



Greenhouse Gas (GHG) Inventory

Statkraft Brasil | 2024



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Summary

This report is divided into two parts:

Background and relevance.

GHG inventory for the year 2024.

This 2024 GHG Inventory Report begins with a brief overview of the challenges posed by climate change, followed by an examination of the global energy sector. It then describes the current state of the electricity sector in Brazil and provides an overview of Statkraft’s operations in the country.

The second part of this report presents the results of Statkraft’s Greenhouse Gas Inventory for 2024, prepared in line with the normative guidelines of the GHG Protocol methodology. Next, these results are evaluated in the context of the company’s historical data and emission trends, with a brief analysis of emissions from previous years. Finally, in addressing decarbonization, the report highlights the important role Statkraft plays in meeting the global climate challenge, demonstrating the positive impact of the company’s activities on climate change.

Scopes 1, 2 and 3 accounted for 49.63%, 0.13% and 50.25% of total greenhouse gas (GHG) emissions, respectively. Specifically for Scope 1, 99.48% of emissions were in the land use change category due to the construction of solar assets in 2024. For Scope 2, the highest GHG emissions came from Polo Suíça Complex (38.57% of emissions in this Scope) and the Ventos de Santa Eugênia Wind Complex (16.81% of emissions in this Scope). Regarding Scope 3, the most significant emissions were in the Capital Goods category (70.17% of emissions in this Scope) and Upstream Transportation and Distribution (11.94% of emissions in this Scope), also influenced by the construction of new assets in 2024.



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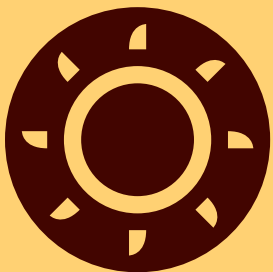
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Climate change

Climate change refers to long-term shifts in the Earth’s climate and temperature. Although these changes can occur naturally, since the 19th century, human activities — especially the burning of coal, oil, and gas — have been the primary cause. These fossil fuels release greenhouse gases such as carbon dioxide and methane, which accumulate in the atmosphere and trap heat, warming the planet. In addition to fossil fuel combustion, deforestation and waste disposal in landfills also contribute significantly to emissions. The sectors with the highest emissions are energy, transportation, industry, agriculture, buildings, and land use (UN Brazil, 2024).

According to the Sixth Assessment Report (AR6), published in 2023 by the Intergovernmental Panel on Climate Change (IPCC), global warming has been driven by human activities, primarily greenhouse gas emissions. Between 2011 and 2020, the Earth’s average surface temperature was 1.1 °C higher than during the pre-industrial period (1850–1900). Emissions continue to rise, fueled by unsustainable patterns of consumption, production, and energy and land use (IPCC, 2023).



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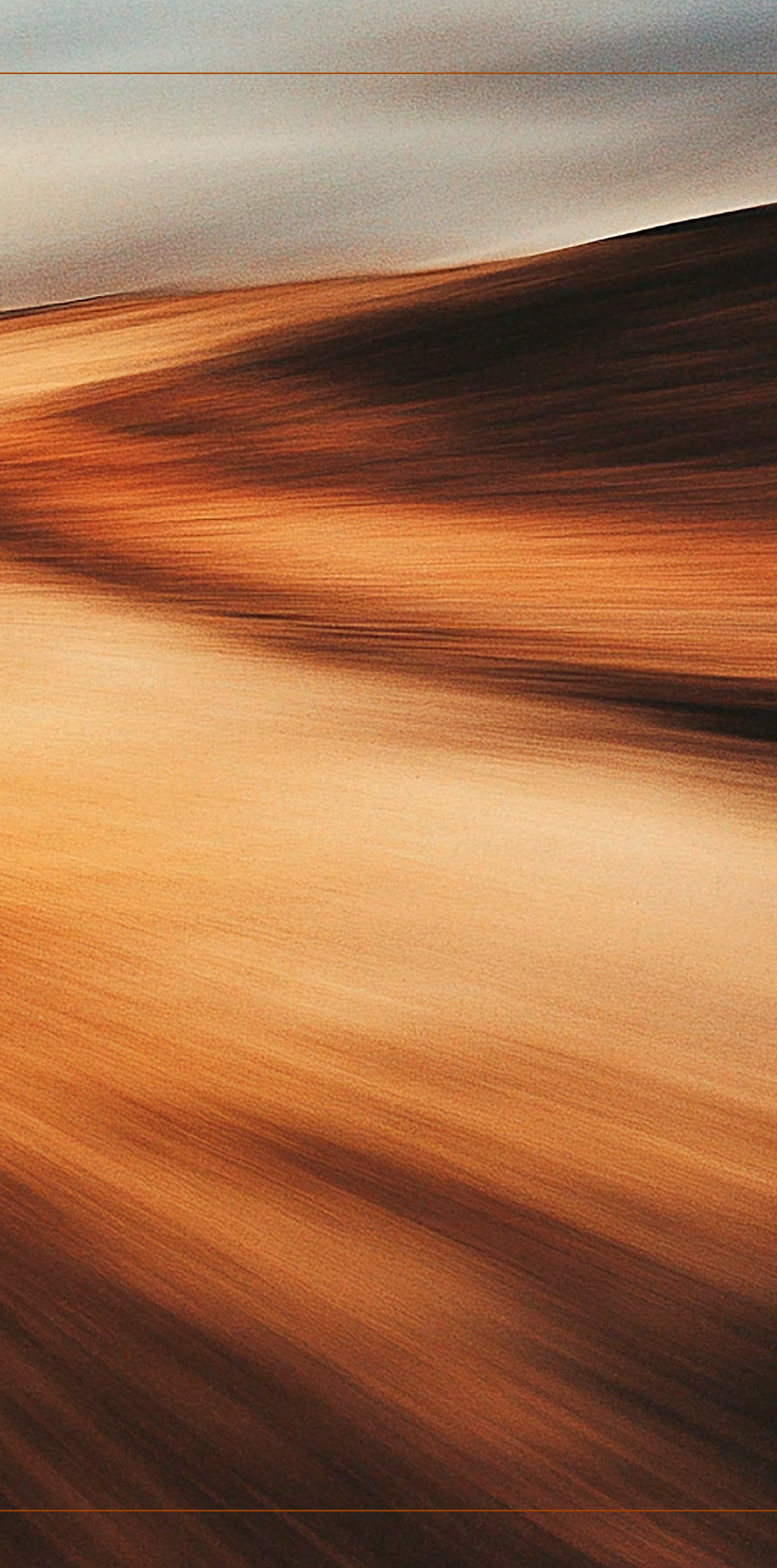
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Rapid and far-reaching changes across all sectors are therefore essential to drastically reduce emissions and secure a sustainable future. These transformations require expanding the use of various mitigation and adaptation solutions. Many of these solutions already exist, are effective and cost-efficient, and can be tailored to the context of each region or sector (IPCC, 2023).

