

Eletrobras Group

Greenhouse Gas (GHG) Emissions Inventory

FOR YEAR 2023 | PUBLISHED JUNE 2024

Eletrobras

Eletrobras

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UHE Funil - *Photo: Disclosure*

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Tocantins River

Climate change has been causing impacts that put the existence of current and future generations at risk, and measures must be taken to attempt to minimize these effects. Stabilizing greenhouse gas (GHG) concentrations in the atmosphere at a level that prevents the planet's temperature from rising above 1.5°C has been one of the most recurring concerns in discussions among governments, the scientific community, and businesses since the United Nations Framework Convention on Climate Change (signed in 1992 and enacted in Brazil by Decree No. 2 652/1998).

According to a recent study published in the journal Nature, climate change has the potential to reduce global income by an average of 19% by 2050. This translates into an average annual drop of around R$199 trillion (almost 20 times Brazil's GDP) over the next 26 years.

Substantial income reductions are anticipated for most regions, including North America and Europe, with South Asia and Africa being most affected. Brazil is among the most severely affected countries, with projected losses exceeding 25% in the North and midwest regions. This is caused by the impact of climate change on several aspects relevant to economic growth, such as agricultural yields, labor productivity or infrastructure.

The findings also indicate that the amount lost is six times greater than the expenditures needed over these 26 years to limit global warming to 2°C above pre-industrial levels. The income impairment will exacerbate regional inequalities and is likely to intensify after 2050 if there is no significant and accelerated reduction in emissions. Otherwise, economic losses will be even greater in the second half of the century, reaching up to 60% on average globally by 2100. Not to mention non-economic impacts, such as the loss of human lives and biodiversity.

In this scenario, the business sector plays an increasingly important role by adopting measures to minimize the effects of climate change. Knowing its responsibility in contributing to the global system is the first step. To achieve this, GHG emission inventories are essential tools.

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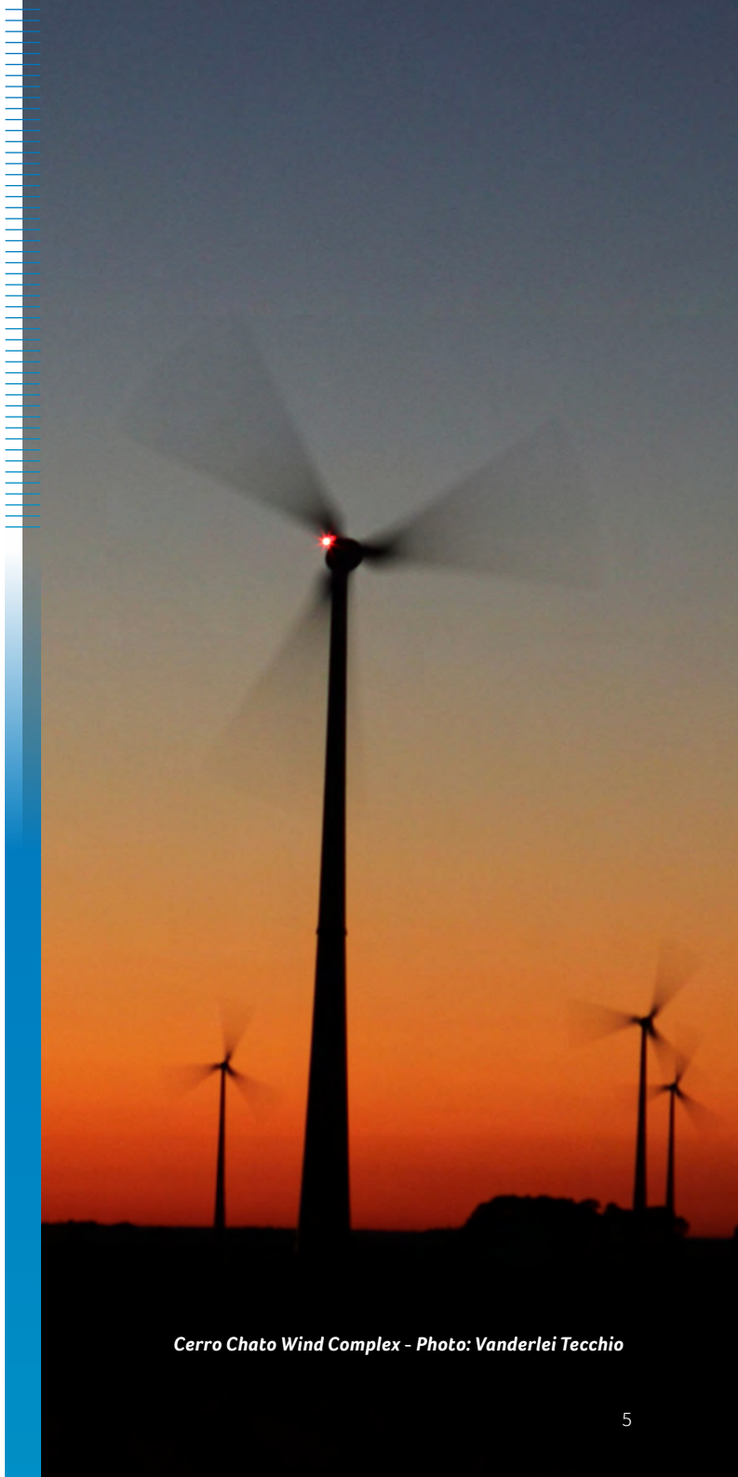
In line with its commitment to best practices in corporate sustainability, Eletrobras has been preparing its "Greenhouse Gas Emissions Inventory" uninterruptedly since 2008. The document presented here is its 16th edition.

Eletrobras' inventory and other initiatives are aligned with the National Climate Change Policy (established by Law 12 187/2009 and regulated by Decree 7 390/2009), which provides, among its instruments: measures that stimulate the development of processes and technologies that contribute to the reduction and removal of greenhouse gases from the atmosphere, as well as the appreciation of proposals that promote greater savings in energy, water, and other natural resources and the reduction of GHG emissions and waste generation; records, inventories, estimates, evaluations, and any other studies of GHG emissions and their sources, prepared based on information and data provided by public and private entities (art. 6, XII and XIII).

Reinforcing our commitment to combating Climate Change, our goal is to be Net Zero by 2030, thus minimizing our negative impact and contributing to the transition to a new development model based on a green and low-carbon economy. This commitment is expressed in our Environmental Policy, including actions to manage greenhouse gas emissions, prioritization of renewable energy and low GHG emission projects and promotion of studies, and is aligned with the 2030 Agenda, in particular the Sustainable Development Goals - SDG 7 - Affordable and Clean Energy and SDG 13 - Climate Action, both of which have been prioritized by Eletrobras Group companies in their corporate strategies.

Our portfolio of projects features an electricity mix that is based on low carbon energy sources, effectively contributing to make Brazil's electricity grid one of the cleanest and most renewable in the world. In 2023, these sources accounted for 97% of our installed capacity. Considering the opportunities related to its renewable portfolio, Eletrobras Group holds registered assets to issue renewable energy certificates.

This report describes the results of greenhouse gas emissions calculations for Eletrobras companies CGT Eletrosul, Eletrobras Chesf, Eletrobras Eletronorte, Eletrobras Furnas, Eletrobras Holding for the year 2023. It also includes atmospheric emissions of sulfur oxides (SO_x), nitrogen oxides (NO_x), particulate matter, and ozone-depleting substances related to the Montreal Protocol, as well as the estimate of GHG emissions and removals from land-use change activities.



Cerro Chato Wind Complex - Photo: Vanderlei Tecchio

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Basis of Preparations and Assumtions

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- The information required to prepare this Inventory was obtained by filling the indicators and variables of the Sustainability Management Indicators System - IGS.
- The process of verifying and validating the data used, as well as processing and calculating GHG emissions, is carried out by a platform called Emisfera, which consists of a set of computational tools developed by the Brazilian Power Sector Research Center - Cepel for this purpose. Emisfera's main tools are: Collection and Analysis Tool (FCA), which is used to import data from the IGS System, data consistency analysis (rate tier system) and pre-processing for calculating emissions; Emissions Calculation Tool (FCE), responsible for calculating emissions and presenting results in full and/or summarized form, and Emissions Estimation Tool in Land Use Activities (FUS). Figure 1 shows how operate together in the process between the Emisfera tools and the IGS database in the process of preparing the GHG Inventory of Eletrobras Group.
- Since 2016, Emisfera's tools have been aligned with the IGS System (Sustainability Management Indicators) database. In other words, all input values for emissions calculations are collected by IGS, which, through its protocols, guides the measurement of quantities in different companies in the same way. This has made the process more reliable and traceable, as all companies are users of the IGS System and the information is available in a single tool.
- Eletrobras Group's GHG Emissions Inventory uses well-established methodologies to calculate GHG emissions, particularly IPCC[1], and uses the Greenhouse Gas Protocol - GHG Protocol[2] guidelines in terms of organizing emission sources, defining limits, and presenting results. The operational control approach[3] is used as the organizational limit.

[1] The Intergovernmental Panel on Climate Change (IPCC) is a scientific-political body established in 1988 within the scope of the United Nations (UN). Its mission is to disseminate the most advanced knowledge about climate change, identifying its causes, effects, and risks to humanity and the environment, and suggesting ways to combat these issues.

