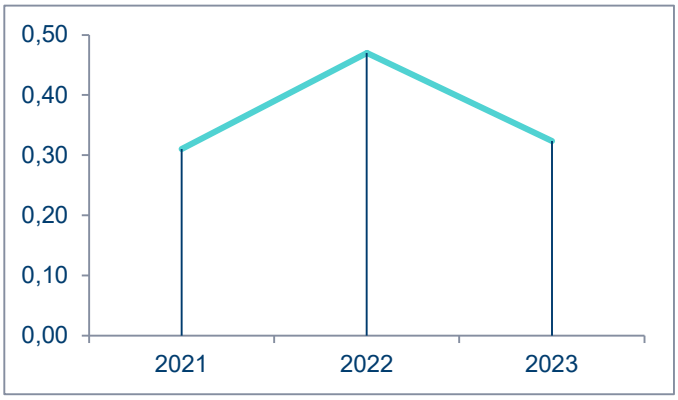
[109] The data provided has a coverage of 100% in terms of personnel (taking into account all personnel that work in the different work centres in Spain: group employees, interns, and collaborators, as well as personnel contracted from temporary employment agencies).

[110] The figure shown (10.74 m^3/person) displays the consumption counting of buildings with consumption without people and counting people in buildings where there is no data recorded regarding consumption.

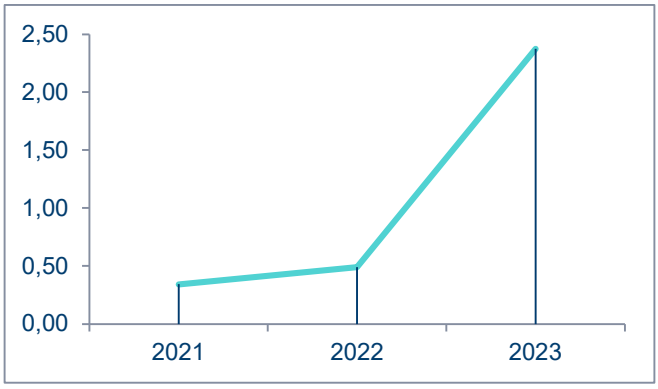
[111] The La Moraleja building includes interns and collaborators, as well as contracted personnel, as they are considered water consumers. The Albatross building has not been included.

[112] Consumption of the La Moraleja and Albatros buildings will be included from 2021 onwards. In previous years, consumption only included the La Moraleja building.

Non-hazardous waste			
A	Tonnes (t) of non-hazardous waste generated		
B	Revenue (millions of euros)		
Indicator			A/B
Year	**2021**	**2022**	**2022**
A	520.567	750.552	525.895
B	1,77.5	1,596.3	1,625.2
Indicator	0.31	0.47	**0.32**



Hazardous waste			
A	Tonnes (t) of hazardous waste generated		
B	Revenue (millions of euros)		
Indicator			A/B
Year	**2021**	**2022**	**2023**
A	576.16	780,15	3,857.67[113]
B	1,677.5	1,596.3	1,625.2 [114]
Indicator	0.34	0.49	**2.37**

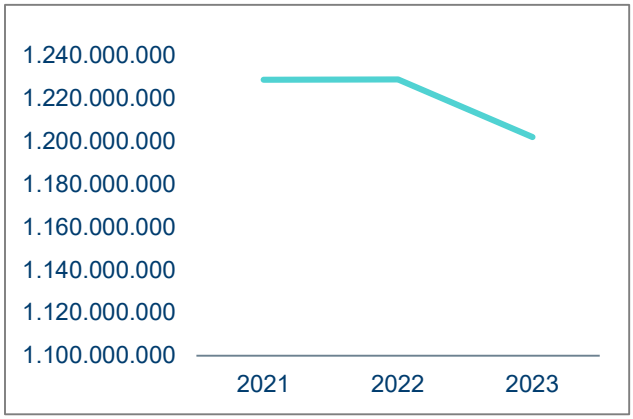


[113] The amount of waste generated has risen compared to the amount recorded in previous years: an increase of 3,078 tonnes of hazardous waste compared to 2022 and a decrease of 224 tonnes in the case of non-hazardous waste. The increase is due to the return to normal/regular maintenance actions and renovation and improvement projects, thus reflecting waste generation figures similar to those registered in the pre-pandemic period (2019).

[114] Non-adjusted data.

Land occupation in relation to biodiversity

Biodiversity: Total land occupation[115]			
A	Surface area occupied by LINES[116] (m^2)		
B	Surface area occupied by SUB-STATIONS[117] (m^2)		
Indicator[118]		Total land occupation (m^2)	
		Facilities	
Year	**2021**	**2022**	**2023**
A	1,218,105,873	1,218,302,352	1,191,460,000
B	10,566,635	10,566,635	10,540,000
Total	1,228,672,508	1,228,868,987	1,202,000,000



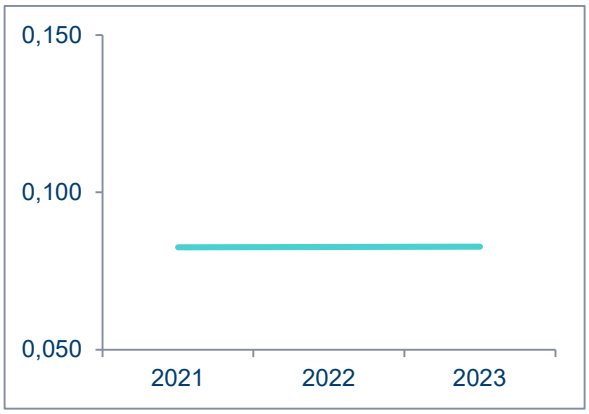
[115] The most up-to-date database published by MITERD is used to calculate the indicators. The mapping of in-service facilities is improved and updated annually, from which some variations can be derived in the calculations not related to the increase or decrease in the number of facilities.

