

# Greenhouse Gases Report

Inventory 2024



February 2025

INNOVATION, ENVIRONMENT  
AND QUALITY





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# 01. Introduction



# 1. Introduction

Iberdrola has been publishing its Greenhouse Gases (GHG) Report every year since 2008, thus demonstrating its status as a global benchmark in its commitment to transparency and its defence of a sustainable growth model that respects the environment. Continuing with this commitment, Iberdrola once again presents its Greenhouse Gases Report.

Iberdrola publishes this report, in order to describe the Greenhouse Gas Inventory and to transparently inform its stakeholders of the company's emissions during 2024, in accordance with the commitments assumed in our **environmental policies**<sup>1</sup>, which constitute the response to climate change goals and purposes, preservation of the environment and loss of biodiversity, while at the same time contributing to identifying and taking advantage of the opportunities arising from the energy and ecological transition:

- **Sustainable management policy.** Iberdrola strives to ensure that its development meets the needs of the present without compromising the ability of future generations to satisfy their own needs.
- **Environmental policy**<sup>1</sup>. Respect for the environment is the key to Iberdrola's sustainable energy model.
- **Climate action policy**<sup>1</sup>. Iberdrola takes a leading position in the fight against climate change.
- **Biodiversity policy**<sup>1</sup>. Iberdrola promotes the biodiversity of ecosystems and the awareness of its stakeholders.

Iberdrola aims to achieve carbon neutrality for its direct and indirect emissions from imported energy by 2030. The ultimate goal is to achieve a Net Zero emissions balance by 2040.

Iberdrola's transformation towards climate neutrality, in full coherence with the achievement of a more efficient, competitive, clean and sustainable economic system, consolidates the company as the largest electricity company in the world without producing electricity with coal.

This report contains Iberdrola's greenhouse gas (GHG) inventory for 2024, in line with the company's decarbonisation targets.

<sup>1</sup> <https://www.iberdrola.com/corporate-governance/governance-sustainability-system/environment-climate-change-policies>

# 02.

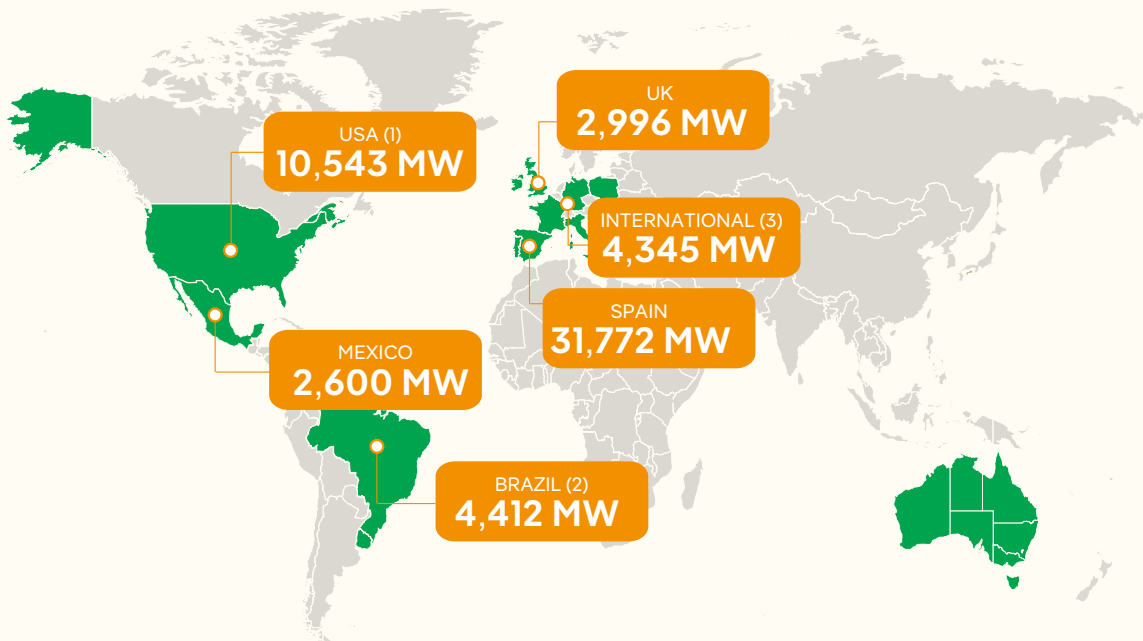
# The energy company of the future

## 2. The energy company of the future

The Iberdrola Group is today a global energy leader that has been two decades ahead of energy transition to combat climate change and offer a sustainable and competitive business model that creates value for society. Iberdrola has been committed to clean energy for more than 20 years with a total portfolio of 100,000 MW to be developed in the future.

The 2024 year was closed with 44,478 green MW installed. In the last 12 months we have added more than 2,000 renewable MW, representing an increase of 6% of the 2023 capacity. As a result, we have achieved a production of more than 83,000 renewable GWh (5% more than the previous year).

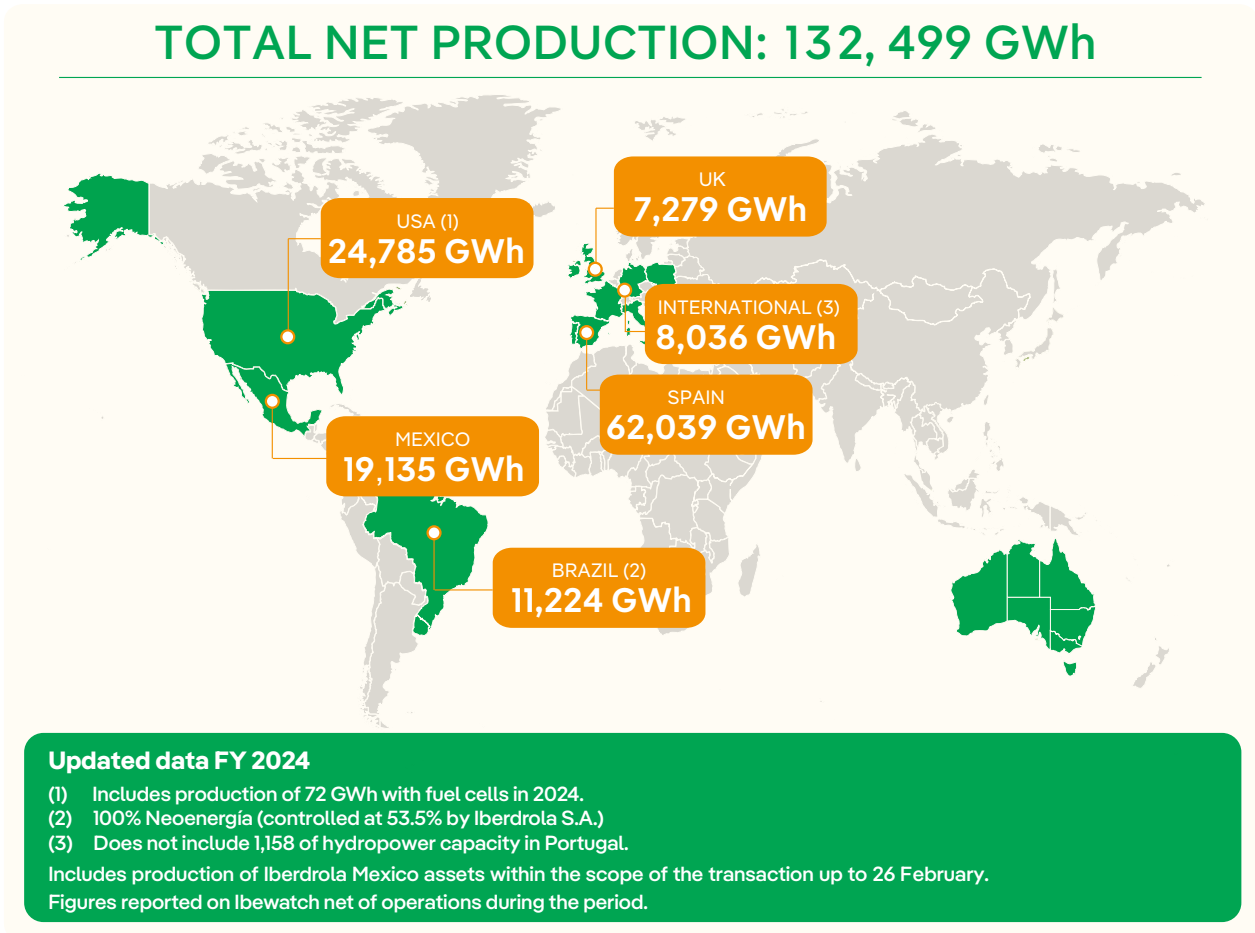
### TOTAL CAPACITY INSTALLED: 56,668 MW



**Updated data FY 2024**

- (1) Includes 13 MW of installed capacity from fuel cells.
  - (2) 100% Neoenergia (controlled at 53.5% by Iberdrola S.A.)
  - (3) Does not include 1,158 of hydropower capacity in Portugal.
- Figures reported on Ibewatch net of operations during the period.