[2] GHG Protocol: internationally recognized corporate standard for accounting and reporting greenhouse gas emissions, launched in 1998 and revised in 2004, today the most widely used tool by companies and governments to understand, quantify and manage their emissions.

[3] Under the operational control approach, an organization is responsible for 100% of the GHG emissions from the units over which it has operational control. It is not responsible for emissions from operations in which it only has an equity interest, the so-called SPEs.



***UHE Tucuruí** - Acervo Eletrobras*

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- To calculate emissions from electricity consumption, we used the emission factors for the National Grid, which are calculated and published by the Ministry of Science, Technology, Innovation and Communications (MCTIC).
- Emissions from transmission losses were calculated based on information provided by the Eletrobras Group Transmission Division.
- For Scope 2 emissions, the location-based approach and the market-based approach are used.
- As a mandatory requirement in Brazil, all gasoline contains a fraction of sugarcane ethanol, and all diesel contains a fraction of biodiesel. Due to this, the GHG emission factor for these fuels is less than those used internationally. Biogenic CO_2 emissions from the consumption of biofuels (biodiesel, ethanol added to gasoline, and fuel ethanol) are stated in a separate table in the inventory, as these emissions are reabsorbed through photosynthesis during the cultivation of sugarcane, soybeans and other crops used in the production of these biofuels. For this reason, since the Eletrobras GHG Inventory for 2013, the emission factors published in the National Inventory of Road Vehicle Emissions (MMA, 2013) have been used instead of IPCC emission factors for the consumption of fuels by road vehicles (ethanol, natural gas, gasoline and diesel).
- Emissions from thermal power purchased by Eletrobras Eletronorte from Independent Power Producers (IPPs) for resale to end consumers are quantified in scope 3 and therefore separately from emissions from Eletrobras' own thermal power plants, which are reported under scope 1.
- The energy content of fuels consumed has been calculated based on the conversion factors contained in the National Energy Balance (for 2023).
- Emissions from hydroelectric reservoirs belonging to Eletrobras companies have not been reported, due to a lack of a global scientific consensus on a methodology that allows calculating net GHG emissions from water bodies such as artificial reservoirs.

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- Point emissions of air pollutants, such as sulfur oxides (SO_x), nitrogen oxides (NO_x) and particulate matter contained in combustion gases, were determined based on monitoring data collected at Eletrobras Group's thermal power plants.
- Emissions of ozone-depleting substances listed in the Montreal Protocol have been estimated based on the sum of three processes: leakage during installation, leakage during maintenance, and leakage during disposal. These emissions are all of gases used in refrigeration and airconditioning equipment in the companies.
- All data and calculation memories used in GHG inventories are kept on file and verified by an independent third party for every annual edition of the inventory. For the 2023 inventory, published in 2024, the assurance report was issued on June 11, 2024 by PwC Brazil[5] (Appendix).

[5] *In this document "PwC" refers to PricewaterhouseCoopers Auditores Independentes Ltda., a member firm of the PricewaterhouseCoopers network*

Figure 1 – Data acquisition process for the GHG inventory.

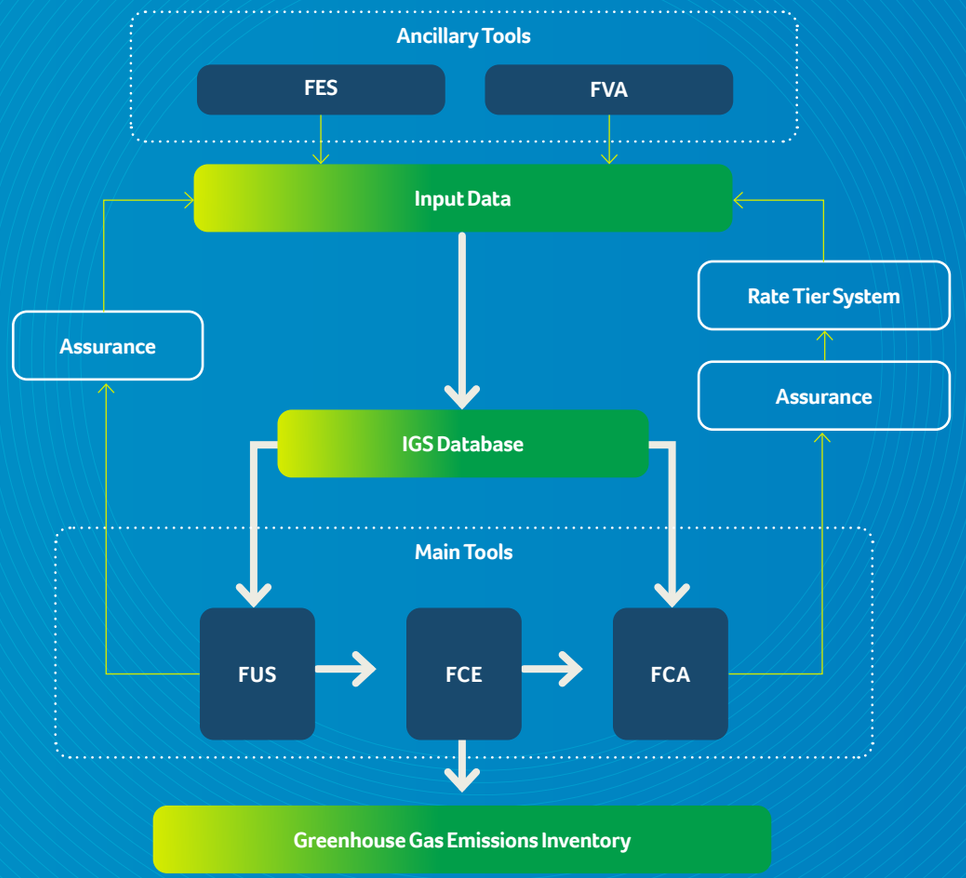
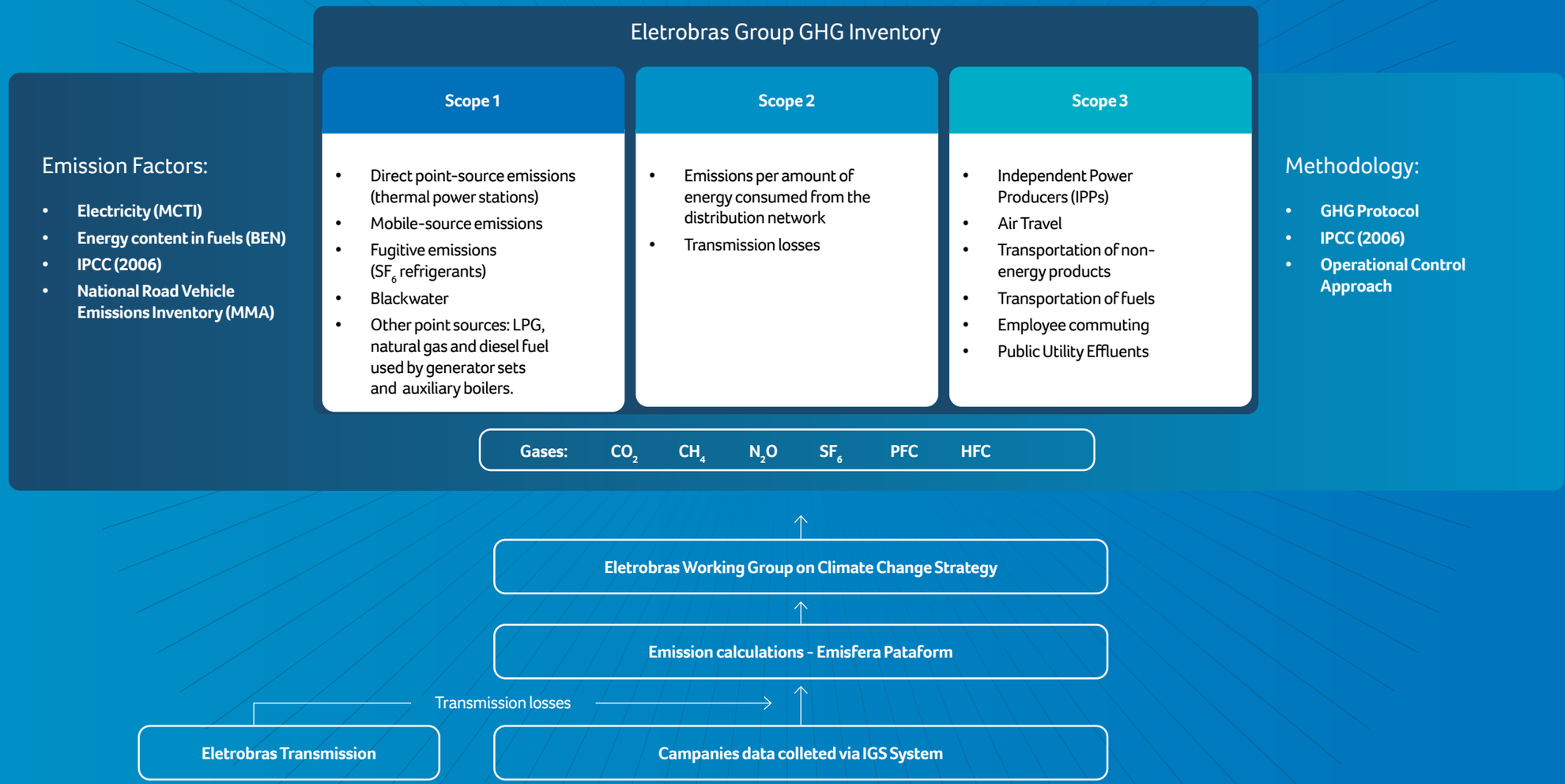


Figure 2 - GHG Inventory development process at Eletrobras Group

Figure 2 shows the GHG Inventory development process used at Eletrobras Group, its scope, general structure, and sources included in the inventory.



