

Corporate Environmental Footprint Report



2022



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01.

Introduction

1. Introduction

Iberdrola publishes its Corporate Environmental Footprint report to provide transparent information to Group stakeholders about the overall environmental impact its activities have.

The Corporate Environmental Footprint (CEF) is a multi-criteria measure of a company’s environmental behaviour, from a life cycle perspective. A CEF consists of a compilation and evaluation of the inputs, outputs and potential environmental impacts of the activities associated with a company’s portfolio of goods and/or services, whilst also taking the supply chain into account.

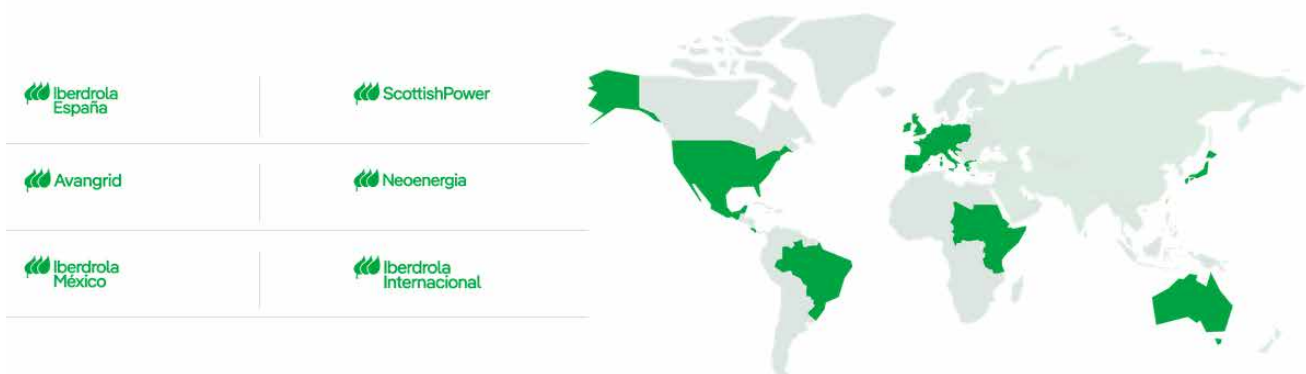
This report presents the results for the calculation of the CEF for 2022 with the following considerations:

- It includes the impacts of the activities of the entire Iberdrola group: Iberdrola España, ScottishPower, Avangrid, Neoenergia, Iberdrola México, Iberdrola Energía Internacional (Portugal, France, Italy, Germany, Greece, Australia, Hungary and Romania).
- The consolidation of the CEF impacts, which establishes the organisational boundaries for its evaluation, is approached from the **operational control approach**¹ .
- In the reporting criteria for its generation assets, Iberdrola differentiates between “own” production and **installed capacity and production and installed capacity for “third parties”**.

The organisation responsible for the preparation of this report is the Corporate Environmental department, within the Innovation and Sustainability Division of Iberdrola, S.A.

The report has been produced in accordance with the requirements set out in ISO/TS 14072:2014 “*Environmental management -- Life cycle assessment -- Requirements and guidelines for organizational life cycle assessment*” and the document “Specification for the calculation of Corporate Environmental Footprint. (Organisational Life Cycle Analysis). May 2022”².

The verification of aspects of the Corporate Environmental Footprint has been carried out with a limited assurance engagement.



1. With the exception of the nuclear power stations, the cogeneration plants in Spain and the hydroelectric power plants in Brazil, which are accounted for on a share basis, in line with the Sustainability Report (shareholding according to the consolidated Financial Statements Report for the financial year)

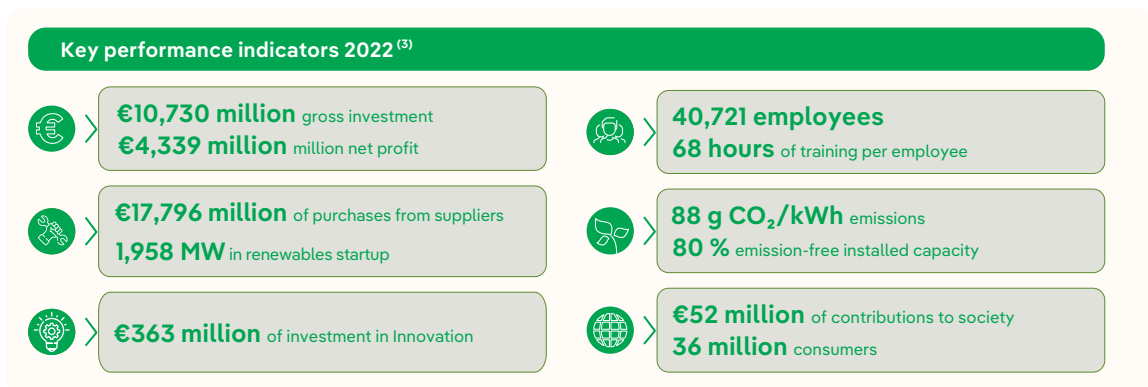
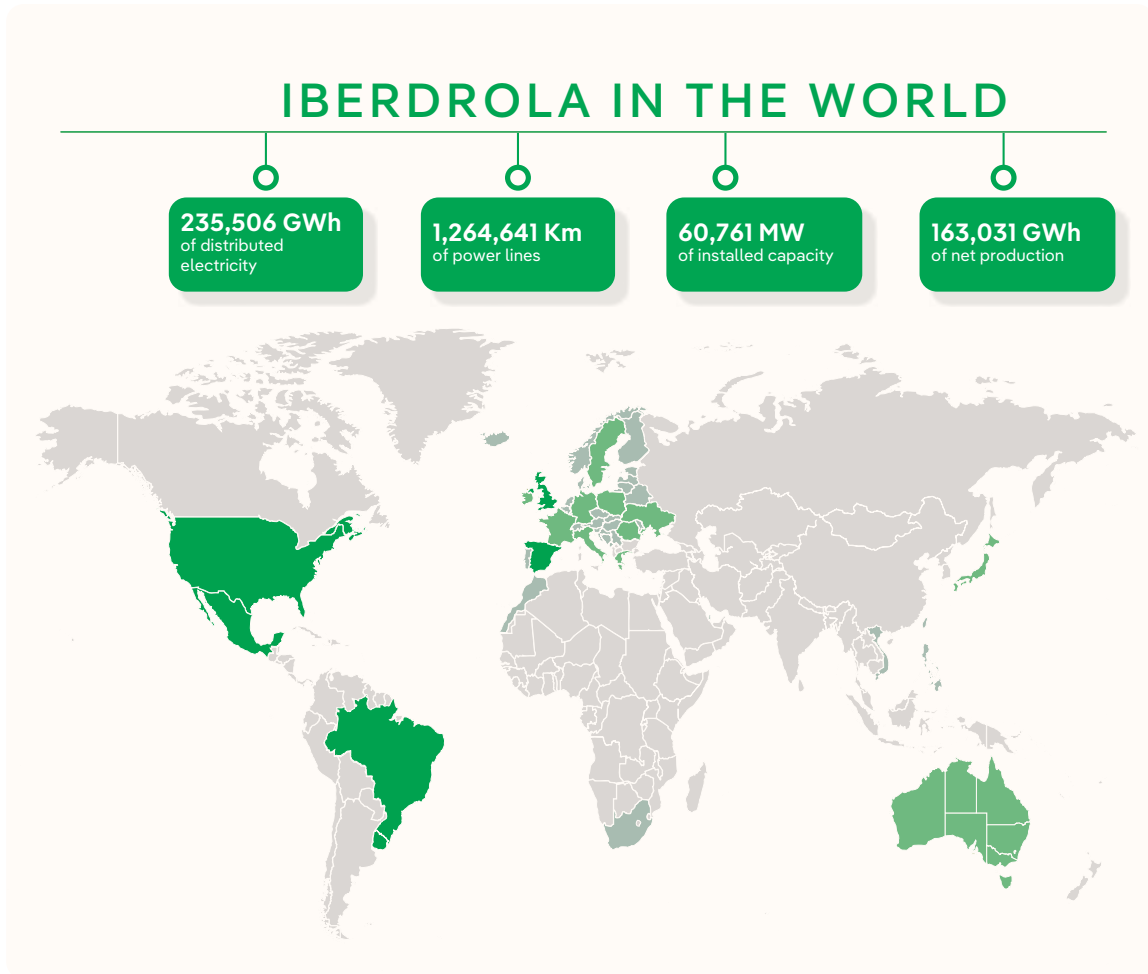
2 [Documento interno Iberdrola.](#)

02.

The energy company of the future

2. The energy company of the future

With over 170 years of history behind us, Iberdrola is now a **global energy leader, the number one producer of wind power and one of the world's biggest electricity utilities in terms of market capitalisation**³. For two decades Iberdrola has advanced work on the energy transition to combat climate change and offer a sustainable and competitive business model that creates value in the territories in which the company operates.



³ As at year-end 2022, published in the Non-Financial Information Statement (NFS) report.

In environmental matters, our goal is to continue contributing to the creation of an energy system in harmony with nature and mankind, facing the triple environmental challenge of the fight against climate change, the conservation of biodiversity and the circularity of resources.

Climate action is underpinned by a strong commitment to the protection of nature, jointly addressing the triple environmental crisis (climate, biodiversity and overexploitation of resources).

The **loss of biodiversity** is critical for Iberdrola, as the company interacts with different ecosystems and species over a wide geographical area. Aware of the urgency of halting and reversing an unprecedented loss of biodiversity, and in response to the demands of the scientific community, the company has launched its Biodiversity Plan 2030, which applies to the entire Iberdrola group and includes a commitment to have a net positive impact on biodiversity by 2030. The plan addresses the ecosystem and species impacts of the group's activities throughout the life cycle, taking into account the supply chain and creating economic and social value through ecosystem services.

The **efficient use of natural resources** to address the energy transition is another major challenge facing Iberdrola and the energy sector as a whole. In particular, Iberdrola pays special attention to the efficient management of water resources, due to its environmental and social implications, and strives to make rational and sustainable use of water and to address the risks related to its scarcity.

In addition, the company works with its supply chain and other actors in its value chain to develop circular production systems that reduce pressure on available resources. By way of example, in 2022, Iberdrola and FCC have launched EnergyLOOP to lead the recycling of wind turbine blades on an industrial scale, one of the biggest medium and long term challenges in the sector.

Innovation is the lever that allows Iberdrola to address all these challenges and to implement the corresponding action plans in order to take advantage of the opportunities that arise. Innovation will allow solutions to be found for currently unsolvable problems, as well as discovering more efficient ways of carrying out activities that are currently carried out.

All of the above so as:

“To continue to collaborate each day to build a more electric, healthy and accessible energy model”

03. Goals

3. Goals

The Corporate Environmental Footprint is an important element in the company's environmental management model, the ultimate purpose of which is to align the environmental dimension within the company's sustainability model, integrating universality of service, safety, energy efficiency and reduction of the company's environmental impact.

Having calculated the Corporate Environmental Footprint at Iberdrola entails the following for the Group:

- It brings transparency, consistency and credibility to environmental management.
- Improved analysis of environmental performance and consequent identification of opportunities to reduce environmental impacts.
- A drive for innovation and continuous improvement in business in the quest to strengthen environmental management.
- Recognition of the company's efforts in the fight against climate change, the destruction of the ozone layer, the protection of biodiversity in the environments where we operate and the depletion of natural resources.

The general goals of Iberdrola's CEF are to:

- Identify, evaluate and interpret the meaning of the **environmental aspects and impacts** related to the management systems as defined in the ISO 14001:2015 standard.
- Be a strategic tool for **comprehensive environmental assessment**, which can lead to the adoption of management decisions that relate business competitiveness to the management of the environmental variable.
- Be a **tool for decision making**, in order to prioritise actions aimed at reducing the most relevant environmental impacts of the organisation.
- Help monitor **an organisation's performance**, and enable the traceability of the organisation's environmental improvements.
- Inform stakeholders of the **evolution of the organisation's environmental impacts** over a given period of time.
- Be a **communication tool** for the stakeholders.

