

Neoenergia

Green House Gas Report Inventory 2024



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01.

Introduction



1. Introduction

This report is published to provide transparent information to our stakeholders about Neoenergia's greenhouse gas (GHG) emissions and to support the verification of our emissions inventory. It reflects our commitment to the principles outlined in our General Sustainable Development Policy, Environmental Policy, and Climate Action Policy.

It encompasses the Greenhouse Gas (GHG) inventory for the year 2024, with the following considerations:

- Issues from the activities of the companies and assets in operation of the Neoenergia Group in Brazil.
- The GHGs considered are: CO₂, SF₆, CH₄, N₂O and CFCs.
- The consolidation of GHG emissions is approached from the perspective of corporate participation.

The Neoenergia area responsible for preparing this report is the Corporate Superintendency of Sustainability, Climate Change and Corporate Social Responsibility.

The report was prepared in accordance with the requirements established in Standard NBR-ISO 14064-1:2018: "Greenhouse gases. Part 1: Specification and guidance to organizations for quantification and reporting of greenhouse gas emissions and removals," as well as in the guidelines of the Brazilian GHG Protocol Program. The Greenhouse Gas inventory was verified through a limited assurance process conducted by a company accredited by the Brazilian GHG Protocol Program.

We have established actions and targets for climate neutralization in line with the Paris Agreement and the 2030 Agenda, and we have adopted the Iberdrola Group's Climate Action Plan, which extends to all its subsidiaries. The Plan is based on defining the levers, actions and associated metrics that, in turn, contribute to the decarbonization of the economy.

Our environmental policies are integrated into our sustainable development strategy, reflecting our commitment to creating value that respects natural capital—the foundation upon which we develop our activities. Our environmental policies are as follows:

- **Sustainable Management Policy** – Establishes that the principles of action are based on environmentally sustainable economic activities, competitive, with high quality of service and that generate shared value, respect human rights and encourage the use of clean and renewable electricity.
- **Environmental Policy** – Establishes a reference framework to integrate the protection of nature and the environment into a business strategy and for investments and operations. Sets forth the core action principles, emphasizing respect for nature, biodiversity, and historical-artistic heritage; the sustainable use of natural capital; strict compliance with applicable legislation; the promotion of innovation; and the application of the mitigation hierarchy (avoid, minimize, restore, and, ultimately, offset) across all activities.
- **Climate Action Policy** – Establishes the strategic framework and business model, reinforcing the company's commitment to combating climate change. It embraces a leadership role—both directly and through strategic alliances—promotes awareness of the impacts, challenges and benefits of climate action, and contributes to a sustainable, carbon-neutral future.
- **Biodiversity Policy** – It is committed to combating biodiversity loss and generating a net positive impact through its activities. Establishes four lines of action: i) protect biodiversity and promote the sustainable use of natural capital; ii) continuously identify, quantify and assess the impacts and level of dependency of business activities; iii) collaborate with stakeholders to drive positive environmental outcomes; and iv) promote awareness and appreciation of the importance of biodiversity protection and conservation.

02.

Neoenergia



2. Neoenergia

We are Neoenergia S.A., an energy solutions company operating in three businesses: Grids (distribution and transmission), Renewables (wind, hydraulic and solar generation) and Liberalized (energy trading, energy products and solutions, and thermal generation). We have been operating in Brazil for 27 years, seeking to build a more sustainable and accessible electric energy model for Brazilians. As one of the leading companies in the electricity sector in the country, we operate in 18 states and the Federal District, bringing energy solutions to about 37.1 million people. The Spanish Iberdrola group is our controlling shareholder, with 53.5% of the share capital.

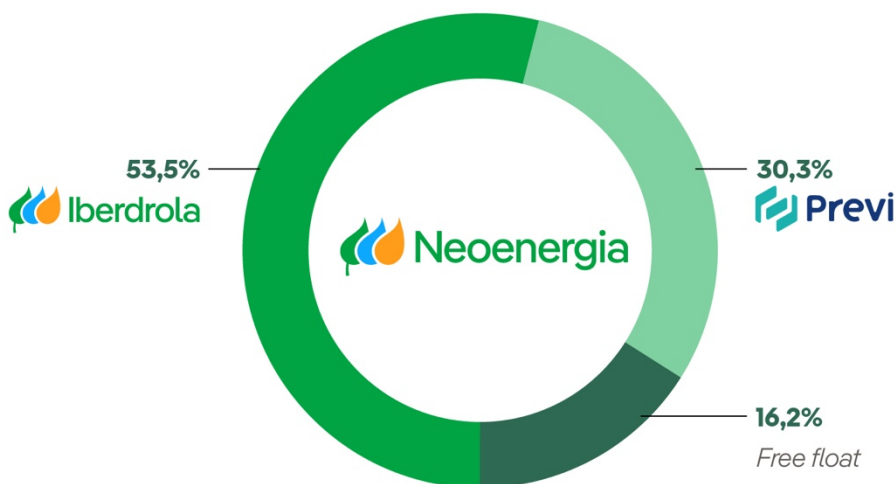
Our five distributors – Neoenergia Coelba (BA), Neoenergia Pernambuco (PE), Neoenergia Cosern (RN), Neoenergia Elektro (SP/MS) and Neoenergia Brasília (DF) – operate in five states and the Federal District, in a concession area of 845,000 square kilometers and serving 16.6 million consumer units.

We have 13 electricity transmission companies that operate 3,287 kilometers of lines, with another 5 under construction, which will add 5,320 kilometers to our existing network.