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Eletrobras Group GHG Emissions



UHE Mascarenhas de Moraes - *Photo: Danilo Deni Alves*

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Eletrobras Group's GHG emissions for 2023 are shown in summary form in Table 1 and in detail in Table 3. Total emissions were 5,665,409 tCO_2e, considering scopes 1, 2 and 3.

The bulk of emissions are scope 1 (71% of the total), followed by scope 3 (24% of the total) and scope 2 (5% of the total).

TABLE 1: GHG EMISSIONS BY SCOPE YEAR 2023 (tCO_2e)

Scope	GHG emissions	% of total
Scope 1	3,999,341	71
Scope 2	289,121	5
Scope 3	1,376,948	24
Total	**5,665,409**	**100**

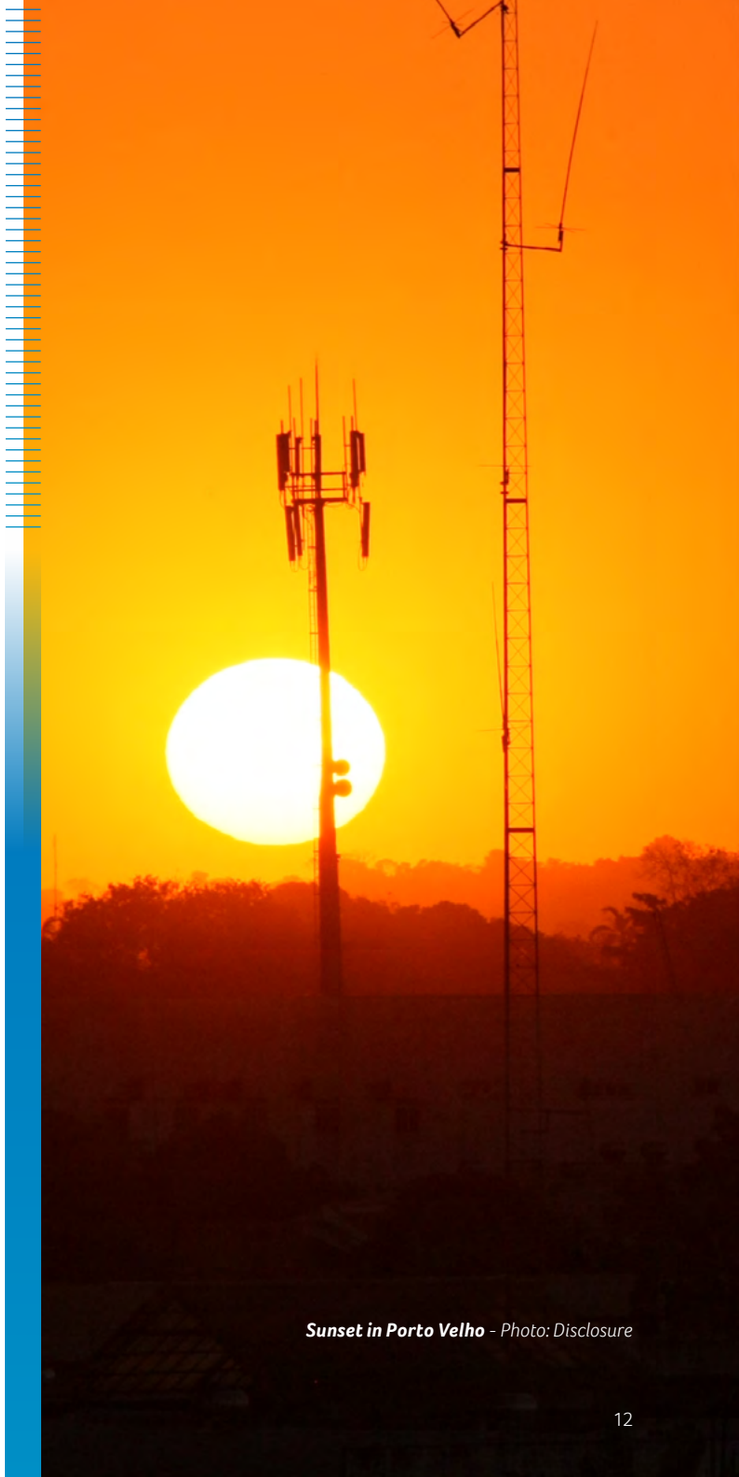
Three sources accounted for 98% of total emissions in 2023: company-owned thermal power plants, independent power producers (IPPs), and transmission losses, with company-owned thermal power plants accounting for 69% of total emissions.

GHG emissions that are directly under the operational control of the Eletrobras Group (Scopes 1 and 2) amount to 4,288,461 tCO_2e or 76% of the total. Emissions from sources not owned or controlled by the Eletrobras Group (scope 3), which are generated by suppliers of services and products, totaled 1,376,948 tCO_2e.

Out of total direct (scope 1) emissions, 98% were generated by Group-owned thermal power plants.

In scope 2, transmission losses represent 98% of emissions, with only 2% deriving from electricity consumption.

In 2023 the rate of transmission losses across the Eletrobras Group was 0.5% (table 2). However, these losses are not manageable by transmission concessionaires. Eletrobras Group's transmission subsidiaries are essentially responsible for maintaining the availability of the transmission systems within their concession. The National Grid Operator (ONS) is responsible for planning and defining the operation of the system, and therefore power throughput, and consequently transmission losses are the result of ONS-defined operation strategies. In addition, equipment maintenance has no effect on transmission system losses, but only on availability of this equipment.



Sunset in Porto Velho *- Photo: Disclosure*

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TABLE 2 – TRANSMISSION LOSSES (%) IN 2023

Companies	Transmission losses
Eletrobras CGT Eletrosul	0.55
Eletrobras Chesf	0.49
Eletrobras Eletronorte	0.45
Eletrobras Furnas	0.51
Total	**0.5**

Emissions from thermal power purchased from Independent Power Producers (IPPs) represented 99.6% of total scope 3 emissions.

In 2023, 48.6% of scope 2 emissions were offset using renewable energy certificates; net emissions within this scope, using the market-based approach, were 148,433 tCO_2e.



TABLE 3 - ELETROBRAS GROUP GHG EMISSIONS – YEAR 2023 (tCO_2e)

Companies	Scope 1									Scope 2		Scope 2 (*market-based*)		Scope 3						Subtotal by Company
	Point			Mobile			Other													
	Group-Owned Thermal Power Plants	Generators	Other	Land	Waterborne	Air	SF_6	Refrigeration	Liquid Effluents	Electricity Consumption	Transmission Losses	Electricity Consumption	Transmission Losses	Transportation of Fuels	Independent Power Producers (IPPs)	Transportation of Non-Energy Products	Air Travel	Employee Commuting	Public Utility Effluents	
Eletrobras CGT Eletrosul	1,949,828	30	8	1,446	0	n.a	52,212	13	94	360	49,983	0	49,983	n.a	n.a	1,187	239	610	19	**2,056,030**
Eletrobras Chesf	n.a	121	186	2,961	1	140	0	3,248	4,204	165	76,651	0	45,991	n.a	n.a	0	590	444	98	**88,809**
Eletrobras Eletronorte	1,865,420	77	194	2,434	47	n.a	20,143	950	6	4,025	37,322	0	22,393	n.a	1,371,855	12	372	355	60	**3,303,271**
Eletrobras Furnas	89,638	77	52	3,828	7	0	1,904	17	8	235	120,263	0	30,066	n.a	n.a	n.a	438	119	0	**216,586**
Eletrobras Holding	n.a	0	n.a	45	n.a	n.a	n.a	0	0	117	n.a	0	n.a	n.a	n.a	n.a	532	n.a	17	**712**
Subtotal by source	**3,904,887**	**305**	**440**	**10,714**	**56**	**140**	**74,259**	**4,229**	**4,311**	**4,902**	**284,219**	**0**	**148,433**	**n.a**	**1,371,855**	**1,199**	**2,171**	**1,528**	**194**	
Subtotal by type of source	**3,905,632**			**10,910**			**82,799**			**4,902**	**284,219**	**0**	**148,433**	**n.a**	**1,371,855**	**1,199**	**2,171**	**1,528**	**194**	**Total (tCO_2e) 5,665,409**
Subtotal by scope	**3,999,341**									**289,121**		**148,433**		**1,376,948**						

Key: n.a – not applicable

Emissions by type of gas are shown in Table 4. Carbon oxide (CO_2) accounts for the bulk of emissions (98.3%). Combined emissions of sulfur hexafluoride (SF_6), nitrous oxide (N_2O), methane (CH_4) and refrigeration gases (HFCs and PFCs) account for less than 2% of the total.