[116] Surface area occupied by lines: the surface occupied by power lines was calculated by estimating an occupation of 20 m on each side of the overhead lines (40 m wide), 1 m on each side of each underground line (2 m wide), and 0.5 m (1 m wide) for submarine cables. It is necessary to take into account that when the surface area is overhead, the only land occupied is for the towers (approximately 8 to 10 m^2). In 2023, the methodology for calculating the occupation has been modified from previous years to obtain a surface area value more closely aligned with the reality of each type of installation. This change explains the observed decrease in land occupation for power lines between 2021-2022 and 2023.

[117] Actual area occupied by the complete set of electricity transmission sub-stations calculated to include the safety perimeter around each one of the sub-stations. For this calculation, the perimeter of the sub-stations in service is used. The delimitation of the sub-station perimeter is an ongoing, updated process to provide the real surface area value of the land occupied by Red Eléctrica installations. In 2023, improvements were made in the delimitation of installations, which is why the reduction in surface area has been detected in this indicator between 2021-2022 and 2023.

[118] The land occupied by corporate office buildings is not included as it is not considered relevant for the calculation of total land occupation. Of the 15 corporate buildings, only 5 of them (La Moraleja Head Office, Tres Cantos CAMPUS, Tres Cantos 1-CECORE, North-eastern regional office, and Canary Islands-VEGUETA regional office) occupy land. The rest is floor space in office blocks that are owned or rented in buildings shared with other companies and where the building is not entirely owned by Red Eléctrica.

Biodiversity: % occupation of Red Natura land[119]			
A	Surface area in Red Natura 2000 occupied by facilities[120] (m^2)		
B	Total surface area of Red Natura (m^2)[121]		
Indicator	A/B x 100		
	Facilities		
Year	**2021**	**2022**	**2023**
A	$184.580 * 10^6$	$184.580 * 10^6$	$185.450 * 10^6$
B	$223.682 * 10^7$	$223.682 * 10^7$	$223.688 * 10^7$
Indicator	0.083	0.083	**0.083**



[119] The most up-to-date database published by MITERD is used to calculate the indicators. The mapping of in-service facilities is improved and updated annually, which may lead to some variations in the calculations that are not related to the increase or decrease of land occupied by facilities.
[120] Surface area occupied by power lines and sub-stations: The land occupied by power lines has been calculated by estimating an occupation of 20 m on each side of the overhead lines (40 m wide), 1 m on each side of each underground line (2 m wide), and 0.5 m (1 m wide) for submarine cables. It is necessary to take into account that when the surface area occupied is overhead, the only real occupation is for the towers (approximately 8 to 10 m^2). For calculating the actual surface area of the sub-stations, the perimeter of the sub-stations in service is used. The delimitation of the sub-station perimeter is an ongoing, updated process to provide the real surface area value of the land occupied by Red Eléctrica installations. In 2023, improvements were made in the delimitation of installations, which is why the reduction in surface area has been detected in this indicator between 2021-2022 and 2023.
[121] Red Natura 2000 includes: SCIs (Sites of Community Importance) and SPAs (Special Protection Areas).

As for the rest of the land occupation indicators, the following should be mentioned:

- **Total sealed area**

In relation to **transmission lines** (*45,222 kilometres of circuit line with a total of 86,439 towers distributed throughout the Spanish mainland, Balearic Islands, and Canary Islands*), the actual sealed area would be limited to the surface area occupied by the four truncated cone-shaped concrete footings of the towers used to carry the overhead lines (1.5-2 m^2 maximum occupation per footing). In relation to underground or submarine lines, we cannot consider these as sealed areas but rather as areas 'occupied' by the cables themselves underground throughout their route.

In relation to sub-stations (711 sub-stations in service in 2023), the areas that can be considered truly sealed within the enclosed area of the facility depend on several factors. The main factor is the type of sub-station: AIS (Air Insulated Switchgear) or GIS (Gas Insulated Switchgear). In addition, in relation to AIS substations (normally outdoors), there are different conditioning factors that determine the actual sealed surface area in each one of them, which will depend on the number of asphalted or concreted access routes; the greater or lesser presence of telecommunications shelters and relay shelters; the presence or absence of a control or work centre, warehouse-workshop, waste shelters, hard-standing areas for waste, etc.

Therefore, a case-by-case analysis would be necessary, which in turn would require a very high number of condition factors to be considered in order to obtain a value regarding the **total sealed area**, without such a result being relevant, or at least indicative, for the assessment of actual environmental performance.

Due to all the aforementioned reasons, Red Eléctrica has opted not to consider the calculation necessary as it is not a basic indicator, nor is it related to the Company's activity or the possible impact of the Company on the environment.

- **Total nature-oriented area on-site/Total nature-oriented area off-site**

With regard to nature-oriented areas, understood as those that promote biodiversity such as 'green' roofs, plant-covered façades, landscaping with native species, insectary plants, restoration of natural areas, etc., for the time being, the Company does not have any nature-oriented areas of this type, except for a small-landscaped roof garden in the Tres Cantos 1-CECORE corporate building (Tres Cantos-Madrid, Spain).

Nevertheless, Red Eléctrica participates in an EU LIFE project called BooGI-BOP (https://www.biodiversity-premises.eu/en/eu-life-project.html). This initiative seeks to incorporate green spaces in urban and industrial environments into the network of green corridors by promoting the design and management of business and industrial environments, taking into account biodiversity and nature. Biodiversity-oriented design (BOP) is a practical approach that contributes to the protection of biodiversity, especially in densely populated regions. BOP provides solutions for shaping permanent or temporary habitats for local fauna and flora and contributes to the creation of biological corridors or green infrastructure. BOP enhances site functionality in a variety of ways and offers good opportunities to raise awareness and actively involve employees in improving biodiversity, enhancing the working environment, increasing the employee's pride of belonging, and raising their awareness of the Company's values in this field.

This design concept gives Red Eléctrica the opportunity to showcase the potential of sub-stations and corporate buildings in this aspect. Thus, in the San Sebastián de los Reyes sub-station, an initial assessment of the situation of spaces was carried out and an adaptation proposal was drawn up. In addition, in the work centres of the Head office in the La Moraleja area of Madrid and in the CAMPUS in Tres Cantos, an initial assessment of the space was carried out, and during 2022, the measures were implemented in the gardened areas of both work centres.