04. Scope

4. Scope

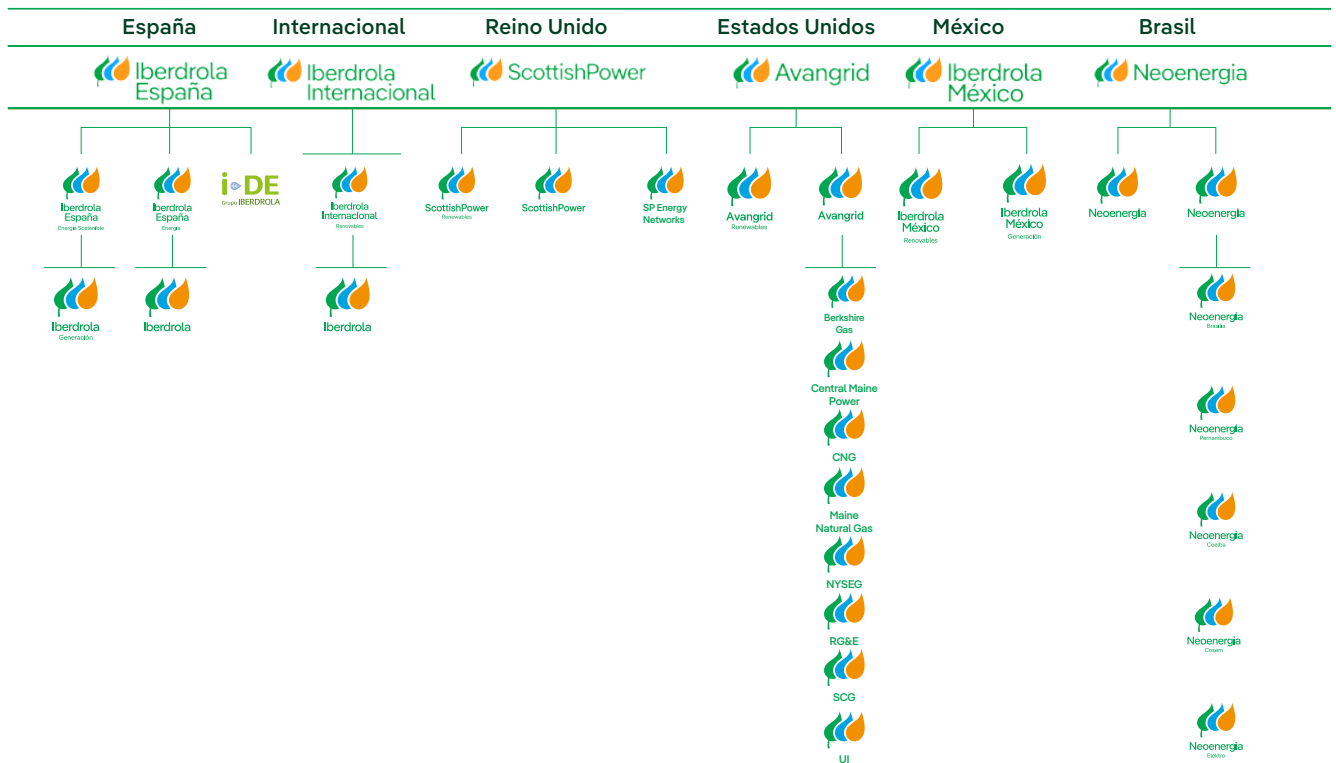
4.1 Limits of the organisation

As is the case when calculating the Carbon Footprint, as indicated in the introductory considerations herein, the consolidation of the life cycle inventory inputs and outputs into the Corporate Environmental Footprint is tackled from an operational control approach.

Iberdrola has sought to identify and adapt to the needs of each of the countries in which it operates. The company has used the experiences of each market to reinforce its brand values and, beyond the location of the business, has created a brand culture based on a global-local balance.

The information included in the scope of the life cycle inventory of the Corporate Environmental Footprint is that corresponding to the corporate structure of the Group, which is made up of the Company, the subholding companies, and the head of business companies.

- Iberdrola España (Spain)
- ScottishPower (United Kingdom)
- Avangrid (United States of America)
- Neoenergía (Brazil)
- Iberdrola México (Mexico)
- Iberdrola Energia Internacional (carrying out the inventory for the countries: Germany, Australia, Cyprus, France, Greece, Hungary, Italy, Poland and Romania).⁴

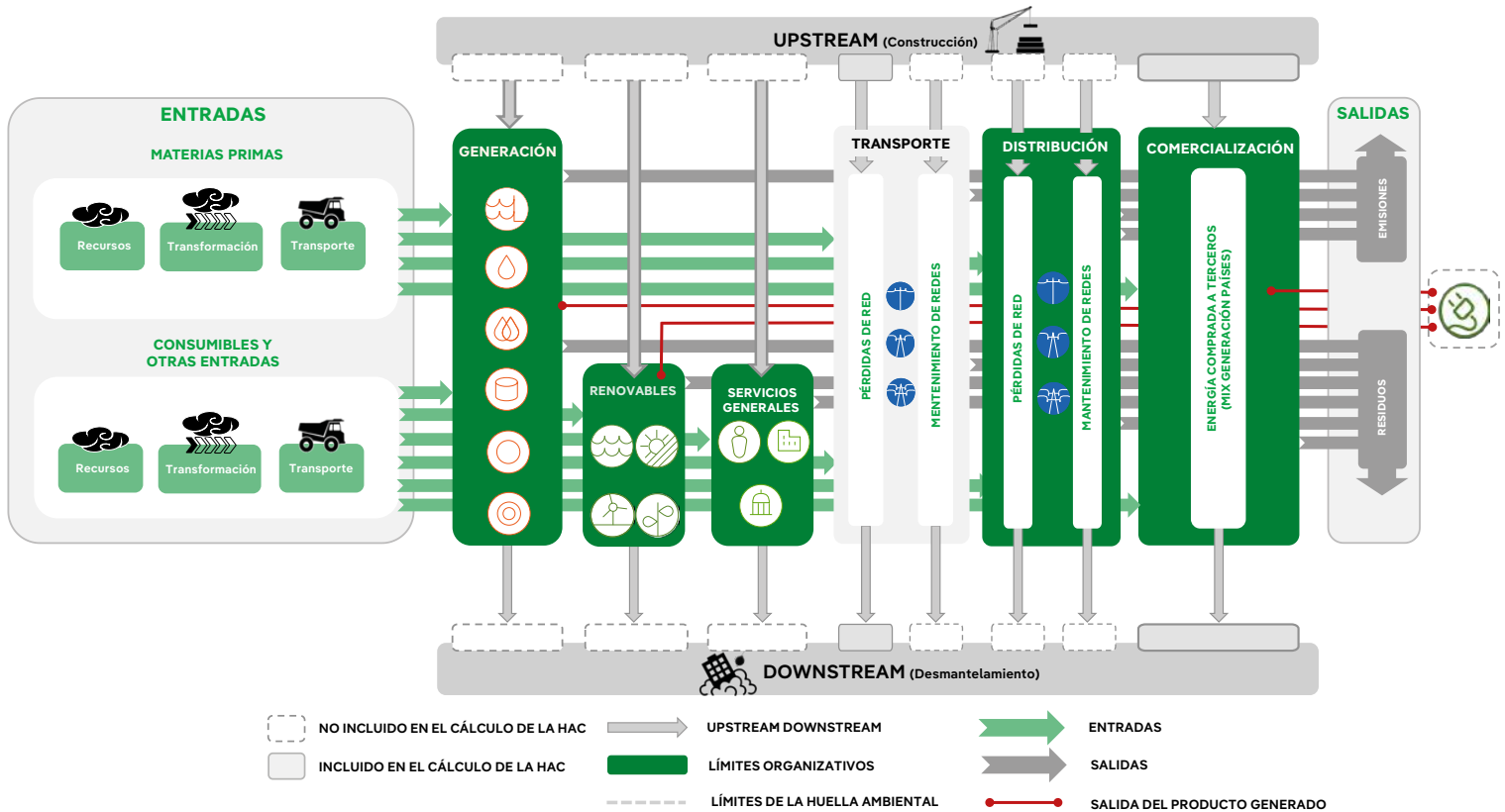


4. The remaining IEI countries are not currently considered in this inventory due to their low relevance.

4.2. Limits of the System

The analysis performed for the calculation of Iberdrola’s CEF is cradle to grave. Infrastructure construction and decommissioning activities are outside the scope of the report.

The following diagram shows all the stages of the electricity life cycle and gives details on which are and which are not included in Iberdrola’s Corporate Environmental Footprint analysis.



Iberdrola defines the scope of its analysed environmental aspects as direct and indirect regarding the operations carried out within the limits of the organisation. These scopes enable a distinction to be made insofar as whether the environmental impact is caused by Iberdrola’s own activity, by an activity that the company cannot control or by external agents.

- **Direct activities**

Direct activities are those that take place within organisational boundaries and are therefore owned or managed by the Iberdrola Group (that is, are site-level activities).

- **Indirect activities**

Indirect activities refer to the use of materials, energy and impacts associated with upstream or downstream goods or services:

- **Associated with energy consumption.** Indirect impacts associated with the generation of electricity, steam or heat acquired for consumption in Iberdrola’s plants and offices.

- Other indirect activities. Indirect impacts that are a consequence of the company’s activities but occur in sources that are neither the property of nor controlled by Iberdrola. These indirect activities range from the full lifecycle of waste management to the upstream lifecycle of raw materials purchased.

Table 1 List of direct activities in indirect activities

ACTIVITIES	CATEGORY	
Direct Scope	Water consumption: direct consumption of collected water.	
	Atmospheric emissions	
	Fleet car use ⁵ : direct emissions	
	Fugitive emissions into the air	
	Fuel consumption in buildings ⁶	
	Land occupation by power stations	
	Land occupation by the lines	
Alcance Indirecto	Energy Consumption	Fleet car use: associated energy impact ⁷
		Electricity consumed in power stations
		Electricity losses in distribution
		Electricity consumed in offices, stations and substations
	Transport	Fleet car use: life cycle ⁸
		Employee business trips
		(Employee commuting)
	Use of products	Marketing of electricity bought from third parties
		Marketing of gas bought from third parties
	Other sources	Fuel consumption: WTT with life cycle. ⁹
		Fuel consumption of buildings: WTT with life cycle. ¹⁰
		Water consumption: tap water consumption.
		Use of consumables
		Use of chemical products
		Hazardous waste
		Radioactive waste
Non-hazardous waste		

5 Except electric and hybrid cars and only use emissions.

6 Use emissions.

7 The energy consumption of the electric and hybrid vehicle is accounted for.

8 Except use emissions, accounted for in 'Direct scope'.

9 Except use emissions, accounted for in 'Direct Scope' with 'Emissions to air'.

10 Except use emissions, accounted for in 'Direct scope'.

4.3 Changes relevant to the calculation

No relevant methodological changes have been made in the 2022 financial year that affect the calculation of the CEF.

4.4 Exclusions

This section details elements excluded from Iberdrola's Corporate Environmental Footprint. The excluded aspects represent less than 2% of the Iberdrola CEF and are presented below:

- Radioactive emissions in the operating phase of nuclear power stations (limitation due to the factor database).
- Consumables whose impact on the final footprint result is not significant (less than 2 %).
- The aspects of the dams for hydraulic generation.¹¹
- Mobile sources at generation facilities (less than 2 %).



¹¹. Under study

05. Functional unit and base year

5. Functional unit and base year

5.1 Functional unit

The functional unit is the reference on the basis of which all the activity data of the organisation is collected, the entire life cycle inventory that is the subject of this analysis.

In the case of Iberdrola’s Corporate Environmental Footprint analysis, the reporting unit taken into account is:

“The activity carried out in a year by Iberdrola (generation, transmission¹², marketing and corporate support services), accounting for all input and output aspects that occur in the organisation, both upstream and downstream, and the environmental impacts of the energy generation of third party companies for subsequent retailing by Iberdrola”.