Our generation platform is based on clean energy sources, with a significant share from renewables—hydropower, wind and solar. It operates under long-term concession contracts for generation and energy trading in both the regulated and free markets. We have an installed capacity in operation of 4,412 MW, of which 88% are from renewable sources. We have five hydroelectric plants (2,159 MW) with direct and indirect participation, 44 wind farms (1,554 MW) and two photovoltaic farms (149 MWp) in operation. We also operate a combined cycle gas-fired thermoelectric power generator, Termopernambuco (550 MW), which is one of our Liberalized businesses.

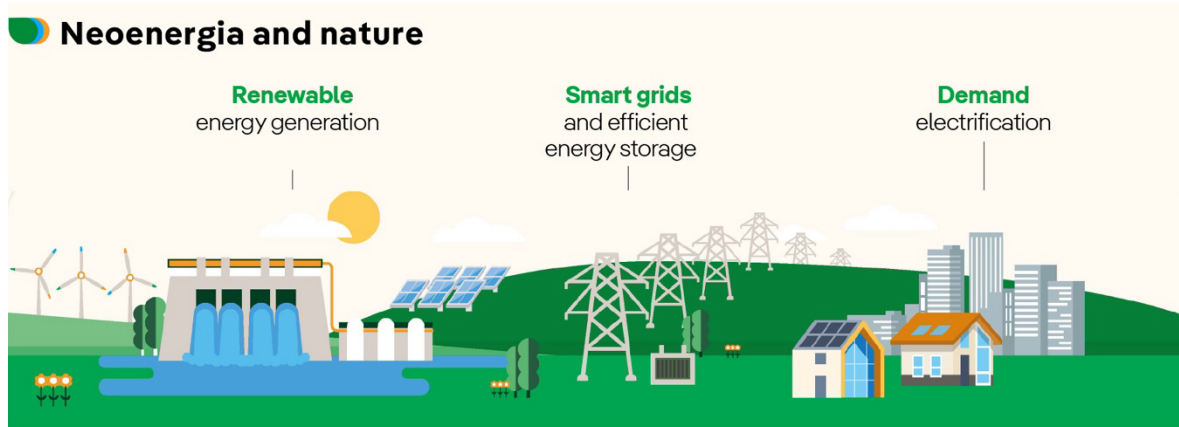
In addition to the thermal power plant, the Liberalized businesses also include NC Energia, which sells energy with clients in the free contracting environment and provides customized energy management services; Neoenergia Serviços, that offers a range of products and energy solutions, including engineering projects, insurance, healthcare, education, and leisure services, catering to both individuals (B2C) and companies (B2B); as well as new businesses focused on economic decarbonization, such as industrial green solutions and green hydrogen initiatives.

Estrutura societária





2.1 Neoenergia and nature



Drivers of biodiversity losses – IPBES*

- Land/water/ocean use changes
- Exploitation of natural resources
- Climate change
- Contamination
- Invasive and other species

AVOID

REDUCE

MITIGATE

COMPENSATE

- Neoenergia Biodiversity
- Neoenergia Circular economy
- Neoenergia Climate Action

Script

Biodiversity Plan

- Positive impact on biodiversity in 2030
- No net deforestation up to 2025

Circular Economy Plan

- 50% reduction of raw materials
- Recycling of blades and solar panels

Climate Action Plan

- Carbon neutral by 2030 (generation and distribution)
- Zero Emissions in 2040 all activities)

*IPBES: The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services

We work to build a business model in harmony with nature and human beings, committed to continue leading a sustainable energy matrix. This goal aligns with the 2050 Vision of the United Nations (UN) Convention on Biological Diversity: “Living in harmony with nature.” We understand that economic and social development is linked to the use of natural capital, which must occur responsibly to ensure the integrity of ecosystems and biological diversity. We operate on three fronts that, together, help us reduce or eliminate our main impacts. We establish and, periodically, update, together with the parent company, the action plans associated with these lines of work:

- **Climate Action:** establishes the strategy, work plans and objectives for reducing emissions and combating climate change.
- **Circular Economy:** encourages the sustainable use of resources, promotes the increase of the useful life of its assets and seeks to reduce the use of raw materials and the generation of waste.
- **Biodiversity Protection:** integrates biodiversity conservation with decision making, minimizes negative effects and establishes recovery and impact compensation programs.

03.