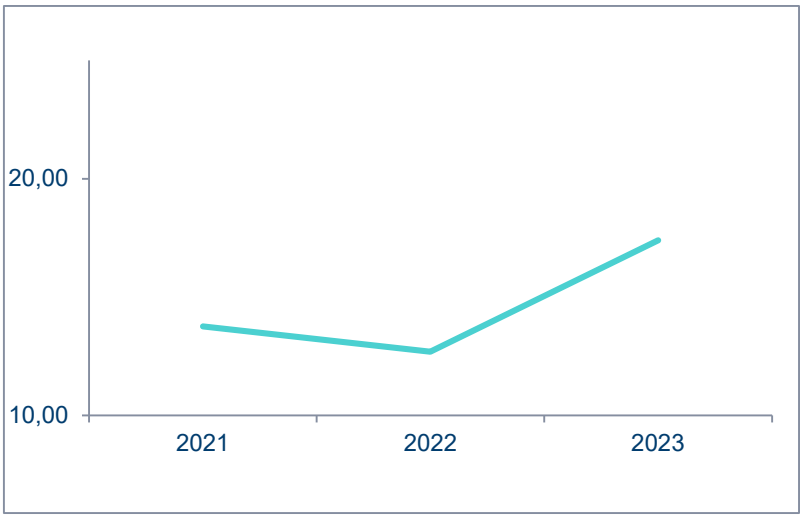
Furthermore, Red Eléctrica participated in a pilot experience carried out jointly with the CSIC and the regional government of Andalusia through the project called Biotransporte, which considered power lines and their towers as biological corridors or biodiversity islands. This project analysed the viability of using power towers as stepping-stones or as hotspots for biodiversity. The results obtained were very satisfactory and showed an increase in the abundance and biodiversity of birdlife, as well as in the number of micromammals and invertebrates (7 out of 8 pollinators). In a subsequent internal analysis, this type of action was considered an initiative that favoured the connection of around 60% of the spaces of the 2020 Natura Network, with many species of different groups benefiting directly, as well as many others indirectly, by increasing the biodiversity of these areas. The article 'Transporting Biodiversity Using Transmission Power Lines as Stepping-Stones?' (Diversity 2020, 12, 439; doi:10.3390/d12110439) related to the results obtained through this case-study was published (*www.mdpi.com/journal/diversity*). In 2022, the project was awarded the Good Practice of the Year prize by the Renewables Grid Initiative (RGI) in the environmental protection category.

Lastly, Red Eléctrica collaborates with the Autonomous University of Barcelona, with the aim of carrying out a study on biodiversity associated with electricity lines and their role as a reservoir of biodiversity in open areas. A bibliographic analysis and monitoring of floral density, abundance of pollinators, and abundance and diversity of diurnal butterflies were carried out. With the results obtained so far from the monitoring of floral density, abundance of pollinators, abundance and diversity of diurnal butterflies, and indirect sampling of macrofauna, it can be understood that electricity lines act as a reservoir of biodiversity in open spaces where the adjacent habitat is of a closed-canopy type area (areas under electricity power lines that have forestry management) and as a refuge for fauna where the adjacent habitat is impacted by anthropogenic actions. A biodiversity monitoring protocol has been designed for transmission grid facilities, and a guide has been designed to evaluate the ecosystems generated beneath overhead electricity lines.

Emissions

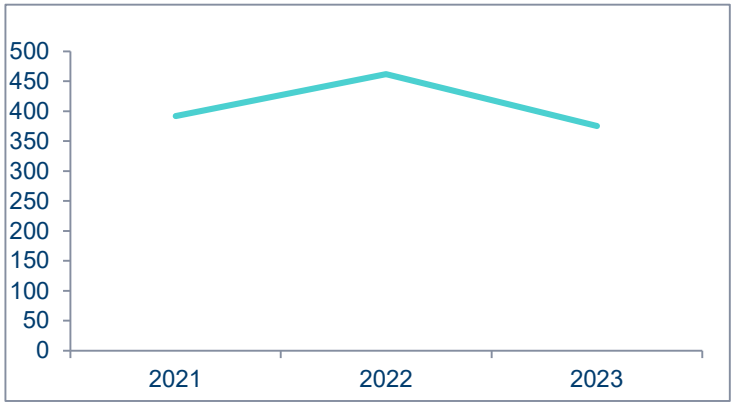
Direct emissions of greenhouse gases (SCOPE 1) + Emissions from electricity consumption (SCOPE 2 without losses)[122]

A	$tCO_2eq.$ SCOPE 1 + Emissions from electricity consumption		
B	Revenue (millions of euros)		
Indicator			A/B
Year	**2021**	**2022**	**2023**
A	23,054.54	20,243.43	28,266.33
B	1,677.5	1,596.3	1,625.2[123]
Indicator	13.74	12.68	**17.39**



Emissions SCOPE 1 + SCOPE 2 including transmission grid losses[124]

A	$tCO_2eq.$ (SCOPE 1 + SCOPE 2)		
B	Revenue (millions of euros)		
Indicator			A/B
Year	**2021**	**2022**	**2023**
A	657,275	737,950	610,692
B	1,677.5	1,596.3	1,625.2[125]
Indicator	392	462	**376**



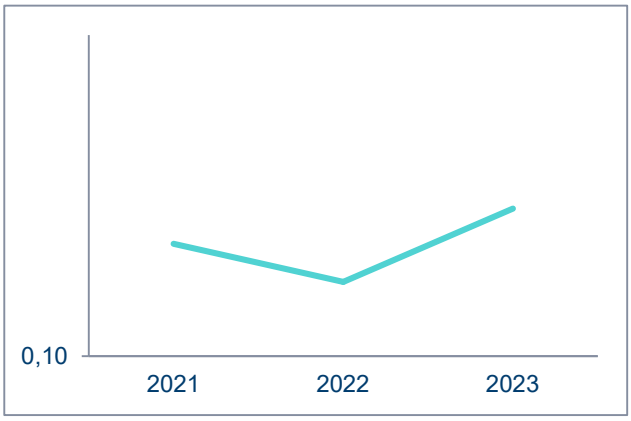
[122] Scope 1 and 2 emissions (not including transmission grid losses). Red Eléctrica considers it relevant to monitor this indicator without including transmission grid losses (as it is not possible to act on them).