Growth in renewable capacity was led by offshore wind energy, reaching 2,373 MW installed at the end of the year, after incorporating 580 new MW from the Saint-Brieuc wind farm in France. In addition, more than 1,800 MW of solar PV have been installed, mainly in Spain and the United States.





Construction of the Saint Brieuc offshore wind plant in France

# 03. Greenhouse Gas Report

## 3. Greenhouse Gas Report

This report contains Iberdrola's Greenhouse Gas Inventory, hereinafter GHG, for 2024 with the following considerations:

- It includes emissions from the activities of the entire Iberdrola Group: Iberdrola España, ScottishPower, Avangrid, Neoenergia, Iberdrola México and Iberdrola Energía Internacional.
- The greenhouse gases considered are: **CO<sub>2</sub>, SF<sub>6</sub>, CH<sub>4</sub>, N<sub>2</sub>O and CFC's**. (NF<sub>3</sub> is not considered, it is not used in Iberdrola).
- 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, Environment and Quality Division of Iberdrola S.A.

The inventory was done in accordance with the requirements established *in the Standard ISO 14064-1:2018: "Green house gases. Part 1: Specification with guidance at organisation level for quantification and reporting of greenhouse gas emissions and removals"*.

The Greenhouse Gas inventory was verified using a **limited assurance engagement**.

### 3.1 Significant changes to the Emissions Inventory

During 2024 Iberdrola closed the sale of 55% business in Mexico. The operation involves the sale of 13 generation plants with an installed capacity of 8,539 MW, 99% of which corresponds to gas combined cycle plants, 87% of which were operating under the Independent Power Producer regime, contracted with the CFE.

From this report onwards, emissions associated with electricity transmission and distribution losses are calculated by taking the gross value of these losses and eliminating the balance with the emissions associated with the energy generated.

In 2024 the Well To Tank (WTT) calculation was changed adding the life cycle of fuels: from non-generation (thus taking into account all the fuels used by the organisation); from electricity consumed; from losses in the transport and distribution of electricity; and from gas marketed to the end customer.

In addition, in this year emissions resulting from the sale of electric power to the end used in Iberdrola México were included.



## 3.2 Limits of the organisation

The consolidation of GHG emissions at Iberdrola is tackled from an operational control approach.<sup>2</sup>

The share percentages are specified in the Consolidated Annual Financial Statements Report and the Consolidated Management Report corresponding to the fiscal year 31 December 2024. 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 GHG inventory corresponds to the company structure of the group, which comprises the company, subholdings, parent Companies of the business units and investee Companies. The GHG inventory is presented both at consolidated level and at subholding company level:

<sup>2</sup> With the exception of the nuclear power plants, the Spanish investee cogeneration plants and the Brazilian hydro power plants, which are accounted for under the equity share, as published in the Non-Financial Information Statement (NFIS).



- Iberdrola España
- Scottish Power (United Kingdom)
- Avangrid (United States of America)
- Neoenergia (Brazil)
- Iberdrola México
- Iberdrola International: head of business companies: Iberdrola Renovables Internacional, SAU; Iberdrola Deutschland, GmbH; Iberdrola France, S.A.S.; and retail companies in Portugal and Italy<sup>3</sup>

### 3.3. Operating Limits

In this report the greenhouse gases considered are:

- CO<sub>2</sub> (Emissions from fixed and mobile combustion)
- SF<sub>6</sub> (Fugitive emissions expressed in T CO<sub>2</sub> eq).
- CH<sub>4</sub> (Fugitive emissions and those associated with fuel consumption expressed as t CO<sub>2</sub> eq)
- N<sub>2</sub>O (Emissions associated with fuel consumption expressed as t CO<sub>2</sub> eq)
- CFC's (Fugitive emissions of refrigerant gases expressed in T CO<sub>2</sub> eq)
- NF<sub>3</sub> not considered in this inventory as it does not form part of Iberdrola's processes.

Iberdrola defines the scope of its direct and indirect emissions for operations undertaken within the limits of the organisation, with the GHGs classified in accordance with Standard UNE-EN-**ISO 14064:2018-1**.

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#### Direct GHG emissions (Category 1)

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They are direct GHG emissions from sources owned or controlled by the company.

- **Stationary combustion emissions:**
  - CO<sub>2</sub> emissions, from electric power generation facilities (by combustion of any type of fuels).
  - Methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O) emissions associated with the combustion of any type of fuel.

<sup>3</sup> Geographically, it includes: Portugal, France, Italy, Germany, Greece, Australia, Romania, Hungary, Cyprus and Poland. The rest of the countries that form part of Iberdrola Internacional are not currently considered in this inventory due to their scant relevance.

- CO<sub>2</sub> emissions from the combustion of fuels in buildings or facilities, from heating equipment or generators.
- CO<sub>2</sub> emissions from the combustion of fuels in gas storage facilities.
- **Direct fugitive emissions in anthropogenic systems:**
  - From methane (CH<sub>4</sub>) (natural gas storage and transport).
  - From sulphur hexafluoride (SF<sub>6</sub>) (distribution networks, generation substations, etc.).
  - From refrigerant gases from air-conditioning equipment.
- **Emissions from mobile combustion**, associated with fuel consumption in transport equipment, we take into account fleet vehicles, ships and airplanes for transporting personnel in this section.
- **Emissions from land use** (Brasil).

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## Indirect GHG emissions

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These emissions are a consequence of the organisation's activities, but which are generated in sources that are owned or controlled by the organisation.

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## HGH emissions by Imported Energy (Category 2)

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Indirect GHG emissions by imported energy are those from electricity, heat or steam consumed by the organisation and provided by third parties. Emissions from electricity transmission and distribution are also included in this section, in all cases calculated according to the "location based" method.

- Emissions associated with electricity consumption during outages at thermal, renewable and nuclear power plants.
- Emissions associated with the consumption of electricity by pumps at hydroelectric power stations.
- Emissions associated with electricity consumption in the group's buildings, also calculated on a market based basis.
- Emissions associated with transmission grid losses during the distribution of power. These emissions are calculated taken into consideration gross power losses as imported energy.

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## Direct GHG emissions by transport (category 3)

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These emissions result mainly from fuel consumed in means of transport.

- Emissions associated with employee business travel.

- Emissions associated with commuting (transport of employees from their place of work to their residence).
- Upstream life cycle emissions from all fuels used, including those associated with electricity transmission and distribution losses, electricity consumed and gas sold to end customers (Well to Tank, WTT).

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### GHG emissions by products used by the organisation (Category 4)

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- Emissions associated with all equipment, materials, works and services purchased by the organisation: emissions associated with the supply chain.

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### Indirect GHG emissions associated with the use of the organisation's products (Category 5)

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Emissions associated with the use of products marketed by the organisation.

- Emissions associated with electricity purchased from third parties for sale to end customers.
- Emissions associated with natural gas supplied to customers.
- Emissions from power generation facilities producing electricity for third parties, PIE plants in Mexico.

## 3.4 Exclusions and materiality

Emissions that have a low representativeness and where it is not feasible to obtain evidence for their quantification are excluded from this inventory. In any case, no exclusion exceeds 2% of total emissions in its category.

This report excludes:

- Emissions from vehicles in thermal generation facilities in Iberdrola España (category 1).
- Emissions associated to energy consumption in buildings managed by third parties in Iberdrola Internacional (category 2).

A maximum **relative importance level (materiality) of 5%** of total emissions has been set, except for those facilities that are subject to regulatory verification, in which case it will be 2%.

### 3.5. Base year

Due to the changes mentioned in section 3.1 Relevant changes to the emission inventory, it has been decided to set the current inventory for 2024 as the base year for future comparisons. For this reason, the evolution of the categories that have undergone a relevant (non-methodological) change with respect to the previous year is analysed.