These activities include the impact associated with the input and output aspects for the production, transmission and distribution of electricity, the transport and retailing of gas and the management of the company’s corporate support services.

5.2 Base year

The base year for this study is set at the 2019 reporting interval, reported in the 2020 report¹³; an annual exercise established to enable the setting of targets and the year-on-year evolution of Iberdrola’s Corporate Environmental Footprint.



¹² The distribution and transportation of electricity.

¹³ In 2020, 2019 was recalculated as the base year due to methodological changes.

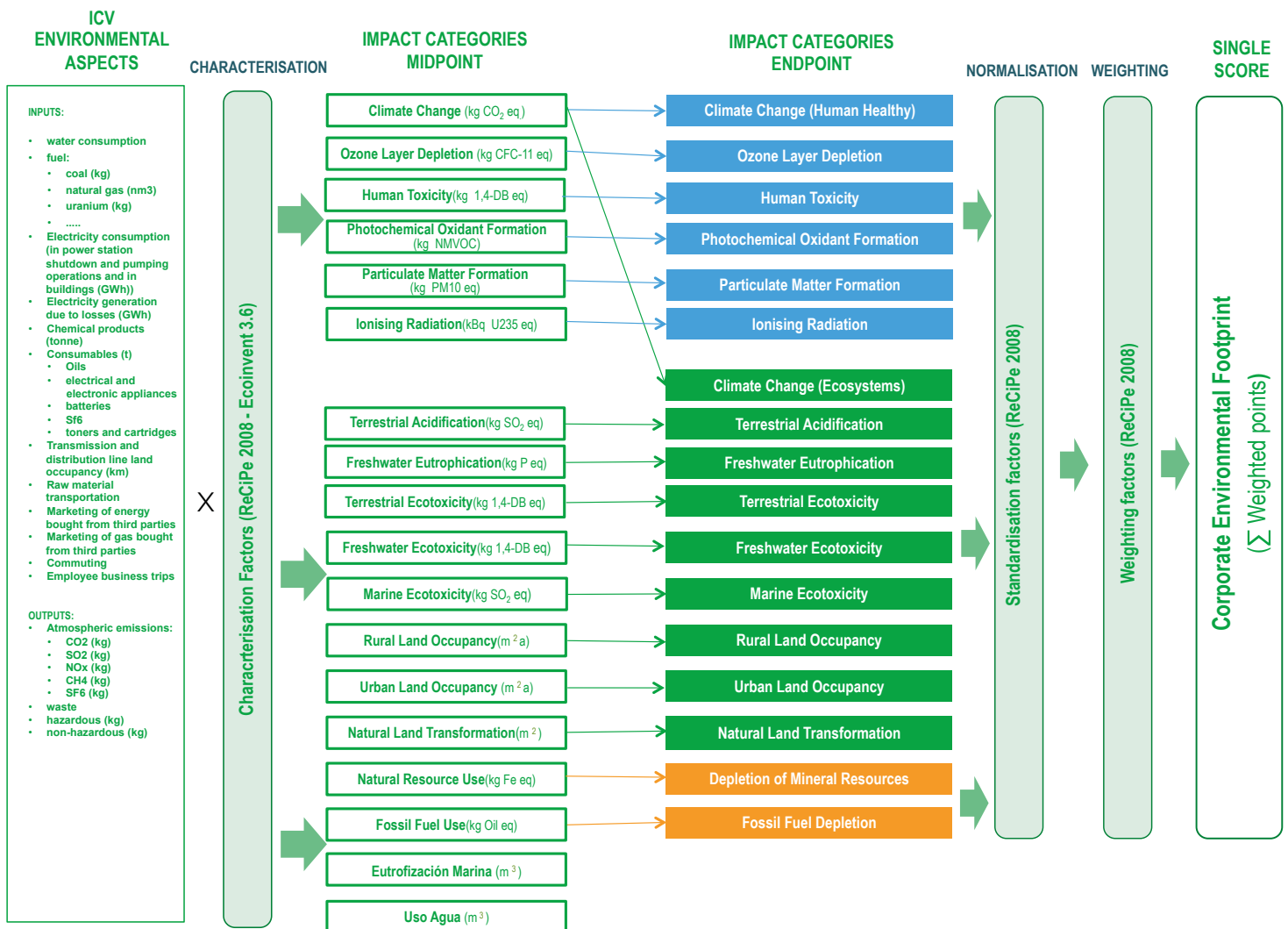
06. Methodology

6. Methodology

The environmental impact assessment methodology used for calculating Iberdrola’s Corporate Environmental Footprint is ReCiPe¹⁴, (based on UNE-EN ISO 14040:2006 and UNE-EN ISO 14044:2006 standards), which is applied to quantitatively analyse the life cycle of company products/services.

Two data formats are used for interpreting the results, namely Midpoint and Endpoint, both available in the ReCiPe method:

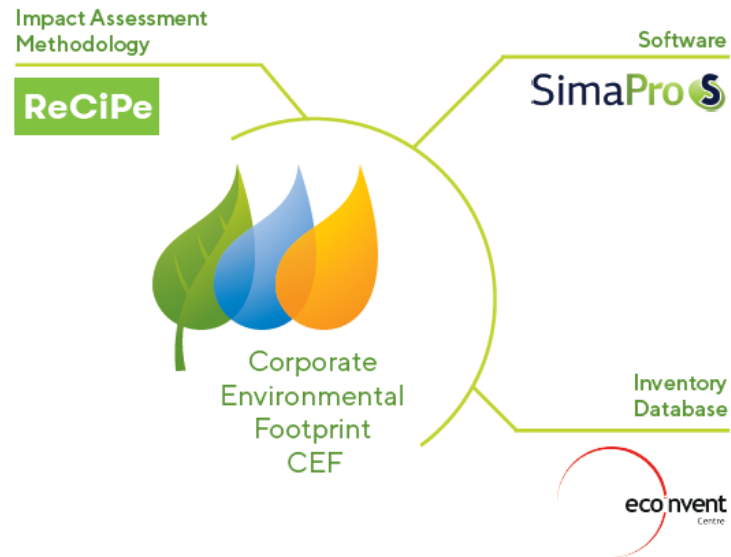
- **Midpoint:** expression format for the different environmental impact categories based on the figures associated with the emission or generation parameters for the analysed environmental impact.
- **Endpoint:** expression format for the different environmental impact categories based on the consequences of this impact on the environment. While this data format is less accurate than the Midpoint format, it nevertheless simplifies the interpretation of the results considerably by encompassing all the environmental impact categories in a single aggregated value (based on a total environmental impact score expressed in points).



¹⁴ The ReCiPe methodology was created by the Netherlands National Institute for Public Health and the Environment (RIVM), the Institute of Environmental Sciences of the University of Leiden (CML), the consultancy PRé Consultants and the Faculty of Science at Radboud University

The [SimaPro 9¹⁵](#), tool has been selected, as a tool that can simulate any product through a Life Cycle Inventory, to make the necessary calculations for assigning characterisation, normalisation and weighting factors for the selected environmental impact assessment methodologies; and display the results in both numeric values as well as in a broken down percentage distribution.

In turn, the latest version of the [Ecoinvent](#) life cycle inventory database has been used.



15. Developed by the Dutch consulting firm PRé Consultants.

07.

Uncertainty

7. Uncertainty

The estimated uncertainty of the CEF activities is a combination of the uncertainties in the characterisation factors and in the corresponding activity data.

The characterisation factors used to create the CEF are extracted from official sources and are specific to each category of source and the Ecoinvent database. The selection of these characterisation factors is intended to minimise uncertainty as much as possible. Unless clear evidence to the contrary is available, it is assumed that probability density functions are normal.

The uncertainty of the activity data is minimised since most of the raw input data, used for the calculation of the CEF, are previously verified by independent entities.

These sources are¹⁶:

- Non-financial report (Sustainability report)
- ETS Emissions Report.
- Greenhouse Gas (GHG) Report.
- Group environmental certifications (EMAs and ISO 14001).

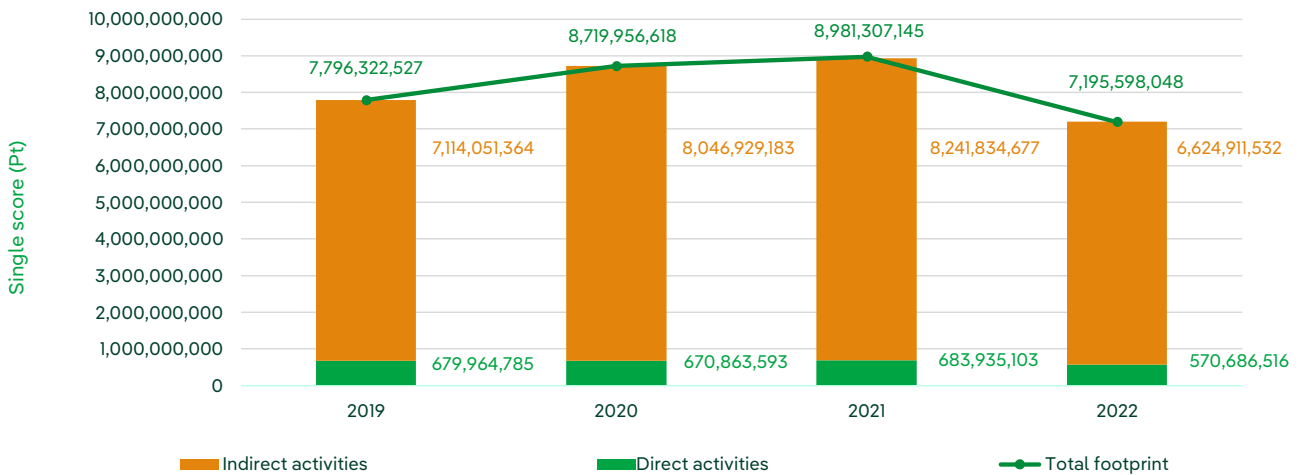
¹⁶ (All data is managed and processed through the environmental management software Sygris).

08. Corporate Environmental Footprint

8. Corporate Environmental Footprint

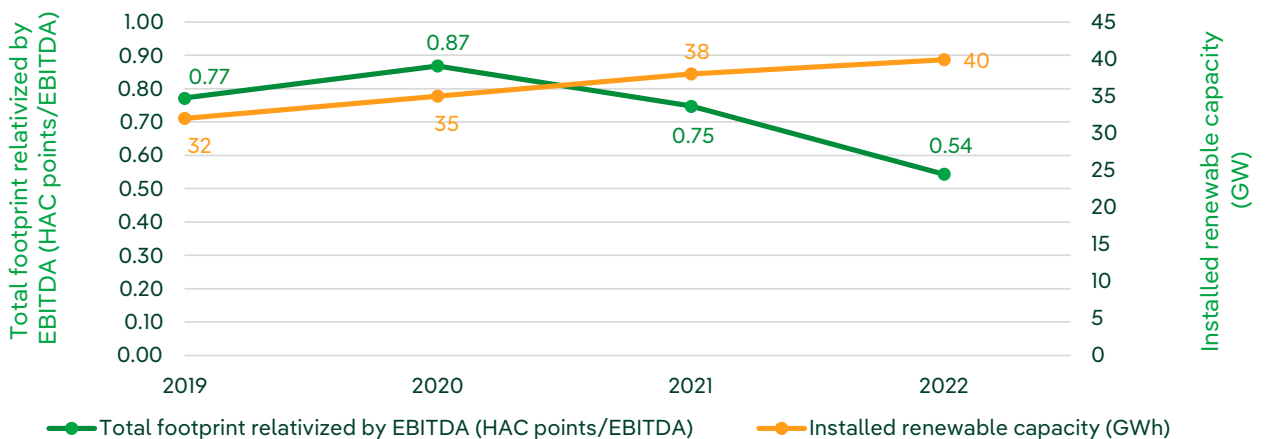
Iberdrola has demonstrated a solid commitment to its environmental performance in recent years, and proof of this is its commitment to decarbonisation, thereby improving the environmental profile associated with its activity thanks mainly to the increase in renewable production capacity and the promotion of actions to drive environmental commitment in its supply chain.