[123] Non-adjusted revenue data.

[124] The emissions associated with the transmission grid losses, in the same way as the emissions associated with the consumption of electricity, do not occur during the activities of Red Eléctrica as they take place at the various electricity generation points. For the calculation of these emissions, the emission factors corresponding to each system (Spanish mainland, Balearic Islands, and Canary Islands) are calculated by Red Eléctrica de España based on the annual generation balance. The reduction in emissions is mainly due to the improved emission factor of Spain's electricity mix, which in 2023 had a higher share of renewables than in 2022 (average factor 0.122 t CO_2 eq./MWh compared to 0.163 t CO_2 eq./MWh), primarily associated with a 41% increase in hydro generation compared to 2022, a significant 47.6% increase in solar generation, and decreases in combined cycle (32% less than in 2022) and coal generation (50% less than in 2022).

[125] Non-adjusted revenue data.

% of SF_6 emissions[126]			
A			t SF_6 emitted
B			t SF_6 installed[127]
Indicator			A/B * 100
Year	**2021**	**2022**	**2023**
A	0.89	0.75	1.10
B	506.301	518.425	523.009
Indicator	0.18	0.15	**0.21**[128]



Concerning the indicator '**Total annual air pollution emissions**', **with regard to SO_2, NO_x, and PM emissions**, it is necessary to indicate:

Emissions of this type of pollutant (SO_2, NO_x, and PM) into the atmosphere are not a direct consequence of the Company's production process (*transmission of electricity and operation of the electricity system*) but are generated in auxiliary processes related to the main process. Although these processes are necessary for the correct execution of the activity, they are not considered relevant by Red Eléctrica in terms of their repercussions or impact on the environment.

Specifically, emissions of these pollutants into the atmosphere are derived from:

- Fixed combustion sources: emissions from diesel consumption in **emergency** diesel generator units (off-grid).

  There is no other type of fixed-combustion source. These units are located in corporate buildings (where office work is carried out) and sub-stations. They are only used as back-up generators in the event of a loss of electricity supply in order to power the systems and avoid a shutdown of the facilities for the duration of the emergency. Generally, with some exceptions, the time these units are in operation corresponds to the firing up of the unit to verify it is in good working order and at times when maintenance tasks are scheduled.

- Mobile combustion sources: emissions derived from fuel consumption by Red Eléctrica vehicles.
  - Fleet vehicles: those vehicles owned by Red Eléctrica that are used by technical staff located in the various regional areas in order to carry out maintenance work.
  - Shared leasing vehicles: used by technical staff in the various regional areas for the necessary travel required to perform their duties.
  - Executive vehicles: vehicles (Red Eléctrica's owned vehicles or those that are under a shared leasing scheme) used by executives in the performance of their duties (not including private use).

Efficient management of fleet vehicles is carried out by undertaking the commitment to using the best technologies currently available (100% of the new vehicles incorporated into the fleet are either hybrid, plug-in hybrid, or electric cars) and to optimise their use through the application of CARS (*Agile, Responsible and Safe Driving System*), which facilitates the use of efficient routes and promotes responsible driving. Since 2015, Red Eléctrica has maintained the 'Ecological Fleet Accreditation' in its

[126] The most representative emissions of REE's activity are SF_6 emissions (direct) and emissions from transmission grid losses. The emission rate has been worked out based on the emission data calculated according to actual leakage records. To assess SF_6 gas emissions in relation to the total SF_6 gas installed, it is considered more appropriate to use tons of SF_6 emitted as the unit of measure, rather than calculate it in tons of CO_2 equivalent.

[127] The increase in installed gas is mainly due to the commissioning of new facilities and the replacement of old equipment with SF_6-insulated equipment.

[128] The rates shown are calculated based on actual data collected in the field and include, in addition to leakage during maintenance, the estimated emissions corresponding to the end of the equipment's life. The maximum leakage rates for equipment in service included in the voluntary agreement for SF_6 management, signed in 2015, are based on their age. Equipment commissioned since 2008 is associated with a leakage rate of 0.5% per year (older equipment is allowed higher leakage rates). The low emission rates reflect the enormous effort of the Company in improving the management and control of SF_6 emissions. Specifically, the decline shown in recent years is due to the breakdown repair work performed since 2018. Furthermore, no accidents involving gas leaks occurred from 2019 to 2022. However, in 2023, an accident occurred, reflected in the increased leak rate for this year.

‘Master’ category (the most demanding one) received from the Fleet Managers Association (AEGFA) and the Institute for Diversification and Energy Saving (IDAE). 80.6% of the Company's vehicles (including passenger cars, SUVs, vans, trucks, shared leasing, executive vehicles, and the pool of electric vehicles) have an energy rating of ‘A.’

These reasons have led Red Eléctrica to not consider it necessary for the moment to calculate or estimate emissions as it is not an indicator directly related to its activity or the possible impact of the Company’s activities on the environment. In any event, it is necessary to indicate that when calculating our emissions in $tCO_2eq.$, the impact of the aforementioned gases (SO_2, NO_x, and PM) on the possible greenhouse effect is included.

	Emissions from fleet vehicles		
	Kg of CO_2/Km[129]		
Year	2021	2022	2023
	0.15	0.17	**0.19**

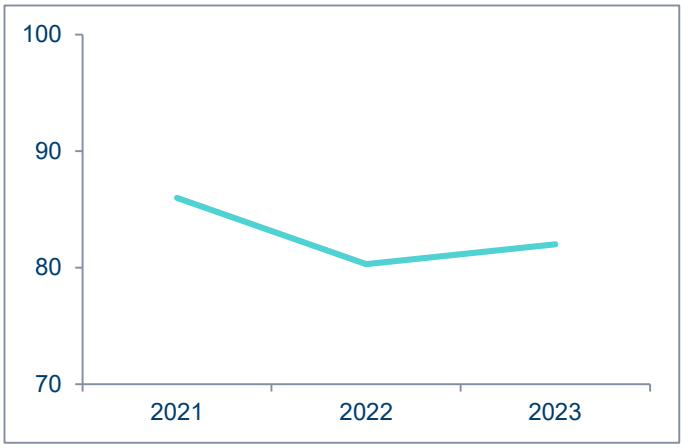
[129] Fleet vehicles + shared leasing (excludes executives’ vehicles).