**Limits of the
organization**

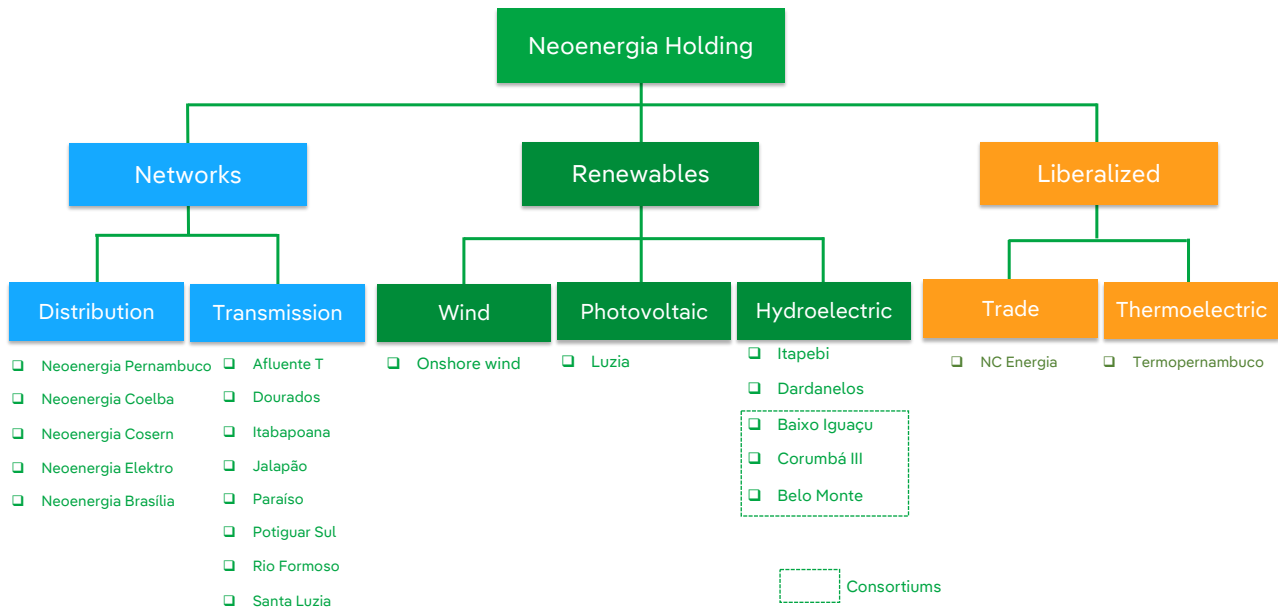


3. Limits of the organization

The consolidation of our GHG emissions is approached from a shareholding perspective. This item reflects changes exclusively for hydroelectric generation companies, considering our shareholdings in each entity: HPP Itapebi (100%), HPP Dardanelos (100%), HPP Corumbá (70%), HPP Baixo Iguaçu (70%), and HPP Belo Monte (10%). The other companies are 100% owned by Neoenergia and, thus, their emissions are reported in full.

The Neoenergia Group's Greenhouse Gas Inventory considers the emissions of projects in operation. Thus, the installation activities of new projects are not included, as well as the other aspects described in the item "exclusions."

The information included in the scope of the GHG inventory corresponds to the corporate structure of the group, which is formed by the holding company and its subsidiaries in operation, presented below:



04.

**Operating limits
and exclusions**



4. Operating limits and exclusions

In this report, the Greenhouse Gases considered are:

- CO₂ (Fixed and mobile combustion emissions).
- SF₆ (Fugitive emissions expressed as CO₂e).
- CH₄ (Fugitive emissions and associated fuel consumption expressed as CO₂e)
- N₂O (Emissions associated with fuel consumption expressed as CO₂e).
- CFCs (Fugitive emissions of refrigerant gases expressed as t CO₂e)

Nitrogen trifluoride (NF₃) is not considered in this inventory, as it is not part of our processes.

We define the scope of our direct and indirect emissions based on operations conducted within the organization's boundaries. Greenhouse Gas (GHG) emissions are classified in accordance with the NBR-ISO 14064:2018 standard and the guidelines of the Brazilian GHG Protocol Program.

Scope 1 - Direct GHG emissions

Covers direct GHG emissions from sources that are owned or controlled by Neoenergia in the operational phase. Including:

- Emissions from own electricity generation facilities (fuel consumption).
- Methane (CH₄) and nitrous oxide (N₂O) emissions associated with fuel consumption.
- Fugitive emissions of hexafluoride (SF₆) in distribution networks, substations and generation.
- Emissions associated with displacement of employees using fleet vehicles (combustion from mobile sources).
- Emissions associated with fugitive refrigerant gas emissions (CFCs).
- Non-generation emissions associated with changes in land use: by volume of vegetation generated in pruning activities.

Scope 2- Indirect GHG emissions

Indirect GHG emissions are those that derive from the generation of external electricity consumed by the organization. These emissions are:

- Emissions associated with the consumption of electricity during the shutdown in thermal power plants, hydroelectric power plants, wind power plants and substations.
- Emissions associated with electricity consumption in the Group's buildings.
- Emissions associated with losses in electricity transmission and distribution.

Scope 3- Other indirect GHG emissions

Refers to the remainder of indirect emissions that are a consequence of the company's activities but occur in sources that are neither owned nor controlled by the company. These other emissions are:

- Emissions associated with employee air travel.
- Emissions associated with the supply chain.
- Emissions associated with the transportation of employees from their residences to the workplace.



- Emissions associated with energy purchased for sale to end customers.
- Emissions by other life cycle processes used in electricity generation, such as extraction, transport and processing of fuel to produce electricity (Well to Tank - WTT).

4.1 Exclusions

Emissions that are difficult to incorporate into the company's management system (difficulty in obtaining the source values for calculating emissions, impossibility of tracking data, etc.) can be excluded from the GHG report, provided that their total amount is less than 2% of the Group's total emissions. In this set are:

- Fugitive emissions from maintenance of CO₂ fire extinguishers.
- Emissions associated with waste generation.
- Emissions associated with projects in the implementation phase.

4.2 Base year

We have considered 2017 as the inventory base year since 2019. However, in 2023, when we made a commitment to submit targets for the *Science Based Targets Initiative* (SBTi), we started to define 2021 as the base year, the same as adopted by the Iberdrola Group. It is important to note that the SBTi analysis process had not yet been initiated at the time of this report's publication.

4.3 Evaluation of uncertainties

Uncertainty determines the dispersion of values that could reasonably be attributed to the quantity of the quantified aspect. The estimated uncertainty of emissions is a combination of the uncertainties related to the emission factors and the corresponding activity data.

The emission factors used to carry out our GHG Inventory are collected from official and specific sources for each category of sources. The selection of these emission factors is oriented to minimize, as far as possible, uncertainty. Probability density functions are assumed to be normal unless there is clear evidence to the contrary.

The maximum relative importance determines the acceptable level at which individual errors, or an aggregation of errors, omissions and misstatements, can affect the GHG report.

A maximum relative importance level of 5% has been established with respect to total emissions, except for facilities that are subject to regulatory verification.

05.