The result of these initiatives can be seen in the following graph, which shows the value of its environmental footprint in a single score, differentiating between direct and indirect impacts over the years.

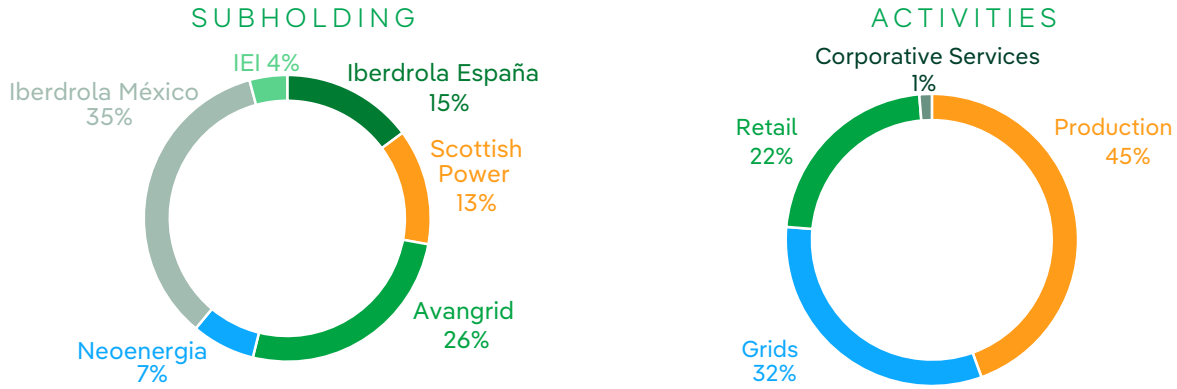


The corporate environmental footprint has been reduced by 25% compared to 2021. In terms of direct and indirect impacts, there has been a significant reduction in the latter in 2022, mainly due to lower energy purchases from third parties. In 2022, the share of direct activity in the environmental profile is only 8 % of the total, with the remainder corresponding to activities outside the organisation’s limits.

Iberdrola’s strategy to increase its installed renewable capacity has led to a reduction in the intensity of its environmental Footprint. With an installed renewable capacity of 40 GW, the intensity of the environmental impact of Iberdrola’s activities has a magnitude of 0.54 CEF/EBITDA points.

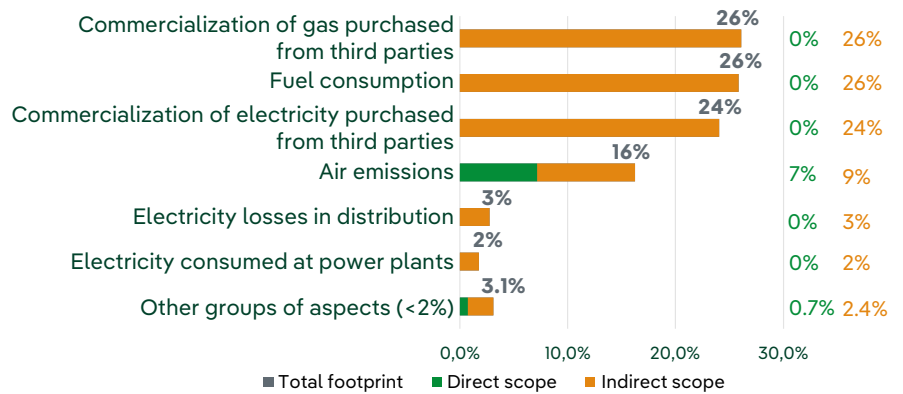


Iberdrola’s environmental profile by subholding and activity in 2022 is shown below. In relation to the subholdings, Neoenergia, Iberdrola España and ScottishPower are the ones that, due to their renewable production, have had a lower environmental impact. You can also see the percentage distribution of points per activity.

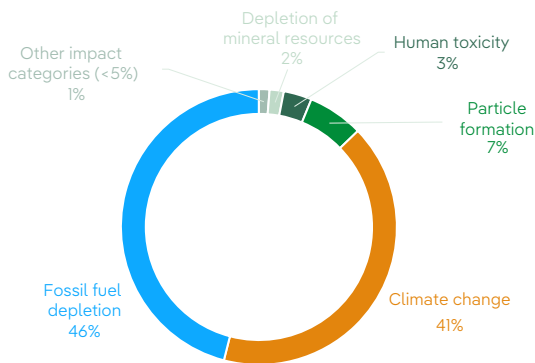


The graph shows the most significant groups of aspects, i.e. those that represent more than 95% of the group’s total footprint.

GROUP OF ASPECTS (directs and indirects)



IMPACT CATEGORIES



The five impact categories that contribute 99% of the total footprint are fossil fuel depletion, climate change, particulate matter formation, human toxicity and mineral resource depletion.

Significant impact categories with their Midpoint score by scope

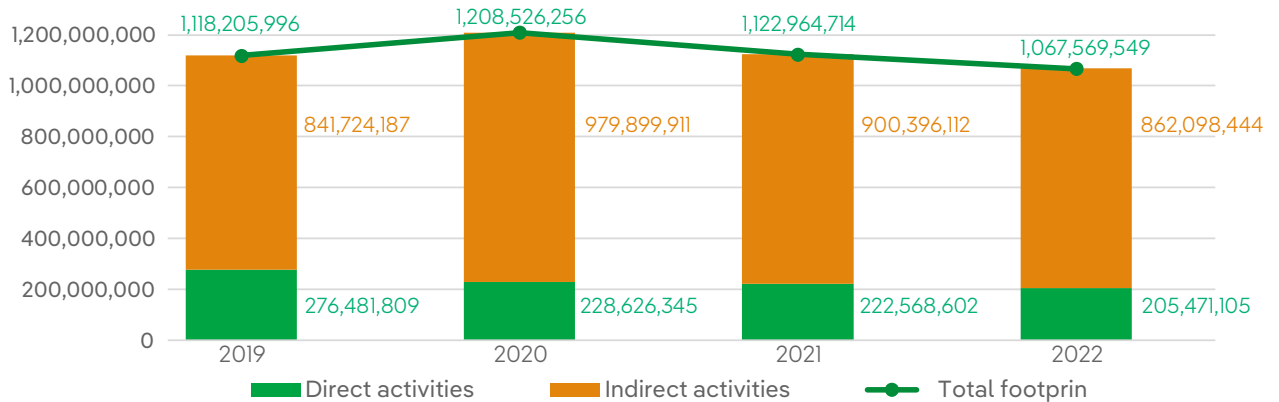
Impact category	Direct scope	Indirect scope	Total	Unit
Fossil fuel depletion	-	24,490,039	24,490,039	t oil eq
Climate change	11,160,498	55,071,749	66,232,247	tCO ₂ eq
Particulate matter formation	5,365	56,021	61,386	tPM10 eq
Human toxicity	2,658	11,698,080	11,700,738	t1,4DB eq
Mineral resource depletion	-	2,031,663	2,031,663	tFe eq
Freshwater depletion / Water use	75	161	236	hm ³

8.1 Iberdrola España

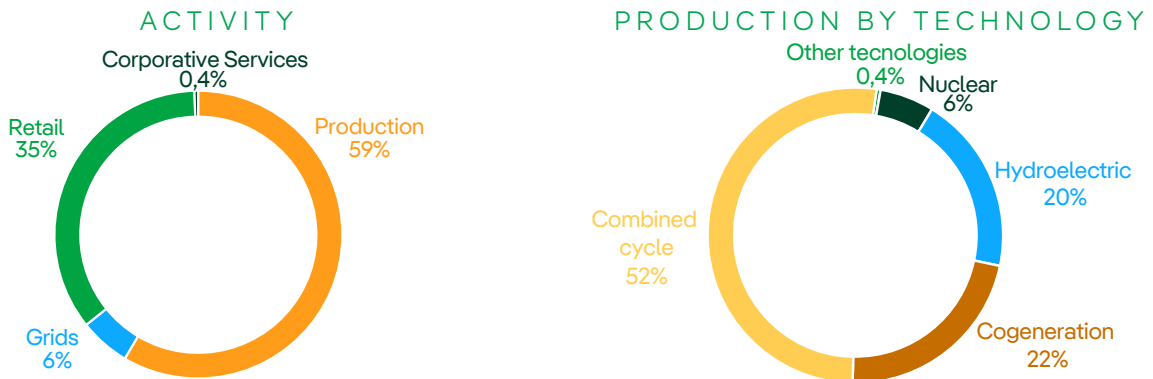
Key figures 2022

29,013 MW Installed capacity	19,796 MW Renewable installed capacity	56,698 GWh Net output	270,991 Km Power lines	89,622 GWh Electricity distributed	11.6 Million consumers
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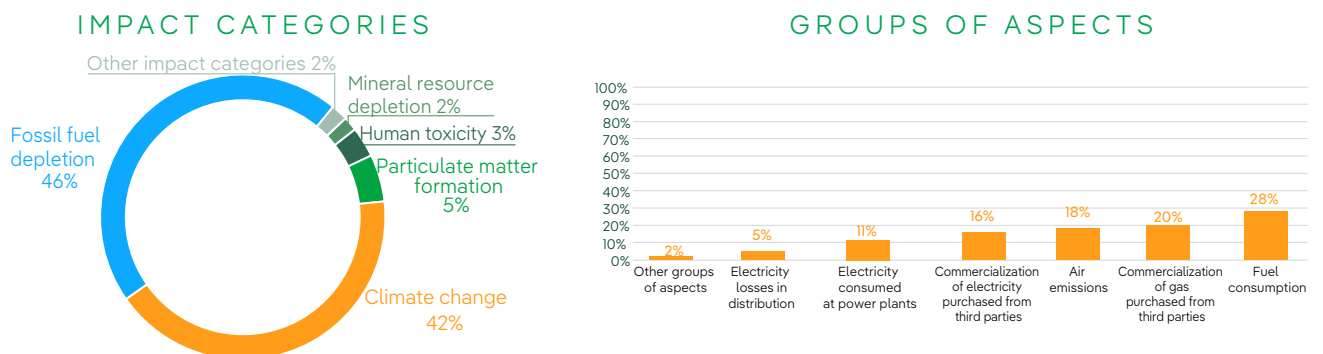
Evolution of the environmental Footprint since the base year. In line with Iberdrola's Policy, the 2022 footprint continues its downward trend.