Specific environmental performance indicators related to the activity

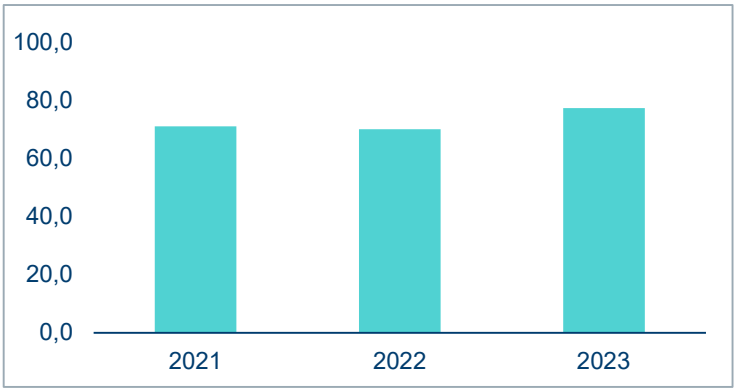
Shown below are specific environmental performance indicators related to Red Eléctrica's activity not already included as part of the key indicators. As there is no specific EMAS sector document of reference available for the High-Voltage Transmission and Electricity System Operation activity, the choice of specific indicators is based on:

- Environmental indicators requested for said activity within the scope of the Global Reporting Initiative (GRI) guidelines for the preparation of sustainability reports incorporating the additional applicable information of the 'Electric Utility Supplement' in its G4 version.
- Direct and indirect environmental aspects related to the Company's core activity.
- Other relevant aspects that reflect the evolution of Red Eléctrica's commitment in the environmental field.

% Fulfilment of the environmental programme			
A	Contribution of fulfilled environmental objectives		
B	Total contribution of the programme		
Indicator	A/B x 100		
Year	**2021**	**2022**	**2023**
A	86.0	80.3	82
B	100	100	100
Indicator	86.0	80.3	**82**[130]



Biodiversity: % of critical lines marked			
A	Km of line marked in critical areas[131]		
B	Km of line in critical areas[132]		
Indicator	A/B x 100 (% of line marked in critical area)		
Year	**2021**	**2022**	**2023**
A	637.9[133]	681.2	767.4
B	791	972.1	990.9
Indicator	71.1	70.1	**77.4**



[130] Starting in 2023, this corresponds to the fulfilment of the environmental objectives of the Sustainability Plan.

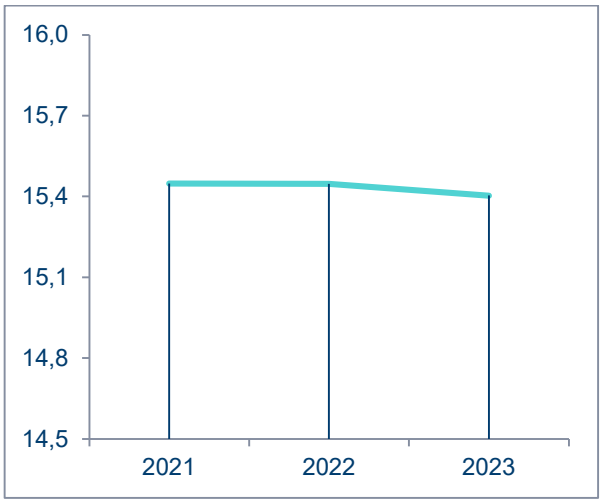
[131] Cumulative data at the end of each year. This data refers to the route, i.e., the length of the lines, irrespective of the number of circuits they have.

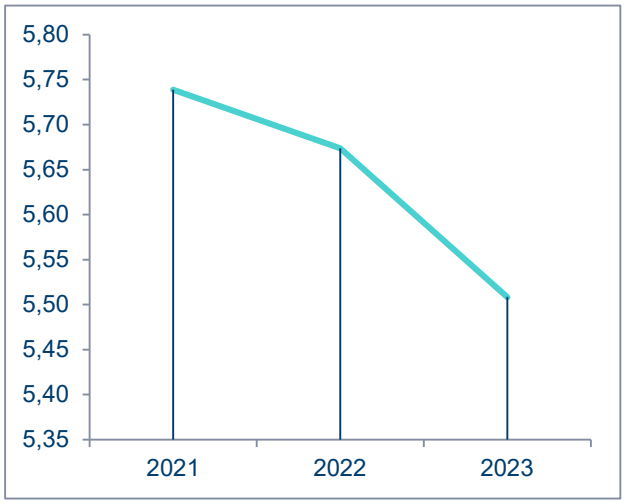
[132] The target value fluctuates slightly each year, depending on the variations in the transmission grid facilities (new lines and changes to existing lines) and the updating of birdlife accident data. The percentage of line marking refers to the target value defined in each of the years.

[133] In 2022, significant variations were associated with the number of new focal species. There was an increase in species (from 46 to 52), and variations in the distribution of some of these species were recorded, either because they appeared in new territories or because more precise information was available than in the previous edition of the project. Consequently, the 2021 signalling data has been recalculated using updated data from the 2022 'flight paths' project and the latest and most complete information on species distribution patterns and the availability of new sensitivity and risk maps.