In the energy sector specifically, achieving net-zero CO₂ energy systems demands a sharp reduction in fossil fuel use, deployment of carbon capture and storage technologies, and expansion of clean energy sources. This includes greater electrification, the adoption of alternative energy sources where electrification is challenging, improved energy efficiency, and better integration of energy systems. Renewable sources such as solar and wind power offer significant potential for emission reductions (IPCC, 2023).

Diversifying the energy mix — by adding wind, solar, and small hydropower — and managing demand through storage and efficiency both strengthen the energy system’s reliability in the context of climate change . Additionally, measures such as smart grids, updated design standards, and improved responses to supply disruptions are highly viable in the medium and long term, delivering benefits for both climate adaptation and mitigation (IPCC, 2023).



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Electricity around the world

Electricity is very important for our comfort and survival and is part of the history of humanity, which over the years has improved ways of using it and transforming it to its advantage. However, in these energy transformations, we almost always cause environmental impacts, harming the environment and/or people (EPE, 2025).

The electricity mix consists of the sources available for generating electricity in any given region. The global electricity mix is still mainly based on fossil fuel generation, such as coal and natural gas (EPE, 2025). The proportional distribution of energy sources worldwide is: 35.8% mineral coal, 22.3% natural gas, 15.3% hydro, 7.3% wind, 4.4% solar photovoltaic, and 14.85% other sources (EPE, 2025).

In general, non-renewable sources, such as coal, account for around 70% of the world's electricity generation sources, while renewable sources account for around 30% (EPE, 2025).

As we have seen, given the need to transition to a more sustainable energy matrix in response to global climate challenges, the development of renewable energy sources is gaining momentum in achieving this goal.

Global renewable energy generation capacity has increased by 111.32% since 2014, reaching 3,865 GW. This growth in generation has been accompanied by a reduction in the cost per kWh generated (IRENA, 2025).

Last year, renewable energy accounted for 90% of the world's total energy expansion . Solar photovoltaics increased by 451.9 GW to reach 1,865 GW of installed capacity, hydropower (excluding pumped storage hydropower) reached 1,283 GW, and wind power reached a capacity of 1,133 GW. The growth of renewable sources is expected to continue. It is estimated that 11 TW of installed capacity will be reached by 2030 (IRENA, 2025).



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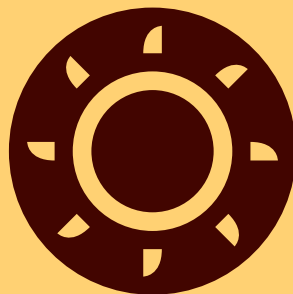
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The outlook at the end of 2024 showed that 42% of renewable energy generation was solar, followed by 29% hydro and 25% wind. South America reached a renewable generation capacity of 313 GW, representing 7% of global capacity and a growth of 7.8% over the past year (IRENA, 2025).

Meeting the climate challenge involves more than transforming the energy mix. Managing demand — such as through storage — also increases the system’s reliability in the face of climate change (IPCC, 2023). Reliable access to renewable electricity is fundamental for sustainable social and economic development and is a key element in ensuring a just energy transition.

In this context, strengthening and expanding the electricity infrastructure, as well as increasing energy storage capacity, are essential for scaling up the use of renewable sources and promoting large-scale electrification. This includes not only investments in expanding renewable generation capacity but also in solutions that ensure the resilience and stability of the grid, such as Battery Energy Storage Systems (BESS).

On the global stage, countries such as India and China are pioneers in expanding and regulating the use of this technology — especially China, the global leader in battery storage, which in 2023 tripled its added capacity to 23 GW (B20 BRASIL, 2024). In Brazil, the strong potential for deploying variable renewable energy sources such as solar and wind — and the resulting increase in their share of the energy mix projected for the coming years — makes it clear that expanding storage technologies is crucial to enable uninterrupted production and a stable supply of renewable energy, supporting the decarbonization of the energy matrix.



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Electricity in Brazil

Brazil's electricity mix is more renewable compared to the rest of the world. This is because a large part of the electricity generated in the country comes from hydroelectric plants. Wind power, along with other sources, has been growing significantly, contributing to making our mix increasingly renewable (EPE, 2025).