SF_6 is essentially used as an insulating medium in high-voltage circuit breakers. The practices in place for managing or mitigating fugitive emissions of SF_6 include: low SF_6 pressure alarms on circuit breakers; annual breaker pressure inspections; fortnightly circuit breaker inspections; instructions on identifying SF6 leakage; the use of SF_6 detectors; and special equipment for collecting and treating SF_6 gas.

Fugitive emissions of SF_6 contained in high-voltage equipment essentially derive from: 1) equipment (circuit breaker) construction technology; 2) severe failure; 3) maintenance processes.

TABLE 4 – GHG EMISSIONS BY TYPE OF GAS (SCOPES 1, 2 AND 3) - YEAR 2023

Companies	CO_2	CH_4		N_2O		SF_6		HFCs and PFCs	Total by Company
	tCO_2e	tCO_2e	tgas	tCO_2e	tgas	(tCO_2e)	tgas	(tCO_2e)	(tCO_2e)
Eletrobras CGT Eletrosul	1,994,859	747	25	8,199	31	52,212	2.2	13	2,056,030
Eletrobras Chesf	81,187	4,315	144	59	0.2	0	0	3,248	88,809
Eletrobras Eletronorte	3,278,800	1,803	60	1,574	5.9	20,143	0.9	950	3,303,271
Eletrobras Furnas	214,471	75	2.5	119	0.5	1,904	0.08	17	216,586
Eletrobras Holding	687	18	0.6	6.3	0.02	0	0	0	712
Total	**5,570,004**	**6,959**	**232**	**9,958**	**38**	**74,259**	**3**	**4,229**	**5,665,409**

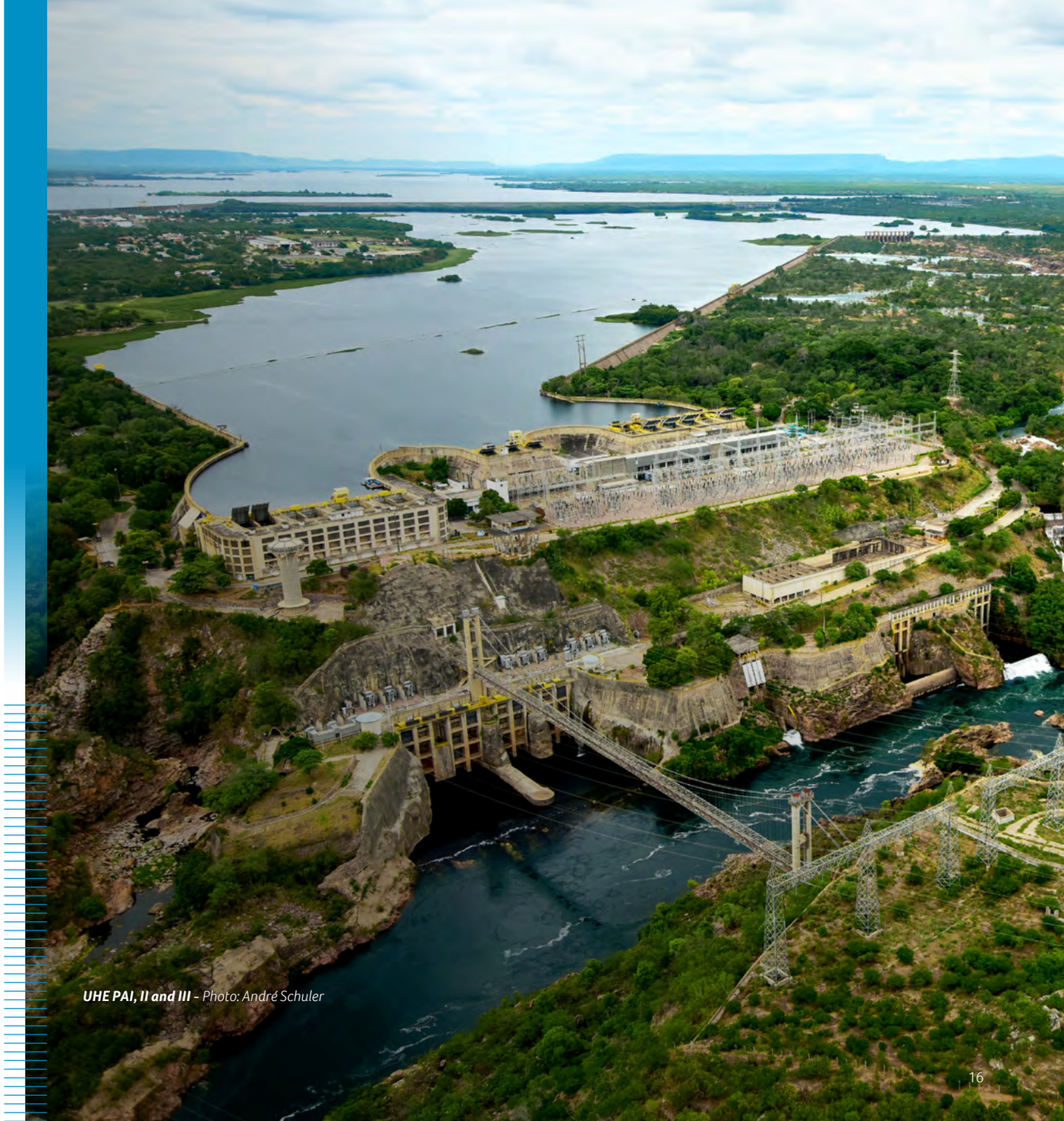
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Although CO_2 emissions from burning ethanol and biodiesel are not included in the GHG inventory, as these are deemed as renewable fuels, the methodology used in preparing the inventory recommends that emissions from these fuels are estimated. These estimations are shown in Table 5. The data show a little significant increase (1%) in CO_2 emissions from the burning of ethanol and biodiesel biofuels compared to 2022.

TABLE 5 - CO_2 EMISSIONS FROM BURNING ETHANOL (HYDROUS AND ANHYDROUS) AND BIODIESEL (B-100)

Companies	CO_2 Emissions (tCO_2e)	
	2022	2023
Eletrobras CGT Eletrosul	606	676
Eletrobras Chesf	1,053	1,094
Eletrobras Eletronorte	588	509
Eletrobras Furnas	729	727
Eletrobras Holding	6	12
Total	**2,982**	**3,017**

Table 6 provides a comparison of total emissions from 2022 to 2023.



UHE PAI, II and III *- Photo: André Schuler*



Usina Furnas

TABLE 6 - ELETROBRAS GROUP GHG EMISSIONS IN 2022 AND 2023 (tCO_2e)

Scope	2022	2023	Change 2022-2023 (tCO_2)	Change 2022-2023 (%)
Scope 1	3,958,097	3,999,341	41,244	1.04
Scope 2	313,886	289,121	-24,765	-7.89
Scope 3	1,368,077	1,376,948	8,871	0.65
Total	**5,640,060**	**5,665,409**	**25,349**	**0.45**

Considering the emissions accounted for in each scope, there was a 0.45% increase in total emissions in 2023. The increase was due to the higher dispatch of thermal power plants, particularly in the North region where there was a water shortage period in 2023.

Table 7 shows the Eletrobras Group's historical emissions over the previous five years.

TABLE 7: HISTORY OF ELETROBRAS GROUP GREENHOUSE GAS EMISSIONS (tCO_2e)

Company	2019	2020	2021	2022	2023
Eletrobras Amazonas GT*	2,178,095	3,599,737	-	-	-
Eletrobras Cepel***	1,157	526	1,363	-	-
Eletrobras CGTEE	1,744,040	-	-	-	-
Eletrobras CGT Eletrosul**	-	1,393,508	2,692,933	1,914,023	2,056,030
Eletrobras Chesf	162,360	114,012	269,337	89,304	88,809
Eletrobras Eletronorte	100,136	69,574	3,859,708	3,073,517	3,303,271
Eletrobras Eletronuclear***	12,500	6,603	6,226	-	-
Eletrobras Eletrosul	118,048	-	-	-	-
Eletrobras Furnas	1,573,562	833,185	1,449,269	562,838	216,586
Eletrobras Holding	1,004	414	552	378	712
Itaipu Binacional***	6,482	28,651	9,262	-	-
Total	**5,897,384**	**6,046,210**	**8,288,650**	**5,640,060**	**5,665,409**

** Eletrobras Amazonas Energia was merged into Eletrobras Eletronorte in 2021.*
*** Company created in 2020 by the corporate restructuring of the companies CGTEE and Eletrosul.*
**** Following our privatization in 2022, Eletronuclear, Itaipu Binacional and Cepel are no longer part of the Eletrobras Group.*

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Eletrobras Group's net electricity output in 2023 was 101,797,800 MWh, not including equity interests in Special Purpose Entities (SPEs). The output of each company is shown in Table 8.

