



Corporate Environmental Footprint Report 2021



Corporate Environmental Footprint Report 2021

July 2022

Content

1. Introduction	5
2. The energy company of the future	6
3. Goals of the CEF	9
4. Scope of the CEF	11
4.1 Limits of the organisation	12
4.2 Limits of the system	13
4.3 Relevant changes to the calculation of the cef	15
4.4 Exclusions	15
5. Functional Unit and base year	16
5.1 Functional unit	17
5.2 Base year	17
6. CEF Methodoly	18
7. Uncertainty and maximum relative importance	20
8. Corporate Environmental Footprint Results	22
8.1 Endpoint score	23
8.2 Midpoint score	28
9. Base year	30
10. Conclusions	32
A. Annexes	35
A.1. Definition of impact categories	36
A.2. General requirements and comments	39
A.3. Aenor verification declarationr	40

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. The 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 or services, whilst also taking the supply chain into account.

This report presents the results for the calculation of the CEF for 2021 with the following considerations:

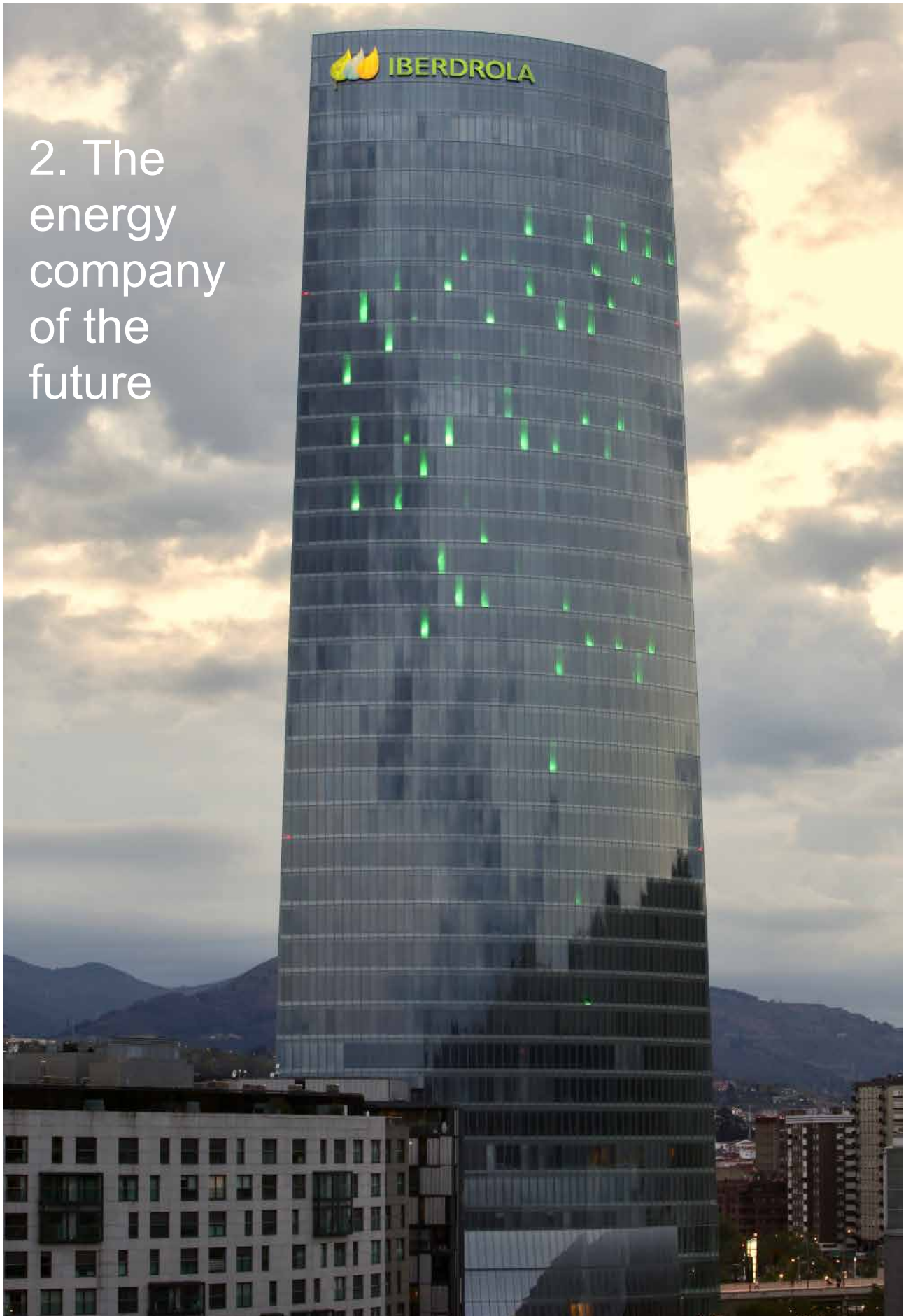
- Includes emissions from Iberdrola's activities in the subholding companies: Iberdrola España (Spain), ScottishPower (United Kingdom), Avangrid (United States), Neoenergia (Brazil), Iberdrola México (Mexico), Iberdrola Energía Internacional (Portugal, France, Italy, Germany, Greece, Australia, Romania and Hungary).
- The consolidation of the impacts of the CEF, which establishes the organisational limits for its evaluation, is approached from the **operational control purposes**¹.
- In the reporting criteria for its generation assets, Iberdrola distinguishes between **“own” production and installed capacity and production and installed capacity for “third parties”**. The latter reflects the particular operating conditions of some of our plants in Mexico, which Iberdrola operates under the direction of the Federal Electricity Commission (CFE) as an Independent Power Producer (IPP). Under these conditions, emissions from IPP stations are included in the indirect scope of this report.

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 prepared in accordance with the requirements established in the ISO/TS 14072:2014 standard **“Environmental management — Life cycle assessment — Requirements and guidelines for organisational life cycle assessment”**.

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 and partly controlled cogeneration stations in Spain and hydropower stations in Brazil, which are accounted for on a share basis in keeping with the Sustainability Report.

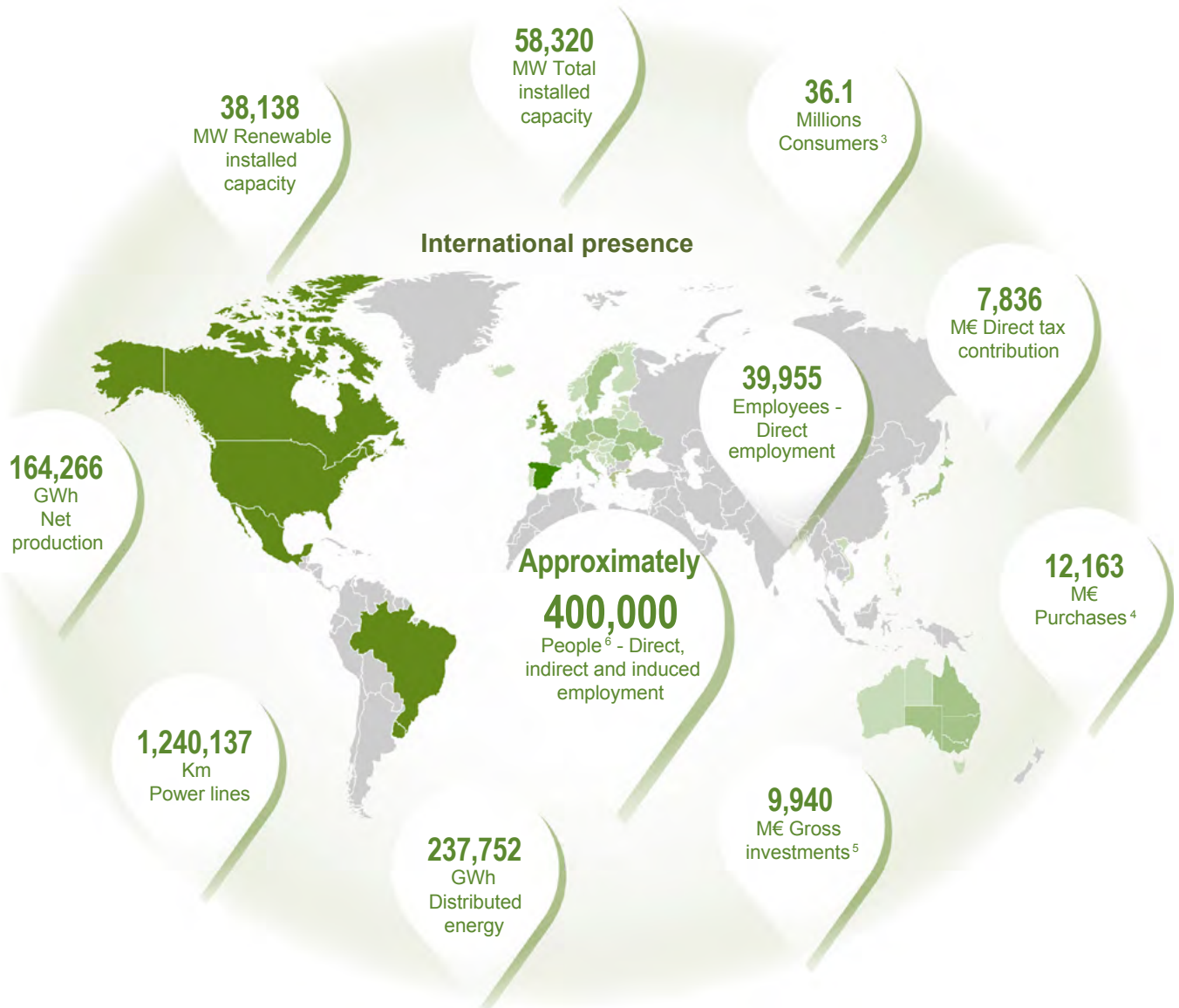


2. The energy company of the future

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 capitalization².