### 3.6 Uncertainty assessment

Uncertainty determines the dispersion of values that could reasonably be attributed to the amount of the quantified aspect. The estimated uncertainty of each emission source is a combination of the uncertainty of its activity data and its corresponding emission factor.

- The uncertainty of the activity data used for the Iberdrola GHG inventory is minimised by: country-specific regulations (e.g. *Emission Trading System* (ETS) in the EU); and/or organisation-specific technical specifications or procedures.
- The emission factors used to create the Iberdrola GHG inventory are extracted from official sources and are specific to each category of source. The selection of these factors is aimed at minimising uncertainty. The probability density functions are assumed to be normal.

Iberdrola calculates uncertainty in accordance with the GHG Protocol tool (published on [ghgprotocol.org](https://ghgprotocol.org), *Tools & Resources* section), the result of which is: aggregate uncertainty =  $\pm 7.5\%$  (good).







# 04. GHG inventory GEI 2024 Iberdrola Group

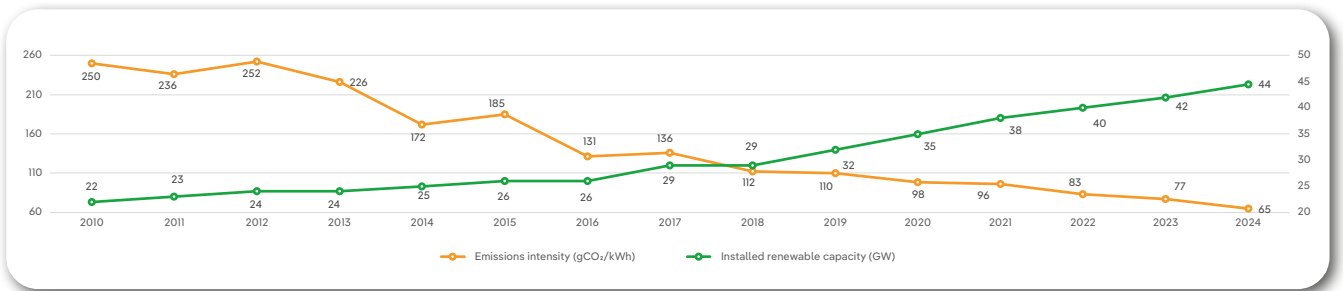
## 4. GHG inventory GEI 2024 Iberdrola Group

Direct GHG emissions (Category 1)		(t CO <sub>2</sub> eq) 2024	
<b>Emissions due to stationary combustion</b>		<b>8,537,987</b>	
Emissions due to power generation		8,413,971	
CH <sub>4</sub> emissions energy generation		4,679	
N <sub>2</sub> O emissions energy generation		29,075	
Gas storage emissions		2,758	
Emissions in buildings,... (generator sets, heating,...)		87,503	
<b>Direct fugitive emissions</b>		<b>264,891</b>	
Fugitive methane (CH <sub>4</sub> ) emissions		218,939	
Fugitive SF <sub>6</sub> emissions		40,279	
Fugitive emissions refrigerant gases		5,673	
<b>Emissions from mobile consumption</b>		<b>89,468</b>	
<b>Emissions due to land use</b>		<b>21,096</b>	
<b>Total Direct Emissions</b>		<b>8,913,440</b>	
Indirect GHG emissions		(t CO <sub>2</sub> eq) 2024	
		market based	location based
<b>GHG emissions by imported energy (Category 2)</b>		<b>2,437,920</b>	<b>2,468,917</b>
Auxiliary equipment's consumption in shutdown and pumping			619,381
Electricity consumed in buildings		17,986	48,982
Network losses			1,800,553
<b>Direct GHG emissions by transport (Category 3)</b>			<b>4,722,439</b>
Emissions associated with employee business travel			51,784
Associated to employees' commuting			41,085
Well To Tank emissions of fuels and consumed			4,629,570
<b>GHG emissions by products used by the organisation (Category 4)</b>			<b>3,469,985</b>
Supplier chain emissions			3,469,985
<b>Indirect GHG emissions associated with the use of the organisation's products (category 5)</b>			<b>23,268,154</b>
Emissions due to energy purchased from third parties			9,906,053
Missions due to gas supplied to customers			11,072,794
GHG emissions generation facilities for third parties			2,289,308
<b>Total Indirect Emissions (Location based)</b>			<b>33,929,495</b>
<b>Total indirect emissions (Market based)</b>			<b>33,898,498</b>

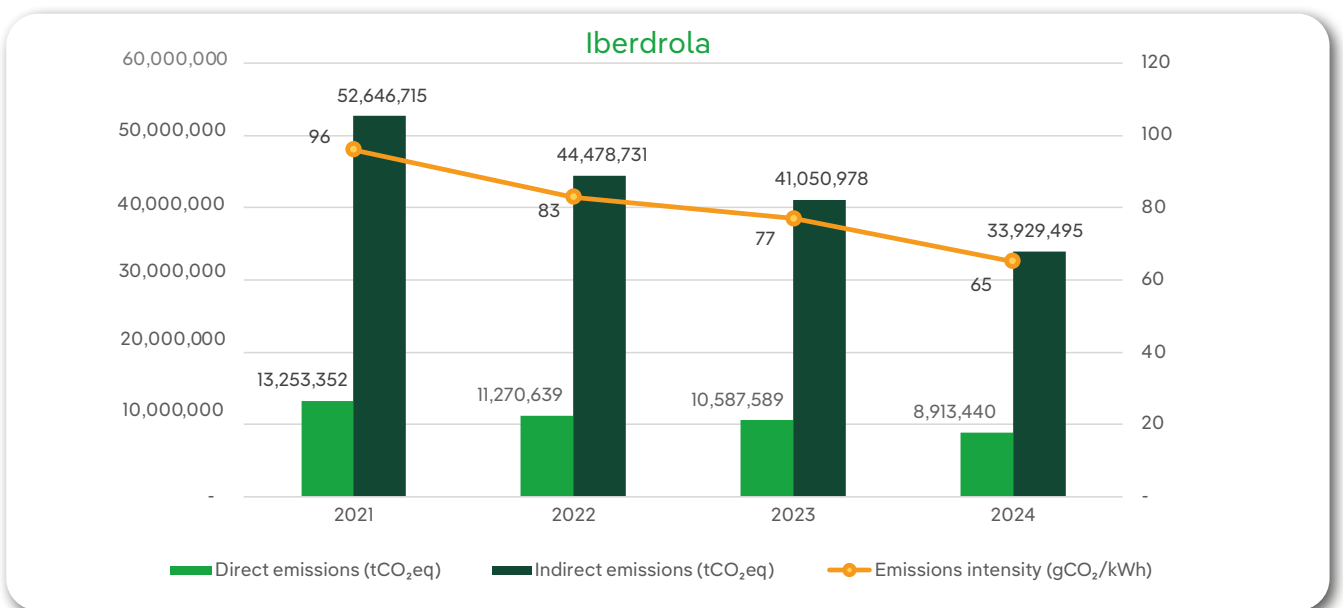
Iberdrola combines its growth based on electricity networks, selective investment in renewables and leadership in energy storage with the goal of achieving carbon neutrality for categories 1 and 2 by 2030 and net zero emissions by 2040 for all categories.

In 2024, CO<sub>2</sub> emissions per MWh generated continue on the downward path set by the climate action plan, in line with the decarbonisation target set for 2030.