TABLE 8 - NET ENERGY OUTPUT BY ELETROBRAS GROUP COMPANY IN 2023

Eletrobras Companies	Net energy output (MWh)
Eletrobras CGT Eletrosul	3,886,624
Eletrobras Chesf	33,220,757
Eletrobras Eletronorte	34,353,411
Eletrobras Furnas	30,337,009
Total	**101,797,800**

This inventory also reports emissions intensity values calculated for total scope 1, 2 and 3 emissions, and for scope 1 and 2 emissions not including losses, both per unit of electricity output and per unit of Net Operating Revenue. Net output and net operating revenue data for SPEs are not included in the emissions intensity calculation in this document.

TABLE 9 - GREENHOUSE GAS EMISSIONS INTENSITY FOR 2022 AND 2023

Emissions intensity (scopes 1, 2 and 3)	2022	2023
Per unit of net electricity produced (tCO_2/MWh)	0.052	0.056
Per unit of net operating revenue (tCO_2/ROL)	0.166	0.152

Emissions intensity (scope 1 and 2, ex-losses)	2022	2023
Per unit of net electricity produced (tCO_2/MWh)	0.036	0.039
Per unit of net operating revenue (tCO_2/ROL)	0.116	0.108

TABLE 10 - ELETROBRAS GROUP GHG EMISSIONS INTENSITY IN 2023

Companies	Emissions intensity (scope 1, 2 and 3)	Emissions intensity (scope 1 and 2, ex-losses)
	tCO_2/MWh	tCO_2/MWh
Eletrobras CGT Eletrosul	0.529	0.516
Eletrobras Chesf	0.003	0.0003
Eletrobras Eletronorte	0.096	0.055
Eletrobras Furnas	0.007	0.003

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CHAPTER 5

Air Pollutants (NO_x, SO_x and Particulate Matter)

UHE Gov. Jayme Canet Junior – *Photo: Disclosure*

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Eletrobras Group companies also measure the emissions of other air pollutants, including sulfur oxides (SO_x), nitrogen oxides (NO_x) and particulate matter, in power plants in operation throughout the year.

The Group's SO_x, NO_x and particulate matter emissions in 2022 and 2023 are shown in Table 11.

TABLE 11 - SULFUR AND NITROGEN OXIDE AND PARTICULATE EMISSIONS

Company	Sulfur oxides SO_x (t)		Nitrogen oxides NO_x (t)		Particulate matter PM10 (t)	
	2022	2023	2022	2023	2022	2023
Eletrobras CGT Eletrosul	9,874	11,800	2,678	3,492	442	739
Eletrobras Chesf	n.a	n.a	n.a	n.a	n.a	n.a
Eletrobras Eletronorte	0	2,651	19,352	15,873	0	0
Eletrobras Furnas	0	0	427	0	0	0
Eletrobras Holding	n.a	n.a	n.a	n.a	n.a	n.a
Total	**9,874**	**14,451**	**22,457**	**19,365**	**442**	**739**

Key: n.a. – not applicable

In 2023, NO_x emissions were reduced by 14%, while SO_x and PM emissions increased by 46% and 67%, respectively, compared to 2022 due to greater generation in thermal power plants.



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Montreal Protocol Gases

UHE Porto Colombia *- Photo: Disclosure*

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The Eletrobras Group estimates emissions of ozone-depleting substances listed in the Montreal Protocol.

Total emissions have been calculated as the sum of three sources of emissions of refrigerant gases from air conditioning equipment: leakage during installation, leakage during servicing, and leakage during disposal.

Emissions of Montreal Protocol gases are shown in Table 12.

TABLE 12 - EMISSIONS OF MONTREAL PROTOCOL OZONE-DEPLETING GASES

Company	Gases (t) 2022					Gases (t) 2023			
	R-22	R-141b	HFC-134a	R407c	R410a	R-22	R-141b	HFC-134a	HFC-152a
Eletrobras CGT Eletrosul	0.27	0	0.23	0	0.05	0.64	0	0	0
Eletrobras Chesf	1.50	0.21	0.25	0.03	1.33	1.10	0.01	0.05	0
Eletrobras Eletronorte	0	0	2.25	0	0	0.10	0	0	0.03
Eletrobras Furnas	0.17	0	0	0	0	0.24	0	0	0
Eletrobras Holding	0	0	0	0	0	0.04	0	0	0
Total	**1.94**	**0.21**	**2.72**	**0.03**	**1.38**	**2.13**	**0.01**	**0.05**	**0.03**



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Energy Consumption

UHE Xingó *- Photo: André Schuler*

In 2023, Eletrobras Group consumed 26,881,407 MWh, an 8.5% increase compared to the previous year. Fuel consumption in MWh totaled 22,226,873 MWh, of which 15,429,446 MWh correspond to direct consumption (Scope 1) and 6,797,426 MWh to indirect consumption (Scope 3).

Scope 2 electricity consumption amounted to 4,654,534 MWh. Out of this total, 4,394,091 MWh correspond to self-consumption of energy from generation. Table 13 presents the energy consumption data for 2022 and 2023.

TABLE 13: ENERGY CONSUMPTION BY TYPE AND SCOPE

Energy consumption (MWh)	2022			2023		
	Scope 1	Scope 2	Scope 3	Scope 1	Scope 2	Scope 3
Consumption of renewable fuels	10,544	-	1,223	10,498	-	1,357
Consumption of fossil fuels	15,678,916	-	6,752,813	15,418,948	-	6,796,069
Consumption of renewable electricity - purchased	-	176,283	-	-	231,604	-
Consumption of non-renewable electricity - purchased	-	24,821	-	-	28,839	-
Consumption of renewable electricity - Self-consumption from generation	-	1,841,573	-	-	4,097,108	-
Consumption of non-renewable electricity - Self-consumption from generation	-	294,489	-	-	296,983	-
Total	**24,780,661**			**26,881,407**		

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Renewable Energy Certificates

Eólica Casa Nova – *Photo: Túlio Trajano*

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Renewable Energy Certificates (RECs) are certificates of proof that a certain amount of electricity has been produced from a renewable source. Each REC is proof that 1 MWh of renewable electricity has been generated and injected into the grid. The REC market was first introduced in Brazil in 2011, and has since grown exponentially, especially following the launch of the I-REC Service — a global electricity environmental attribute tracking system — and the changes introduced in the Brazilian GHG Protocol Program, which now accepts RECs as GHG offsets.

Identifying the business opportunity associated with the assignment of this right to use the environmental attribute of electricity, the companies Eletrobras Chesf, Eletrobras CGT Eletrosul, Eletrobras Eletronorte, and Eletrobras Furnas certified power plants with Instituto Totum, and thus were able to start trading I-REC standard certificates from 2020.

In June 2021, Eletrobras Furnas launched a proprietary Platform for issuing RECFY Certificates, assured by independent auditors, in order to diversify its portfolio of decarbonization solutions. It is worth noting that the company has retained its certification under the I-REC Standard but has included other non-I-REC-certified plants on its proprietary platform.

Currently, Eletrobras Chesf has registered 98.7% of the installed capacity of its generating park for the issuance of I-RECs. Eletrobras Eletronorte has registered the Tucuruí Hydroelectric Power Plant, Eletrobras CGT Eletrosul has registered Wind Farms Cerro Chato I, II and III, and Eletrobras Furnas has registered the Serra da Mesa and Itumbiara Hydroelectric Power Plants and the Fortim Wind Complex. In addition, Eletrobras Furnas has qualified the Mascarenhas de Moraes and Simplício/Anta Hydroelectric Power Plants for the issuance of RECFY.



Eólica Cerro Chato *- Photo: Disclosure*

Scope 2 Emissions Offsets

Renewable energy certificates have become an important tool for managing scope 2 emissions.

As presented in Table 14, Eletrobras Group companies have been offsetting their emissions related to energy consumption and transmission losses since 2021 using I-RECs and RECFYs from their operations.

TABLE 14: HISTORY OF SCOPE 2 EMISSIONS OFFSET – ENERGY CONSUMPTION AND TRANSMISSION LOSSES

Energy consumption (MWh)	2021 (%)		2022 (%)		2023 (%)	
	Energy consumption	Losses	Energy consumption	Losses	Energy consumption	Losses
Eletrobras CGT Eletrosul	0	0	100	0	100	0
Eletrobras Chesf	100	100	100	100	100	40
Eletrobras Eletronorte	0	0	100	100	100	40
Eletrobras Furnas	100	8	100	20	100	75
Eletrobras Holding	100	-	100	-	100	-
Total	**31%**		**47%**		**48.6%**	

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Estimated GHG Emissions and Removals as a Result of Activities Causing Land-Use Change

UHE Sobradinho - *Photo: Carlos Sousa*

To determine net greenhouse gas emissions after accounting for emissions offsets, we estimated emissions and removals as a result of Eletrobras Group activities causing land-use change.

Planting and vegetation suppression data used in the calculations of emissions and removals were obtained from the environmental module of the IGS System.

CO_2 Emissions

CO_2 emissions from activities causing land-use change at Eletrobras Group are those caused by clearing vegetation. To this end, the data collected from Clearing Permits obtained by some Group companies during 2023 were used as evidence. The information on the suppressed vegetation includes its area and its characterization in terms of phytophysiognomy. The amount of carbon emissions is calculated based on the "total carbon stock" values reported in the Third National Communication (MCTI, 2016).