In terms of proportional distribution, the country has the following: 58.9% hydro, 13.2% wind, 7.0% solar and 20.9% other sources (including renewable, such as sugarcane bagasse, and non-renewable) (EPE, 2025). It is estimated that there were 110 GW of installed capacity in the hydroelectric sector, 33 GW of wind and 53 GW of solar by the end of 2024 (IRENA, 2025).

In general, non-renewable sources, such as coal, account for around 13% of electricity generation in Brazil, while renewable sources account for around 87% (EPE, 2025).

This is a positive scenario since these plants emit fewer greenhouse gases, as well as having lower operating costs, contributing to a more sustainable energy transition (EPE, 2025).

For this transition to occur, countries are focusing on reducing the share of fossil fuels in their energy mix, while also promoting measures that increase energy efficiency and storage, and encouraging sources that do not emit greenhouse gases during operation (EPE, 2025).

In 2025, the 30th UN Conference on Climate Change (COP 30) will be held in Belém (PA), Brazil. This event represents a historic opportunity for Brazil to reaffirm its role as a leader in negotiations on sustainability and climate change. The event will allow the country to demonstrate its efforts in areas such as renewable energies and biofuels, for example, as well as reinforcing its historic performance in multilateral processes, such as Eco-92 and Rio+20. Among the main topics discussed will be renewable energy technologies and low-carbon solutions. This reinforces the country's importance in presenting good indicators and targets in relation to the renewable sector (BRASIL, 2025).



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Statkraft in Brazil

Statkraft is a global leader in hydroelectric power and Europe’s largest producer of renewable energy. With over 130 years of history, the Group operates in more than 20 countries.

In Brazil, Statkraft began its journey in 2008 with the opening of its first office. In 2011, it started trading energy and, in the following year, entered the renewable energy generation segment by acquiring stakes in assets. In 2015, with the full acquisition of Desenvix, it took over operational control of the plants.

Statkraft currently operates 24 renewable hydro and wind generation assets in Brazil, spread across the states of Bahia, Sergipe, Espírito Santo, Rio de Janeiro, Santa Catarina, Rio Grande do Sul and Rio Grande do Norte. The company is also expanding its portfolio with three solar energy assets under construction - two in Bahia and one in Pernambuco.

With headquarters in Florianópolis (SC) and commercial offices in Rio de Janeiro (RJ) and São Paulo (SP), Statkraft Brasil combines a diversified portfolio and a solid commitment to sustainability. In line with the Group’s global strategy, the company invests in clean, efficient and innovative energy solutions, contributing to a more sustainable energy future.



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*Information reflects Statkraft Brasil’s asset portfolio in 2024.

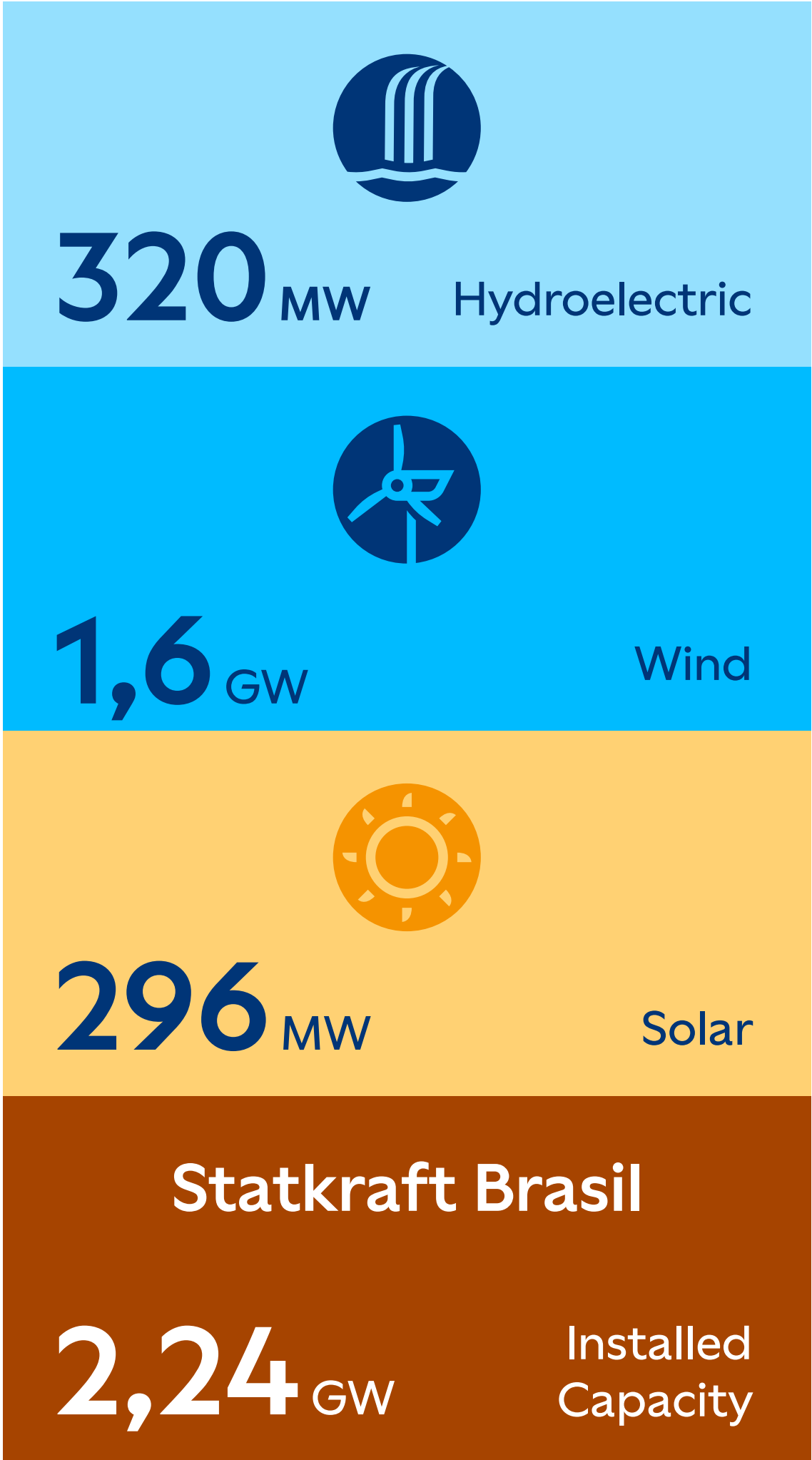


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Information reflects Statkraft Brazil's asset portfolio in 2024.