Biodiversity: impact of facilities

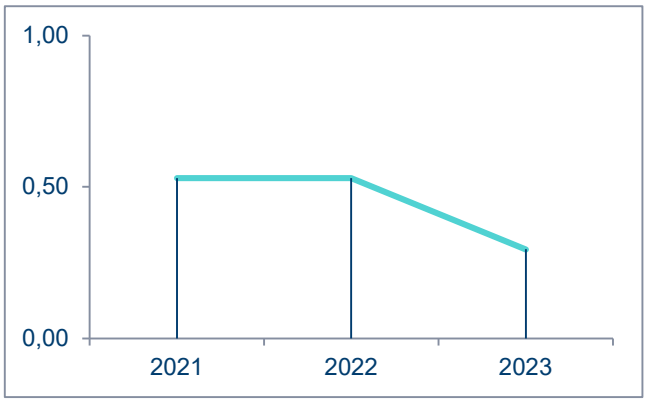
A	Km of line in Red Natura[134]			No. of sub-stations in Red Natura		
B	Total km of line			Total no. of sub-stations		
Indicator	A/B x 100			A/B x 100		
	Lines			**Sub-stations**		
Year	**2021**	**2022**	**2023**	**2021**	**2022**	**2023**
A	4,908.95	4,909.19	4,918.43	40	39	40
B	31,775.97	31,781.09	31,930.68	705	708	711
Indicator	15.4	15.4	**15.4**	5.67	5.51	**5.63**





Biodiversity/Relationships with stakeholders

A	No. of autonomous communities with biodiversity projects		
B	Total no. of autonomous communities		
Indicator	A/B		
Year	**2021**	**2022**	**2023**
A	9	9	5[135]
B	17	17	17
Indicator	0.53	**0.53**	**0.29**



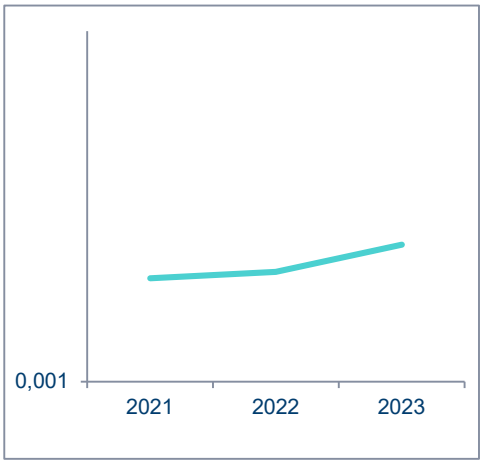
[134] It includes the total number of kilometres of submarine cable and those in Red Natura.

[135] Conservation projects have been carried out in a total of 5 autonomous communities: Andalusia, Extremadura, Navarre, Aragón, and Valencia.

Emissions	
A	Indirect emissions derived from transmission grid losses ($tCO_2eq.$)
B	MWh transported
Indicator	A/B

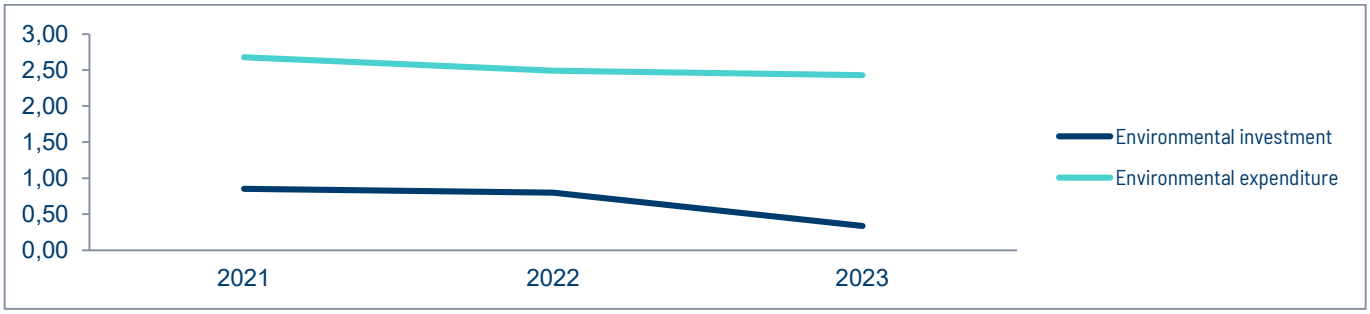
Emissions derived from transmission grid losses [136]

Year	2021	2022	2023
A	634,211	718,015	582,698
B	256,387,046	250,029,768	244,083,267
Total	0.00247	0.00295	**0.00250**



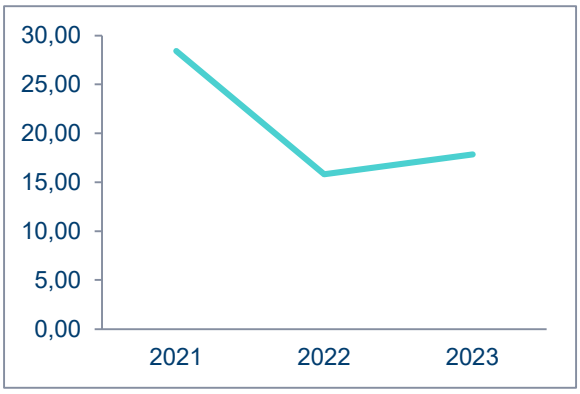
Environmental investment and expenditure		
A	Environmental investment	Environmental expenditure
B	Total investment	Total expenditure
Indicator	A/B x 100	A/B x 100

	Environmental investment			Environmental expenditure		
Year	2021	2022	2023	2021	2022	2023
A	4,912,976.00	3,338,603.91	2,938,138.94	23,287,059.71	22,686,787.68	24,946,751.42
B	383,102,000	390,980,000	864,158,512	832,061,000	847,302,000	1,026,615,284.77
Indicator	1.28	0.85	**0.34**	2.80	2.68	**2.43**

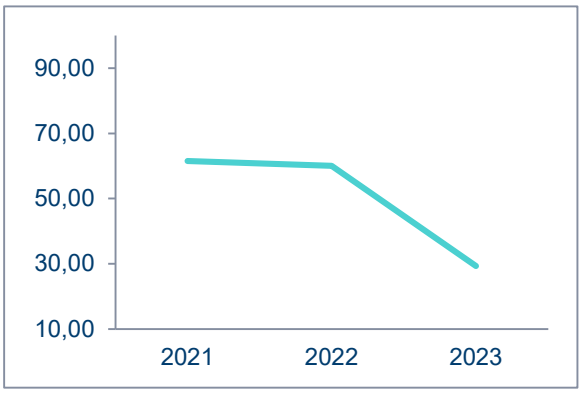


[136] The emissions associated with the transmission grid losses, in the same way as the emissions associated with the consumption of electricity, do not occur during the activities of Red Eléctrica de España as they take place at the various electricity generation points. For the calculation of these emissions, the emission factors corresponding to each system (Spanish mainland, Balearic Islands, and Canary Islands) are calculated by Red Eléctrica de España based on the annual generation balance.