The direct emissions intensity in 2024 was 65 kg CO<sub>2</sub>/MWh, in line with the increase in installed renewable capacity. The evolution of emissions intensity is:

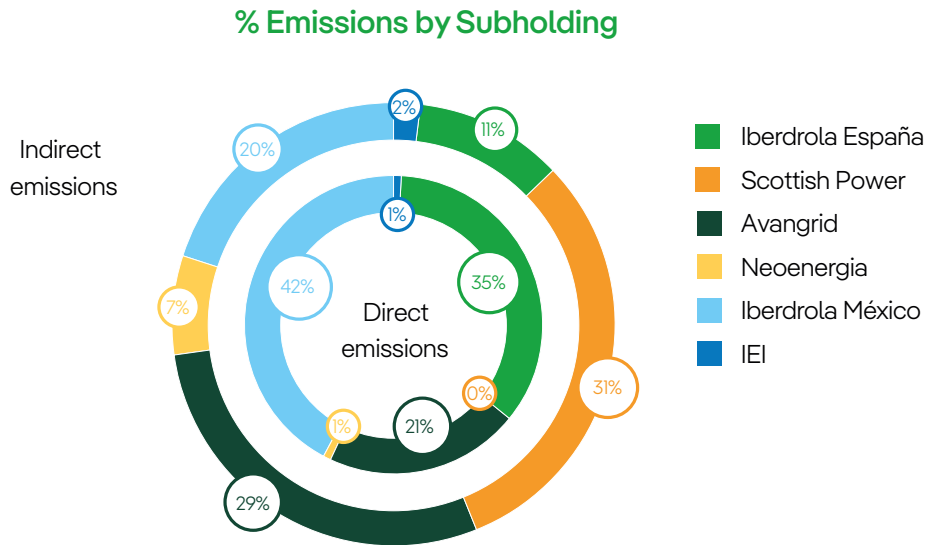


In 2024, total direct emissions amounted to 8,913,440 t CO<sub>2</sub>e, 16% less than the previous year, in line with its commitment to clean energy and a sustainable, efficient and safe energy model. Indirect emissions in the 2024 financial year total 33,929,495 tCO<sub>2</sub> e, a reduction of 17% compared to the 2023 financial year.





The following graph shows the distribution of direct and indirect emissions by subholding.



Below is a breakdown of direct and indirect emissions for the 2024 financial year, by subholding.

## 4.1 Iberdrola España

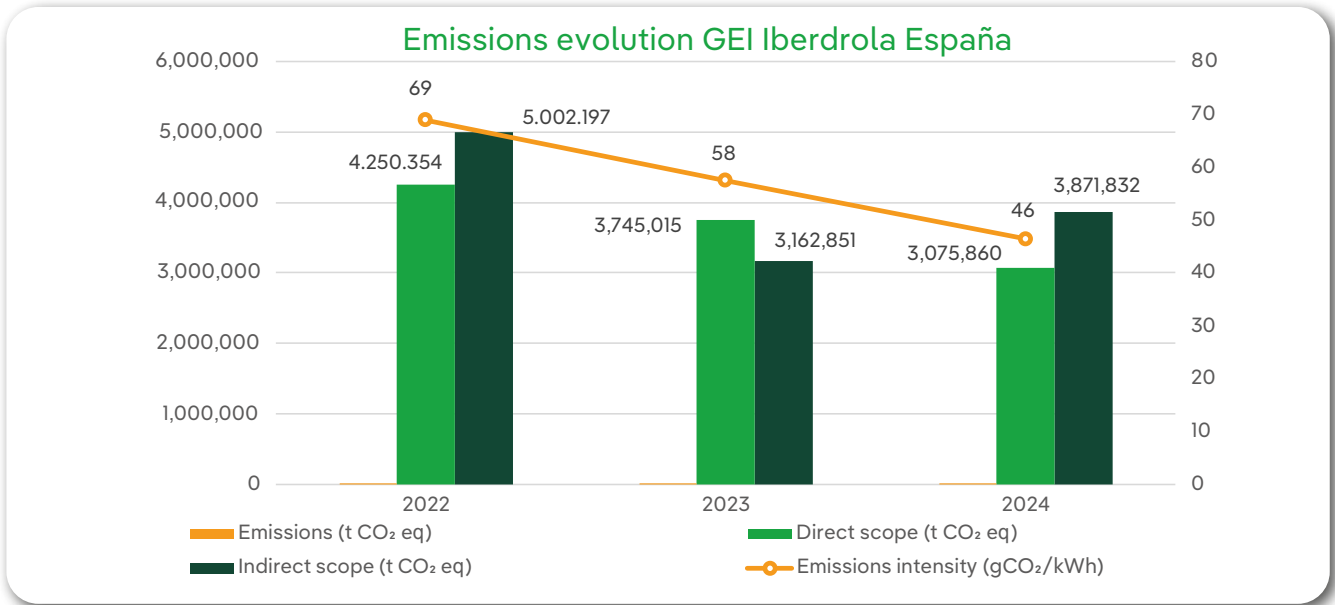
Iberdrola España's emissions inventory is:

Direct GHG emissions (Category 1)	(t CO <sub>2</sub> eq) 2024
<b>Emissions due to stationary combustion</b>	<b>3,058,435</b>
Emissions due to power generation	2,997,733
CH <sub>4</sub> emissions energy generation	1,679
N <sub>2</sub> O emissions energy generation	26,450
Emissions in buildings,... (generator sets, heating,...)	32,572
<b>Direct fugitive emissions</b>	<b>10,903</b>
Fugitive SF <sub>6</sub> emissions	9,188
Fugitive emissions refrigerant gases	1,715
<b>Emissions from mobile consumption</b>	<b>6,522</b>
<b>Total Direct Emissions</b>	<b>3,075,860</b>

Indirect GHG emissions	(t CO <sub>2</sub> eq) 2024	
	market based	location based
<b>GHG emissions by imported energy (Category 2)</b>	<b>1,022,619</b>	<b>1,025,332</b>
Auxiliary equipment's consumption in shutdown and pumping		586,091
Electricity consumed in buildings	728	3,441
Network losses		435,800
<b>Direct GHG emissions by transport (Category 3)</b>		<b>936,373</b>
Emissions associated with employee business travel		12,328
Associated to employees' commuting		10,068
Well To Tank emissions of fuels and consumed		913,976
<b>GHG emissions by products used by the organisation (Category 4)</b>		<b>588,750</b>
Supplier chain emissions		588,750
<b>Indirect GHG emissions associated with the use of the organisation's products (category 5)</b>		<b>1,321,378</b>
Emissions due to energy purchased from third parties		208,557
Missions due to gas supplied to customers		1,112,821
<b>Total Indirect Emissions (Location based)</b>		<b>3,871,832</b>
<b>Total indirect emissions (Market based)</b>		<b>3,869,119</b>

Direct emissions have been reduced by 18% compared to the previous year due to the reduction in combined cycle production (-31%). Indirect emissions have increased by 22% mainly due to a change in the methodology for calculating network losses and WTT emissions (upstream life cycle of fuels and energy used by the organisation).

Iberdrola España's emissions intensity was reduced by 19% due to a change in the production mix: renewable (+13%) vs. non-renewable (-10%).



## 4.2 ScottishPower

ScottishPower's emissions inventory is:

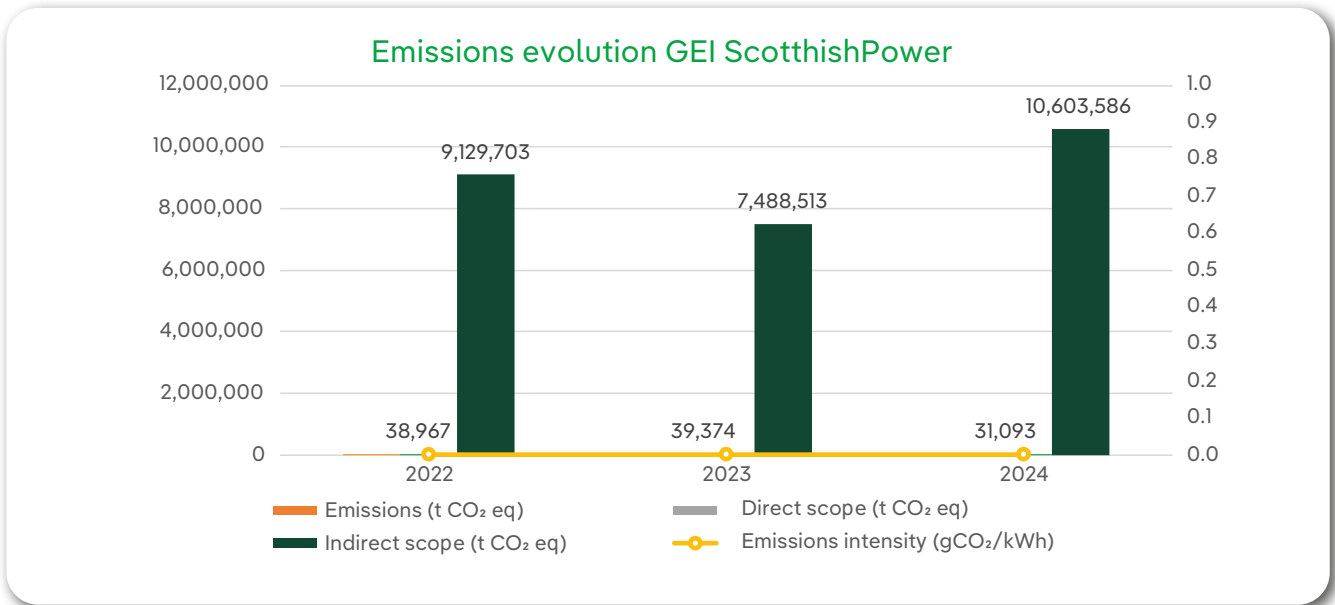
Direct GHG emissions (Category 1)	(t CO <sub>2</sub> eq) 2024
<b>Emissions due to stationary combustion</b>	<b>4,254</b>
Gas storage emissions	2,758
Emissions in buildings,... (generator sets, heating,...)	1,495
<b>Direct fugitive emissions</b>	<b>19,261</b>
Fugitive methane (CH <sub>4</sub> ) emissions	1,049
Fugitive SF <sub>6</sub> emissions	18,198
Fugitive emissions refrigerant gases	14
<b>Emissions from mobile consumption</b>	<b>7,579</b>
<b>Total Direct Emissions</b>	<b>31,093</b>