**Emissions intensity
per kWh of
energy generated**



5. Emissions intensity per kWh of energy generated

The intensity of emissions from energy generation is the ratio between the amount of energy generated by the Neoenergia Group and the volume of greenhouse gas emissions from electricity generation expressed in grams of carbon dioxide equivalent per kilowatt hour of energy produced (gCO₂e/kWh). The following shows the evolution of this indicator over time.

EMISSION INTENSITY PER ENERGY GENERATED (gCO₂e/kWh)

2017	2018	2019	2020	2021	2022	2023	2024
128	73	70	53	61	1.3	3.6	4.3

The variation in the intensity of GHG emissions is associated with the use of natural gas in Termopernambuco and diesel in TPP Tubarão in Fernando de Noronha, as well as the share of renewables in the group's generation activities.

Until May 2024, Termopernambuco was part of the Priority Thermal Plant Program (PPT), and due to the lack of need for dispatch by the National Electric System Operator (ONS), both in 2022 and 2023, the operation of the plant was restricted to a short period. As of 2024, under a new Capacity Contract, generation was 87 GWh (-7% vs. 2023), since the plant was de-contracted from May to October 2024. However, with the reduction of 18% of our generation in renewable energy (due to the exchange of the HPP Baguari HPP and HPP Teles Pires assets, signed in 2023 with Eletrobras), there was an increase in intensity to 4.3 gCO₂e/kWh generated.

GENERATED ENERGY (GWh)¹

	2024	% vs 2023	Installed Capacity (MW) ¹
Hydro	5,551	(33.5%)	2,159
Wind	5,339	7.3%	1,554
Solar	247	1.7%	149 ²
Thermal	87	(7.4%)	550
Total	11,224	(17.8%)	4,412

¹ Considers Neoenergia's shareholding.

² Solar capacity in MWp

We are committed to reducing the emissions intensity of our energy generation from 61 gCO₂e/kWh recorded in 2021 to 36 gCO₂e/kWh by 2025 and 20 gCO₂e/kWh by 2030. Additionally, we aim to achieve net-zero carbon equivalent emissions before 2040.

In 2021, the base year we considered for the verification of emissions, the total installed capacity was 4,547 MW and the energy generated reached 15,129 GWh.

06.

GHG Inventory 2024



6. GHG Inventory 2024

This item details our corporate emissions in each of the three scopes, by emission sources.

GHG emissions (tCO₂e)

	2022	2023	2024
Scope 1: Direct emissions	84,570	104,025	108,284
Scope 2: Indirect emissions	331,650	208,392	415,898
Scope 3: Other indirect emissions ¹	1,372,262	1,678,035	2,023,488

¹There was a change in criteria in 2024, due to the incorporation of the life cycle emission factor in the energy transmitted, distributed and consumed by the Neoenergia group.

SCOPE 1: DIRECT EMISSIONS (tCO₂e)

Emission category	GHG Protocol Category	2022	2023	2024
Power generation emissions (fuel consumption)	Stationary combustion	19,337	49,484	48,722
Generator emissions (diesel)	Stationary combustion	28	85	78
Methane (CH ₄) emissions from combustion in generation and non-generation facilities	Stationary combustion	22	23	24
Nitrous oxide (N ₂ O) emissions from combustion in generation and non-generation facilities	Stationary combustion	53	44	46
Fugitive SF ₆ emissions	Fugitive emissions	3,579	2,900	2,700
Fugitive emissions of refrigerant gases	Fugitive emissions	2,343	3,666	3,528
Mobile combustion emissions (fleet vehicles)	Mobile combustion	28,420	29,819	32,088
Land use change (vegetation management and pruning)	Change of land use	30,608	18,004	21,096

SCOPE 2: INDIRECT EMISSIONS (tCO₂e)

Emission category	GHG Protocol Category	2022	2023	2024
Emissions associated with auxiliary power consumption during machine shutdowns	Electricity consumption	583	615	768
Electricity consumption in buildings	Electricity consumption	802	782	1,579
Power transmission and distribution losses	T&D losses	330,265	206,995	413,551 ¹

¹This figure includes only technical energy losses. Until 2023, to avoid double counting, we subtracted the share of self-generated renewable energy from the total distribution and transmission losses, disclosing the total emissions from net losses. In 2024, we published the gross figure, which also contributed to the increase in these emissions. When considering only the distribution and transmission companies in isolation, the emissions associated with the losses resulted in the amount of 413,551 tCO₂e.

**SCOPE 3: OTHER INDIRECT EMISSIONS (tCO₂e)¹**

Emission category	GHG Protocol Category	2022	2023	2024
Employee travel emissions	Business travel	1,411	2,785	7,712
Emissions associated with the supply chain	Goods and services purchased	494,854	958,956	705,899
Emissions associated with employee commuting to the workplace	Employee commuting	19,482	5,911	11,018
Emissions associated with the purchase of energy for sale to the final consumer	Fuel and energy-related activities not included in Scopes 1 and 2	850,060	698,550	937,802
Emissions from other life cycle processes used in electricity generation (WTT)	Fuel and energy-related activities not included in Scopes 1 and 2	6,455	11,833	361,057 ²

¹There was a change in criteria in 2024, due to the incorporation of the life cycle emission factor in the energy transmitted, distributed and consumed by the Neoenergia group.

Following the guidelines of the Brazilian GHG Program, the emission of 46,673 tons for scope 1 of CO₂ of biogenic origin was identified as due to the use of biofuels.

The GHG emissions in tons of CO₂ equivalent from each of our businesses (distribution, transmission, wind and hydro renewables, Termopernambuco and Neoenergia holding) are presented in Appendice A.1.

07.