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Statkraft Brasil's Greenhouse Gases Inventory



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Statkraft Brasil’s inventory is presented below, based on the concepts, principles, and guidelines established by the GHG Protocol methodology, as published by the Brazilian GHG Protocol Program (PBGHGP), using its specifications for accounting, quantification, and disclosure of Corporate Greenhouse Gas Emissions Inventories.

To calculate the inventory, equations provided by the Intergovernmental Panel on Climate Change (IPCC) were applied to estimate emissions from specific sources and sinks.

The structure of this report follows the specifications of ISO 14064:2007 — Greenhouse Gas Management System — International Organization for Standardization, 2007.

Inventory period

This inventory covers emissions from activities carried out by Statkraft in the year 2024, including direct and indirect emissions, including all the projects over which the group has operational control.

Organizational Limits

This inventory covers Statkraft’s operations in Brazil. It follows the operational control approach established by the GHG Protocol methodology. Under this approach, 100% of the emissions from projects over which the Group has operational control are accounted for, regardless of its shareholding.

Operational Limits

Statkraft’s GHG Inventory aims to include the company’s main sources of emissions from Scopes 1, 2 and 3. The definition of these emission sources was guided by the principles of the relevant standards, specifically considering the relevance, consistency, accuracy, transparency and completeness of the inventory.



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Below are the emission sources considered in this inventory:

Scope 1

Stationary Combustion: Emissions resulting from the generation of steam, electricity, heat, or energy using equipment at a fixed location. In 2024, these emissions were associated with the use of fuels such as diesel oil and gasoline.

Mobile Combustion: Emissions resulting from the transportation activities of company-owned or company-controlled vehicles related to the company's operations, such as travel within an operational asset. In 2024, these emissions were associated with the use of fuels such as diesel oil, gasoline, and ethanol.

Fugitive Emissions: Unintentional releases of substances such as R-401A from the use of refrigeration and air-conditioning equipment, CO₂ from cylinders, and SF₆ potentially related to electrical equipment — the latter occurring specifically at Seabra Wind Farm in 2024.

Land Use Change: Emissions caused by the authorized suppression of natural vegetation, secondary vegetation, or logging. In 2024, these emissions were linked to the construction of new assets such as Santa Eugênia Solar, Morro do Cruzeiro Solar (suppressing vegetation to build a solar park), and Solar Serrita (logging and clearing of secondary vegetation to create access).

Agricultural Activities: Emissions resulting, for example, from the use of fertilizers. There were no recorded emissions from agricultural activities at Statkraft in 2024.

Scope 2

Electricity: Emissions resulting from the purchase of electricity from the National Interconnected System (SIN), calculated using the market-based approach.



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Scope 3



Purchased Goods and Services: Emissions that occur throughout the life cycle (extraction, production, and transportation) of purchased products. These emissions are primarily associated with construction activities at Solar Serrita, Santa Eugênia Solar, Morro do Cruzeiro Wind Farm, and Morro do Cruzeiro Solar. Relevant goods include fuels (diesel, gasoline, ethanol, LPG, additives, and lubricants), electricity, and construction materials (sand, concrete, gravel, cement, and mortar).

Capital Goods: Emissions generated over the life cycle (extraction, production, and transportation) of purchased capital goods, such as solar modules, trackers, inverters, MV stations, transformers, and combiner boxes. These emissions take into account the materials used in their production, including tempered glass, galvanized steel, aluminum, steel, copper, plastic, ordinary glass, and fiberglass.

Upstream Transport and Distribution: Emissions from transporting and distributing products in vehicles that are not owned or operated by the organization, when these transportation services are purchased or contracted by the company. These emissions are associated with the shipment of capital goods by ship or truck.

Downstream Transport and Distribution: Emissions from the transport and distribution of products in vehicles that are neither owned nor operated by the organization, when there is no direct purchase or contracting of these services by the company. These emissions are related to the shipment of capital goods and purchased goods and services by ship, truck, or van. This also includes the transport of products such as insulated aluminum and copper electrical cables, solarimetric stations, among others.

Waste: Emissions from the final treatment of waste generated by the organization's operations, covering both operational assets and those under construction. In 2024, this waste was disposed of in landfills, incinerated, or composted.

Business Travel: Emissions from the transportation of employees for business-related activities. In 2024, these emissions were primarily related to bus and air travel.

Employee Commuting: Emissions resulting from employees commuting between their homes and workplaces. In 2024, emissions were mainly associated with public transportation (buses), vans, and private vehicles.

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Table 1: Percentage of emissions - by Scope and category in Scope.