Indirect GHG emissions	(t CO <sub>2</sub> eq) 2024	
	market based	location based
<b>GHG emissions by imported energy (Category 2)</b>	<b>659,059</b>	<b>670,474</b>
Auxiliary equipment's consumption in shutdown and pumping		4,989
Electricity consumed in buildings	1,951	13,366
Network losses		652,119
<b>Direct GHG emissions by transport (Category 3)</b>		<b>722,653</b>
Emissions associated with employee business travel		11,193
Associated to employees' commuting		3,133
Well To Tank emissions of fuels and consumed		708,327
<b>GHG emissions by products used by the organisation (Category 4)</b>		<b>707,636</b>
Supplier chain emissions		707,636
<b>Indirect GHG emissions associated with the use of the organisation's products (category 5)</b>		<b>8,502,823</b>
Emissions due to energy purchased from third parties		5,110,451
Emissions due to gas supplied to customers		3,392,373
<b>Total Indirect Emissions (Location based)</b>		<b>10,603,586</b>
<b>Total indirect emissions (Market based)</b>		<b>10,592,172</b>

Direct emissions have been reduced by 21%, mainly in emissions from mobile sources (ships operated by third parties have been reported in category 3).

Indirect emissions have increased by 42% mainly due to a change in the methodology for calculating network losses and WTT emissions (upstream life cycle of fuels and energy reported by the organisation), together with a 23% increase in the UK *residual mix emission factor*.

The emission intensity is 0 g CO<sub>2</sub>/kWh as the production of PS is 100% renewable.



## 4.3 Avangrid

Avangrid's emissions inventory is:

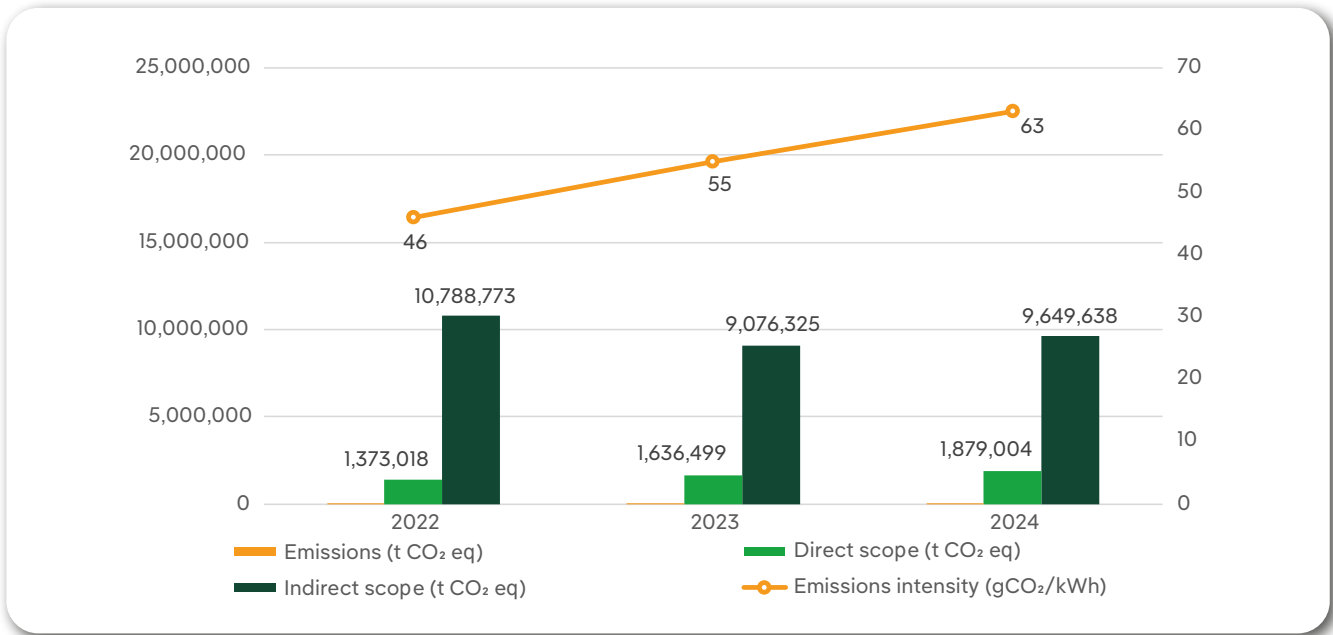
Direct GHG emissions (Category 1)		(t CO <sub>2</sub> eq) 2024
<b>Emissions due to stationary combustion</b>		<b>1,610,197</b>
Emissions due to power generation		1,555,373
CH <sub>4</sub> emissions energy generation		788
N <sub>2</sub> O emissions energy generation		769
Emissions in buildings,... (generator sets, heating,...)		53,267
<b>Direct fugitive emissions</b>		<b>226,419</b>
Fugitive methane (CH <sub>4</sub> ) emissions		217,890
Fugitive SF <sub>6</sub> emissions		8,529
Fugitive emissions refrigerant gases		-
<b>Emissions from mobile consumption</b>		<b>42,388</b>
<b>Total Direct Emissions</b>		<b>1,879,004</b>

Indirect GHG emissions	(t CO <sub>2</sub> eq) 2024	
	market based	location based
<b>GHG emissions by imported energy (Category 2)</b>	<b>317,672</b>	<b>333,224</b>
Auxiliary equipment's consumption in shutdown and pumping		5,284
Electricity consumed in buildings	13,305	28,856
Network losses		299,083
<b>Direct GHG emissions by transport (Category 3)</b>		<b>1,481,630</b>
Emissions associated with employee business travel		13,518
Associated to employees' commuting		14,943
Well To Tank emissions of fuels and consumed		1,453,169
<b>GHG emissions by products used by the organisation (Category 4)</b>		<b>1,101,902</b>
Supplier chain emissions		1,101,902
<b>Indirect GHG emissions associated with the use of the organisation's products (category 5)</b>		<b>6,732,882</b>
Emissions due to energy purchased from third parties		169,237
Missions due to gas supplied to customers		6,563,646
<b>Total Indirect Emissions (Location based)</b>		<b>9,649,638</b>
<b>Total indirect emissions (Market based)</b>		<b>9,634,086</b>

Direct emissions increase by 15% mainly due to an increase in emissions from generation due to higher energy demand (24%).

Indirect emissions increase by 6% offsetting the increase due to the recalculation of network losses (category 2) and WTT (category 3) with the decrease of emissions in traded products (category 5).

Emission intensity rises to 63 gCO<sub>2</sub>e/KWh, mainly due to increased Klamath production emissions (24%) from higher energy demand.