**Quantification
methodologies**



7. Quantification methodologies

7.1. Direct emissions (scope 1)

7.1.1 Emissions from electric power generation facilities (fuel consumption)

Direct emissions from stationary combustion, resulting from the combustion of any type of fuel consumed in stationary (fixed) equipment.

We measure carbon dioxide (CO₂) emissions produced by the fixed combustion of fossil fuels in thermal generation facilities.

- Combined cycles.
- Diesel oil generation plant.

Methodology

The calculation of direct emissions is based on activity data by fuel consumption and emission factors calculated or obtained from official sources.

$$\text{Emissions CO}_2 \text{ (ton)} = \text{DA (GJ)} * \text{FE} \left(\frac{\text{tonCO}_2}{\text{GJ}} \right)$$

Combined gas cycle:

Termopernambuco Plant (Termope). CO₂ emissions derive from burning fuels:

Natural gas fuel

- Gas consumption: obtained from readings of the gas supply company's meters (Sm³).
- The Net Calorific Value (NCV) is provided by the gas supplier company, as well as the value of the Emission Factor (EF).
- CO₂ Emissions: The emission data are provided by IBAMA's Potentially Polluting Activities System.

Generation from diesel oil:

Tubarão Plant (Fernando de Noronha). CO₂ emissions come from burning fuels:

Diesel oil fuel

- Fuel consumption of the Tubarão Plant from the Energy Data Collection System (SCDE) of the Electric Energy Trading Chamber (CCEE).

Diesel oil as auxiliary fuel:

- These are emissions from the consumption of fuel oil used in emergency generators, buildings, offices, etc.
- CO₂ emissions calculated according to the GHG Protocol Tool Brazil (CO₂ emissions from fossil fuels) (does not consider biogenic CO₂ emissions).

7.1.2 Other emissions from electric power generation facilities (CH₄ and N₂O)

We calculated the CO₂ emissions produced by CH₄ and N₂O from the combustion of fossil fuels in the different power generation facilities.

The calculation of CH₄ and N₂O emissions is based on activity data (fuel consumption), that is, CH₄ and N₂O emissions are a function of fuel consumption (in volume) by the factor published in the GHG Calculation Tool.



7.1.3 Fugitive hexafluoride (SF₆) emissions

Emissions from SF₆ leaks from medium and high voltage equipment containing this gas as a dielectric and refrigerant. Gas leakage is measured by the difference in weight when recharging the equipment. In the methodology for quantifying the amount of CO₂ equivalent to hexafluoride (SF₆) leaks, the identified leaks are measured in tons and multiplied by the Global Warming Potential (GWP) published by the Intergovernmental Panel on Climate Change (IPCC) over a 100-year horizon (values based on the IPCC's 5th Assessment Report, or AR5).

7.1.4 Emissions associated with fugitive refrigerant gas emissions (CFCs)

Emissions from leakage of refrigerant gases (chlorofluorocarbon gases - CFC) from air conditioning equipment. The gases considered are: R-407C, R-404A, R-410, R-422A, R-438A, R-134A, R-32, R-134 and R-141.

7.1.5 Mobile combustion emissions

The quantification methodology used to calculate direct emissions is based on activity data (fuel consumption) by the emission factor obtained from specific official sources indicated in the calculation tool of the Brazilian GHG Protocol Program.

7.1.6 Emissions associated with land use change

For the calculation of emissions from land use change, the volume of material generated in the Group's Vegetation Management activities was considered. From a conservative approach and based on IPCC studies

(https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/4_Volume4/V4_04_Ch4_Forest_Land.pdf), it was assumed that from the volume generated in the activities, 47% of the mass is Carbon. For the conversion of C to CO₂, the ratio of 44/12 was used, following the IPCC guidelines

(https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/4_Volume4/V4_02_Ch2_Generic.pdf).

7.2. Indirect emissions (scope 2)

7.2.1 Emissions associated with the consumption of electricity in shutdown of thermal, renewable and hydroelectric plants.

Calculation of emissions associated with energy consumed during machine downtime at facilities, applying the emission factor of the corresponding country's energy matrix. In Brazil's case, this factor is provided by the Ministry of Science and Technology.

7.2.2 Emissions associated with electricity consumption in buildings.

To calculate CO₂e emissions, the emission factor of the Brazil generation matrix corresponding to the energy consumed in buildings or offices, made available by the Ministry of Science and Technology, is applied.

7.2.3 Emissions associated with grid losses in power distribution and transmission.

The transmission and distribution of electricity leads to losses in the grid, so that to satisfy a given final consumption target, somewhat higher generation is required. Several reasons and factors contribute to these losses, with the most significant being the Joule Effect.

In this section, we will calculate the emissions resulting from these losses in the grid, by energy distributed or transmitted through the grid (which we call third-party energy).

The losses are associated with the energy distributed and transmitted over our networks; in this item, the technical losses of Distribution and Transmission are considered.

For the calculation of emissions, the emission factor of the Brazilian Grid in the reference year made available by the Ministry of Science and Technology is applied.



7.3 Calculation of other indirect emissions (scope 3)

7.3.1 Emissions associated with the transportation of employees for work reasons.

Emissions associated with employee air travel are calculated based on the distances traveled and the specific emission factors for each mode of transportation, as provided by the United States Environmental Protection Agency (EPA).

7.3.2 Emissions associated with the supply chain.

The objective of Iberdrola, Neoenergia's parent company, is to estimate the greenhouse gas (GHG) emissions of its suppliers. Toward this end, it uses the Go Supply supplier management tool, enabling the management of suppliers' environmental data.

The calculation is performed at a global level and extrapolated to all sub holdings as emissions per euro of revenue. The calculation procedure is based on the EEIO (Environmental Extended Input-Output) model of the EXIOBASE system. The EXIOBASE model permits the calculation of environmental impacts associated with the final consumption of product groups.