Breakdown of the environmental Footprint by activity and production by technology 2022



Breakdown by impact categories and aspect groups 2022



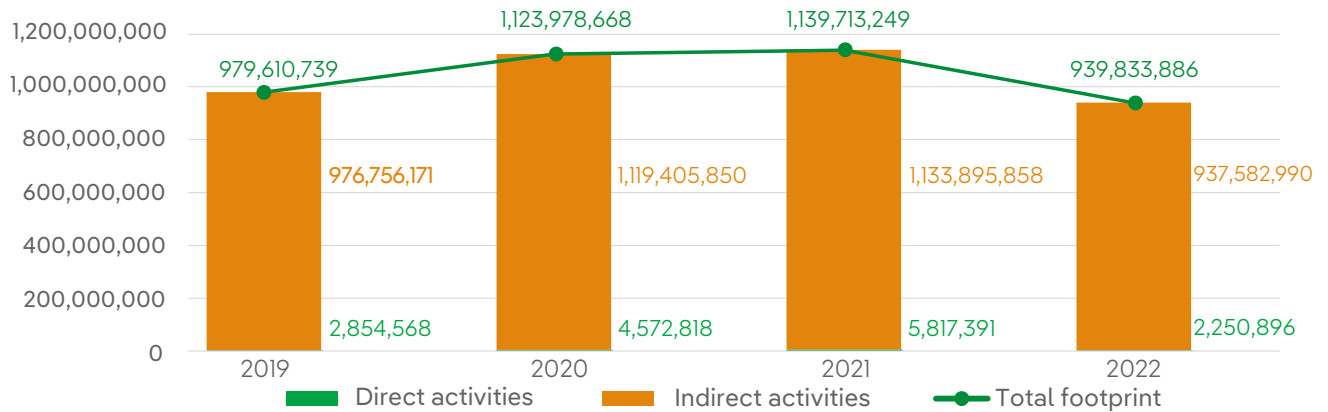
Impact category	Direct scope	Indirect scope	Total	Unit
Fossil fuel depletion	-	3,612,818	3,612,818	t oil eq
Climate change	4,253,378	5,791,846	10,045,224	tCO ₂ eq
Particulate matter formation	1,375	6,113	7,489	tPM10 eq
Human toxicity	441	1,784,763	1,785,204	t1,4DB eq
Mineral resource depletion	-	298,670	298,670	tFe eq
Freshwater depletion / Water use	36	34	70	hm ³

8.2 ScottishPower

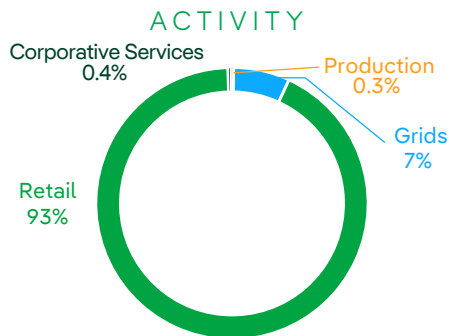
Key figures 2022

3.008 MW Installed capacity	3.008 MW Renewable installed capacity	7.823 GWh Net output	111.075 Km Power lines	31.020 GWh Electricity distributed	4,7 Million consumers
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Evolution of the environmental Footprint since the base year

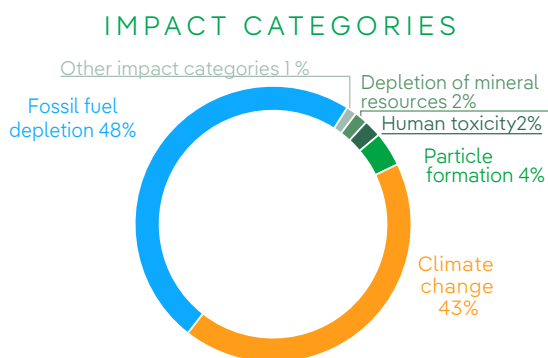


Breakdown of the environmental Footprint by type of activity 2022

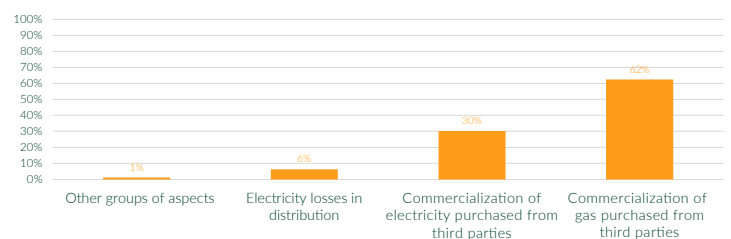


The increased commercialisation of renewable products favours the decrease of the Footprint in 2022.

Breakdown by impact categories and aspect groups 2022



GROUPS OF ASPECTS



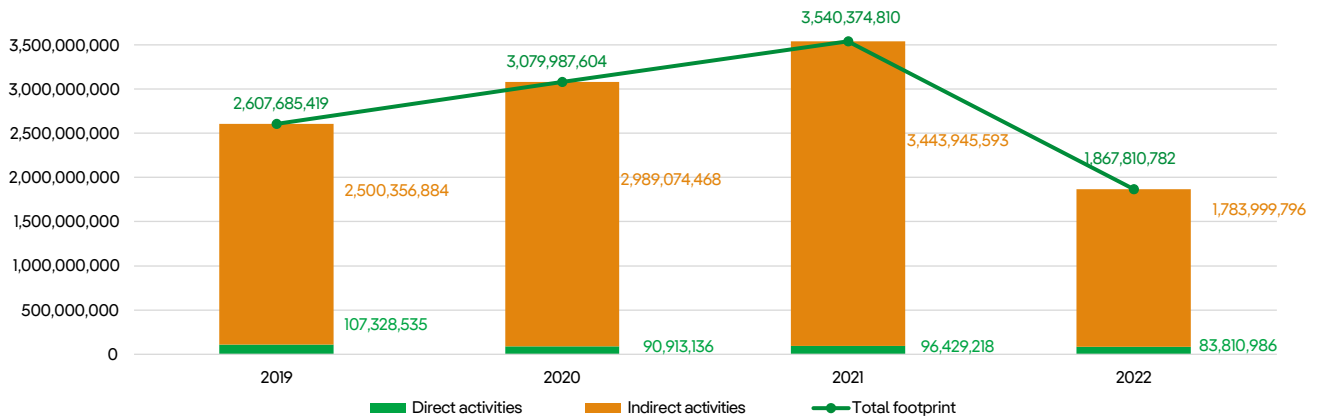
Impact category	Direct scope	Indirect scope	Total	Unit
Fossil fuel depletion	-	3,376,721	3,376,721	t oil eq
Climate change	34,762	8,967,305	9,002,067	tCO ₂ eq
Particulate matter formation	68	4,916	4,985	tPM10 eq
Human toxicity	342	937,271	937,613	t1,4DB eq
Mineral resource depletion	-	248,872	248,872	tFe eq
Freshwater depletion / Water use	0	22	22	hm ³

8.3 Avangrid

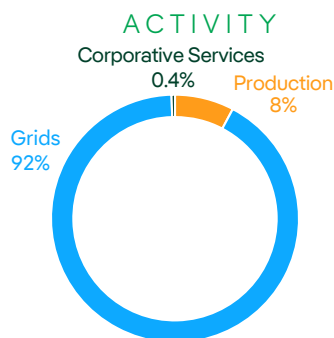
Key figures 2022

9.542 MW Installed capacity	8.702 MW Renewable installed capacity	22.711 GWh Net output	171.464 Km Power lines	38.757 GWh Electricity distributed	3,3 Million consumers
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Evolution of the environmental Footprint since the base year

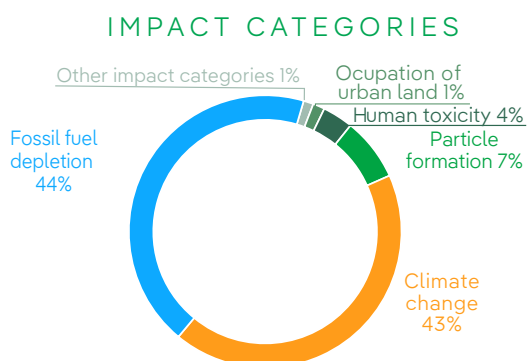


Breakdown of the environmental Footprint by type of activity 2022

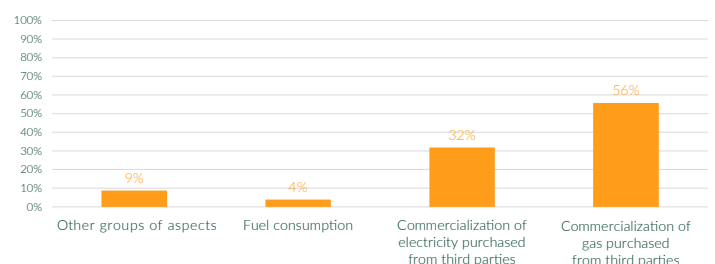


The decrease in the Footprint in 2022 is due to the reformulation of the calculation of electricity sold and the adaptation to the state regulatory framework of gas sold to end customers.

Breakdown by impact categories and aspect groups 2022



GROUPS OF ASPECTS



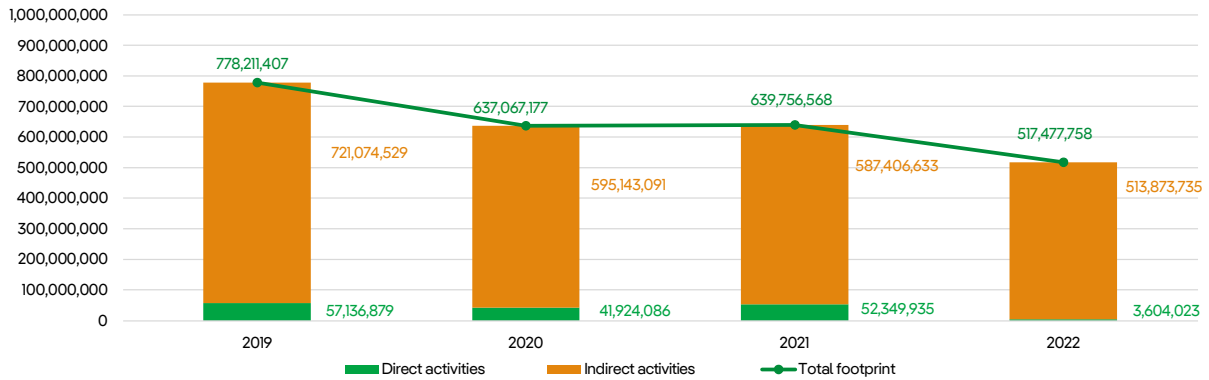
Impact category	Direct scope	Indirect scope	Total	Unit
Fossil fuel depletion	-	6,038,473	6,038,473	t oil eq
Climate change	1,302,532	16,106,965	17,409,497	tCO ₂ eq
Particulate matter formation	36	18,318	18,354	tPM10 eq
Human toxicity	168	3,322,414	3,322,582	t1,4DB eq
Mineral resource depletion	-	308,273	308,273	tFe eq
Freshwater depletion / Water use	2	34	36	hm ³

8.4 Neoenergia

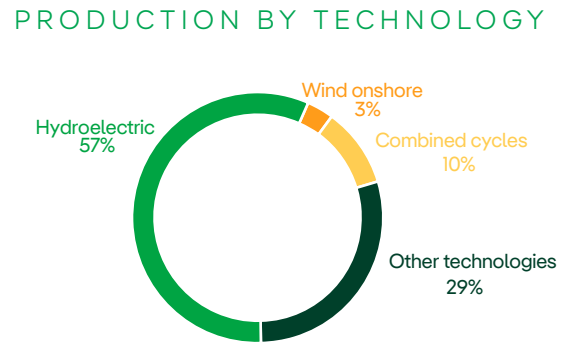
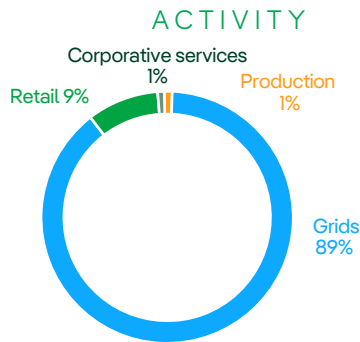
Key figures 2022

5.100 MW Installed capacity	4.568 MW Renewable installed capacity	14.751 GWh Net output	711.111 Km Power lines	76.107 GWh Electricity distributed	16,0 Million consumers
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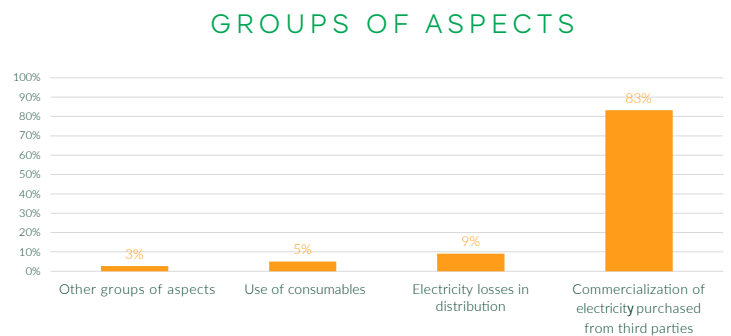
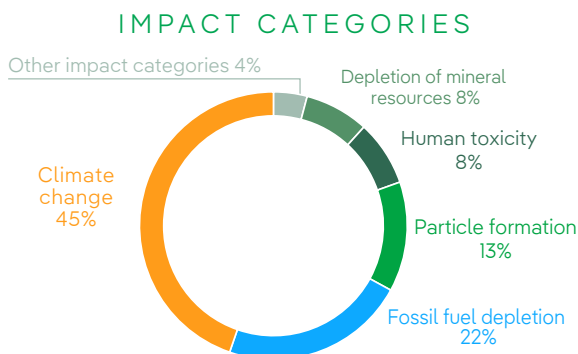
Evolution of the environmental Footprint since the base year. The inactivity of the Termopernambuco combined cycle has significantly reduced the direct Footprint impact in 2022.