## 4.4 Neoenergia

Neoenergía's emissions inventory is:

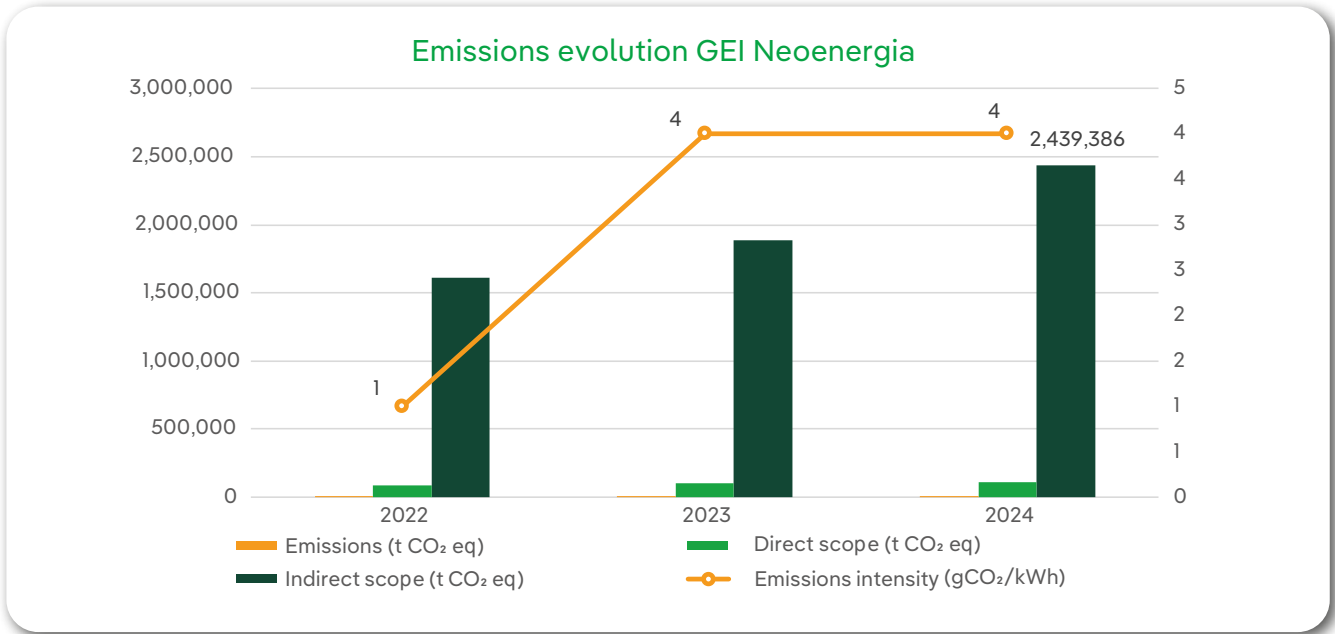
Direct GHG emissions (Category 1)	(t CO <sub>2</sub> eq) 2024
<b>Emissions due to stationary combustion</b>	<b>48,871</b>
Emissions due to power generation	48,722
CH <sub>4</sub> emissions energy generation	24
N <sub>2</sub> O emissions energy generation	46
Emissions in buildings,... (generator sets, heating,...)	78
<b>Direct fugitive emissions</b>	<b>6,229</b>
Fugitive SF <sub>6</sub> emissions	2,700
Fugitive emissions refrigerant gases	3,529
<b>Emissions from mobile consumption</b>	<b>32,088</b>
<b>Emissions due to land use</b>	<b>21,096</b>
<b>Total Direct Emissions</b>	<b>108,284</b>

Indirect GHG emissions	(t CO <sub>2</sub> eq) 2024	
	market based	location based
<b>GHG emissions by imported energy (Category 2)</b>	<b>415,898</b>	<b>415,898</b>
Auxiliary equipment's consumption in shutdown and pumping		768
Electricity consumed in buildings	1,579	1,579
Network losses		413,551
<b>Direct GHG emissions by transport (Category 3)</b>		<b>379,788</b>
Emissions associated with employee business travel		7,712
Associated to employees' commuting		11,018
Well To Tank emissions of fuels and consumed		361,057
<b>GHG emissions by products used by the organisation (Category 4)</b>		<b>705,899</b>
Supplier chain emissions		705,899
<b>Indirect GHG emissions associated with the use of the organisation's products (category 5)</b>		<b>937,802</b>
Emissions due to energy purchased from third parties		937,802
<b>Total Indirect Emissions (Location based)</b>		<b>2,439,386</b>
<b>Total indirect emissions (Market based)</b>		<b>2,439,386</b>

Indirect emissions increase by 29% due to recalculations of network losses and WTT and increased emissions from electricity sold due to the increase in the emission factor of the country's mix (50%).



Emissions intensity stays in 4 g CO<sub>2</sub>/KWh.



## 4.5 Iberdrola Mexico

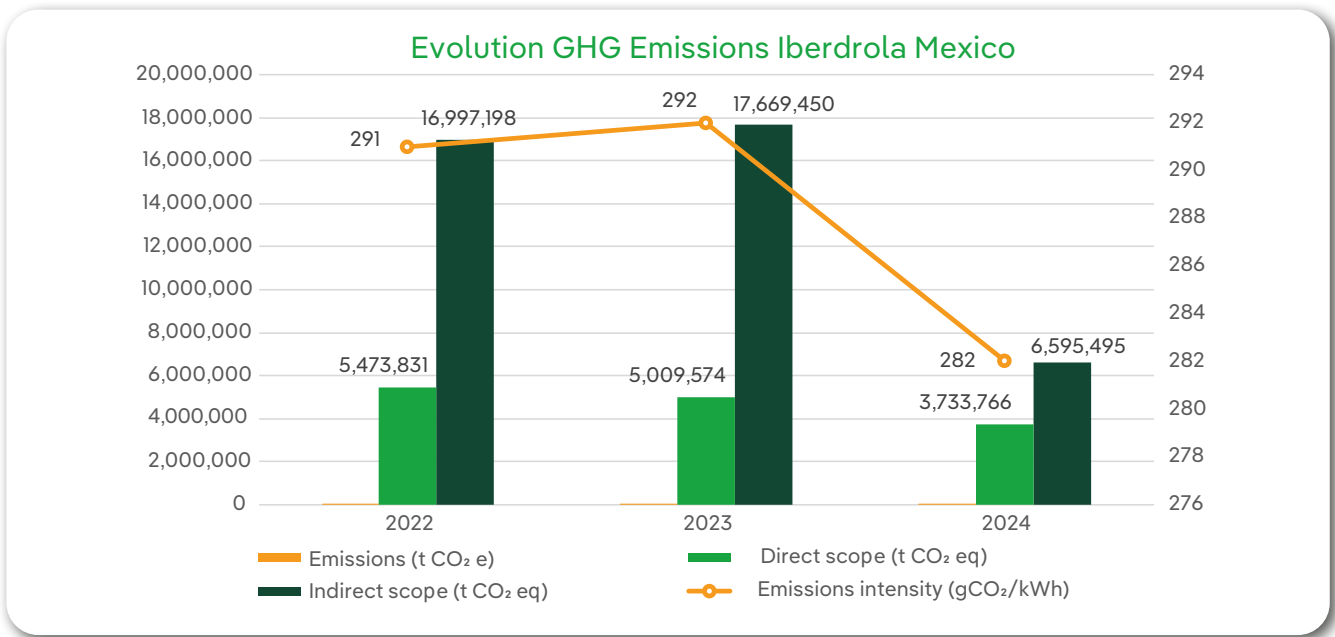
Iberdrola Mexico's emissions inventory is:

Direct GHG emissions (Category 1)	(t CO <sub>2</sub> eq) 2024
<b>Emissions due to stationary combustion</b>	<b>3,731,399</b>
Emissions due to power generation	3,727,336
CH <sub>4</sub> emissions energy generation	2,188
N <sub>2</sub> O emissions energy generation	1,809
Emissions in buildings,... (generator sets, heating,...)	65
<b>Direct fugitive emissions</b>	<b>1,582</b>
Fugitive SF <sub>6</sub> emissions	1,166
Fugitive emissions refrigerant gases	416
<b>Emissions from mobile consumption</b>	<b>785</b>
<b>Total Direct Emissions</b>	<b>3,733,766</b>

Indirect GHG emissions	(t CO <sub>2</sub> eq) 2024	
	market based	location based
<b>GHG emissions by imported energy (Category 2)</b>	<b>13,696</b>	<b>13,715</b>
Auxiliary equipment's consumption in shutdown and pumping		13,273
Electricity consumed in buildings	423	442
<b>Direct GHG emissions by transport (Category 3)</b>		<b>1,179,107</b>
Emissions associated with employee business travel		509
Associated to employees' commuting		1,136
Well To Tank emissions of fuels and consumed		1,177,462
<b>GHG emissions by products used by the organisation (Category 4)</b>		<b>76,975</b>
Supplier chain emissions		76,975
<b>Indirect GHG emissions associated with the use of the organisation's products (category 5)</b>		<b>5,325,699</b>
Emissions due to energy purchased from third parties		3,036,391
GHG emissions generation facilities for third parties		2,289,308
<b>Total Indirect Emissions (Location based)</b>		<b>6,595,495</b>
<b>Total indirect emissions (Market based)</b>		<b>6,595,476</b>

Due to the changes indicated in section 3.1 Significant *changes for the emission inventory*, it is not possible to analyse the evolution of the reported data in 2024.