CO_2 Removals

CO_2 removals from activities causing land-use change are those as a result of planting seedlings within the scope of various programs developed by companies, such as disturbed land rehabilitation programs and the development of riparian buffers around hydroelectric reservoirs. Data on planted area, the types of trees planted and regional climate were used in the calculations. Finally, an average carbon stock value to be reached over a 20-year time horizon and a linear growth rate for vegetation were assumed.

The results are shown in Table 15.

TABLE 15 – CO_2 EMISSIONS X REMOVALS IN 2023

Company	Emission (tCO_2e)	Removal (tCO_2e)	Net Emissions (tCO_2e)	Net Result
Eletrobras CGT Eletrosul	293	560	-267	Removal
Eletrobras Chesf	325	36,163	-35,839	Removal
Eletrobras Eletronorte	0	35,521	-35,521	Removal
Eletrobras Furnas	35,421	37,099	-1,678	Removal
Total	**36,039**	**109,343**	**-73,304**	**REMOVAL**

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UHE Tucuruí *- Photo: Disclosure*

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This document consolidates the report for society on greenhouse gas emissions and removals in the generation and transmission activities of Eletrobras Group in 2023, as well as the historical evolution of this data. The performance of Eletrobras Group in relation to the climate change issue is monitored through indicators, goals, and projects, which are presented in the Annual Report.

Reinforcing our commitment to a continuous process of monitoring and reducing our emissions and establishing management strategies that contribute to combating climate change, we made a commitment in 2023 to have science-based targets and be Net Zero by 2030.

Our decarbonization plan is based on the divestment in thermal generation assets, the expansion of its portfolio in renewable generation, the reduction of scope 2 emissions with renewable energy certificates from our operations and the offsetting of its residual emissions with carbon credits from reforestation actions, which also contributes to our strategy of expanding biodiversity conservation actions.



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UHE Furnas – *Photo: Disclosure*

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UHE Luís Carlos Barreto de Carvalho - *Photo: Tereza Travassos*

12.1. Independent Auditors' Assurance Report

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(A free translation of the original in Portuguese)

Independent auditor's limited assurance report on the data in the Greenhouse Gas (GHG) emissions inventory- 2023

To the Board of Directors and Stockholders
Centrais Elétricas Brasileiras S.A.
Rio de Janeiro - RJ

Introduction

We have been engaged by Centrais Elétricas Brasileiras S.A. ("Eletrobras" or "Company") to present our limited assurance report on the data in the 2023 Greenhouse Gas Emissions Inventory of the Eletrobras Companies ("2023 GHG Emissions Inventory") for the year ended December 31, 2023. This report includes, among other information, the procedures used for determining significant quantifications, the criteria and the methodology for the preparation of the 2023 GHG Emissions Inventory and the organizational and operational parameters of the Company's activities.

Management's Responsibility

The Company's management is responsible for the preparation and fair presentation of the data in the 2023 GHG Emissions Inventory, in accordance with the criteria defined in paragraph 3 and parameters defined in paragraph 4 herein and for such internal control as it determines is necessary to enable the preparation of information free from material misstatement, whether due to fraud or error.

The criteria for assessment of the data in the 2023 GHG Emissions Inventory covering the Company's activities with respect to the measurement, obtaining, compilation, calculations and estimates and the reporting of the data of emissions for 2023, were based on the following documents:

a. FGV-GVCes/WRI: Brazilian GHG Protocol Program Specifications: Accounting, Quantification and Reporting of Corporate Greenhouse Gas Emission Inventories. 2nd edition and related technical notes.

b. ABNT NBR ISO 14064-1/2022: Part 1 - "Specification and guidance to organizations for the quantification and preparation of reports on emissions and removals of greenhouse gases".

In accordance with the criterion of FGV-GVCes/WRI, mentioned in paragraph 3, the organizational boundary of the 2023 GHG Emissions Inventory was defined based on the operational control approach. The operational parameters include the sources of Scope 1 and 2 emissions, according to the Brazilian GHG Protocol Program, as well as the following emission categories of Scope 3: Category 3: Fuel-and-energy-related activities (not included in Scope 1 our Scope 2); Category 4: Upstream transportation and distribution; Category 5: Waste & Effluent Treatment; Category 6: Business travel; Category 7: Employee Commuting.

Our independence and quality control

We comply with the independence and other ethical requirements of the Federal Accounting Council (CFC) in NBCs PG 100 and 200 and NBC PA 291, which are based on the principles of integrity, objectivity and professional competence, and which also consider the confidentiality and behavior of professionals.

We apply the Brazilian and international quality control standards established in NBC PA 01, issued by the CFC, and thus maintain an appropriate quality control system that includes policies and procedures related to compliance with ethical requirements, professional standards, legal requirements and regulatory requirements.

Independent auditor's responsibility

Our responsibility is to express a conclusion on the data in the Company's 2023 GHG Emissions Inventory, based on our limited assurance engagement carried out in accordance with Technical Communication CTO 01, "Issuance of an Assurance Report related to Sustainability and Social Responsibility", issued by the Federal Accounting Council (CFC), based on the Brazilian standards NBC TO 3000 - "Trabalhos de Asseguração Diferente de Auditoria e Revisão" e NBC TO 3410 - "Trabalhos de Asseguração para Declarações de Emissões de Gases de Efeito Estufa (GEE) e de Mudanças Climáticas, both issued by the CFC, which are equivalent to the international standards ISAE 3000, "Assurance engagements other than audits or reviews of historical financial information" and ISAE 3410 - *Assurance Engagements on Greenhouse Gas Statements,* issued by the International Auditing and Assurance Standards Board (IAASB). Those standards require that we comply with ethical and independence requirements, and other responsibilities, including in relation to the Brazilian Standard on Quality Control (NBC PA 01) and, therefore, the maintenance of a comprehensive quality control system, including documented policies and procedures for ethical requirements, professional standards and legal and regulatory requirements.

These standards also require the work be planned and performed to obtain limited assurance that the data in the 2023 GHG Emissions Inventory, taken as a whole, are free from material misstatements, in accordance with the criteria defined in paragraph 3 and parameters defined in paragraph 4 above.

A limited assurance engagement conducted in accordance with the Brazilian standard NBC TO 3000 and ISAE 3000 consists mainly of making inquiries of management and other professionals of the entity involved in the preparation of the information, as well as applying analytical procedures to obtain evidence that enables us to issue a limited assurance conclusion on the information taken as a whole. A limited assurance engagement also requires the performance of additional procedures when the independent auditor becomes aware of matters that lead the auditor to believe that the information taken as a whole might present significant misstatements.

The procedures selected are based on our understanding of the aspects related to the compilation and presentation of the data in the 2023 GHG Emissions Inventory, other engagement characteristics and an analysis of the areas in which significant misstatements might exist. The following procedures were adopted:

a. Planning the work, taking into consideration the criteria defined in paragraph 3 and parameters defined in paragraph 4 above, the materiality and the volume of quantitative and qualitative information and the operating and internal control systems that were used to prepare the data in the Company's 2023 GHG Emissions Inventory.

b. Understanding the calculation methodology and the procedures adopted for obtaining and compiling greenhouse gas emissions through interviews with the managers responsible for the preparation of the information of Eletrobras - Centrais Elétricas Brasileiras S.A., as well as the managers responsible for the preparation of the information of the following subsidiaries, whose sources of emission are considered significant in relation to the Company's total consolidated emissions: Furnas Centrais Elétricas - Eletrobras Furnas; Companhia de Geração e Transmissão de Energia Elétrica do Sul do Brasil - Eletrobras CGT Eletrosul; and Centrais Elétricas do Norte do Brasil. – Eletrobras Eletronorte".

c. Holding interviews *in loco* and via videoconferences with Eletrobras' employees who are responsible for the management of primary data which based the calculation of GHG Emissions to have an

understanding of the information management process and gather evidence.

d. Applying analytical procedures and selective testing, as applicable, to quantitative information and making inquiries regarding the qualitative information and its correlation with the data in the 2023 GHG Emissions Inventory.

Our procedures did not include assessing the adequacy of the design or operating effectiveness of the controls, testing the data on which the estimates are based or separately developing our own estimate to compare with Eletrobras' estimate.

We believe that the evidence we obtained is sufficient and appropriate to provide a basis for our limited assurance conclusion.

Scope and limitations

The procedures applied in a limited assurance engagement are substantially less detailed than those applied in a reasonable assurance engagement, the objective of which is the issuance of an opinion on the data in the 2023 GHG Emissions Inventory. Consequently, we were not able to obtain reasonable assurance that we might become aware of all significant matters that might be identified in an assurance engagement, the objective of which is the issue of an opinion. Had we performed an engagement with the objective of issuing an opinion, we might have identified other matters and possible misstatements in the data in the 2023 GHG Emissions Inventory. Therefore, we do not express an opinion on this information.

Non-financial data is subject to more inherent limitations than financial data, due to the nature and diversity of the methods used to determine, calculate and estimate this data. Qualitative interpretations of the relevance, materiality, and accuracy of the data are subject to individual assumptions and judgments. Furthermore, we did not carry out any work on data reported for prior periods, nor future projections and goals.

The information and data with respect to the actions and activities regarding sustainability, general information and views related to climate change, the description of the managing activities related to the process for preparation of the 2023 GHG Emissions Inventory, and the description of operational activities, which are not a basis for the 2023 GHG Emissions Inventory, are not part of the scope of our work and, therefore, are not covered by our limited assurance report.