Breakdown of the environmental Footprint by activity and production by technology 2022



Breakdown by impact categories and aspect groups 2022



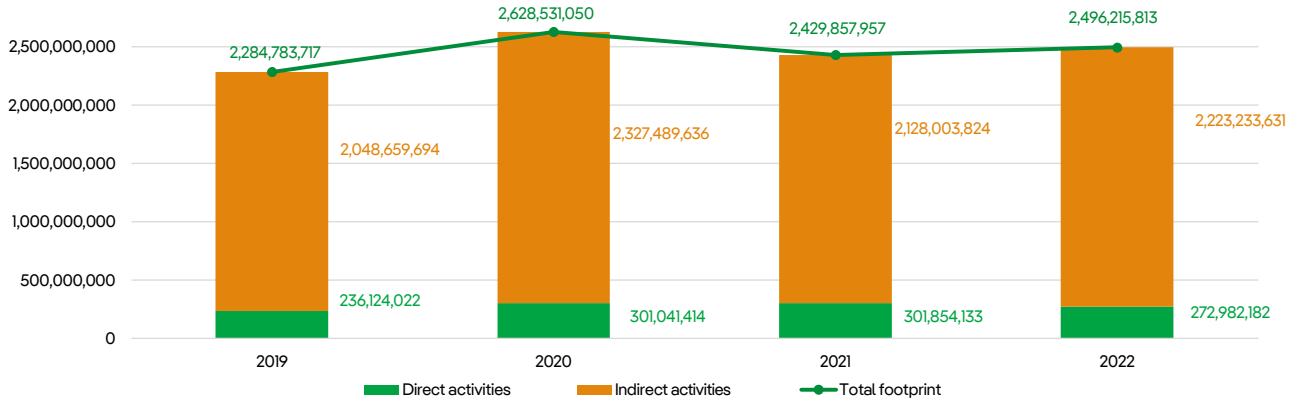
Impact category	Direct scope	Indirect scope	Total	Unit
Fossil fuel depletion	-	856,752	856,752	tCO ₂ eq
Climate change	47,631	5,127,388	5,175,019	t oil eq
Particulate matter formation	14	8,992	9,007	t1,4DB eq
Human toxicity	1,550	1,989,598	1,991,148	tFe eq
Mineral resource depletion	-	688,140	688,140	tPM10 eq
Freshwater depletion / Water use	0	26	26	hm ³

8.5 Iberdrola México

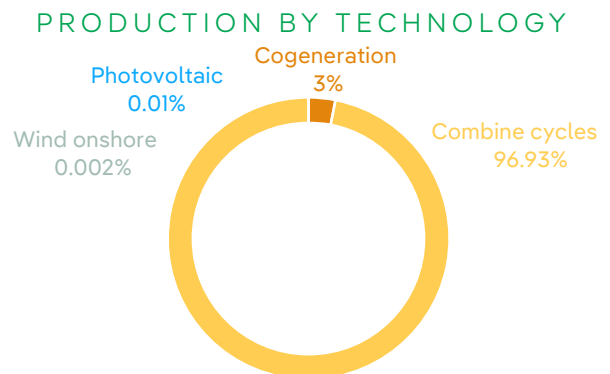
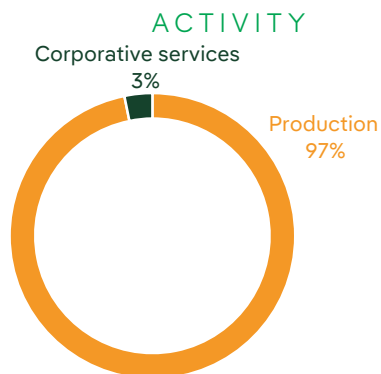
Key figures 2022

2.900 MW Installed capacity	2.657 MW Renewable installed capacity	18.447 GWh Net output	7.146 MW Installed capacity for third parties	103 MW Renewable installed capacity for third parties	37.491 GWh Net output for third parties
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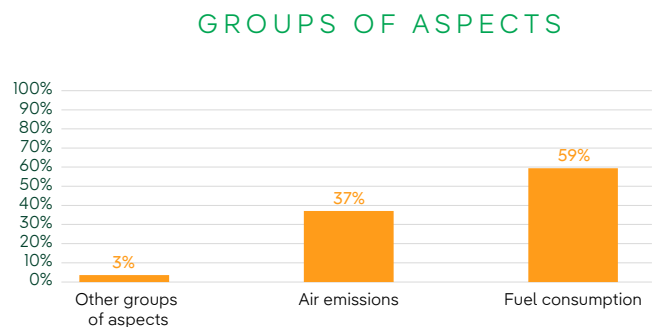
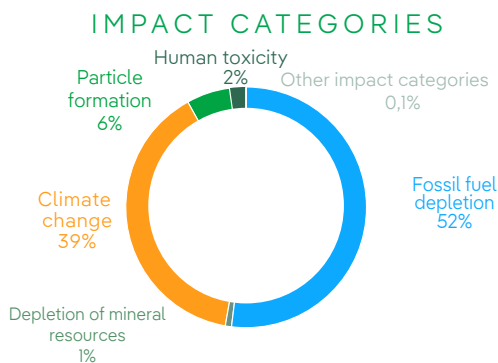
Evolution of the environmental Footprint since the base year:



Breakdown of the environmental Footprint by activity and production by technology 2022:



Breakdown by impact categories and aspect groups 2022:



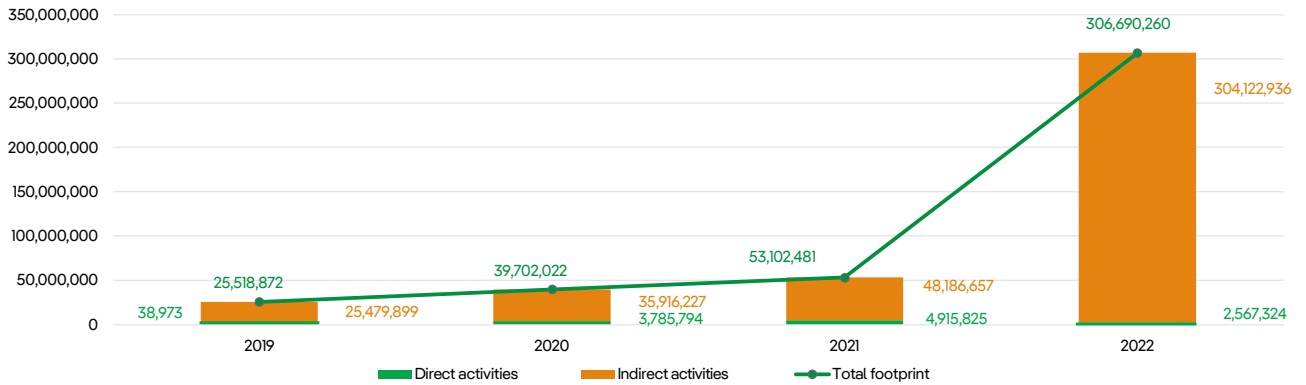
Impact category	Direct scope	Indirect scope	Total	Unit
Fossil fuel depletion	-	9,650,669	9,650,669	t oil eq
Climate change	5,473,282	16,274,438	21,747,720	tCO ₂ eq
Particulate matter formation	3,828	14,536	18,364	tPM10 eq
Human toxicity	151	2,961,992	2,962,143	t1,4DB eq
Mineral resource depletion	-	339,957	339,957	tFe eq
Freshwater depletion / Water use	37	7	44	hm ³

8.6 Iberdrola Energía Internacional

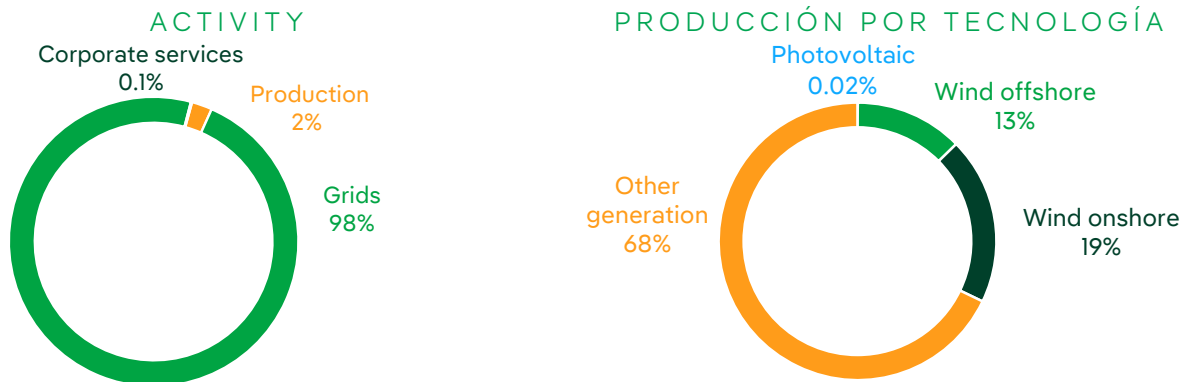
Key figures 2022

4.051 MW Installed capacity	1.232 MW Renewable installed capacity	5.053 GWh Net output	5.111 GWh Net output	0,6 Million consumers
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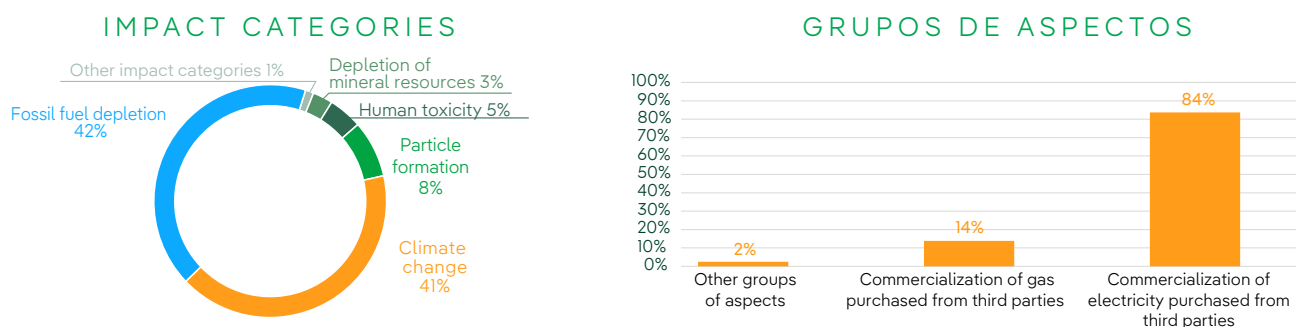
Evolution of the environmental Footprint since the base year. Footprint 2022 increases due to the development of commercial activity.



Breakdown of the environmental Footprint by activity and production by technology 2022:



Breakdown by impact categories and aspect groups 2022:



Impact category	Direct scope	Indirect scope	Total	Unit
Fossil fuel depletion	-	954,606	954,606	t oil eq
Climate change	48,914	2,803,807	2,852,721	tCO ₂ eq
Particulate matter formation	44	3,144	3,188	tPM10 eq
Human toxicity	5	702,042	702,047	t1,4DB eq
Mineral resource depletion	-	147,749	147,749	tFe eq
Freshwater depletion / Water use	0	38	38	hm ³

09. Conclusions

9. Conclusions

The calculation of the Environmental Footprint makes it possible to determine the most decisive environmental performance indicators for Iberdrola, taking into account the entire life cycle of the products and services it uses to carry out its activities.