Training and awareness-raising actions			
A	No. of employees who received environmental training		
B	No. of employees[137]		
Indicator	A/B x 100		
Year	**2020**	**2022**	**2023**
A	512	294	341
B	1,801	1,858	1,910
Indicator	28.43	15.82	**17.85**



Accidental spill of hydrocarbons			
A	No. of accidents involving oil or fuel spills from in-service transformers and equipment		
B	Total no. of accidents[138]		
Indicator	A/B x 100		
Year	**2021**	**2022**	**2023**
A	8	9	5
B	13	15	17
Indicator	61.54	60.00	**29.41**



[137] Only Red Eléctrica personnel
[138] Accidents not involving birdlife

14 Frequency of the Environmental Statement

This Report is published annually and acts as an Environmental Statement. Its purpose is to provide information to all stakeholders concerning Red Eléctrica's environmental behaviour regarding those activities carried out during 2023.

The Spanish Association of Standardisation and Certification (AENOR INTERNACIONAL, S.A.U.) , with Head Offices at Génova 6 - 28004 Madrid, and Accredited Certifying Body Number E-V-0001, is the entity that verifies that the Environmental Statement of Red Eléctrica complies with the requirements set forth in Regulation (EC) No 1221/2009 of the European Parliament and of the Council of 25 November 2009, Regulation (EU) 2017/1505 amending Annexes I, II and III to Regulation (EC) No. 1221/2009 and also Regulation (EU) 2018/2026 amending Annex IV to Regulation (EC) No. 1221/2009, on the voluntary participation by organisations in a Community Eco-management and Audit Scheme (EMAS).

The next Statement will be presented and published during the **first half of 2025.**

Glossary of terms

Environmental aspect	An element of the activities, products, or services of an organisation that has, or may have, an impact on the environment. *Regulation (EC) No 1221/2009 of the European Parliament and of the Council of 25 November 2009 on the voluntary participation by organisations in a Community Eco-Management and Audit Scheme (EMAS).*
Significant environmental aspect	An environmental aspect that has, or may have, a significant impact on the environment. *Regulation (EC) No 1221/2009 of the European Parliament and of the Council of 25 November 2009 on the voluntary participation by organisations in a Community Eco-Management and Audit Scheme (EMAS).*
Electrical field	At a point in space, the force exerted on a static load located at that point. Expressed in volts per metre (V/m). *(50 Hz. Electrical and Magnetic fields. REE and UNESA, 1998).*
Magnetic field	At a point in space, the force exerted on a live element located at that point. Expressed in amperes per metre (A/m). The international measuring unit is Tesla (T) or any fraction thereof, and in particular the microtesla (μT). *(50 Hz. Electrical and Magnetic fields. REE and UNESA, 1998).*
Nesting deterrent	A device comprised of several elements made of galvanised steel and of different sizes that deter birds from nesting or perching in the places where it is installed or on the actual device itself. *(Own definition: Red Eléctrica).*
Environmental impact	Any change in the environment, either adverse or beneficial, that is caused in full or in part by the activity, products, or services of any organisation. *Regulation (EC) No 1221/2009 of the European Parliament and of the Council of 25 November 2009 on the voluntary participation by organisations in a Community Eco-Management and Audit Scheme (EMAS).*
Environmental behaviour indicator	Specific performance indicators providing information on an organisation's environmental behaviour. *(Standard UNE-EN ISO 14031 Environmental management. General Guidelines)*
Site of Community Importance (SCI)	An area that, based on the biogeographic region(s) to which it belongs, contributes greatly to maintaining or restoring a type of natural habitat (…) in a favourable state of conservation so that it can help considerably in establishing the cohesion of Natura 2000 (…) and/or contributes noticeably to maintaining biological diversity in the biogeographic region or regions in question. For the animal species occupying large areas, the special areas of conservation will usually correspond to specific locations inside the area in which that species is naturally distributed, presenting the physical or biological elements that are essential for them to live and reproduce. *(Directive 92/43/EC, of May 21, on the Conservation of Natural Habitats and Wild Fauna and Flora)*
Environmental objective	A general environmental objective that originates from the Environmental Policy and is set out as a goal to be fulfilled by the organisation and that, insofar as is possible, is measured. *(Regulation (EC) No 1221/2009 of the European Parliament and of the Council of 25 November 2009 on the voluntary participation by organisations in a Community Eco-Management and Audit Scheme (EMAS))*

Environmental policy	The general management and intentions of an organisation with respect to its environmental behaviour, put forward officially by its management teams, including compliance with all the regulatory provisions applicable to environmental matters, as well as the commitment to continuously improve environmental behaviour. It constitutes a framework for the Company's actions and for establishing environmental targets and objectives. *(Regulation (EC) No 1221/2009 of the European Parliament and of the Council of 25 November 2009 on the voluntary participation by organisations in a Community Eco-Management and Audit Scheme (EMAS))*
Red Natura 2000 (Natura 2000 Network)	The European Natura 2000 Ecological Network is a coherent environmental network comprised of Sites of Community Importance whose management shall take into account the economic, social, and cultural requirements, as well as the special regional and local characteristics. These sites are later designated as either Sites of Community Importance (SCIs) or Special Protection Areas (SPAs) for Birdlife. *(Law 42/2007 of 13 December on Natural Heritage and Biodiversity)*
Waste	Any substance or object that the owner discards, wants to discard, or is required to discard. *(Law 22/2011, 28 July, on Waste and Contaminated Soils)*
Bird-saving devices or 'spirals'	A white or orange spiral made of polypropylene (PVC) in the shape of a spiral, measuring 30-35 centimetres in diameter and with a length of 1 metre, that is coiled around the grounding cable or conductor to mark it and alert birds to the presence of the lines in order to reduce the risk of collisions. *(Own definition: Red Eléctrica).*
Visual simulation	An infographic technique (part of computer applications that produce graphic representation) used to obtain a visual representation of a project, providing an approximate idea of what it will truly look like once completed and showing the elements that it is comprised of, as well as its integration into its environment. *(Own definition: Red Eléctrica).*
Environmental management system	That part of the general management system that includes the organisational structure, planning of activities, responsibilities, good practices, procedures, processes, and resources to develop, apply, achieve, revise, and maintain the environmental policy and manage the environmental aspects. *(Regulation (EC) No 1221/2009 of the European Parliament and of the Council of 25 November 2009 on the voluntary participation by organisations in a Community Eco-Management and Audit Scheme (EMAS))*
Special Protection Area (SPA) for Birdlife	An area of community interest for the protection of bird species listed in Annex I of Council Directive 79/409/EEC of 2 April 1979, on the conservation of wild birds.