The group supplies energy to almost 100 million people in dozens of countries and has more than 600,000 shareholders, a workforce comprising more than 40,000 employees, and assets worth more than €140 billion.

Key figures of the group



(2) At year-end 2021.

(3) Consumers: for electric power, total number of liberalised market customers is used for areas of distribution and liberalised supply in the liberalised market, while supply points are used for the other areas. For gas: total number of liberalised market gas customers is used, except for the United States, where total number of supply points is used.

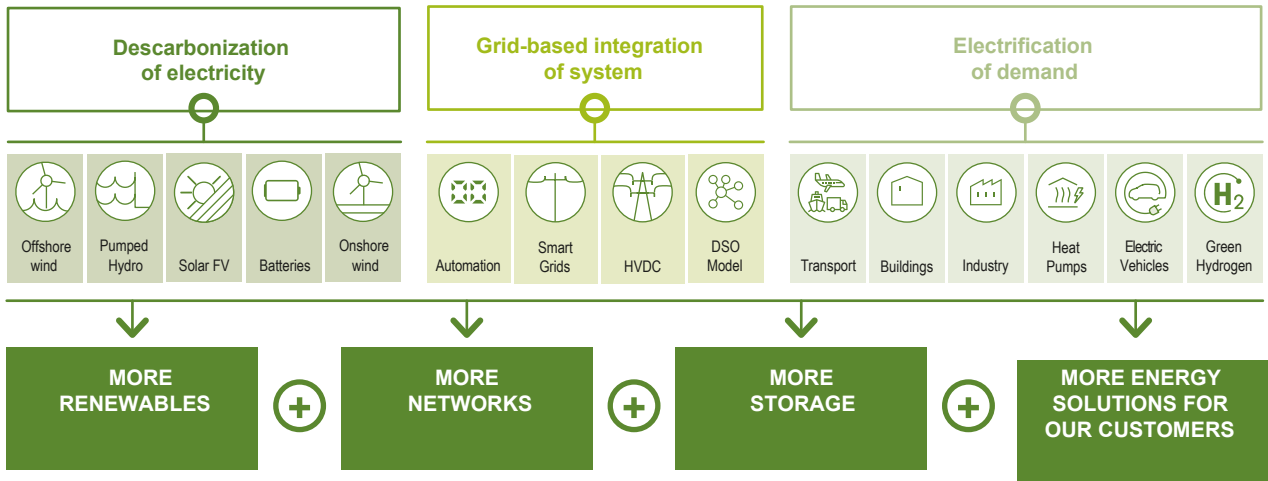
(4) Volumen awarded during the year. Amount invoiced in 2021: € 9,423.7 million.

(5) Includes the purchase of Neoenergia Brasilia (CEB-D), in the amount of € 409 million.

(6) Data from the study of Iberdrola's Impact, prepared by PwC using data for financial year 2020.

Iberdrola strongly believes that the transition to a carbon-neutral economy by 2050 is technologically possible, economically viable and socially necessary. The decarbonisation of the economy is a great opportunity to create wealth, generate employment and improve the state of the planet and people’s health. This is why the group is committed to taking a leading role in energy transition, a journey in which Iberdrola was first embarked on 20 years ago and that has led to an investment of €120 billion since then.

This commitment will be achieved by encouraging:



The Iberdrola group has undertaken to reduce its emission intensity to 50 gCO₂/kWh globally by 2030, thus achieving an 86 % reduction in three decades, in addition to being net zero globally by 2050.

3. Goals of the CEF



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 CEF at Iberdrola entails the following for the Group:

- It brings transparency, consistency and credibility to environmental management.
- It improves the identification of opportunities to reduce environmental impacts.
- It provides an impetus for innovation and continuous improvement in the businesses to achieve proper environmental management.
- It acknowledges the efforts made by the company in its fight against climate change, the destruction of the ozone layer, the depletion of natural resources, etc.

The general objectives 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 environmental improvements.
- Report on the **evolution of the organisation's environmental impacts** for a certain period of time.
- Be a **communication tool** for the stakeholders.

4. Scope of the CEF



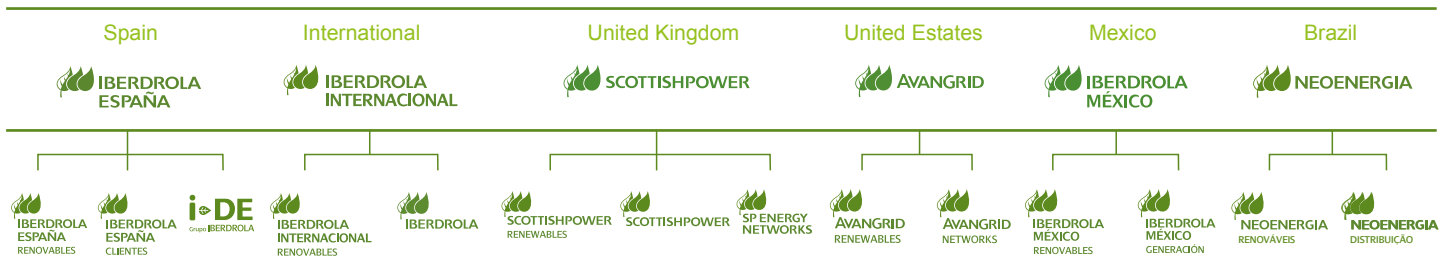
4.1 LIMITS OF THE ORGANISATION

The consolidation of the inputs and outputs of the life cycle inventory in Iberdrola’s Corporate Environmental Footprint is tackled, as in the calculation of the Carbon Footprint, from the operational control approach, as indicated in the considerations of the introduction of this report.

As in the case of share percentages are specified in the Notes to the Consolidated Annual Financial Statements and Consolidated Management Report corresponding to the financial year ending 31 December 2021.

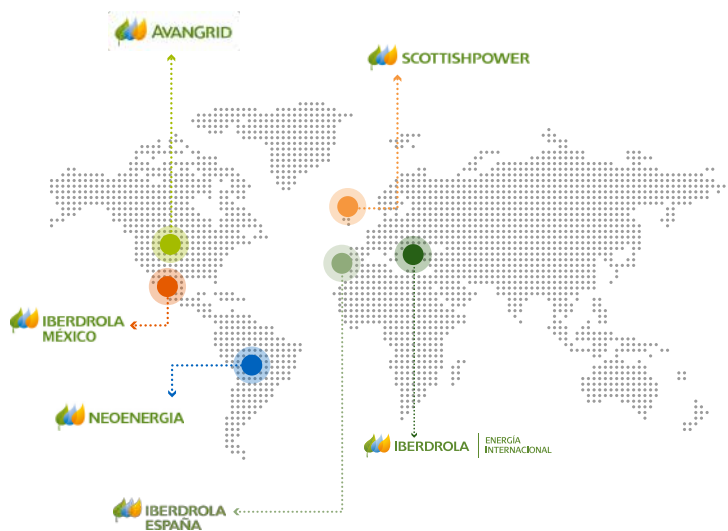
Iberdrola has sought to identify and adapt to the needs of each of the countries in which it operates. The company has used the experiences of each market to reinforce its brand values and, beyond the location of the business, has created a brand culture based on a global-local balance.

The information included within the scope of the life cycle inventory of the Corporate Environmental Footprint corresponds to the company structure of the group, which comprises the company, subholding companies, parent companies of the business units and investee companies.