From the analysis of the results obtained in the CEF-2022 we highlight:

- The company's overall **environmental impact** continues **its downward** trend, with a 20% reduction in direct environmental impact compared to 2021.
- 92 % of the environmental Footprint corresponds to **indirect activities** that are a consequence of activities such as the purchase of electricity for sale to final customers and the sale of gas.
- The **potential depletion of fossil** resources and the **potential for climate change** are the **main environmental vectors**, contributing more than 80% to the CEF.
- *Gas trading, electricity purchased from third parties* and **fuel consumption** are the **main contributors to CEF**. However, the impact of these has decreased, especially in the area of fossil fuel purchases, which has contributed to the improvement of the group's overall environmental performance.

Iberdrola will continue to make progress in improving its environmental performance by increasing renewable power, improving its distribution networks, and implementing an additional battery of measures focused especially on the potential impacts identified through the environmental footprint: climate change and the depletion of fossil resources.

A.

Annexes

A. Annexes

A.1. Definition of the impact categories

I Climate change

The global warming potential is the capacity of a greenhouse gas to affect radiative forcing capacity, expressed in terms of a substance of reference and a time horizon. It is related to the capacity to influence changes in the average global temperature at the surface-air interface, climate parameters and the effects thereof.

Unit: kg CO₂ (carbon dioxide) equivalent

I Ozone depletion

Impact category corresponding to the depletion of the stratospheric ozone layer caused by the emission of substances that deplete the ozone layer such as long-lived gases containing chlorine and bromine.

Unit: kg CFC-II (trichlorofluoromethane) equivalent

I Human toxicity

The harmful human health effects from the absorption of toxic substances through the inhalation of air, ingestion of food or water, penetration through the skin to the extent that they are related with cancer.

Unit: kg 1,4-DB (dichlorobenzene) equivalent

I Photochemical oxidant formation

The formation of ozone at the ground level of the troposphere because of photochemical oxidation of volatile organic compounds (VOC) and CO in the presence of nitrogen oxides (NO_x) and sunlight. They are harmful to vegetation, respiratory tracts and artificial materials.

Unit: kg NMVOCs (Non-methane volatile organic compounds)

I Particulate matter formation

It corresponds to the harmful effects on human health due to particle emissions and their precursors (NO_x, SO_x, NH₃). Small particles with a diameter of less than 10 microns.

Unit: equivalent kilograms PM10 equivalent

I Ionising radiation

The harmful effects on human health caused by radiative discharges.

Unit: kBq U235 (uranium 235) equivalent

I Terrestrial acidificatio)

Effects caused by the presence of acidifying substance on the ground surface. Emissions of NO_x, NH₃ and SO_x lead to releases of hydrogen ions (H⁺) when the gases are mineralised. The protons contribute to the acidification of the soil.

Unit: kg SO₂ (sulphur dioxide) equivalent

I Freshwater eutrophication

Nutrients from dumping in freshwater accelerate the growth of algae and other vegetation in water. The degradation of organic material consumes oxygen, resulting in oxygen deficiency and, in some cases, fish kill. Eutrophication translates the quantity of emission of substances into a common measure expressed as the oxygen required for the degradation of dead biomass.

Unit: kg P (phosphorus) equivalent

I Marine eutrophication

Nutrients from dumping into marine water increase the growth of algae and other water vegetation. The degradation of organic material consumes oxygen, resulting in oxygen deficiency and, in some cases, fish kill. Eutrophication translates the quantity of emission of substances into a common measure expressed as the oxygen required for the degradation of dead biomass.

Unit: kg N (nitrogen) equivalent

I Terrestrial Ecotoxicity

The toxic impacts affecting the terrestrial surface are harmful for various species and alter the structure and function of the ecosystem. This is the result of a series of different toxicological mechanisms caused when releasing substances having a direct effect on the health of the ecosystem.

Unit: kg 1,4-DB equivalent (dichlorobenzene)

I Freshwater ecotoxicity

The toxic impacts affecting freshwater are harmful for various species and alter the structure and function of the ecosystem. This is the result of a series of different toxicological mechanisms caused when releasing substances having a direct effect on the health of the ecosystem.

Unit: kg 1,4-DB equivalent (dichlorobenzene)

I Marine ecotoxicity

The toxic impacts affecting marine waters are harmful for various species and alter the structure and function of the ecosystem. This is the result of a series of different toxicological mechanisms caused when releasing substances having a direct effect on the health of the ecosystem.

Unit: kg 1,4-DB equivalent (dichlorobenzene)

I Agricultural land occupation

The usage (occupation) of a rural land surface for activities such as farming. Land occupation considers the effects of the use of the land, extension of the surface involved and duration of the occupation.

Unit: m²y (square metres per time measured in years)

I Urban land occupation

The usage (occupation) of an urban land surface for activities such as roadways, housing, etc. Land occupation considers the effects of the use of the land, extension of the surface involved and duration of the occupation.

Unit: m²y (square metres per time measured in years)

I Natural land transformation

The conversion (transformation of a natural land surface for activities such as farming, roadways, housing, mining, etc. Land transformation considers the effects of the use of the land and extension of the surface involved.

Unit: m² (square metres)

I Water depletion

Environmental impact category referring to water depletion. Refers to the organisation's direct consumption of freshwater in a life-cycle perspective. Water is a resource that is becoming scarce and increasingly more valuable on the planet. Awareness of the water scarcity and depletion has led to the development of the Water Footprint as a concept.

Unit: m³ (cubic metres)

I Metal depletion

Environmental impact category that refers to the depletion of mineral resources such as metals or rocks. This category refers to the consumption of materials extracted from nature (measured in weight).

Unit: kg Fe (iron) equivalent

I Fossil fuel depletion

Environmental impact category that refers to the use of fuels made from petroleum, coal or non-renewable natural gas. It is measured in energy units.

Unit: kg oil equivalent

I Single score (Points)

Score referring to the globality of the entire impact associated with certain environmental aspects. Obtained through a calculation in different steps, standardising and weighting different environmental impact categories to yield a single final number.

Unit: Pt (points)

A.2. General requirements and considerations

A.2.1 Considerations of the critical review

The verification of the Corporate Environmental Footprint by an independent external entity constitutes its critical review.

This verification has been drafted by AENOR's expert audit team, in accordance with the requirements established in the ISO/TS 14072-1:2014 standard "Environmental management – Life cycle assessment – Requirements and guidelines for organisational life cycle assessment". The aim of the verification is to provide interested parties with a professional and independent judgement on the information and data contained in the Corporate Environmental Footprint Report of IBERDROLA, S.A.

A.2.2 Data collection

The qualitative and quantitative data included in the inventory have been collected for the processes within the limits of the organisation. The data is collected under three approaches, depending on the data available: power station and/or facility, business and country.

The data covers one year, with data from the 2021 financial year being used.

The collection of annual data for the modelling of the impact factors of the electricity mixes used has used the most up-to-date public sources in each region to obtain representative results in terms of time and location.

A.2.3 Validation of data

The data and results in this report have been validated and verified by an independent third party through the following analyses:

- Strategic analysis
- Risk analysis
- Process analysis

Data not included is identified in the Exclusions section.

A.2.4 Adjusting system limits

In line with the iterative nature of Life Cycle Assessment (LCA), decisions regarding the data to be included are based on sensitivity analyses and the results obtained from previous environmental footprints.

A.2.5 Allocation procedure for re-use and recycling

The environmental loads allocation model used is the so-called "allocation recycled content" or "cut-off".

A.3. Endpoint Score

The calculation of the Endpoint score provides a final value of the Iberdrola Group’s overall environmental performance, grouping the different environmental impacts into a single score. The Endpoint values for each impact category and the Iberdrola Group’s total environmental footprint are shown below.

Impact category	Direct scope (points)	Indirect scope (points)	Total (points)	Iberdrola Group Environmental Footprint (points)
Climatechange (Human health)	458,113,133	2,260,535,768	2,718,648,901	7,195,598,048
Ozone layer depletion	5,593	320,593	326,186	
Human toxicity	54,599	239,988,171	240,042,770	
Photochemical ozone formation	30,418	112,616	143,035	
Particulate matter formation	40,902,102	427,057,349	467,959,451	
Ionising radiation	0	10,386,143	10,386,143	
Climate change (Ecosystems)	38,586,360	220,428,838	259,015,198	
Soil acidification	32,011	312,319	344,330	
Freshwater eutrophication	0	153,112	153,112	
Soil ecotoxicity	348	327,538	327,886	
Freshwater eutrophication	1	845,756	845,757	
Marie ecotoxicity	4	143,550	143,554	
Rural land occupancy	0	22,538,009	22,538,009	
Urban land occupancy	32,961,947	2,451,491	35,413,438	
Natural lans transformation	0	18,443,598	18,443,598	
Mineral resource depletion	0	118,477,192	118,477,192	
Fossil fuel depletion	0	3,302,389,489	3,302,389,489	

A.4. Midpoint Score

The values of the Midpoint characterisation provide us with information on the performance of the company's activity, taking into account the life cycle of the products and services used by the Iberdrola Group for each of the 18 environmental impact categories in the characteristic units of each impact category.

The values of the impacts generated by Iberdrola's activities by scope, direct and indirect, from a life cycle perspective, are shown below.

Impact category	Direct scope	Indirect scope	Total	Unit
Climate change	11,160,498	55,071,749	66,232,247	t CO ₂ eq
Ozone layer depletion	52	4,119	4,172	kg CFC-11 eq
Human toxicity	2,658	11,698,080	11,700,738	t 1.4-DB eq
Photochemical ozone formation	26,597	98,489	125,086	t NMVOC
Particulate matter formation	5,365	56,021	61,386	t PM10 eq
Ionising radiation	0	21,595,826	21,595,826	tBq U235 eq
Soil acidification	12,651	123,451	136,102	t SO ₂ eq
Freshwater eutrophication	0	7,886	7,886	t P eq
Soil ecotoxicity	5	4,989	4,994	t 1.4-DB eq
Freshwater eutrophication	2	2,263,846	2,263,848	t 1.4-DB eq
Marie ecotoxicity	50	1,867,539	1,867,589	t 1.4-DB eq
Rural land occupancy	0	4,247	4,247	km ² a
Urban land occupancy	3,652	272	3,924	km ² a
Natural land transformation	0	26	26	km ²
Eutrofización marina	836	9,470	10,306	t N eq
Freshwater depletion / Water use	75	161	236	hm ³
Mineral resource depletion	0	2,031,663	2,031,663	t Fe eq
Fossil fuel depletion	0	24,490,039	24,490,039	t oil eq

COMPLETION DATE OF THE REPORT JUNE 2023

A.5. AENOR Verification Statement

AENOR
Confía



Certificado de Conformidad Huella Ambiental de Organización



HAO-2017/0001

AENOR certifica que la organización

IBERDROLA, S.A.

ha calculado su huella ambiental de organización de acuerdo a los requisitos establecidos en la Norma ISO/TS 14072:2014 "Environmental management -- Life cycle assessment -- Requirements and guidelines for organizational life cycle assessment" y se compromete a su seguimiento en el tiempo

para las actividades: El alcance de la verificación se establece para las actividades que prestan las empresas de la compañía en las regiones de España, Reino Unido, Estados Unidos, México, Brasil e Internacional (resto del mundo).

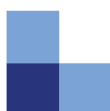
Durante la verificación se analizó la información atendiendo al enfoque de control operacional, a excepción de las centrales nucleares y de las cogeneraciones participadas de España, que se contabiliza bajo cuota de participación, alineándose con el Informe de Sostenibilidad.