	Category	CO ₂ eq by Scope	CO ₂ eq ¹	CO ₂ bio by Scope	CO ₂ bio ²
Scope 1	Stationary combustion	49.63%	0.04%	7.20%	3.64%
	Mobile combustion		0.26%		29.55%
	Fugitive emissions		0.22%		0.00%
	Changes in land use		99.48%		66.81%
Scope 2	Electricity consumption	0.13%	100.00%	0.00%	100%
Scope 3	Employee Commuting Emissions	50.25%	0.21%	92.80%	2.33%
	Business trips		0.22%		0.03%
	Waste		0.71%		0.39%
	Purchased Goods and Services		9.58%		33.72%
	Capital Goods		70.17%		0.00%
	Upstream Transportation		11.94%		36.57%
	Downstream transportation		7.16%		26.95%

¹ CO₂eq emissions in the Scope to which the category belongs. ² CO₂bio emissions in the Scope to which the category belongs.
Source: Report



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Table 2: Emissions by type of GHG

Emission categories	CO ₂	CH ₄	N ₂ O	tCO _{2eqv.}	%	CO ₂ BIO
Stationary combustion	33.33	0.00	0.00	33.45	0.02%	5.00
Mobile Combustion	215.88	0.04	0.02	221.47	0.13%	40.56
Fugitive emissions*	1.74	-	-	190.81	0.11%	0.00
Changes in land use	84,643.03	-	-	84,643.03	49.37%	91.71
Total Scope 1	84,893.97	0.04	0.02	85,088.76	49.63%	137.26
Electricity consumption	215.07	-	-	215.07	0.13%	0.00
Total Scope 2	215.07	-	-	215.07	0.13%	0.00
Employee Commuting Emissions	177.90	0.01	0.02	184.19	0.11%	41.27
Business trips	190.17	0.002	0.01	191.86	0.11%	0.54
Waste	293.59	11.20	0.01	610.11	0.36%	6.98
Goods and Services Purchased	8,243.59	0.14	0.03	8,255.18	4.81%	596.73
Capital Goods	60,458.83	-	-	60,458.83	35.26%	0.00
Upstream transportation	10,141.46	0.45	0.50	10,286.00	6.00%	647.13
Downstream transportation	6,083.48	0.30	0.30	6,172.51	3.60%	476.88
Total Scope 3	85,589.01	12.10	0.87	86,158.69	50.25%	1769.53
Total inventory (Scope 1, 2 and 3)	170,698.06	12.14	0.89	171,462.52	100%	1,906.79

*R-401A: 1.07 CO₂eq and SF6: 188.00 CO₂eq

Source: Report



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Table 4: Percentage of emissions - Inputs

Goods and Services and Capital Goods Inputs	CO ₂ eq	CO ₂ bio
Gasoline	0.21%	6.42%
Diesel	4.04%	68.51%
Ethanol	0.00%	25.07%
Additives and Lubricants	0.00%	0.00%
Sand	0.01%	0.00%
Concrete	1.40%	0.00%
Gravel	4.52%	0.00%
Cement	0.04%	0.00%
Mortar	1.77%	0.00%
LPG	0.02%	0.00%
Tempered Glass	4.06%	0.00%
Galvanized steel	53.60%	0.00%
Aluminum	29.26%	0.00%
Steel	0.34%	0.00%
Copper	0.08%	0.00%
Plastic	0.07%	0.00%
Glass	0.53%	0.00%
Fiberglass	0.05%	0.00%

Source: Report



Table 5: Total GHG emissions by operating facility

Facility	Total	
	tCO ₂ e	tCO ₂ e(%)
Rio de Janeiro Office	120.44	0.03%
Florianópolis Office	422.25	0.22%
São Paulo Office	31.77	0.01%
Passos Maia SHPP	21.51	0.01%
Santa Rosa SHPP	25.16	0.01%
Santa Laura SHPP	25.96	0.02%
Moinho SHPP	21.54	0.01%
Esmeralda SHPP	19.03	0.01%
Monjolinho HPP	34.06	0.02%
Francisco Gros Complex*	21.67	0.01%
Polo Suíça Complex**	139.95	0.08%
EOL Barra dos Coqueiros	32.80	0.01%

*Francisco Gros Complex: Francisco Gros SHPP and Alegre SHPP;
**Suíça Complex: Suíça HPP, Rio Bonito SHPP, São João SHPP, Fruteiras SHPP, Jucu SHPP e Viçosa SHPP.

Facility	Total	
	tCO ₂ e	tCO ₂ e(%)
Brotas de Macaúbas Wind Complex	400.18	0.23%
Ventos de Santa Eugênia Wind Complex	76.32	0.04%
Morro do Cruzeiro Wind Complex	132.27	0.01%
Jerusalém e Boqueirão Wind Complex	31.32	0.02%
Osório Wind Complex	44.59	0.03%
Palmares Wind Complex	11.03	0.01%
Ventos de São Fernando Wind Complex	122.20	0.07%
Santa Eugênia Solar	82,097.27	47.88%
Morro do Cruzeiro Solar	53,459.88	31.18%
Solar Serrita	34,171.32	19.93%
Total	171,462.52	100%

Source: Report

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As expected, Scope 3 emissions continue to represent a significant share of Statkraft’s total emissions in Brazil, as observed in the 2023 inventory. However, in 2024 there was a greater contribution from Scope 1 emissions. This increase is due to the number of new assets under construction, particularly solar projects that require areas for installation and therefore involve vegetation clearance, as shown by the emissions related to the construction of Santa Eugênia Solar and Morro do Cruzeiro Solar in Table 3.

Since 2024 is the first year that emissions associated with the construction of solar assets have been inventoried — and given that these assets require more land than the wind farms built in 2023 — there was a considerable increase in vegetation removal, which resulted in higher emissions under the Land Use Change category in Scope 1. As a result, Scope 1 contributed more significantly in 2024, accounting for 49.63% of total inventory emissions, with 99.48% of this amount concentrated in the Land Use Change category alone. This category alone represents 49.37% of the total inventory, as shown in Tables 1 and 2.