The CEF report is presented at the subholding company level:

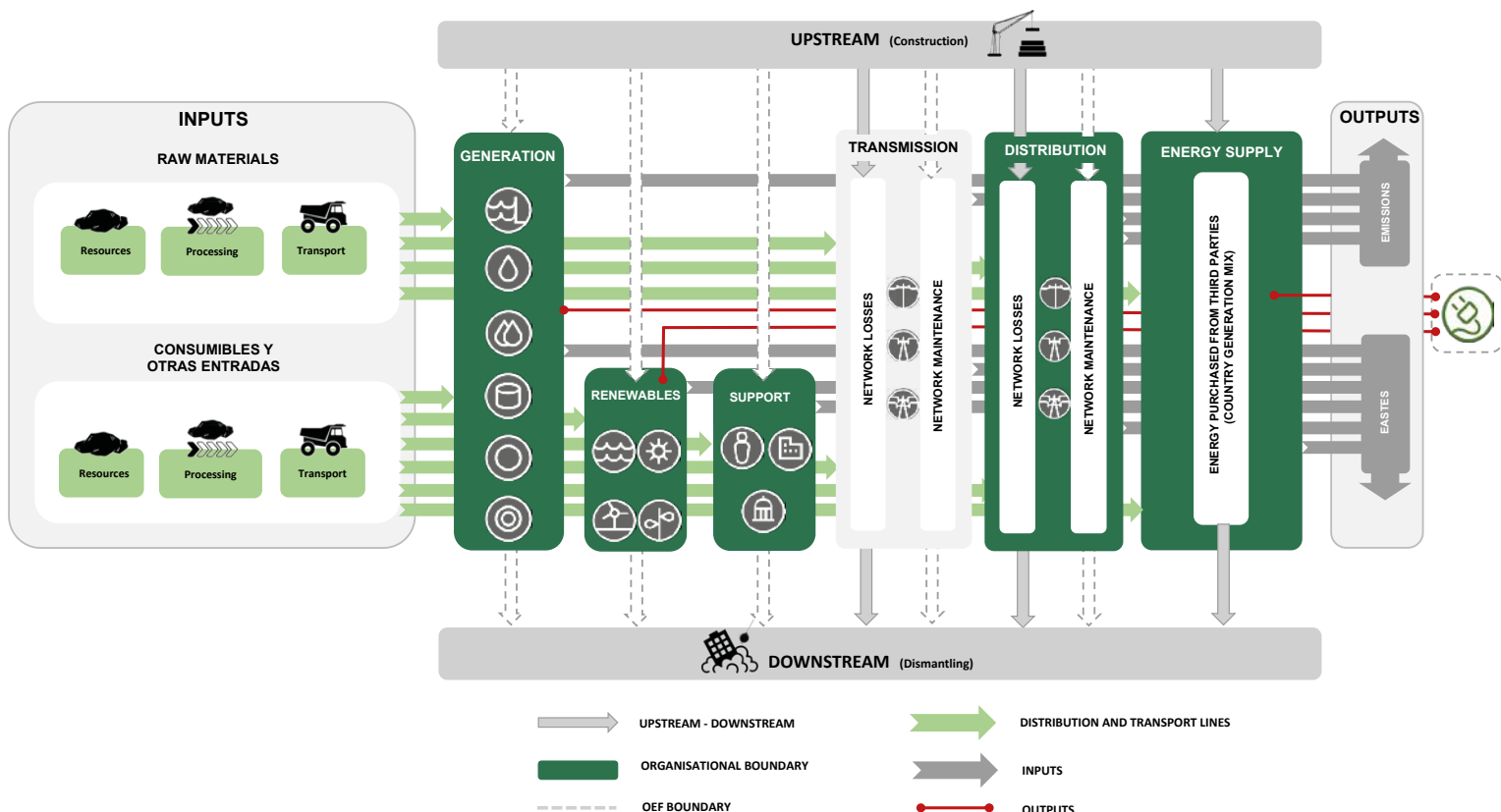
- Iberdrola España (España).
- ScottishPower (United Kingdom).
- Avangrid (United States of America).
- Neoenergia (Brazil).
- Iberdrola México (Mexico).
- Iberdrola Energia Internacional (Portugal, France, Italy, Germany, Greece, Australia, Romania and Hungary).



4.2 LIMITS OF THE SYSTEM

The analysis carried out for the calculation of Iberdrola's CEF is from cradle to grave, except for the stage of use of electricity, considering, in addition, that electricity has no end of life and there are no derived impacts. The complete life cycle of the natural gas marketed is accounted for from extraction to combustion.

The following image shows all the stages of the electricity life cycle and details which are included, and which are not included in Iberdrola's Corporate Environmental Footprint analysis.



Iberdrola defines the scope of its environmental aspects analyzed in direct and indirect for the operations carried out within the limits of the organisation. These scopes make it possible to distinguish whether the environmental impact is due to Iberdrola's own activity or is due to an activity over which the company has no control or is due to external agents.

Direct activities

Direct activities are those that take place within the organisational boundaries and are therefore owned by the organisation or are under the management of the Iberdrola Group (i.e. they are site-level activities).

Indirect activities

Indirect activities relate to the use of materials and energy and emissions associated with goods or services from an earlier stage, or taking place later, with respect to the organisational limit in support of the production of the product portfolio.

- 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 that occur in sources that are not owned or controlled by Iberdrola. These indirect activities range from the full life cycle of waste management to the upstream life cycle of the raw materials purchased.

ACTIVITIES	CATEGORY	
Direct Scope	Water consumption	
	Atmospheric emissions	
	Fleet car use ⁷	
	Fugitive emissions into the air	
	Fuel consumption in buildings ⁸	
	Land occupation by power stations	
	Land occupations by the lines	
Indirect Scope	Energy Consumption	Fleet car use ⁹
		Electricity consumed in power stations
		Distributed electricity losses
		Electricity consumed in offices, power stations and substations
	Transportation Impacts	Fleet car use ¹⁰
		Employee business trips
		Employee commuting
	Impacts associated with the use of products	Marketing of energy bought from thrid parties
		Marketing of gas bought from thrid parties
	Impacts Other sources	Fuel consumption
		Fuel consumption in buildings ¹¹
		Water consumption
		Use of consumables
		Uso of chemical products
		Hazardous waste
Radioactive waste		
Non-hazardous waste		

7. With the exception of the electric and hybrid car and only use emissions
 8. Use emissions
 9. Counting the electric and hybrid car only use emissions
 10. Except use emissions
 11. Except use emissions

4.3 RELEVANT CHANGES TO THE CALCULATION OF THE CEF

No relevant methodological changes have been made in the calculation of the CEF for this 2021 financial year.

4.4 EXCLUSIONS

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

- Aspects associated with the **upstream** and **downstream** (construction/dismantling) of generation and non-generation facilities, offices and distribution and transport lines owned by Iberdrola.
- Radioactive emissions in the operation phase of nuclear power plants.
- Consumables whose impact on the final result of the footprint is not significant
- The aspects of the dams for hydraulic generation.
- The area of land occupied by wind and photovoltaic farms.
- Mobile sources of generation facilities.



5. Functional Unit and base year



5.1 FUNCTIONAL UNIT

The functional unit is the reference on the basis of which all data are gathered concerning materials sourcing, electricity generation and end-of-life of the object under analysis.

In the case of IBERDROLA's corporate environmental footprint analysis, the reporting unit considered is:

“The activities carried out in one year by IBERDROLA (generation, transmission, marketing and general corporate support services), considering all the input and output aspects occurring not only in the organisation but also upstream and downstream, and the environmental impact of the energy generation of third-party companies for subsequent retailing by IBERDROLA”.

The activity includes the impact associated with the input and output aspects for generation, distribution, transmission and trading of gas and electricity, the management of buildings related to these activities and the company's corporate support services.

5.2 BASE YEAR

The base year of this study is set at the 2019 reporting interval; annual exercise established to allow the establishment of objectives and the year-on-year evolution of Iberdrola's Corporate Environmental Footprint.