7.3.3 Emissions associated with the transportation of employees from their residences to the workplace.

Emissions associated with the travel of employees from their places of residence to work. The information is obtained through research carried out with employees of the Neoenergia Group to calculate their emissions via an emissions calculator tool. The tool calculates emissions in travel, based on the emission factors of the Brazilian GHG Program. The information collected from the questionnaire are placed in a database and extrapolated to all direct workers of the Neoenergia Group.

7.3.4 Emissions associated with energy purchased for sale to end customers.

Emissions associated with the use of the organization's energy products are calculated by first subtracting self-produced energy from the total energy supplied to the market. This determines the volume of energy purchased for sale to end customers. Emissions-free green energy purchases are then deducted from this total. The final energy volume is assessed using the emission factors of Brazil's energy generation matrix, as provided by the Ministry of Science and Technology.

7.3.4 Emissions associated with energy purchased for sale to end customers.

Emissions associated with the use of the organization's energy products are calculated by first subtracting self-produced energy from the total energy supplied to the market. This determines the volume of energy purchased for sale to end customers. Emissions-free green energy purchases are then deducted from this total. The final energy volume is assessed using the emission factors of Brazil's energy generation matrix, as provided by the Ministry of Science and Technology.

7.3.5 Emissions from other life cycle processes used in electricity generation (upstream)

Emissions from the upstream life cycle of fuels used to produce electricity: extraction, transport and processing. The factors used will be those of DEFRA (Department for Environment, Food and Rural Affairs) in the WTT (Well to Tank) section.

A.

Appendices



A. Appendices

A.1. GHG Inventory per Neoenergia Business

Emissions (tCO ₂ e)	NETWORKS – DISTRIBUTION								
	Neoenergia Pernambuco			Neoenergia Cosern			Neoenergia Elektro		
	2022	2023	2024	2022	2023	2024	2022	2023	2024
Scope 1: Direct emissions ¹	27,352	28,892	37,981	4,446	3,505	4,305	16,586	17,235	14,326
Scope 2: Indirect emissions	122,394	57,009	95,340	22,678	18,659	27,988	51,677	43,913	69,523
Scope 3: Other indirect emissions ^{2, 3, 4}	457,975	340,802	415,921	259,610	259,918	176,519	287,694	281,080	338,499

¹ Includes emissions from the Tubarão Plant, in the Fernando de Noronha archipelago.

² Supply chain emissions come from 98% of networks, for this reason they were allocated to each of the distributors in scope 3, apportioned according to each company's revenues.

³ There was a change in criteria in 2024, due to the incorporation of the life cycle emission factor in the energy transmitted, distributed and consumed by the Neoenergia group.

⁴ Scope 3 data of the distributors published in the 2023 Emissions Inventory were revised, when the emissions of the energy sold were concentrated in the holding company.

Emissions (tCO ₂ e)	NETWORKS – DISTRIBUTION					
	Neoenergia Coelba			Neoenergia Brasília		
	2022	2023	2024	2022	2023	2024
Scope 1: Direct emissions	33,353	23,309	21,371	1,694	1,491	1,337
Scope 2: Indirect emissions	116,109	101,393	162,219	26,501	22,739	34,809
Scope 3: Others indirect emissions ^{2,3,4}	556,249	393,382	685,424	184,507	229,403	145,809

² Supply chain emissions come from 98% of networks, for this reason they were allocated to each of the distributors in scope 3, apportioned according to each company's revenues.

³ There was a change in criteria in 2024, due to the incorporation of the life cycle emission factor in the energy transmitted, distributed and consumed by the Neoenergia group.

⁴ Scope 3 data of the distributors published in the 2023 Emissions Inventory were revised, when the emissions of the energy sold were concentrated in the holding company.

Emissions (tCO ₂ e)	NETWORKS – TRANSMISSION		
	2022	2023	2024
	Scope 1: Direct emissions	56	30
Scope 2: Indirect emissions	22,022	14,997	25,235
Scope 3: Other indirect emissions	0	0	21,253

Emissions (tCO ₂ e)	NETWORKS – TRANSMISSION								
	Afluente T			Dourados			Itabapoana		
	2022	2023	2024	2022	2023	2024	2022	2023	2024
Scope 1: Direct emissions	11	24	0	20	2	0	0	0	0
Scope 2: Indirect emissions	4,678	3,310	5,508	1,359	1,477	1,497	0	0	1,572
Scope 3: Others indirect emissions ³	0	0	4,638	0	0	1,261	0	0	1,324

³ There was a change in criteria in 2024, due to the incorporation of the life cycle emission factor in the energy transmitted, distributed and consumed by the Neoenergia group.

Emissions (tCO ₂ e)	NETWORKS – TRANSMISSION								
	Paraíso			Potiguar Sul			Rio Formoso		
	2022	2023	2024	2022	2023	2024	2022	2023	2024
Scope 1: Direct emissions	0	0	0	3	4	0	0	0	0
Scope 2: Indirect emissions	0	0	405	6,700	2,471	3,369	0	355	136
Scope 3: Others indirect emissions ³	0	0	341	0	0	2,837	0	0	115

³ There was a change in criteria in 2024, due to the incorporation of the life cycle emission factor in the energy transmitted, distributed and consumed by the Neoenergia group.



Emissions (tCO ₂ e)	NETWORKS – TRANSMISSION					
	Santa Luzia			Jalapão		
	2022	2023	2024	2022	2023	2024
Scope 1: Direct emissions	13	1	0	9	0	0
Scope 2: Indirect emissions	2,178	2,053	4,317	4,043	5,440	8,432
Scope 3: Other indirect emissions ³	0	0	3,635	0	0	0

³ There was a change in criteria in 2024, due to the incorporation of the life cycle emission factor in the energy transmitted, distributed and consumed by the Neoenergia group.