Emissions intensity is 282 g CO<sub>2</sub>/kWh.



## 4.6 Iberdrola Internacional

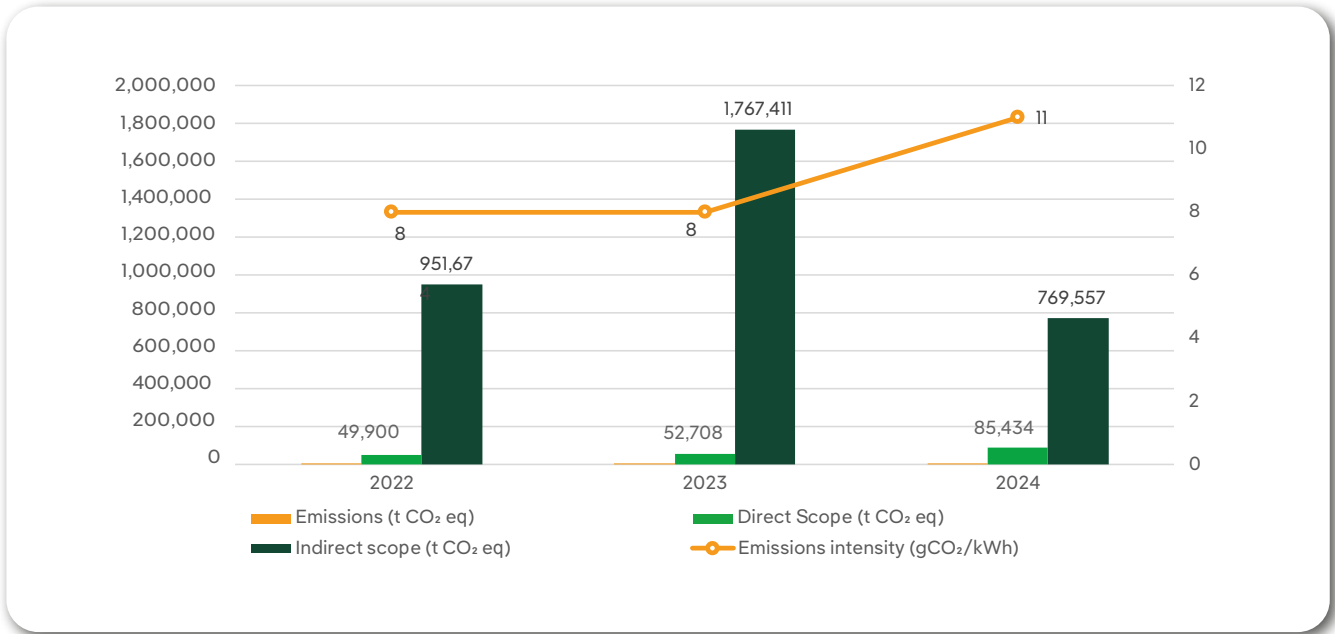
Iberdrola Internacional's emissions inventory is:

Direct GHG emissions (Category 1)		(t CO <sub>2</sub> eq) 2024
<b>Emissions due to stationary combustion</b>		<b>84,831</b>
Emissions due to power generation		84,806
CH <sub>4</sub> emissions energy generation		-
N <sub>2</sub> O emissions energy generation		-
Emissions in buildings,... (generator sets, heating,...)		24
<b>Direct fugitive emissions</b>		<b>497</b>
Fugitive SF <sub>6</sub> emissions		497
Fugitive emissions refrigerant gases		-
<b>Emissions from mobile consumption</b>		<b>106</b>
<b>Total Direct Emissions</b>		<b>85,434</b>

Indirect GHG emissions	(t CO <sub>2</sub> eq) 2024	
	market based	location based
<b>GHG emissions by imported energy (Category 2)</b>		
	<b>8,976</b>	<b>10,274</b>
Auxiliary equipment's consumption in shutdown and pumping		8,976
Electricity consumed in buildings		1,299
<b>Direct GHG emissions by transport (Category 3)</b>		
		<b>22,889</b>
Emissions associated with employee business travel		6,523
Associated to employees' commuting		787
Well To Tank emissions of fuels and consumed		15,579
<b>GHG emissions by products used by the organisation (Category 4)</b>		
		<b>288,824</b>
Supplier chain emissions		288,824
<b>Indirect GHG emissions associated with the use of the organisation's products (category 5)</b>		
		<b>447,570</b>
Emissions due to energy purchased from third parties		443,616
Missions due to gas supplied to customers		3,954
<b>Total Indirect Emissions (Location based)</b>		<b>769,557</b>
<b>Total indirect emissions (Market based)</b>		<b>768,258</b>

Direct emissions have increased by 62%, in line with the increase of thermal power production in Australia.

Indirect emissions have gone down by 56%, mainly in category 5.



# 05. Actions towards zero net emissions

## 5. Actions towards zero net emissions

The aspiration to accelerate the decarbonisation of the economy must start by reducing the direct emissions of each economic actor as much as possible, and as quickly as possible. Iberdrola advocates immediate action in the main climate forums: the planet cannot wait.

Iberdrola focuses its efforts towards climate neutrality on driving key areas for the transformation of the energy sector:

- Decarbonisation of electricity generation through the massive introduction of renewable energies.
- Optimisation of the electricity system through Smart grids and digitalisation.
- New uses of electricity: innovative solutions for sectors that are difficult to decarbonise (e.g. high temperature industrial processes or heavy transport).
- Catalogue of products focused on reducing indirect emissions associated with the electricity consumption of its customers: photovoltaic self-consumption, charging points, aérothermy and green hydrogen.
- Iberdrola's Trees 2020-2030 programme, which aims to plant 20 million trees by 2030, and is estimated to help capture up to 6 Mt CO<sub>2</sub> in 30 years.

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### Internal initiatives to reduce emissions

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Over the years, Iberdrola has implemented various internal initiatives aimed at saving emissions:

- Energy efficiency in Iberdrola's buildings and offices. Including the supply of green energy at all our facilities (in 2024, 100% of the electricity consumption of the offices of Iberdrola España and ScottishPower was renewable).
- Electrification of fleet, with the goal of fleet being 100% electric by 2030.
- Electric mobility plan for employees.
- Smart plans for employees (change of boilers, photovoltaic installations, ...).
- Compensating employee's carbon footprint.

# 06. Quantification methods



## 6. Quantification methods

For the categories described in section 3.3. Operating Limits, as an approach to quantify GHG emissions, Iberdrola has selected the method:

$$\text{t CO}_2 \text{ e} = \text{AD (GJ)} \times \text{EF (t CO}_2\text{/GJ)}$$

$$\text{t CO}_2 \text{ e} = \text{AD (t)} \times \text{PCG (t CO}_2\text{/tCH}_4\text{)}$$

**AD:** activity data, a quantitative measure of the activity that produces an emission (obtained internally or provided by a supplier)

**EF:** emission factor provided by official bodies or calculated directly when required

Sources used to obtain the emission factors (EF) are:

- MITERD (Spain).
- DEFRA (UK and Internacional).
- EPA (US and Mexico).
- Ferramenta (Brazil).
- IPCC (AR6) For global emission factors.
- EEA (Europe).
- EIA (USA).
- DCCEEW (Australia).

**GWP:** Global Warming Potential of the gas (IPCC AR6)

# A. Annexes

# A. Annexes

## A.1. AENOR VERIFICATION STATEMENT

# AENOR

### AENOR Verification Declaration for IBERDROLA of the Greenhouse Gas Emissions Inventory for the year 2024

CUSTOMER: 1995/0014/HCO/01

#### Introduction

IBERDROLA, S.A. has commissioned AENOR CONFÍA, SAU (AENOR) to carry out a limited review of the Inventory of greenhouse gas (GHG) emissions for the year 2024 of its activities included in the GHG report published in February 2025, which is part of this Statement.

AENOR is accredited by the Mexican Accreditation Entity, with number OVVGEI 004/14, in accordance with ISO 14065:2020 Standard, to carry out verification of greenhouse gas emissions in accordance with the requirements established in ISO 14064- 3:2019 Standard for the energy and waste sectors.