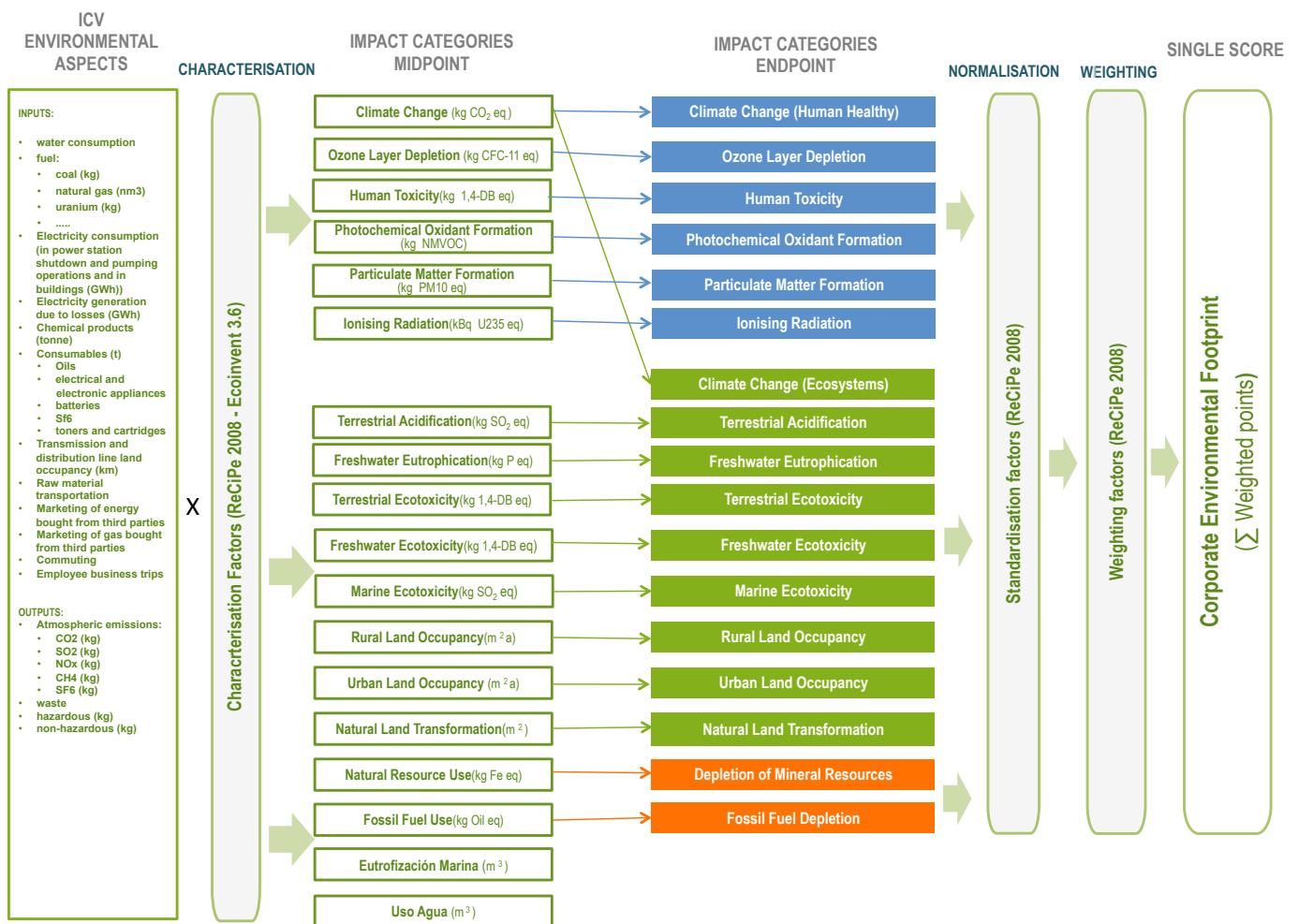
6. CEF Methodology



The environmental impact assessment methodology used for calculating Iberdrola’s Corporate Environmental Footprint is ReCiPe¹², 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 Midpoints and Endpoints, both available in the ReCiPe method:

- **Midpoint:** format of expression of the different categories of environmental impact based on magnitudes associated with the emission parameters or generation of the environmental impact analyzed.
- **Endpoint:** format of expression of the different categories of environmental impact based on the consequences that this impact can generate in the environment. This data format has less certainty than the Midpoint format, but significantly facilitates the interpretation of results by allowing the aggregation of all environmental impact categories into a single added value (based on a score on total environmental impact points).



The SimaPro 9¹³ tool has been selected as a tool that allows to simulate any aspect of input or output through a Life Cycle Inventory, to perform the necessary calculations for the assignment of characterization, normalization and weighting factors of the selected environmental impact assessment methodologies and show the results both in numerical values and in distribution in disaggregated percentages.

The Ecoinvent lifecycle inventory database has also been used in its latest version.

12. 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.
 13. Developed by the Dutch consulting firm PRÉ Consultants.

7. Uncertainty and maximum relative importance



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

The characterization 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 characterization factors is intended to minimize uncertainty as much as possible. Unless clear evidence to the contrary is available, it is assumed that probability density functions are normal.

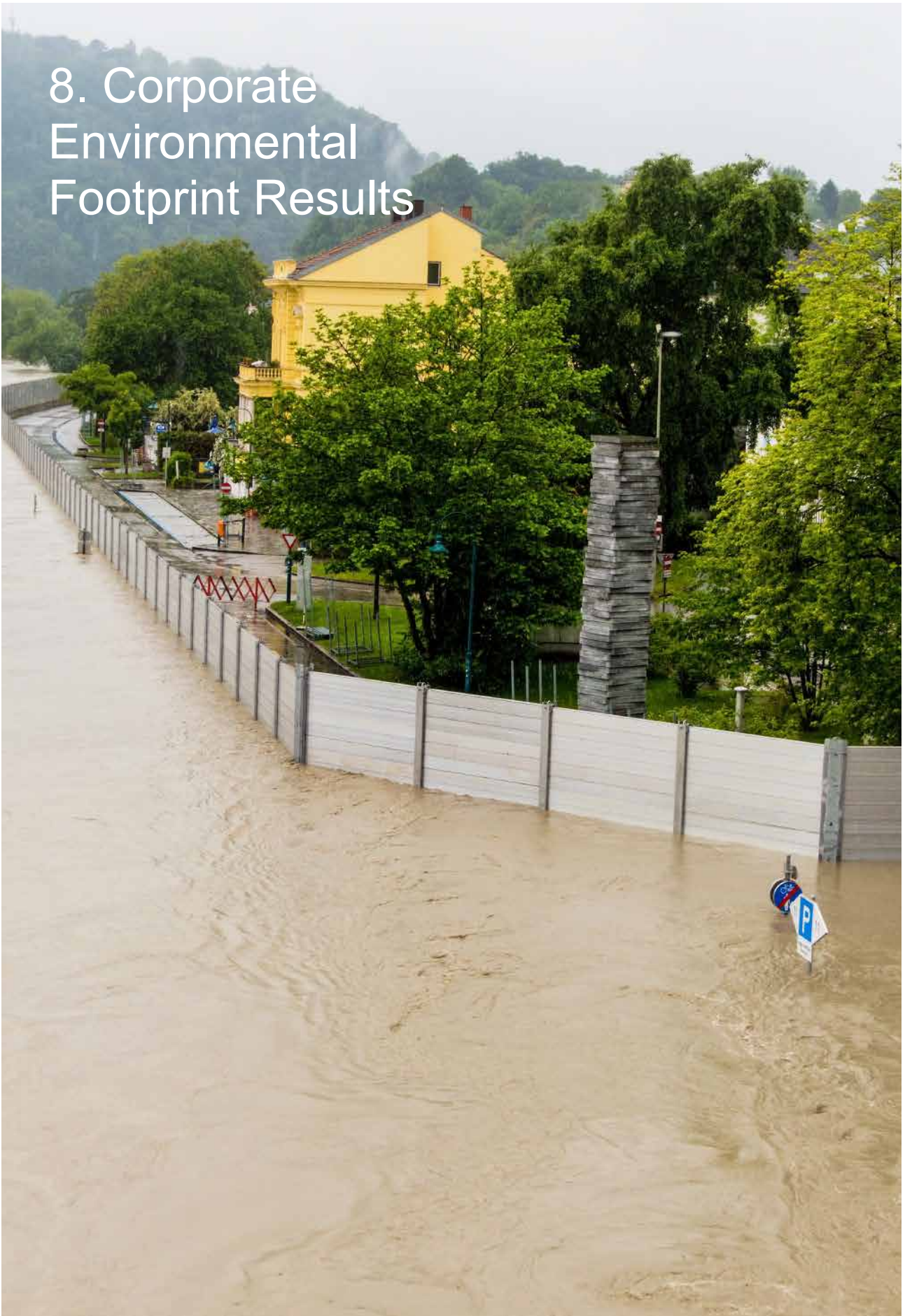
The uncertainty of the activity data is minimized since most of the raw input data, used for the calculation of the CEF, are pre-verified by independent entities. These sources are:

- Non-Financial Report (Sustainability Report).
- ETS Emissions Report.
- Greenhouse Gas Report (GHG).

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

A maximum relative importance level of 5% has been set with respect to total CEF.

8. Corporate Environmental Footprint Results



8.1 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. Table 1 shows the Endpoint values for each impact category and the total environmental footprint of the Iberdrola Group.

Table 1. Impact categories [Iberdrola Group - Endpoint]

IMPACT CATEGORIES	DIRECT SCOPE (Points)	INDIRECT SCOPE (Points)	TOTAL
Climate change (Human health)	540,647,218	2,825,215,629	3,365,862,847
Ozone layer depletion	413	550,920	551,333
Human toxicity	305,421	361,056,180	361,361,601
Photochemical ozone formation	29,329	153,371	182,700
Particulate matter formation	47,143,431	622,070,455	669,213,886
Ionising radiation	0	10,027,455	10,027,455
Climate change (Ecosystems)	45,538,324	237,988,530	283,526,853
Soil acidification	37,072	373,976	411,047
Freshwater eutrophication	0	305,886	305,886
Soil ecotoxicity	386	369,040	369,425
Freshwater ecotoxicity	1	1,053,477	1,053,478
Marine ecotoxicity	5	179,942	179,942
Rural land occupancy	0	29,941,950	29,941,950
Urban land occupancy	50,233,504	2,529,455	52,762,960
Natural land transformation	0	13,841,954	13,841,954
Mineral resource depletion	0	158,021,217	158,021,217
Fossil fuel depletion	0	3,978,149,078	3,978,149,078
TOTAL Points	683,935,103	8,241,828,516	8,925,763,619

Fossil fuel depletion and climate change are the impacts that contribute the most to CEF as we can see in *Figure 1*.