The absence of a significant set of established practices on which to base the evaluation and measurement of non-financial information allows for different but acceptable evaluation and measurement techniques, which can affect comparability between entities and over time.

Conclusion

Based on the procedures performed, described herein, no matter has come to our attention that causes us to believe that the data in the 2023 Greenhouse Gas Emissions Inventory of the Centrais Elétricas Brasileiras S.A. for the year ended December 31, 2023 is not presented, in all material respects, in accordance with the criteria described in paragraph 3 and the parameters defined in paragraph 4 above.

São Paulo, 20 de junho de 2023

PricewaterhouseCoopers
Auditores Independentes Ltda.
CRC 2SP000160/O-5

Eliane Kihara
Contadora CRC 1SP212496/O-5

12.2. Renewable Energy Certificates

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THE INTERNATIONAL REC STANDARD

This Redemption Statement has been produced for

COMPANHIA DE GERAÇÃO E TRANSMISSÃO DE ENERGIA ELÉTRICA DO SUL DO BRASIL

by

I-REC SERVICES

confirming the Redemption of

9 388.000000

I-REC Certificates, representing 9 388.000000 MWh of electricity generated from renewable sources

This Statement relates to electricity consumption located at or in

Rua Deputado Antônio Edu Vieira, 999 - Pantanal - Florianópolis - SC, 88040-901 Brazil

in respect of the reporting period

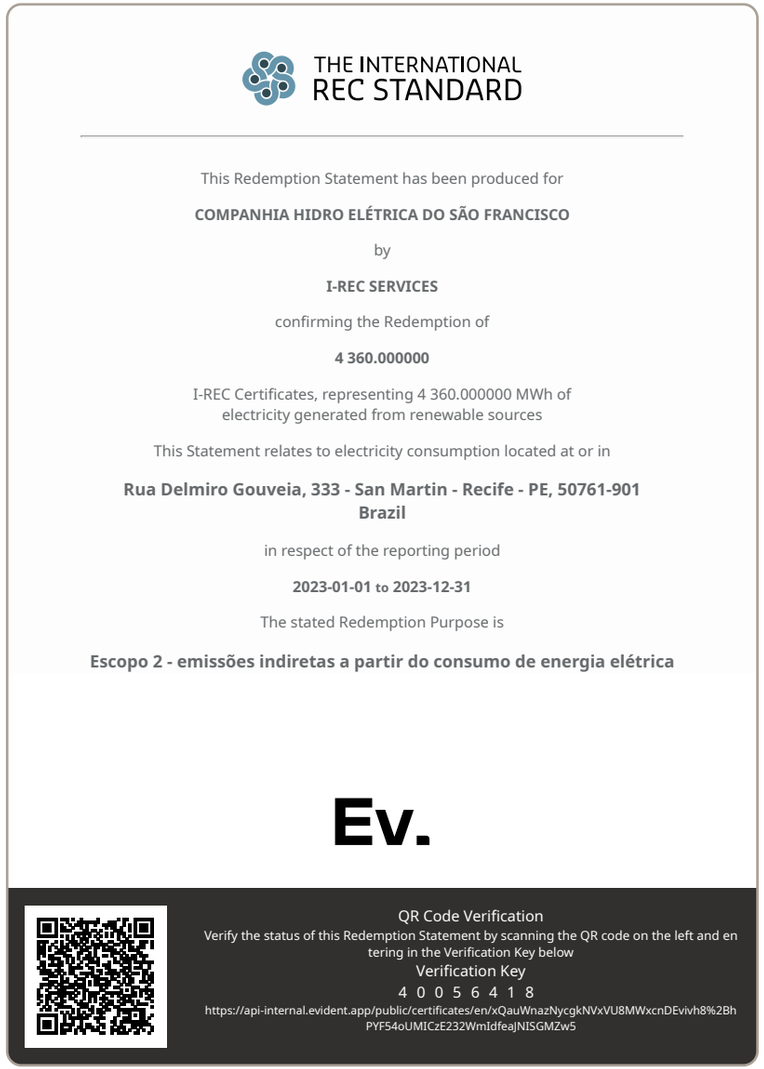
2023-01-01 to 2023-12-31

The stated Redemption Purpose is

Escopo 2 - emissões indiretas a partir do consumo de energia elétrica

Ev.

QR Code Verification
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Verification Key
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https://api-internal.evident.app/public/certificates/en/2CSugcHbWsY7rDAACxMcUohYbpicADG9vm3%2Fkv46xc9QJdLqLBDMUT9BMwvBEGnr



THE INTERNATIONAL REC STANDARD

This Redemption Statement has been produced for

COMPANHIA HIDRO ELÉTRICA DO SÃO FRANCISCO

by

I-REC SERVICES

confirming the Redemption of

4 360.000000

I-REC Certificates, representing 4 360.000000 MWh of electricity generated from renewable sources

This Statement relates to electricity consumption located at or in

Rua Delmiro Gouveia, 333 - San Martin - Recife - PE, 50761-901 Brazil

in respect of the reporting period

2023-01-01 to 2023-12-31

The stated Redemption Purpose is

Escopo 2 - emissões indiretas a partir do consumo de energia elétrica

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THE INTERNATIONAL REC STANDARD

This Redemption Statement has been produced for

COMPANHIA HIDRO ELÉTRICA DO SÃO FRANCISCO

by

I-REC SERVICES

confirming the Redemption of

786 958.000000

I-REC Certificates, representing 786 958.000000 MWh of electricity generated from renewable sources

This Statement relates to electricity consumption located at or in

Rua Delmiro Gouveia, 333 - San Martin - Recife - PE, 50761-901 Brazil

in respect of the reporting period

2023-01-01 to 2023-12-31

The stated Redemption Purpose is

Escopo 2 - Perdas de Energia no Sistema de Transmissão.

Ev.

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Verification Key

4 4 5 0 0 7 6 5

https://api-internal.evident.app/public/certificates/en/33R764alr8XiCufC10yQgYAbWASIIXNUTjmSyhem73y6cDeeZmDkvzJ8l8vzYo05

THE INTERNATIONAL REC STANDARD

This Redemption Statement has been produced for

CENTRAIS ELÉTRICAS DO NORTE DO BRASIL S.A – ELETROBRAS ELETRONORTE

by

I-REC SERVICES

confirming the Redemption of

89 898.000000

I-REC Certificates, representing 89 898.000000 MWh of electricity generated from renewable sources

This Statement relates to electricity consumption located at or in

Ed. Portinari - SEPN 504 - Asa Norte, Brasília - DF, 70730-521 Brasil Brazil

in respect of the reporting period

2023-01-01 to 2023-12-31

The stated Redemption Purpose is

Escopo 2 - emissões indiretas a partir do consumo de energia elétrica

Ev.

QR Code Verification

Verify the status of this Redemption Statement by scanning the QR code on the left and entering in the Verification Key below

Verification Key

4 2 8 9 4 3 4 1

https://api-internal.evident.app/public/certificates/en/2BS6AiWftMcdviWeg4Vb2V03RfmcPvbYoWo3Kmv2NDhACaw%2BOtDLzeaEd1DzotvW

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THE INTERNATIONAL REC STANDARD

This Redemption Statement has been produced for

CENTRAIS ELÉTRICAS DO NORTE DO BRASIL S.A – ELETROBRAS ELETRONORTE

by

I-REC SERVICES

confirming the Redemption of

415 105.000000

I-REC Certificates, representing 415 105.000000 MWh of electricity generated from renewable sources

This Statement relates to electricity consumption located at or in

Ed. Portinari - SEPN 504 - Asa Norte, Brasília - DF, 70730-521 Brasil Brazil

in respect of the reporting period

2023-01-01 to 2023-12-31

The stated Redemption Purpose is

Escopo 2 - Perdas de Energia no Sistema de Transmissão.

Ev.

QR Code Verification
Verify the status of this Redemption Statement by scanning the QR code on the left and entering in the Verification Key below
Verification Key
2 9 4 2 5 4 7 7
https://api-internal.evident.app/public/certificates/en/PkUAAN8fX%2Fg4MXuHdtKOxpqk4T1%2BfZyPvSYprhLYrCJMNlv0H6w0cFCO4KccHOLF

RECFY

RENEWABLE ENERGY CERTIFICATE

Eletrobras Furnas

Certificado de Energia Renovável do gerador Furnas Centrais Elétricas S.A.. Esta declaração de aposentadoria foi produzida em nome do beneficiário para compensação de suas emissões de gases de efeito estufa (escopo 2, emissões indiretas pelo consumo de energia elétrica).

RESUMO DO CERTIFICADO

DATA	29/05/2024	TOTAL SOLAR	0	EMISSOR	FURNAS CENTRAIS ELÉTRICAS S/A
TOTAL HÍDRICA	844.002	TOTAL EÓLICA	0	BENEFICIÁRIO	FURNAS CENTRAIS ELÉTRICAS S. A.