The GHG emissions inventory for February 2025 has been issued by the Organization: IBERDROLA, S.A. with registered office at C/ Tomás Redondo, 1. 28033 Madrid, Spain.

Representative of the Organization: Mr. Emilio TEJEDOR (Environmental Department of the Innovation and Sustainability Department of Iberdrola, S.A.)

IBERDROLA, S.A. was responsible for reporting its GHG emissions in accordance with the ISO 14064-1:2018 reference Standard.

#### Objective

The objective of the verification is to stakeholders with a professional and independent judgment about the information and data contained in the above IBERDROLA GHG Report.

#### Verification Scope

The scope of the verification is established for the activities provided by the organization:

- Generation of electricity from renewable, thermal and nuclear sources.
- Distribution and transportation of electricity.
- Distribution and storage of natural gas.
- Commercialization of electricity and natural gas

The Iberdrola Group is broken down into six "Subholdings", with "Subholding" being understood as a grouping of companies according to geographic scope: Iberdrola Spain; Scottish Power (United Kingdom); Avangrid (United States); Neoenergia (Brazil); Iberdrola Mexico; Energía Internacional.

The following greenhouse gases were considered: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, SF<sub>6</sub> and CFCs.

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During the verification, the information was analyzed attending to the operational control approach established by ISO 14064-1:2018, i.e., the organization reports all GHG emissions and or removals attributable to the operations over which it exercises control in the respective facilities, with the exception of the nuclear power plants and the Spanish participated cogeneration plants, which is accounted for under participation quota, as established by ISO 14064-1:2018, aligning with the Sustainability Report.

In addition, in the Independent Power Plants (IPP) in Mexico, in which the system manager, Comisión Federal de Electricidad, is the one that decides their mode of operation, so Iberdrola does not have full operational control, their emissions have been reported as indirect emissions as they are production facilities with installed capacity "for third parties"

## Direct and indirect activities and exclusions from verification

The activities subject to verification are established in six categories (following the guidelines of ISO 14064-1:2018 which are:

- Category 1: Direct GHG emissions and removals.
  - Stationary combustion emissions.
  - CO<sub>2</sub> emissions from fuels used in electricity generation facilities.
  - Methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O) emissions associated with fuel combustion (mostly in electricity generation).
  - CO<sub>2</sub> emissions from fuels used in buildings or facilities (heating equipment or generators).
  - CO<sub>2</sub> emissions from the combustion of fuels in gas storage facilities.
  - Direct fugitive emissions in anthropogenic systems:
    - Of methane (CH<sub>4</sub>) in transportation networks and natural gas storage.
    - Of sulfur hexafluoride (SF<sub>6</sub>) in electricity distribution and transmission networks.
    - Of refrigeration gases from air conditioning equipment.
  - Emissions from mobile combustion, associated with fuel consumption in means of transportation (fleet vehicles, ships and corporate aircraft for transporting personnel).
  - Emissions from land use: associated with land use change (Brazil).
- Category 2: Indirect GHG emissions from imported energy.
  - Emissions associated with the consumption of electrical energy during shutdown of thermal, renewable and nuclear power plants.
  - Emissions associated with the consumption of electricity in pumping hydroelectric power plants.
  - Emissions associated with electricity consumption in the group's buildings (also calculated using the commercialization method).
  - Emissions associated with network losses in the transmission and distribution of electricity. These emissions are calculated considering gross electricity losses as imported energy.

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- To avoid double counting, a balance is made between own generated energy and transported and/or distributed energy.
  
- Category 3: Indirect GHG emissions from transportation.
  - Emissions associated with employee commuting.
  - Emissions associated with employee commuting between the workplace and their residence (commuting).
  - Upstream life cycle emissions required from all fuels used, including losses in the transportation and distribution of electricity, electrical energy consumed, and natural gas sold to the end customer (Well to Tank, WTT).
  
- Category 4: Indirect GHG emissions from products used by the organization.
  - Emissions associated with the production of goods and services purchased or acquired by the reporting company in the reporting year: emissions associated with the supply chain.
  
- Category 5: Indirect GHG emissions associated with the use of energy products marketed by the organization.
  - Emissions associated with electricity purchased from third parties for sale to end customers.
  - Emissions associated with natural gas supplied to customers.
  - Emissions from electric power generation facilities produced for third parties, PIE plants in Mexico, and the use of natural gas.
  
- Category 6: Indirect GHG emissions from other sources: Not identified.

## Exclusions

Emissions that have a low representativeness and where it is not feasible to obtain evidence for their quantification are excluded from this inventory. In any case, no exclusion exceeds 2% of the total emissions in its category.

Specifically, the following are excluded from this report:

- Emissions from mobile sources of thermal generation facilities in Iberdrola Spain (category 1).
- Emissions associated with energy consumption of Energia Internacional's commercial buildings, managed by third parties (category 2).

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## Mitigation activities and base year

In this November 2024 carbon footprint reporting report, no initiatives to reduce emissions and/or increase GHG removals have been identified.

Due to the aforementioned changes, the organization has decided to set this inventory as the base year for future comparisons, corresponding to the year 2024.

## Materiality

For verification purposes, it was agreed to consider as material discrepancies those omissions, distortions or errors that can be quantified and result in a difference of more than 5% with respect to the total declared emissions, except for those facilities that are subject to regulatory verification, in which case it will be 2%.

## Criteria

The criteria and information taken into account to perform the verification were:

- The ISO 14064-1:2018: Specification with guidance, at the level of organizations, for the quantification and reporting of greenhouse gas emissions and removals.
- The ISO 14064-3:2019: Specification with guidance for the validation and verification of greenhouse gas declarations.
- The global verification takes into account the verifications performed by recognized entities for the following subholdings: Scottish Power (United Kingdom); Avangrid (United States); Neoenergia (Brazil); and, Energy International - Australia.

Finally, the "Iberdrola Greenhouse Gas Inventory 2024 Report" published by the organization in February 2025 has been verified with a limited level of assurance.

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

## Conclusion

The GHG Emissions Report "Iberdrola Greenhouse Gas Report Inventory 2024" published in February 2025, is considered to be compliant with the requirements of ISO 14064-1:2018.

Based on the above, and in accordance with the limited assurance level, in our opinion:

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Iberdrola Group GHG emissions in 2024	t CO <sub>2</sub> e
- Emissions associated with employee business travel	51.784
- Emissions associated with employee from home to the workplace	41.085
- Emissions associated with the upstream life cycle of fuels and energy	4.629.570
<b>Category 4: Indirect GHG emissions by products used by the organization</b>	<b>3.469.985</b>
- Emissions associated with the supply chain (suppliers of purchased products and services)	3.469.985
<b>Category 5: Indirect GHG emissions associated with the use of the organization's products</b>	<b>23.268.154</b>
- Emissions associated with electricity purchased for sale to the end customer	9.906.053
- Emissions associated with the sale of natural gas to end customers	11.072.794
- Emissions associated with the generation of electricity in plants with installed capacity for third parties (in Mexico)	2.289.308
<b>Total Direct Emissions</b>	<b>8.913.440</b>
<b>Total Indirect Emissions (Location based)</b>	<b>33.929.495</b>
<b>Total Indirect Emissions (Market based)</b>	<b>33.898.498</b>

In Madrid, February 19, 2025



Rafael García Meiro  
CEO



## A.2 AENOR Carbon footprint certificate

# AENOR



## Carbon Footprint Certificate



HCO-2012/0007

AENOR certifies that the organization

### IBERDROLA, S.A.

is in conformity with Standard ISO 14064-1:2018 Standard

for the activities: Emissions of 42.842.935 t CO<sub>2</sub>e: (Direct emissions: 8.913.440 t CO<sub>2</sub>e; Indirect emissions (Location based): 33.929.495 t CO<sub>2</sub>e).

The scope of verification is set out for the activities provided by the organization:

- Renewable, thermal and nuclear power generation
- Electricity distribution.
- Commercialization of natural gas and electricity

The companies included in the scope are: Iberdrola España, Iberdrola Internacional, Scottish Power, Avangrid, Iberdrola México, Neoenergia.

CALCULATED PERIOD: 2024

COMPLIANT WITH: Verified Emissions Report for the period 2024 and AENOR's Verification Statement

which is/are carried out in: CL TOMAS REDONDO, 1. 28033 - MADRID

Issued on: 2025-02-14

Rafael GARCÍA MEIRO  
CEO



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