Large non-renewable Scope 1 emissions generally occur in energy generators that burn fossil fuels such as coal, natural gas, or other oil derivatives in their boilers. However, a renewable energy generator can also have significant Scope 1 emissions during the early stages of construction, when vegetation is cleared to prepare project sites. This activity releases the carbon stored in the removed vegetation into the atmosphere and is accounted for under the Land Use Change source in Scope 1. In such cases, even renewable energy generators can show high Scope 1 emissions, while other Scope 1 sources remain low, as indicated in Tables 1 and 2.



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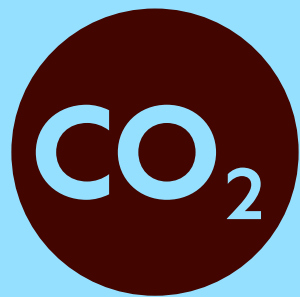
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Morro do Cruzeiro Solar, Solar Serrita, and Santa Eugênia Solar, in addition to being the only projects contributing to emissions from Land Use Change, were also responsible for significant Scope 3 emissions associated with the purchase of Capital Goods. These emissions represented 35.26% of the total inventory and 70.17% of Scope 3. Emissions linked to the transportation of certain goods for these projects, reported under Upstream Transportation, accounted for 6.00% of the total inventory and 11.94% of Scope 3. Emissions from the transportation of other goods were accounted for under Downstream Transportation, which represented 3.60% of the total inventory and 7.16% of Scope 3 (50.25% of the total inventory), as shown in Tables 1 and 2.

Emissions from Purchased Goods and Services were also significant within Scope 3, representing 4.81% of the total inventory and 9.58% of Scope 3. The remaining Scope 3 emission categories not mentioned contributed very small amounts, each representing less than 0.50% of the total inventory (see Tables 1 and 2).



As expected, Scope 3 emissions continue to represent a significant share of Statkraft’s total emissions in Brazil, as observed in the 2023 inventory.



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Emissions from Capital Goods were related to the manufacturing life cycle of assets acquired for these projects. Upstream Transportation emissions were related to transporting these capital goods. Purchased Goods and Services included activities linked to the construction of new projects, such as the use of cement, steel, gravel, and fuels by contractors. Downstream Transportation emissions were also related to the transport of capital goods and, additionally, of service-related goods. Taking together, this emissions profile demonstrates the substantial impact that construction activities can have on Scope 3 emissions.



Table 4 shows the share of emissions between inputs accounted for as Services and Capital Goods. Note that galvanized steel generated the highest CO₂e emissions, followed by aluminum. Regarding biogenic emissions, these were related to fuel consumption, with diesel being the largest contributor, followed by ethanol and gasoline.

Scope 2 emissions, related to purchased electricity, as expected for Statkraft’s operations, accounted for less than 1% of the total GHG inventory. The largest Scope 2 emissions were from the Polo Suíça Complex and the Ventos de Santa Eugênia Wind Complex, representing 38.57% and 16.81% of Scope 2 emissions, respectively.

Overall, when emissions are broken down by operating facility, it is clear that the sites under construction — Santa Eugênia Solar, Morro do Cruzeiro Solar, and Solar Serrita — together account for more than 98% of total emissions. Operating plants generally have very low emissions, as shown in Table 5.

Looking specifically at biogenic emissions in Table 1, Scope 3 was responsible for the vast majority (92.80%), followed by Scope 1 (7.20%). Within Scope 3, the categories Purchased Goods and Services and Upstream Transportation were the main contributors, together accounting for more than 70% of this scope’s emissions. Within Scope 1, the largest contributors were Land Use Change and Mobile Combustion, together making up more than 95% of Scope 1 emissions. Scope 2 did not include this type of emission.



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Statkraft conducted its first inventory in 2021. In 2022, however, there were changes to the Scope of the emission sources included. In 2023, the inventory covered Scope 1 (Stationary and Mobile Combustion, Fugitive Emissions, Agricultural Activities, Land Use Change), Scope 2 (Purchased Electricity), and Scope 3 (Purchased Goods and Services, Capital Goods, Upstream Transportation and Distribution, Waste, Business Travel, and Employee Commuting). In 2024, the same Scopes and source categories were maintained, with the addition of Downstream Transportation.

In this latest inventory, several additional sources within certain categories were also included to improve data collection and provide a more accurate understanding of the real impacts of Statkraft’s activities. The company considers its carbon management process to be evolving, and for this reason, the base year for Statkraft’s GHG emissions inventory has been established as 2023. Any subsequent year may be adopted as a new base year if improvements in the inventory process bring it closer to actual conditions. The year 2023 was selected because it is the most recent year relative to the current inventory and serves as a reliable point of comparison.

In relation to Scope 1, there was a discrepancy between the values generated in the 2021, 2022, 2023 and 2024 inventories. Below is a comparison with the base year and an explanation of other years.



Table 6: Scope 1 emissions history

Emission categories (tCO ₂ e)	2023	2024	%
Stationary combustion	19.55	33.45	71.00%
Mobile combustion	154.49	221.47	43.00%
Fugitive Emissions	942.89	190.81	-80.00%
Changes in land use	30.67	84,643.03	275,880.00%
Total Scope 1	1,147.60	85,088.76	7,314.50%

Source: Report



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In 2021, Scope 1 emissions were high because that year included the vegetation suppression phase for the construction of the Ventos de Santa Eugênia Wind Complex, resulting in significant emissions in the Land Use Change category. In 2022, there were also vegetation suppression activities, this time for the construction of the Morro do Cruzeiro Wind Complex, a much smaller project than Ventos de Santa Eugênia, which led to lower emissions.