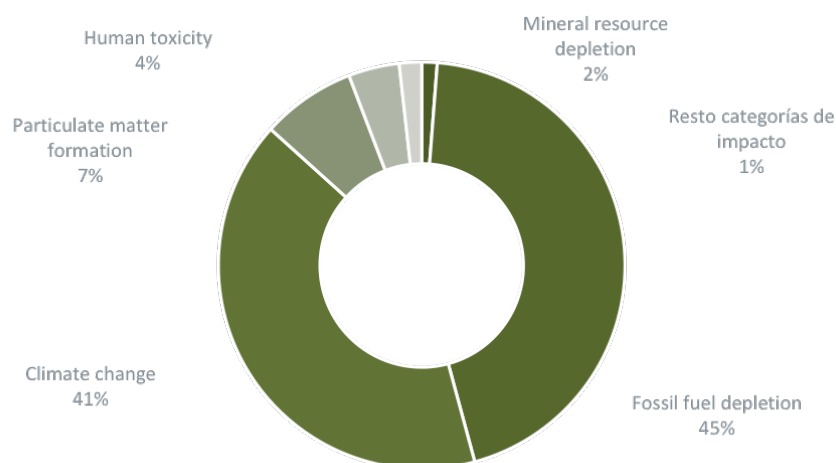


Figure 1. Environmental profile regarding impact categories [Iberdrola Group - Endpoint]

The 92% of the CEF is due to indirect impacts, over which the company has no direct control.

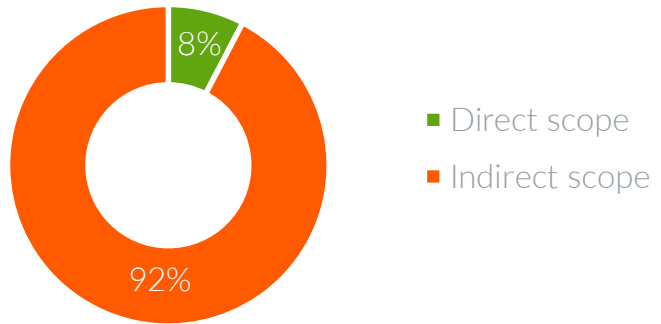
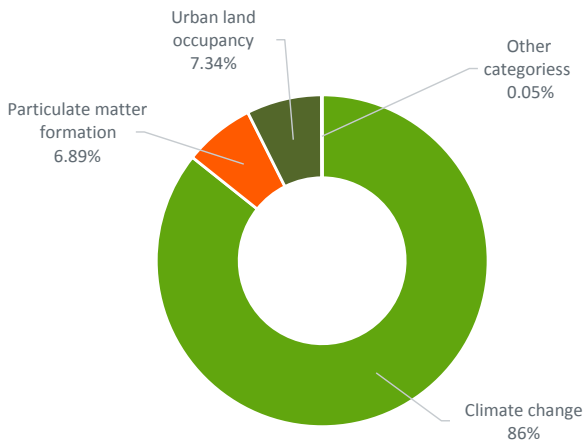


Figure 2. Environmental Profile by Scope [Iberdrola Group - Endpoint]

Climate change (86%) is the impact that contributes most to the direct scope of the CEF. In the indirect scope, the ones that contribute the most are the depletion of fossil fuels (48%) and climate change (37%).

Direct scope



Indirect scope

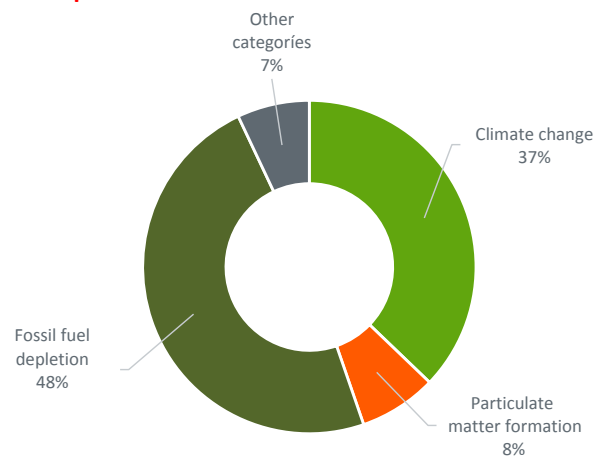
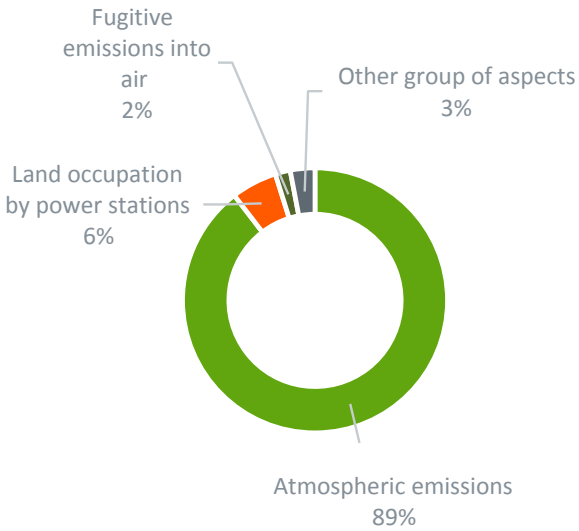


Figure 3. Characterization by Scope/Impacts [Iberdrola Group - Endpoint]

The aspect that contributes most to the direct scope is air emissions (89%), while in the indirect scope are the commercialization of gas and electricity (64%) along with fuel consumption (23%).

Direct scope



Indirect scope

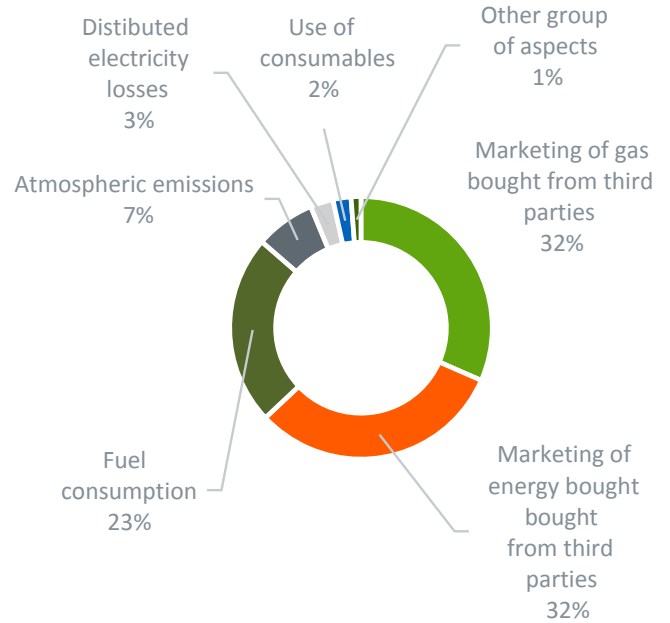


Figure 4. Characterization by scope/aspects [Iberdrola Group – Endpoint].

The year-on-year evolution of the impact categories shows an evolution in line with the evolution of the business, without significant changes.

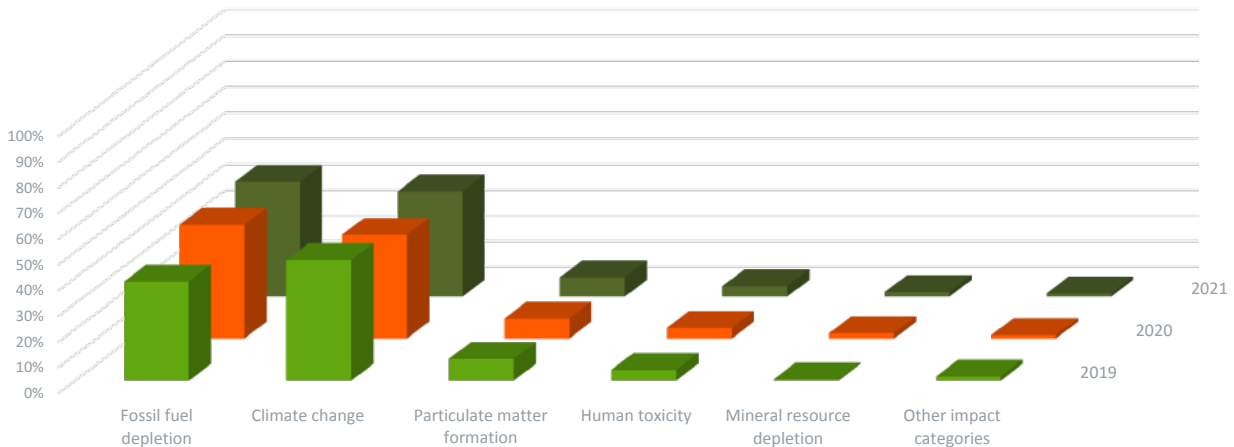


Figure 5. Evolution of the environmental profile by significant impact categories of the Iberdrola Group 2019-2021 [Iberdrola Group - Endpoint]

The Group’s activity takes place in different regions, the characterization of the impact of each country indicates that Avangrid is the one that contributes the most to the CEF.