Emissions (tCO ₂ e)	RENEWABLES – WIND		
	2022	2023	2024
Scope 1: Direct emissions	498	9	130
Scope 2: Indirect emissions	0	77	172
Scope 3: Other indirect emissions ³	0	0	70

³ There was a change in criteria in 2024, due to the incorporation of the life cycle emission factor in the energy transmitted, distributed and consumed by the Neoenergia group.

Emissions (tCO ₂ e)	RENEWABLES – PHOTOVOLTAICS ⁴	
	2023	2024
Scope 1: Direct emissions	2	0
Scope 2: Indirect emissions	0	1
Scope 3: Other indirect emissions	0	0

⁴ THE reporting of photovoltaic generation emissions is as of 2023, when operations began.

Emissions (tCO ₂ e)	RENEWABLES – HYDRO								
	HPP Itapebi			HPP Dardanelos			HPP Corumbá III		
	2022	2023	2024	2022	2023	2024	2022	2023	2024
Scope 1: Direct emissions	70	68	2	0	7	7	3	1	3
Scope 2: Indirect emissions	27	23	23	2	11	20	7	9	9
Scope 3: Other indirect emissions ³	0	0	9	0	0	8	0	0	4

³ There was a change in criteria in 2024, due to the incorporation of the life cycle emission factor in the energy transmitted, distributed and consumed by the Neoenergia group.

Emissions (tCO ₂ e)	RENEWABLES – HYDRO					
	HPP Baixo Iguaçu			HPP Belo Monte		
	2022	2023	2024	2022	2023	2024
Scope 1: Direct emissions	1	1	1	1	1	1
Scope 2: Indirect emissions	2	3	3	0	0	0
Scope 3: Others indirect emissions ³	0	0	1	0	0	0

³ There was a change in criteria in 2024, due to the incorporation of the life cycle emission factor in the energy transmitted, distributed and consumed by the Neoenergia group.

Emissions (tCO ₂ e)	LIBERALIZED – TERMOPERNAMBUCO		
	2022	2023	2024
Scope 1: Direct emissions	49	29,079	27,640
Scope 2: Indirect emissions	543	488	541
Scope 3: Other indirect emissions	1,223	6,429	6,257

Emissions (tCO ₂ e)	LIBERALIZED – NC ENERGIA ⁵	
	2023	2024
Scope 1: Direct emissions	0	0
Scope 2: Indirect emissions	0	0
Scope 3: Other indirect emissions	189,552	262,441

⁵ Emissions from NC Energia started to be calculated in 2023.



Emissions (tCO ₂ e)	HOLDING		
	2022	2023	2024 ⁶
Scope 1: Direct emissions	455	128	1,180
Scope 2: Indirect emissions	44	34	17
Scope 3: Other indirect emissions ^{7, 8}	596	7,037	14,226

⁶ Scope emissions associated with the fleet of vehicles not allocated to the distributors, scope 2 emissions due to energy consumption in the holding's building and scope 3 emissions linked to travel by unallocated employees of the distributors, WTT of energy consumed and home-work displacement.

⁷ There was a change in criteria in 2024, due to the incorporation of the life cycle emission factor in the energy transmitted, distributed and consumed by the Neoenergia group.

⁸ Revised scope 3 data published in the 2023 Emissions Inventory, when emissions from energy sold by distributors were concentrated in the holding company.



DECLARAÇÃO DE CONFORMIDADE

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DECLARAÇÃO DE VERIFICAÇÃO

Nº 367.007/25

Esta **Declaração de Verificação** documenta que o Organismo de Verificação (OV) citado abaixo realizou atividades de verificação de acordo com as *Especificações de Verificação do Programa Brasileiro GHG Protocol* e a norma ABNT NBR ISO 14064-3:2007.

Organização Inventariante (OI)
Nome da OI: NEOENERGIA S/A
Responsável pelo Inventário: Vitor Amorim
E-mail: vitor.amorim@neoenergia.com
Organismo de Verificação (OV)
Nome do OV: Associação Brasileira de Normas Técnicas – ABNT
Verificador Líder: Thiago Ernani Guinancio Milagres
E-mail: thiagoguinancio@gmail.com

As emissões de gases de efeito estufa (GEE) informadas pela Organização Inventariante em seu inventário de emissões, de 1º de janeiro até 31 de dezembro de **2024**, são verificáveis e cumprem os requisitos do Programa Brasileiro GHG Protocol, detalhados nas *Especificações do Programa Brasileiro GHG Protocol de Contabilização, Quantificação e Publicação de Inventários Corporativos de Emissões de Gases de Efeito Estufa (EPB)*.

Nível de Confiança

O Organismo de Verificação (OV) atribuiu o seguinte nível de confiança ao processo de verificação:

Verificação com nível de **confiança limitado**

“Não há indícios de que o inventário de gases de efeito estufa da organização inventariante para o ano de **2024** não esteja materialmente correto, não seja uma representação justa dos dados e informações de GEE e não tenha sido preparado de acordo com as EPB.”

As limitações do processo de verificação foram: Análise de dados secundários.