In 2023, only the final stages of vegetation suppression took place in the Morro do Cruzeiro Wind Farm area, resulting in the lowest level of Land Use Change emissions recorded since Statkraft began its emissions inventory.

In 2024, Scope 1 emissions contributed at a level similar to Scope 3 emissions. As shown, most Scope 1 emissions came from the construction of solar assets, which significantly influenced emissions under the Land Use Change category.

Table 6 also shows that in 2024 there was an increase in emissions from stationery and mobile combustion compared to the previous year, due to higher fuel consumption, specifically gasoline.

SF₆ emissions are rare but can have a major impact on the GHG inventory because of their high global warming potential — 23,500 times greater than CO₂. Compared to 2023, there was a reduction in these emissions due to a decrease in SF₆ losses in 2024, as shown in Table 6.

As shown, in Scope 3, most emissions came from capital goods purchased in 2024, which were also related to the construction of new assets*.

Table 7: Scope 3 emissions history

Emission categories (tCO ₂ e)	2023	2024	%
Employee Commuting Emissions	4.27	184.19	4,214.00%
Business trips	335.79	191.86	-43.00%
Waste sent to landfills	0.42	610.11	145,165.00%
Goods and Services Purchased	13,277.19	8,255.18	-38.00%
Capital Goods	42,388.94	60,458.83	43.00%
Upstream Transportation	91.95	10,286.00	11,087.00%
Downstream Transportation	-	6,172.51	-
Total Scope 3	56,098.56	86,158.69	54.00%

Source: Report

*According to the methodology, for the Capital Goods and Purchased Goods and Services categories, all emissions from processes related to the manufacturing of these goods are accounted for in full in the year they are purchased.

In the case of Capital Goods, this category was not included in the 2021 Inventory. These are emissions that are not constant during the operation of a generating unit but are normally accounted for when equipment is purchased for installation.

In the case of the Ventos Santa Eugênia Wind Complex, the installation of the wind turbines took place mainly in 2022 and to a lesser extent in 2023, so it was in these years that emissions in this category were accounted for. The same happened in 2024 with the purchase of equipment for the Morro do Cruzeiro Solar, Santa Eugênia Solar and Solar Serrita projects.

In 2023, the Ventos de Santa Eugenia Wind Complex project entered the final phase of assembling the wind turbines. This explains the lower consumption of construction inputs compared to 2022. In 2024, the construction of new solar assets such as Santa Eugenia Solar, Morro do Cruzeiro Solar and Solar Serrita increased the consumption of construction inputs, as shown in Table 7.



Compared to 2023, both the capital goods category and the Upstream Transportation category saw a significant increase in emissions due to the increase in the number of goods considered in the calculation of the 2024 inventory and the reporting of more displacements related to these goods. This time considering inland waterway transport, see table 7.

Regarding goods and services, when comparing 2024 to 2023, table 7 shows that there was a reduction in emissions, mainly due to a reduction in the purchase of steel, which accounted for a large part of emissions in this category in the previous inventory.

Compared to 2023, there was an increase in employee commuting emissions in 2024 because, unlike the previous inventory which only accounted for vans, this year’s inventory also included other modes of transport such as private cars and buses.

Table 8: Scope 2 emissions history

As shown in table 8, in relation to Scope 2, the increase in calculated emissions, when comparing 2023 with 2024, was influenced by the increase in the emission factor of the National Interconnected System (SIN) network, which rose by around 40%.

Emission categories (tCO ₂ e)	2023	2024	%
Electricity consumption	123.53	215.07	74.11%
Scope 2 total	123.53	215.07	74.11%

Source: Report



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Statkraft's emissions profile



As this is the company’s fourth GHG inventory, it is now possible to identify certain characteristics of Statkraft’s emissions profile, some of which have already been described above:

Emissions from the operation of renewable energy generators — specifically hydro, wind, and solar — are very low. On the other hand, the construction of new assets generates higher emissions, mainly due to vegetation suppression, the purchase of Goods and Services (such as gravel and fuel), Capital Goods (such as solar module components), and Upstream Transportation used to transport purchased goods.

Different phases of constructing new assets lead to different types of emissions. In the initial phases, projects typically generate significant emissions from vegetation suppression. In later phases, the largest emissions tend to be associated with Purchased Goods and Services (cement, steel, etc.), Capital Goods such as blades, nacelles and hubs (for wind farms) and solar modules, trackers, inverters, MV stations, transformers, and combiner boxes (for solar farms), as well as emissions related to the transportation of these products.



Emissions from the operation of renewable energy generators — specifically hydro, wind, and solar — are very low.



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Considerations for the GHG Inventory - 2024

Statkraft’s operations in Brazil are highly dynamic, resulting in a series of organizational and operational changes that are reflected in the company’s GHG inventories. In this context, here are some important points to note for the 2024 Inventory:

Throughout 2023 and the first half of 2024, the company was involved in two M&A projects, which led to the acquisition of 12 new assets — 11 operational wind farms and 1 wind farm under construction. The integration of these assets into Statkraft’s portfolio took place over the course of 2024, and they were included in this year’s inventory from the date on which Statkraft assumed operational control.

All assets and sources have been mapped in the 2024 Inventory, with no exclusions.



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Descarbonização é o processo de redução das Decarbonization is the process of reducing greenhouse gas (GHG) emissions, such as carbon dioxide (CO₂), generally with the goal of achieving net zero. In this context, residual emissions can be offset through actions such as reforestation and the use of carbon capture and storage (CCS) technologies. Replacing fossil fuels with renewable energy sources and driving structural transformations in strategic sectors of the economy — such as energy, transportation, industry, agriculture, and land use — are essential practices aligned with decarbonization (Repórter Brasil, 2025).