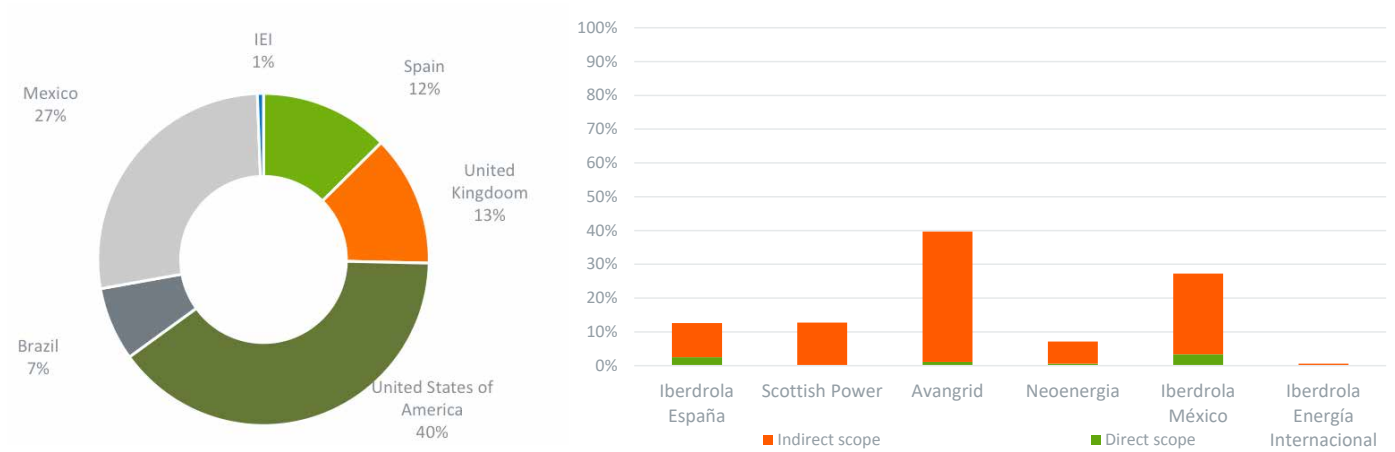


Figure 6. Characterization by countries and scope [Iberdrola Group – Endpoint].

The largest contribution of Avangrid (40%), to the CEF is due to the commercialization of gas and electricity, while that of Iberdrola Mexico (27%) is due to fuel consumption.

The following illustration shows the characterization by country impact category:

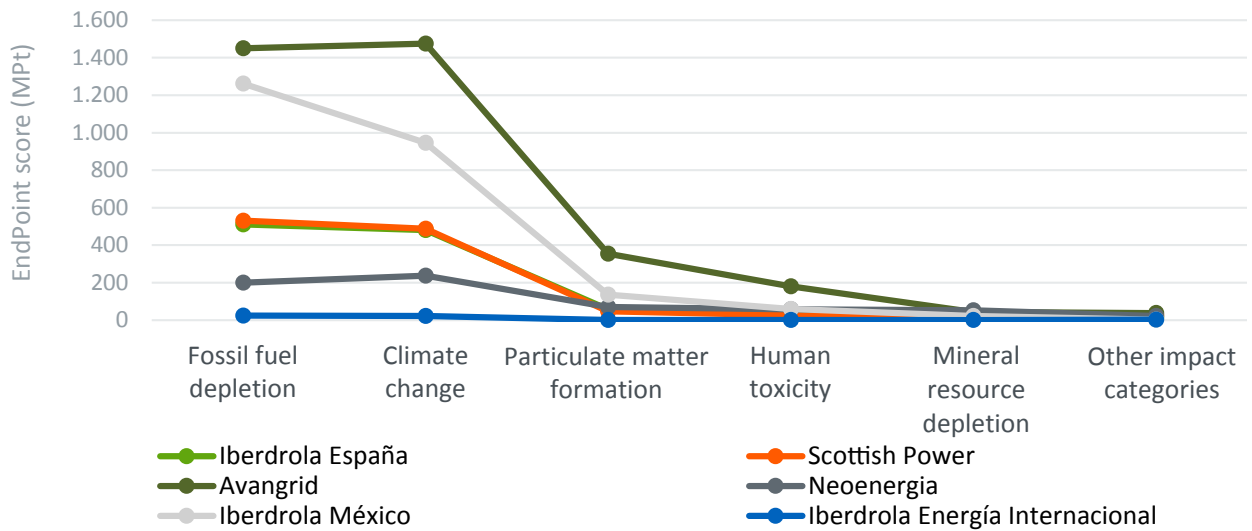


Figure 7. Endpoint characterization by country and impact category [Iberdrola Group - Endpoint].

The 58% of the CEF is concentrated in the Customers business (commercialization of gas and electricity purchased from third parties for sale to the end customer):

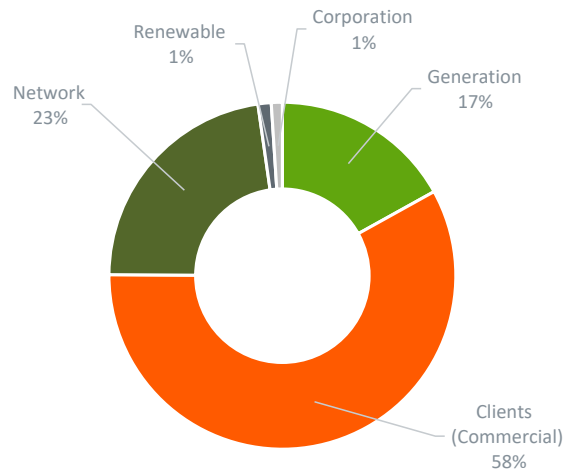


Figure 8. Endpoint Characterization by business [Iberdrola Group - Endpoint].

Focusing into the direct scope, In Figure 9, the normalized impact with respect to the generation business of each region is analyzed.

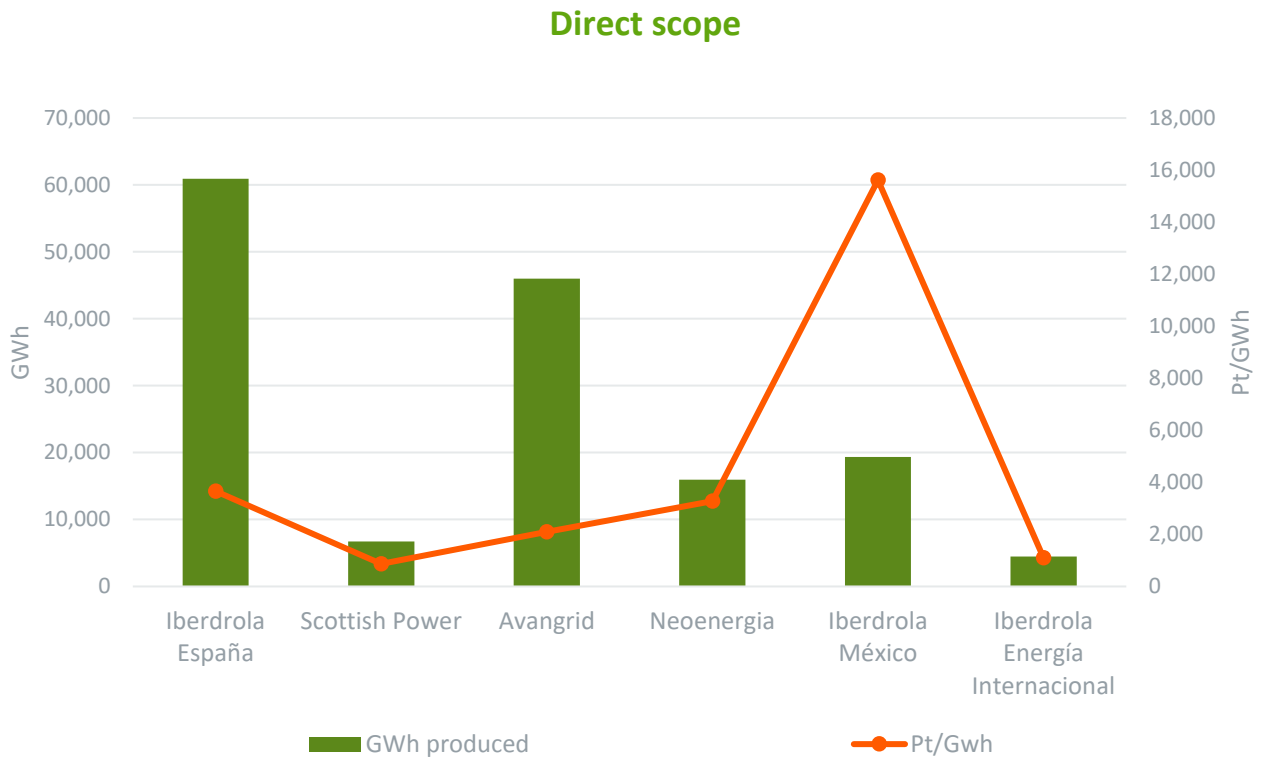


Figure 9. Net production in GWh and direct reach points per subholding normalized by net GWh produced [Iberdrola Group – Direct endpoint normalized by subholding].

14. The lower impact on climate change in the MidPoint calculation is due to the fact that the calculation methodology used, RECIPE, uses for its algorithms the factors of the "Fourth IPCC Assessment Report (AR4)", while the calculation of Greenhouse Gases (GHG) according to ISO 14064-2018 uses the factors of AR5.