Statement from the verifier

Annex: Environmental Actions 2023

The most **significant preventive and corrective measures** carried out in 2023 for the construction or modification of facilities are described below.

Prevention and reduction measures for habitat protection and conservation

- Modification of the design of the 132 kV Puerto del Rosario-Gran Tarajal line. A modification was made in the accesses to towers 72, 75, 78, and 77 due to the high density of Caralluma burchardii.
- Exploration, marking, and protection of habitats of community interest in the AC 220 kV Benahadux-Órgiva line, Ibiza-Formentera interconnection, Bunyola-Inca, 400 kV La Plana-Morella line, and 400 kV Ayora-Cofrentes line.
- Marking around leafy areas and protection of watercourse in the 220 kV Lousame-Tibo high voltage line and 220 kV Lousame-Mazaricos high voltage line.
- Signalling of zones with protected species in the 132 kV Puerto del Rosario-Gran Tarajal line, Chío-El Palmar (terrestrial) line, Chío sub-station, and El Palmar sub-stations.
- Lifting with a crane in the 400 kV Ayora-Cofrentes line, towers T-23 to T-38.
- Overhead lines with helicopter of towers T-40 to T-64 of 400 kV Gúeñes-Itxaso line and tower 72 of 132 kV Puerto del Rosario-Gran Tarajal line.
- Overhead lines by hand in sensitive vegetation areas on towers T-14 to T-40 of the 400 kV Gúeñes-Itxaso line.

Avoidance and reduction measures for the protection and conservation of fauna

- Elimination of exotic species *Pennisetum Setaceum* (fountain grass) and (*Opuntia sp.*) prickly pear cactus from the 66 kV Caletillas-Buenos Aires, 66 kV Rosario-Guajara, 66 kV El Rosario-Geneto, 66 kV Rosario-Manel Cruz lines, East dam, and the dismantling of input and output lines of the Sabinal sub-station.
- Elimination of exotic species such as *Pluchea sp.*, *Ricinus communis* (ricinus), *Cenchrus setaceum* (fountain grass), *Nicotiana glauca* (tree tobacco), and *Opuntia sp.* (prickly pear cactus) in the projects 66 kV Caletillas-Candelaria and 66 kV Chío-El Palmar corridors. Transfer to a garden centre of protected species (*Euphorbia balsamifera*, *Asparagus arborescens*, and *Reseda scoparia*) for subsequent revegetation in the 66 kV Chío-El Palmar corridor and Chío sub-station.
- Plantations and habitat restorations in the Baza sub-station project, E/S 400 kV San Fernando, 400-220 kV San Fernando sub-station project, and AC 220 kV Atarfe-Íllora-Tajo de la Encantada line project.
- Biological stoppages in 10 actions during breeding periods, which in many cases lasted up to 7 months.
- Pre-project explorations to avoid damage to protected species in the Fontefría sub-station and 132 kV Puerto del Rosario-Gran Tarajal sub-station and line.
- Minimising bentonite discharge into the sea by installing a venturi system in drills and containment barriers in the 66 kV Chío-El Palmar corridor project.
- Installation of bird-saving devices on three spans of the Mangraners-Espluga-Begues electric line.
- Birdlife monitoring in the 400 kV Gatika-Güeñes line (FO change), Chío-El Palmar (terrestrial) line, 400 kV La Plana-Morella line, and 132 kV Puerto del Rosario-Gran Tarajal line projects.
- Identification and maintenance of *Corvus corax* nests in the 132 kV Puerto del Rosario-Gran Tarajal line project.
- Monitoring the *Hemicycla Plicaria* reservoir in the 220 kV Caletillas-Buenos Aires line and Caletillas sub-station projects.

Waste management in 2023

The data and the evolution of waste generation and final destinations in the last three years can be seen below.

	HAZARDOUS WASTE					
	2021	2022	2023	2021	2022	2023
Treatment method	kg	kg	kg	%	%	%
Elimination	39,048.00	52,964.00	38,863.00	6.78	6.79	**1.01**
Recycling	450,802.28	700,389.00	3,477,628.00	78.24	89.78	**90.15**
Regeneration	636.00	26,797.00	341,180.00	0.11	3.43	**8.84**
Reuse	0.00	0.00	0.00	0.00	0.00	**0.00**
Waste-to-Energy (Energy recovery)	85,680.00	0.00	0.00	14.87	0.00	**0.00**
Total	576,166.28	780,150.00	**3,857,671**	100.00	100.00	100.00

	NON-HAZARDOUS WASTE					
	2021	2022	2023	2021	2022	2023
Treatment method	kg	kg	kg	%	%	%
Elimination	22,700	57,200	13,200	4.36	7.62	**2.51**
Recycling	497866	690,991	502,395.47	95.64	92.06	**95.53**
Regeneration	0.00	2,360	10,300	0.00	0.31	**1.96**
Reuse	0.00	0.00	0.00	0.00	0.00	**0.00**
Waste-to-Energy (Energy recovery)	0.00	0.00	0.00	0.00	0.00	**0.00**
Total	520,567.00	750,551.00	**525,895.47**	100.00	100.00	100.00

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Valuing the essentials