ABNT Associação Brasileira de Normas Técnicas

Av. Treze de Maio, 13 – 28º Andar – Centro – Rio de Janeiro – RJ – CEP 20031-901
Rua Conselheiro Nebras, 1.131 – Campos Elíseos – São Paulo – SP – CEP 01203-002



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Descrição do Escopo da Verificação

O inventário do ano de **2024** da Organização Inventariante foi verificado dentro do seguinte escopo:

Limites Organizacionais	Limites Operacionais
<input checked="" type="checkbox"/> Controle Operacional	<input checked="" type="checkbox"/> Escopo 1
<input checked="" type="checkbox"/> Participação Societária	<input checked="" type="checkbox"/> Escopo 2 – Abordagem baseada em localização
	<input type="checkbox"/> Escopo 2 – Abordagem baseada em escolha de compra
	<input checked="" type="checkbox"/> Escopo 3

Foram excluídas da verificação: Emissões fugitivas por manutenção dos extintores de incêndio de CO₂ e emissões associadas aos empreendimentos em fase de implantação.

Instalações visitadas

Lista de todos os locais visitados durante a verificação e a data de cada visita.

Nome do Local	Relação do Local com a holding	Endereço	Data da Visita
Usina Termopernambuco	Unidade	Av. Portuaria, S/N - Porto Suape - PE	11/02/2025

Total de emissões verificadas em toda a organização, segundo a abordagem de Controle Operacional

GEE	Emissão de GEE em toneladas de CO ₂ equivalente (tCO ₂ e)			
	Escopo 1	Escopo 2 Abordagem baseada na localização	Escopo 2 Abordagem baseada em escolha de compra	Escopo 3
CO ₂	-	-	-	-
CH ₄	-	-	-	-
N ₂ O	-	-	-	-
HFCs	-	-	-	-
PFCs	-	-	-	-
SF ₆	-	-	-	-
NF ₃	-	-	-	-
TOTAL	108.283,832	415.898,250	-	2.023.488,00
CO ₂ Biogênico	46.672,557	-	-	-

Total de remoções verificadas em toda a organização, segundo a abordagem de Controle Operacional

GEE	Remoção de CO ₂ biogênico (tCO ₂ e)			
	Escopo 1	Escopo 2 Abordagem baseada na localização	Escopo 2 Abordagem baseada em escolha de compra	Escopo 3
CO ₂ Biogênico	-	-	-	-





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Total de emissões verificadas em toda a organização, segundo a abordagem de Participação Societária

GEE	Emissão de GEE em toneladas de CO ₂ equivalente (tCO ₂ e)			
	Escopo 1	Escopo 2 Abordagem baseada na localização	Escopo 2 Abordagem baseada em escolha de compra	Escopo 3
CO ₂	-	-	-	-
CH ₄	-	-	-	-
N ₂ O	-	-	-	-
HFCs	-	-	-	-
PFCs	-	-	-	-
SF ₆	-	-	-	-
NF ₃	-	-	-	-
TOTAL	108.283,832	415.898,250	-	2.023.488,00
CO ₂ Biogênico	46.672,557	-	-	-

Total de remoções verificadas em toda a organização, segundo a abordagem de Participação Societária

GEE	Remoção de CO ₂ biogênico (tCO ₂ e)			
	Escopo 1	Escopo 2 Abordagem baseada na localização	Escopo 2 Abordagem baseada em escolha de compra	Escopo 3
CO ₂ Biogênico	-	-	-	-

Comentários Adicionais

A organização utiliza um sistema de gestão de dados de GEE, o Sygris, que não informa os dados de emissões para os seis gases/família de gases de GEE separadamente em toneladas métricas de CO₂ equivalente.

Unidades que individualmente emitiram mais de 10.000 tCO₂e no Escopo 1:

Usina Tubarão – 27.641,57 tCO₂e

Usina Termopernambuco – 21.503,96 tCO₂e

Neopernambuco Distribuição: 16.476,96 tCO₂e

Conflitos de Interesse (CDI)

Eu, Thiago Milagres, certifico que nenhum conflito de interesse existe entre Organização Inventariante e o Organismo de Verificação, ou qualquer dos indivíduos membros da equipe de verificação envolvidos na verificação do inventário, conforme definido no capítulo 3.2.1 das *Especificações de Verificação do Programa Brasileiro GHG Protocol*.

Thiago Milagres
(Verificador Líder)

11/02/2025
Data

Reconhecimento de assinatura digital¹





DECLARAÇÃO DE CONFORMIDADE

Conformity Declaration

Conclusão do Verificador sobre o Inventário de Emissões de GEE

Como responsáveis pelas atividades de verificação do inventário de GEE da Organização Inventariante, atestamos que as informações contidas neste documento são verdadeiras.

Thiago Milagres
(Verificador Líder) _____ 11/02/2025
Data

Reconhecimento de assinatura digital¹

Fabiane Governatori
(Revisor Independente) _____ 11/02/2025
Data

Reconhecimento de assinatura digital¹

Autorização

Eu, Vitor Amorim, aceito os resultados desta declaração de verificação.

Vitor Amorim _____ 11/02/2025
Data

Reconhecimento de assinatura digital¹

Rio de Janeiro, 14 de fevereiro de 2025.


Guy Advocat
Gerente de Certificação de Sistemas

¹Ao marcar a caixa "Reconhecimento de assinatura digital", concordo que esta declaração de verificação seja considerada "feita por escrito" e "assinada" para todos os fins e que quaisquer registros eletrônicos serão considerados "feitos por escrito". Renuncio expressamente a todo e qualquer direito de negar a obrigatoriedade jurídica, a validade ou a executoriedade desta declaração de verificação e de quaisquer documentos a ela relacionados com base em que tenham sido elaborados e concluídos eletronicamente. Esta declaração é suportada por contrato de atendimento à norma e procedimentos da ABNT, sendo válida somente assinada pelo Gerente de Certificação de Sistemas. Sua validade pode ser confirmada no seguinte endereço eletrônico: www.abnt.org.br. Para informações adicionais: sustentabilidade@abnt.org.br. CNPJ: 33.402.892/0001-06