8.2 MIDPOINT SCORE

The values of the Midpoint characterization 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 categories of environmental impact, in the characteristic units of each impact category.

Below are the values of the impacts generated by Iberdrola's activity by scope, direct and indirect, from the perspective of the life cycle and calculated according to the RECIPE methodology.

Table 2. Midpoint Score [Iberdrola Group – Midpoint].

IMPACT CATEGORY	UNIT	DIRECT SCOPE	INDIRECT SCOPE
Climate change ¹⁴	t CO ₂ eq	13,156,339	68,827,182
Ozone layer depletion	kg CFC-11 eq	0	8
Human toxicity	t 1,4-DB eq	3,448	17,550,840
Photochemical oxidant formation	t NMVOC	25,346	133,893
Particulate matter formation	t PM10 eq	6,148	81,600
Ionising radiation	t Bq U235 eq	0	20,849,331
Terrestrial acidification	t SO ₂ eq	14,596	147,808
Freshwater eutrophication	t P eq	0	15,753
Soil ecotoxicity	t 1,4-DB eq	6	5,630
Freshwater ecotoxicity	t 1,4-DB eq	3	2,808,430
Marine ecotoxicity	t 1,4-DB eq	53	2,328,466
Rural land occupancy	km ² a	0	5,588,404
Urban land occupancy	km ² a	4,393,610	279,908
Natural land transformation	km ²	0	21,083
Marine eutrophication	t N eq	957	10,457
Water depletion	hm ³	0	660,190
Natural resource depletion	t Fe eq	0	2,709,032
Fossil fuel depletion	t oil eq	0	29,500,607

Here are the MidPoint calculations for the most significant categories:

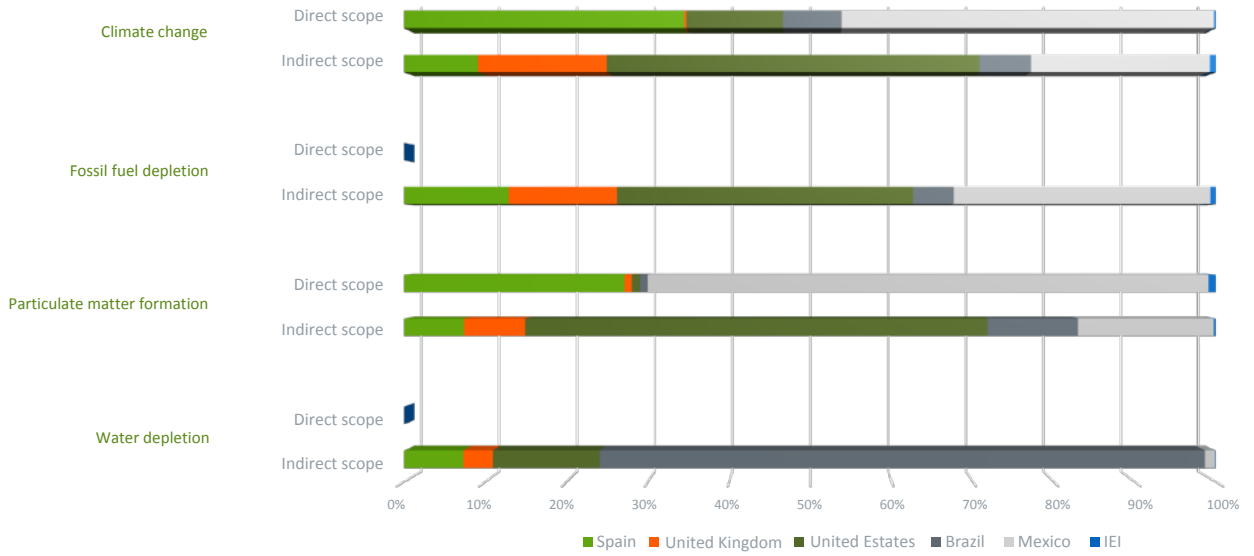


Figure 9. Characterization of significant Midpoint impact categories by country and scope [Iberdrola Group - Midpoint].

Climate change (t CO₂ eq.)

The climate change impact shows us the carbon footprint from the perspective of Life Cycle and calculated according to the RECIPE methodology.

	Spain	UK	USA	Brazil	Mexico	IEI	Total
Direct scope	4,532,784	35,861	1,567,320	947,216	6,046,403	26,755	13,156,339
Indirect scope	6,245,256	10,926,095	31,567,594	4,386,758	15,223,979	477,404	68,827,085

Fossil fuel depletion (t oil eq.)

This impact is considered from the perspective of extraction and process.

	Spain	UK	USA	Brazil	Mexico	IEI	Total
Direct scope	0	0	0	0	0	0	0
Indirect scope	3,783,613	3,938,251	10,751,857	1,484,633	9,359,910	182,292	29,500,556

Formación de partículas (t PM10 eq.)

	Spain	UK	USA	Brazil	Mexico	IEI	Total
Direct scope	1,669	54	62	57	4,252	54	6,148
Indirect scope	5,981	6,169	46,444	9,156	13,666	183	81,599



The base year 2019 remains, reporting as data those contained in the CEF – 2020 report¹⁵.

Table 3. Endpoint Score of the base year 2019 [Endpoint - Iberdrola Group].

END POINT IMPACT CATEGORY	DIRECT SCOPE (Points)	INDIRECT SCOPE (Points)	TOTAL (Points)
Climate change (Human health)	550,809,740	2,821,788,422	3,372,598,162
Ozone layer depletion	11,888	532,177	544,064
Human toxicity	110,915	322,059,180	322,170,095
Photochemical ozone formation	23,055	155,398	178,453
Particulate matter formation	37,925,144	617,634,988	655,560,132
Ionising radiation	0	9,246,043	9,246,043
Climate change (Ecosystems)	46,394,339	237,631,771	284,026,109
Soil acidification	31,101	362,727	393,828
Freshwater eutrophication	0	266,353	266,353
Soil ecotoxicity	349	344,079	344,428
Freshwater ecotoxicity	1	986,823	986,824
Marine ecotoxicity	3	167,747	167,750
Rural land occupancy	0	29,015,205	29,015,205
Urban land occupancy	44,658,251	2,095,911	46,754,162
Natural land transformation	0	32,127,445	32,127,445
Mineral resource depletion	0	37,001,814	37,001,814
Fossil fuel depletion	0	3,002,635,281	3,002,635,281
TOTAL Points	679,964,785	7,114,051,364	7,794,016,149

Table 4. Midpoint Score for the base year 2019 [Midpoint - Iberdrola Group].

MIDPOINT IMPACT CATEGORY	UNIT	DIRECT SCOPE	INDIRECT SCOPE
Climate change	t CO ₂ eq	13,156,339	68,827,182
Ozone layer depletion	kg CFC-11 eq	0	8
Human toxicity	t 1,4-DB eq	3,448	17,550,840
Photochemical oxidant formation	t NMVOC	25,346	133,893
Particulate matter formation	t PM10 eq	6,148	81,600
Ionising radiation	t Bq U235 eq	0	20,849,331
Terrestrial acidification	t SO ₂ eq	14,596	147,808
Freshwater eutrophication	t P eq	0	15,753
Soil ecotoxicity	t 1,4-DB eq	6	5,630
Freshwater ecotoxicity	t 1,4-DB eq	3	2,808,430
Marine ecotoxicity	t 1,4-DB eq	53	2,328,466
Rural land occupancy	km ² a	0	5,588,404
Urban land occupancy	km ² a	4,393,610	279,908
Natural land transformation	km ²	0	21,083
Marine eutrophication	t N eq	957	10,457
Water depletion	hm ³	0	660,190
Natural resource depletion	t Fe eq	0	2,709,032
Fossil fuel depletion	t oil eq	0	29,500,607

15. The variation of the data with respect to those presented in the 2020 report, less than 0.0005% is due to improvement of the calculations in the corporate tool SYGRIS.

10. Conclusions



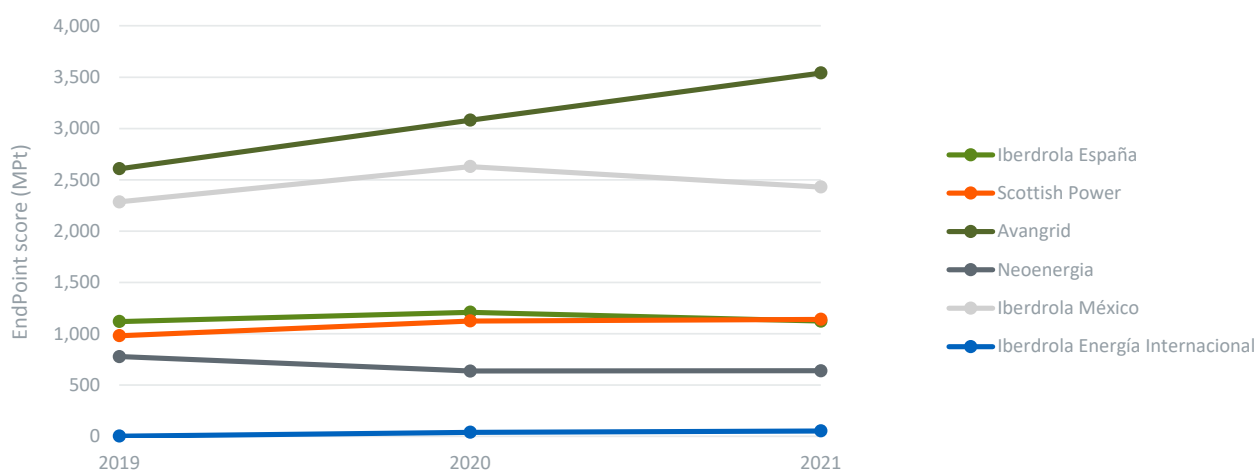
The CEF 2021 has calculated all its characterization factors according to the EcoInvent 3.6 version used by IPCC AR4.