DETALHES DO CONSUMO DE ENERGIA ELÉTRICA

ENDEREÇO DA UNIDADE CONSUMIDORA	AV. GRAÇA ARANHA, 26 - CENTRO - RIO DE JANEIRO - RJ - 20030-000
PERÍODO DO CONSUMO	JAN-2023 - DEZ-2023

DETALHES DO EMPREENDIMENTO

CÓDIGO	EMPREENDIMENTO	PAÍS	LOCAL	FONTE	OPERAÇÃO
UHE.PH.MG.002038	UHE Marechal Mascarenhas de Moraes	BRASIL	-20.2861629,-47.0645365,15z	HIDROELÉTRICA	01/04/1957

DETALHES DO CERTIFICADO

ID CRIAÇÃO	ID EMISSÃO	QTD MWh	DATA ID	GERAÇÃO
43202e9e-7ba4-4dd4-936a-d345f983b204	c4030eb52d019f7177c2d59b5b1b287cbf5b869dcd2b18f56101cc8bc5885deb	44.987	2024-05-29	MAR-2023
8610d5d1-9e74-4626-9ac2-8bdc21ff055e	cbc1b6577c969619f5f726f274f2b1ef149bf143d5fe001c460f259a52b59c2b	200.211	2024-05-29	ABR-2023
5f4aa778-cc5e-4868-bb96-08832f6236cd	48e72bbb9ee406e78329e75607d6fa7140e5fa8b8a8564e71cd1f06e030ab1a2	185.714	2024-05-29	MAI-2023
a354c3cd-b231-4369-9f1c-785fd71bdf6d	cbada3c6cb04f0c8a509feac7ae6692ef924dae32b5fa483c8787b30080bdf30	174.100	2024-05-29	JUN-2023
c2a1643d-e870-4989-ac95-af155cfb3928	b8a2c963f1539c430a2ca5289d9ae2305198bd68e0d45cd709c3d283bde1d8a8	161.912	2024-05-29	JUL-2023
b73f6a71-8961-48b4-af55-1f528344077d	8e0732e166e733183670d2fb732709a62c33e58d4db0a638ad14daf21ae11a28	77.078	2024-05-29	AGO-2023

O que é um REC? É um certificado de rastreabilidade da energia elétrica utilizado para comprovação dos atributos renováveis da energia consumida. Desta forma, empresas podem neutralizar suas emissões de gases de efeito estufa do escopo 2 adquirindo o equivalente em RECs do seu consumo de energia elétrica (1Mwh = 1 REC).

A Plataforma RECFY foi validada por auditores externos segundo os preceitos do Programa GHG Protocol e da NBR ISO 14.064-2:2007

* Certificado Garantido por Tecnologia Blockchain desenvolvido por Furnas. powered by crda

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RENEWABLE ENERGY CERTIFICATE

RECFY — Eletrobras Furnas

Certificado de Energia Renovável do gerador Furnas Centrais Elétricas S.A.. Esta declaração de aposentadoria foi produzida em nome do beneficiário para compensação de suas emissões de gases de efeito estufa (escopo 2, emissões indiretas pelo consumo de energia elétrica).

RESUMO DO CERTIFICADO

DATA	29/05/2024	TOTAL SOLAR	0	EMISSOR	FURNAS CENTRAIS ELÉTRICAS S/A
TOTAL HÍDRICA	1.512.747	TOTAL EÓLICA	0	BENEFICIÁRIO	FURNAS CENTRAIS ELÉTRICAS S. A.

DETALHES DO CONSUMO DE ENERGIA ELÉTRICA

ENDEREÇO DA UNIDADE CONSUMIDORA	AV. GRAÇA ARANHA, 26 - CENTRO - RIO DE JANEIRO - RJ - 20030-000
PERÍODO DO CONSUMO	JAN-2023 - DEZ-2023

DETALHES DO EMPREENDIMENTO

CÓDIGO	EMPREENDIMENTO	PAÍS	LOCAL	FONTE	OPERAÇÃO
UHE.OH.MG.029458	Usina Hidrelétrica de Simplício	BRASIL	21°55'16.23"S, 42°47'24.75"O	HIDROELÉTRICA	05/06/2013

DETALHES DO CERTIFICADO

ID CRIAÇÃO	ID EMISSÃO	QTD MWh	DATA ID	GERAÇÃO
f8c41b83-6832-4346-bbc6-346df21c1da8	63b4d53ce350206fab7a4b52eca19264971e62a6af8254b7e628c78906e3a38d	6.216	2024-05-28	JAN-2023
f8c41b83-6832-4346-bbc6-346df21c1da8	fc48414fd9465dc532c1f469274ac6ddc367a73b2f2716c2739f6d3b94eb152c	220.270	2024-05-28	JAN-2023
eb988763-4681-444d-b372-b810a23037c2	de8aec543b5e0d7023988fc0d2b99fcf2c687bc62e41f2e097b915d838e8026	203.812	2024-05-28	FEV-2023
9fa883a8-5e06-4cc5-90e5-d9a98f0b9807	15610ccf999ca3932ece6973a1d80861f8bb3b3eb7b67aa2282eae38461ceb4d1	190.021	2024-05-28	MAR-2023
44f37a68-84c0-43cb-8669-f09738c34c80	f510d37f54933ed85e3283b577977ea8caa04136392e6d2b5fe8a5fbf45751c	181.056	2024-05-28	ABR-2023
150efb8d-47f2-4e53-b170-d73fe032f384	c679f2cfe7e39b19e57e89df0dca7ce867ee7022288533d07a381766bec4ccdb	117.093	2024-05-28	MAI-2023
23d52be4-704d-4881-a58d-3f367d271e86	194abca348d88e9ddecc4878753e828096c387b83fa2ca9311255084abcd7b86	94.060	2024-05-28	JUN-2023
fc41a96d-32e5-4964-831f-7312b72413e4	4918e971c40abce865a4ab6dc5e4c2b493ca42f3186c9914a7b4a2a01364bfba	79.523	2024-05-28	JUL-2023
4befee71-b211-47c7-8451-dc54fefc99e8	ec57bfb0835ea0e6d33af4e2be7a84c11f90d4d15637c728473873 3d0b7435f	69.807	2024-05-28	AGO-2023
3758a589-2b83-4f6e-9c69-52e53cc5826b	57bad3999a5712b1e14be0cc0135782f26588a4fd49842d85f2ef0296eab2f69b	59.211	2024-05-28	SET-2023
3758a589-2b83-4f6e-9c69-52e53cc5826b	60210e918d051aa3c478134d6fa666e835052807d860ca90d810e3a573d46f85	2	2024-05-29	SET-2023
ed56b625-bba8-49b1-b309-5560480e35bf	f9e08d027da51a074b25cbede02bc0cc47ffe1f643bbeb4cfe7838e99a6b3f1d	105.626	2024-05-28	OUT-2023
999fae05-b7af-49d0-94c3-36b056b41261	2a01510c565876b7a9a0d36d9e6c860685b98f2ff4462654b1ffb30dae89b271	90.550	2024-05-28	NOV-2023
3447751e-271b-4345-b3b6-0658c4a31156	7d2727fe3684c23b48e4f980eaf7927039836e41f8a27757fed39f363006267b	95.500	2024-05-29	DEZ-2023

O que é um REC? É um certificado de rastreabilidade da energia elétrica utilizado para comprovação dos atributos renováveis da energia consumida. Desta forma, empresas podem neutralizar suas emissões de gases de efeito estufa do escopo 2 adquirindo o equivalente em RECs do seu consumo de energia elétrica (1Mwh = 1 REC).

A Plataforma RECFY foi validada por auditores externos segundo os preceitos do Programa GHG Protocol e da NBR ISO 14.064-2:2007

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RENEWABLE ENERGY CERTIFICATE

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RESUMO DO CERTIFICADO

DATA	29/05/2024	TOTAL SOLAR	0	EMISSOR	FURNAS CENTRAIS ELÉTRICAS S/A
TOTAL HÍDRICA	3.094	TOTAL EÓLICA	0	BENEFICIÁRIO	CENTRAIS ELÉTRICAS BRASILEIRAS S.A.

DETALHES DO CONSUMO DE ENERGIA ELÉTRICA

ENDEREÇO DA UNIDADE CONSUMIDORA	RUA DA QUITANDA, N.º 196, CENTRO, NA CIDADE E ESTADO DO RIO DE JANEIRO, CEP: 20091-005
PERÍODO DO CONSUMO	JAN-2023 - DEZ-2023

DETALHES DO EMPREENDIMENTO

CÓDIGO	EMPREENDIMENTO	PAÍS	LOCAL	FONTE	OPERAÇÃO
UHE.PH.MG.002038	UHE Marechal Mascarenhas de Moraes	BRASIL	-20.2861629,-47.0645365,15z	HIDROELÉTRICA	01/04/1957

DETALHES DO CERTIFICADO

ID CRIAÇÃO	ID EMISSÃO	QTD MWh	DATA ID	GERAÇÃO
f47266de-cd09-46b0-acd4-e5ab3b96056b	db6c159e2cb00c002ecc1215ec29b8261273be356dd3f8a1cd9f02f395ca9c1c	3.094	2024-05-29	OUT-2023

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CLIMATE STRATEGY AND BIODIVERSITY MANAGEMENT

DATA COMPILATION AND PROCESSING

Alexandre Mollica Medeiros – Eletrobras Cepel

ELABORATION

Moara Silva Morasche – Eletrobras

Graphic Design and Layout

Ricca Sustentabilidade


Eletrobras