Además, para alguna de las centrales de producción de energía en México, las Plantas Productoras Independientes de Energía (PIE), en las que CFE decide su modo de operación, sus impactos se han reportado en el Alcance 3 y se indica que Iberdrola no tiene pleno control de la operación.

periodo calculado: PERIODO VERIFICADO: 2022

que se realizan en: CL TOMAS REDONDO, 1. 28033 - MADRID

Emisión:2023-08-14



Rafael GARCÍA MEIRO
CEO

AENOR INTERNACIONAL S.A.U.
Génova, 6. 28004 Madrid. España
Tel. 91 432 60 00.- www.aenor.com

Verification Statement of AENOR for IBERDROLA, S.A of the Corporate Environmental Footprint for the year 2022

CASE FILE: 1995/0014/HA0/01

Introduction

IBERDROLA, S.A. (hereinafter the company) has commissioned AENOR INTERNACIONAL, S.A.U. (AENOR) to carry out a limited review of its corporate environmental footprint derived from its activities during 2022. The aforementioned inventory is listed in the Corporate Environmental Footprint Report of Iberdrola S.A. Year 2022, June 2023.

Inventory of corporate environmental footprint issued by the Organization: IBERDROLA, S.A. with registered office in C/ Tomás Redondo 1. 28033 Madrid (Spain)

Representative of the Organization: Mr Bernardo LLANEZA FOLGUERAS of Corporate Environment, belonging to the Directorate of Innovation, Sustainability and Quality.

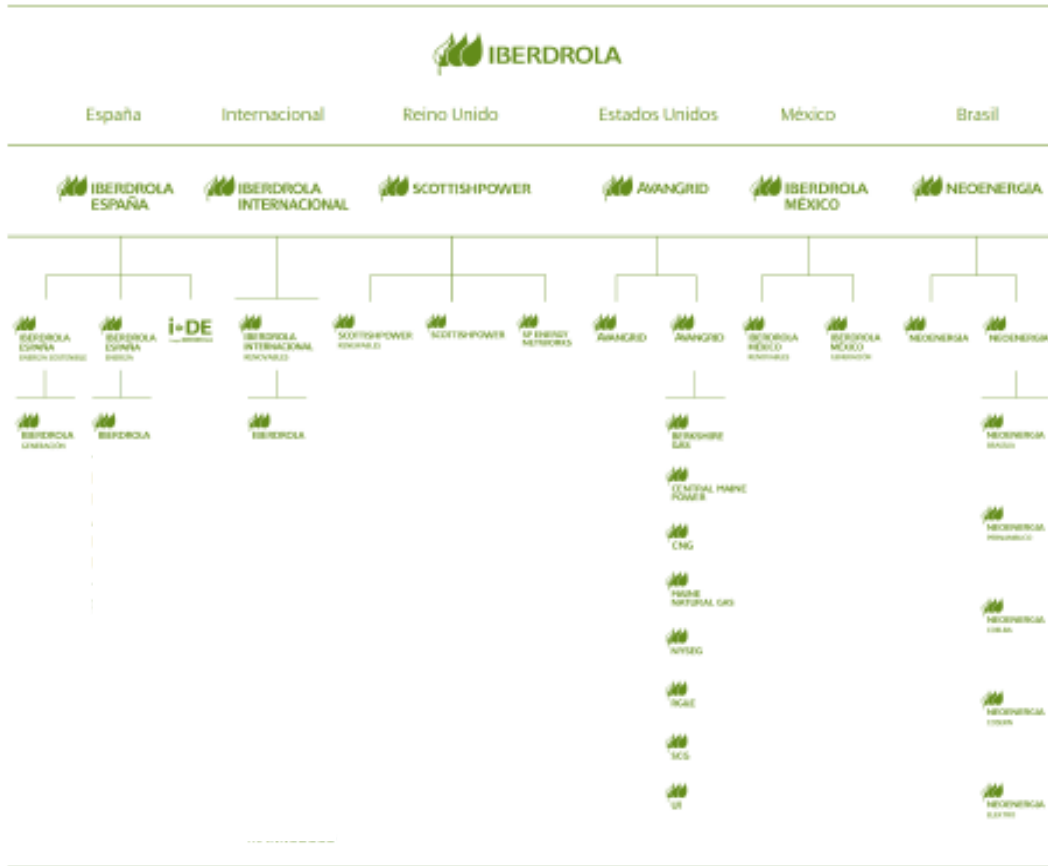
IBERDROLA, S.A. was responsible for reporting its corporate environmental footprint in accordance with the requirements set out in ISO/TS 14072-1:2014 "Environmental management -- Life cycle assessment -- Requirements and guidelines for organizational life cycle assessment".

Purpose

The purpose of the verification is providing stakeholders with a professional and independent judgement on the information and data contained in the IBERDROLA Group Corporate Environmental Footprint Report mentioned above.

Scope of the Verification

The scope of verification is established for the activities provided by the company's companies in the regions (sub-holdnigs) of Spain, United Kingdom, United States, Mexico, Brazil and International (rest of the world). The sub-holdings included in the scope are:



During the verification, the information was analysed in the light of the operational control approach, with the exception of the nuclear power plants and the co-generations of Spain, which are accounted for participation share, aligning with the Sustainability Report.

Cutting criteria

Not all companies in the group are included in the calculation of the HAC due to the objective difficulty of incorporating them into corporate systems in a way that allows external verification of them. It may be noted that these limits entail:

- More than 99% of the group's consolidated turnover.
- More than 95% of the equivalent employees in the group.

Functional Unit

It is the reference in respect of which all data on material collection, electricity generation and end-of-life of the subject matter of this analysis are collected:

"The activity carried out in one year by Iberdrola (generation, transmission, marketing and general corporate support services), accounting for all aspects of entry and exit that occur both in the organization as upstream and downstream, and the environmental impacts of the generation of electricity of third parties for the subsequent commercialization by Iberdrola".

Allocation criteria

Due to the reporting unit established and since each of the study facilities do not give the case of products or facilities shared between IBERDROLA and third parties, there are no allocation criteria.

In addition, for some of the power production plants in Mexico, the Independent Energy Production Plants (PIE), in which CFE decides its mode of operation, its impacts have been reported in Scope 3 and it is indicated that Iberdrola does not have full control of the operation.

Operating limits and exclusions

Iberdrola defines its analyzed environmental aspects as direct and indirect taking into account the operations carried out within the limits of the organization. These scopes allow to distinguish whether any environmental impact is due to the own activity of IBERDROLA or is due to an activity over which the company has no control or is due to external agents.

Direct impacts, associated to aspects or activities in sources owned or controlled by IBERDROLA Group (generation, distribution and marketing and general services; such as boilers, fleet vehicles, production process). Includes the entire life cycle of the raw materials used, consumables, water, waste, etc; that is, everything within the organizational boundaries.

Indirect impacts, associated to activities that are a consequence of the company's activities but occur in sources that are not owned or controlled by IBERDROLA.

Exclusions

- Waste management from offshore parks.
- General services businesses in Mexico.
- Radioactive emissions in the operation phase of nuclear power plants.
- Chemicals with a significance of less than 5% of total chemicals.
- The movement of employees to the workplace by motorcycle.
- Consumables whose impact on the final result of the footprint is not significant.
- Aspects from photovoltaic solar plants.
- Aspects from reservoirs for hydraulic generation.
- Aspects from Mobile sources in generation facilities

No relevant changes have been occurred from previous HAC report.

Baseline Year

IBERDROLA maintains 2019 as the baseline year for comparing the evolution of its Corporate Environmental Footprint.

Agreed Assurance Level

It was agreed with the company to establish a limited level of assurance in verification.

Agreed Relative Importance

For verification, it was agreed that omissions, distortions or errors that can be quantified and result in a difference greater than 5% from the total in endpoints will be considered material discrepancies.

Criteria

- 1) ISO/TS 14072:2014 "Environmental management -- Life cycle assessment -- Requirements and guidelines for organizational life cycle assessment".
- 2) The environmental impact assessment methodology used in the calculation of the Corporate Environmental Footprint of IBERDROLA is the ReCiPe methodology (version 3.6), based on the STANDARDS UNE-EN ISO 14040:2006 and UNE-EN ISO 14044:2006, which quantitatively analyzes the life cycle of the company's products/services.

The SimaPro 9.4 tool has been chosen, This tool allows to simulate any product through a Life Cycle Inventory, performs the necessary calculations of allocation of characterization factors, standardization and weighting of the selected environmental impact assessment methodologies and displays the results in both numerical values and distribution in disaggregated percentages.

The Ecoinvent Inventory Database version 3.8 has been used

- 3) ISO 14064-3:2019: Specification with guidance for validation and verification of greenhouse gas declarations

The purpose of the verification has been the "Corporate Environmental Footprint Year 2022 - Iberdrola Report", June 2023.

AENOR expressly disclaims any liability for decisions, investment or otherwise, based on this statement.

Conclusion

The 2022 Corporate Environmental Footprint of IBERDROLA and its affiliated companies has been verified according to the requirements of the reference standard.

The verification included the review of the calculation methodology, as well as the data finally reported and as indicated below.

It should be noted that the verification of the Corporate Environmental Footprint has been integrated into the management model of the company, whose objective is to ensure that the strategic nature of the environmental variable for Iberdrola is implemented in the operation of the business, thus promoting the increase of the overall efficiency.

As a general conclusion of the verification, taking into account the agreed limited assurance:

In our opinion, there is no evidence to suggest that the information on the corporate environmental footprint of the organization reported in the "Corporate Environmental Footprint Report Exercise 2022 - Iberdrola" of June 2023, not to be a faithful representation of the environmental impacts of its activities.

Consistent with this Statement, the data finally verified are then related to the data:

MidPoint characterization:

IMPACT CATEGORY	UNITS	DIRECT	INDIRECT
<i>Climate change</i>	<i>t CO2 eq</i>	11.160.498	55.071.749
<i>Destruction of the Ozone layer</i>	<i>kg CFC-11 eq</i>	52	4.119
<i>Human Toxicity</i>	<i>t 1,4-DB eq</i>	2.658	11.698.080
<i>Formation of photochemical oxidizers</i>	<i>t NMVOC</i>	26.597	98.489
<i>Formation of particles</i>	<i>t PM10 eq</i>	5.365	56.021
<i>Ionizing Radiation</i>	<i>tBq U235 eq</i>	0	21.595.826
<i>Earth Acidification</i>	<i>t SO2 eq</i>	12.651	123.451
<i>Freshwater Eutrophication</i>	<i>t P eq</i>	0	7.886
<i>Ecotoxicity to the soil</i>	<i>t 1,4-DB eq</i>	5	4.989
<i>Ecotoxicity to Freshwater</i>	<i>t 1,4-DB eq</i>	2	2.263.846
<i>Ecotoxicity to sea water</i>	<i>t 1,4-DB eq</i>	50	1.867.539
<i>Occupation of agricultural land</i>	<i>km2a</i>	0	4.247
<i>Occupation of urban land</i>	<i>km2a</i>	3.652	272
<i>Transformation of natural land</i>	<i>km2</i>	0	26
<i>Sea water Eutrophication</i>	<i>t N eq</i>	836	9.470
<i>Use of water</i>	<i>hm3</i>	75	161
<i>Natural resources depletion</i>	<i>t Fe eq</i>	0	2.031.663
<i>Fossil fuel depletion</i>	<i>t oil eq</i>	0	24.490.039

EndPoint points:

IMPACT CATEGORY	Direct Score (EndPoints)	Indirect Score (EndPoints)
Climate change (Human health)	496.699.493	2.480.964.607
Destruction of the Ozone layer	5.593	320.593
Human Toxicity	54.599	239.988.171
Formation of photochemical oxidizers	30.418	112.616
Formation of particles	40.902.102	427.057.349
Ionizing Radiation	0	10.386.143
Climate change (Ecosystems)	0	0
Earth Acidification	32.011	312.319
Freshwater Eutrophication	0	153.112
Ecotoxicity to the soil	348	327.538
Ecotoxicity to Freshwater	1	845.756
Ecotoxicity to sea water	4	143.550
Occupation of agricultural land	0	22.538.009
Occupation of urban land	32.961.947	2.451.491
Transformation of natural land	0	18.443.598
Natural resources depletion	0	118.477.192
Fossil fuel depletion	0	3.302.389.489
Totals	570.686.516	6.624.911.532

Madrid July 11th 2023



D. Rafael García Meiro
CEO