Analyzing the results of the Endpoint score obtained in the 2021 financial year, it can be concluded that:

- The 92% of the impact of the CEF is due to indirect activities on which Iberdrola’s capacity to act is limited.

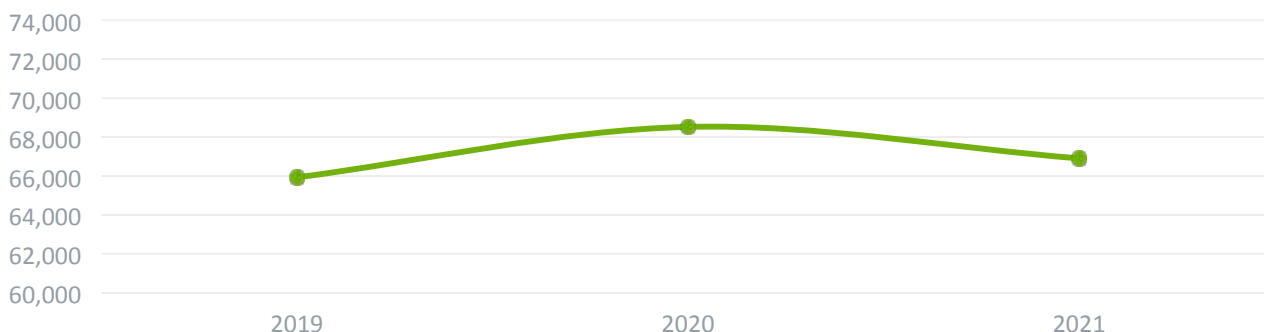
These indirect activities correspond to aspects that occur either in earlier stages of the life cycle of the products and services used for the group’s activity or outside the limits of the organisation as a result of its activity.

- Fossil fuel depletion (45%) and climate change (41%) are the impacts that contribute the most to CEF.
- The evolution of CEF by subholding is uniform. Highlights the growth in Avangrid which is due to commercial growth.



- The intensity of the CEF has been reduced compared to 2020.

CEF Intensity (Pts/GWh)



- The most significant groups of aspects are the commercialization of gas and electricity purchased from third parties, with a contribution of 32% each to the footprint. Both groups of aspects are included in the indirect scope of the footprint.
- The country with the greatest contribution to the total footprint is the United States with 40% of the impact, an impact associated with indirect activities, mainly commercial business activities (sale of gas and electricity).

Iberdrola will continue to advance in its environmental performance through the increase in renewable power, the improvement of its distribution networks and an additional battery of measures focused especially on the impacts that the footprint reveals of greater relevance: climate change and the depletion of fossil resources.

* * * * *

Report Completion Date 30 June 2022

* * * * *

A. Annexes

A.1. DEFINITION OF IMPACT CATEGORIES

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

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-11 (trichlorofluoromethane) equivalent

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

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 de NMVOC (Non-methane volatile organic compounds)

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

Ionising radiation

The harmful effects on human health caused by radiative discharges.

Unit: kBq U235 (uranium 235) equivalent

Terrestrial acidification

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

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 (phosphorous) equivalent

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

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 (dichlorobenzene) equivalent

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 (dichlorobenzene) equivalent

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 (dichlorobenzene) equivalent

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)

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)

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)

Water depletion

Environmental impact category that refers to water use. It refers to the direct consumption of fresh water made by the organization with a life cycle perspective. Water is a scarce resource on the planet and increasingly appreciated. Awareness of the depletion of the water resource has led to the development of the Water Footprint concept.

Unit: m³ (cubic metres)

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

Fossil 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

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 COMMENTS

Critical review considerations

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.

Data collection

The qualitative and quantitative data included in the inventory have been collected for the processes included within the boundaries 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.

Data validation

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.

Setting the system limits

In accordance with the iterative nature of LCA, decisions regarding the data to be included are based on sensitivity analyses and the results obtained on previous environmental footprints.

Allocation procedure for reuse and recycling

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

A.3. AENOR VERIFICATION DECLARATION

Verification Statement of AENOR for IBERDROLA, S.A of the Corporate Environmental Footprint for the year 2021

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 2021. The aforementioned inventory is listed in the Corporate Environmental Footprint Report of Iberdrola S.A. 2021, June 2022.

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.

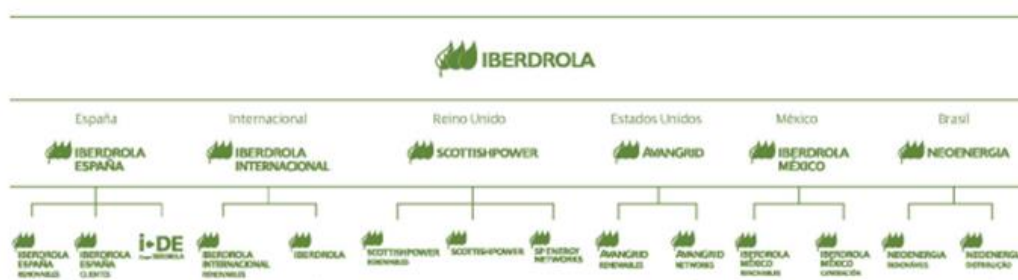
IBERDROLA, S.A. was responsible for reporting its corporate environmental footprint in accordance with the requirements set out in ISO/TS 14072-1:2014 "Environmental management -- Life cycle assessment -- Requirements and guidelines for organizational life cycle assessment".

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-holdings) 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 8 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 3.6 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 2021 - Iberdrola Report", June 2022.

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

Conclusion

The 2021 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 2021 - Iberdrola" of June 2022, not to be a faithful representation of the environmental impacts of its activities.

AENOR

Confía

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>	t CO ₂ eq	13.156.339	68.827.182
<i>Destruction of the Ozone layer</i>	kg CFC-11 eq	0	8
<i>Human Toxicity</i>	t 1,4-DB eq	3.448	17.550.840
<i>Formation of photochemical oxidizers</i>	t NMVOC	25.346	133.893
<i>Formation of particles</i>	t PM10 eq	6.148	81.600
<i>Ionizing Radiation</i>	tBq U235 eq	0	20.849.331
<i>Earth Acidification</i>	t SO ₂ eq	14.596	147.008
<i>Freshwater Eutrophication</i>	t P eq	0	15.753
<i>Ecotoxicity to the soil</i>	t 1,4-DB eq	6	5.630
<i>Ecotoxicity to Freshwater</i>	t 1,4-DB eq	3	2.808.430
<i>Ecotoxicity to sea water</i>	t 1,4-DB eq	53	2.328.466
<i>Occupation of agricultural land</i>	km ² a	0	5.558.504
<i>Occupation of urban land</i>	km ² a	4.393.610	279.908
<i>Transformation of natural land</i>	km ²	0	21.083
<i>Sea water Eutrophication</i>	t N eq	957	10.457
<i>Use of water</i>	hm ³	0	660.190
<i>Natural resources depletion</i>	t Fe eq	0	2.709.032
<i>Fossil fuel depletion</i>	t oil eq	0	29.500.607

EndPoint points:

IMPACT CATEGORY	Direct Score (EndPoints)	Indirect Score (EndPoints)
Climate change (Human health)	540.647.218	2.825.215.629

Destruction of the Ozone layer	413	550.920
Human Toxicity	305.421	361.056.180
Formation of photochemical oxidizers	29.329	153.371
Formation of particles	47.143.431	622.070.455
Ionizing Radiation	0	10.027.455
Climate change (Ecosystems)	45.538.324	237.988.530
Earth Acidification	37.072	373.976
Freshwater Eutrophication	0	305.886
Ecotoxicity to the soil	386	369.040
Ecotoxicity to Freshwater	1	1.053.477
Ecotoxicity to sea water	5	179.942
Occupation of agricultural land	0	29.941.950
Occupation of urban land	50.233.504	2.529.455
Transformation of natural land	0	13.841.954
Natural resources depletion	0	158.021.217
Fossil fuel depletion	0	3.978.149.078
Totals	683.935.103	8.241.828.516



Lead Verificator: Juan HERNÁN DÍEZ

Technical Review: Fernando SEGARRA ORERO

Madrid July 19th 2022