According to the Intergovernmental Panel on Climate Change (IPCC), the main GHG emitters include electricity generation, the industrial sector, transportation, buildings, agriculture, and land use change. Therefore, decarbonization requires a comprehensive reconfiguration of how we produce and consume energy, build cities, transport people and goods, grow food, and manage natural resources (Repórter Brasil, 2025).

If the goals of the Paris Agreement are to be met and the global temperature rise is to be limited to 1.5 °C, it is essential for governments and companies to accelerate decarbonization efforts this decade, especially by 2030. This means increasing investments in low-carbon solutions such as sustainable mobility, the circular economy, renewable energy, and energy efficiency measures across all sectors of the economy (Repórter Brasil, 2025).



If the goals of the Paris Agreement are to be met and the global temperature rise is to be limited to 1.5 °C, it is essential for governments and companies to accelerate decarbonization efforts this decade, especially by 2030.



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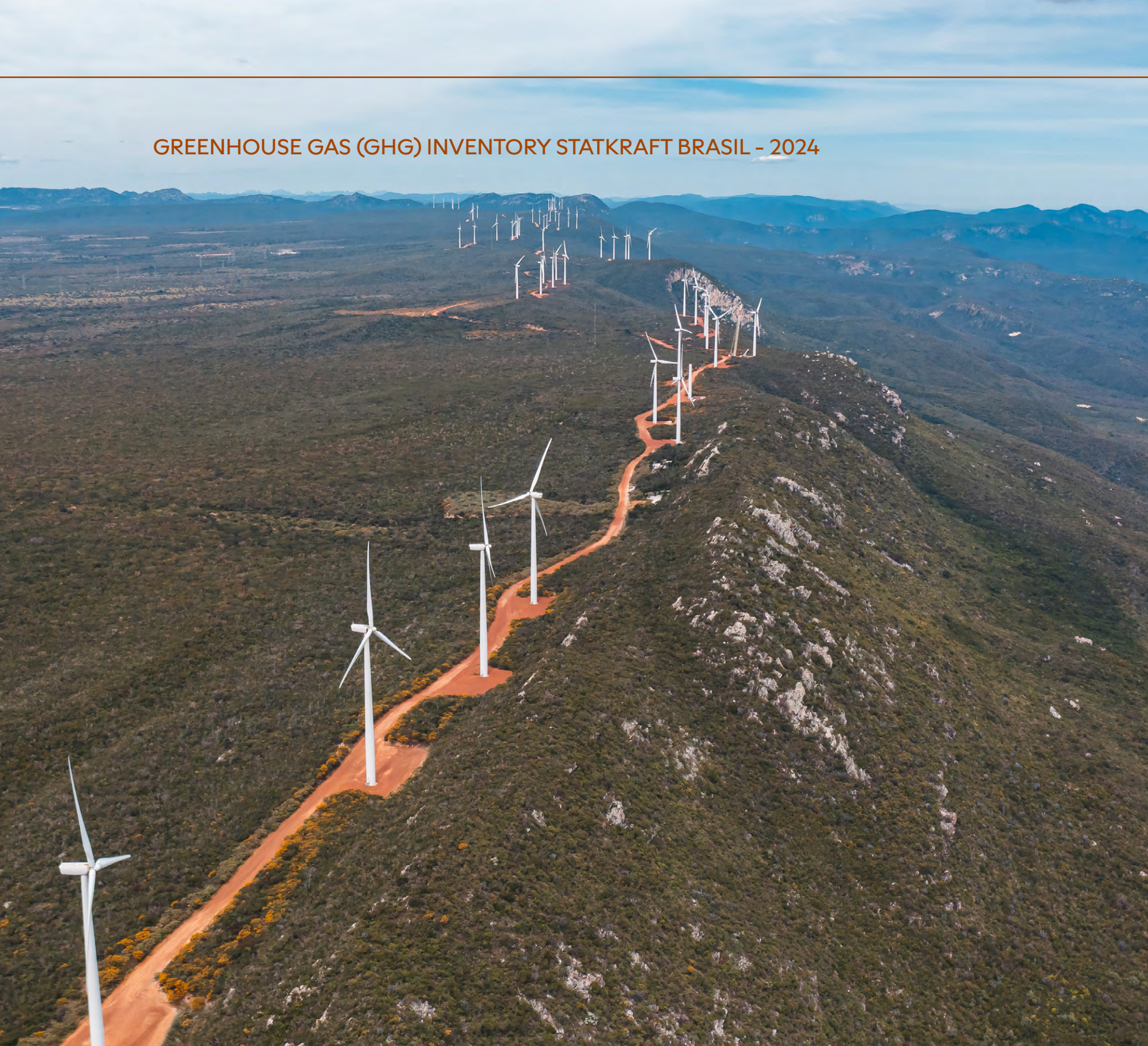
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An effective starting point for carbon management is to accurately identify the climate impact of the company and its entire value chain. Based on this assessment, it becomes possible to develop a strategic action plan that generates value for the business. This plan may include evaluating sustainability initiatives, supporting emission offset projects, and implementing engagement and transparency actions for various stakeholders.

To support organizations in the challenge of measuring and monitoring emissions and setting targets, several international initiatives have been launched. Statkraft actively participates in many of these initiatives, fully aware of its role in the global climate challenge. These initiatives include:

Fugitive emissions

Managing sulfur hexafluoride (SF₆) is a challenge, especially for wind farms, as the number and dispersion of wind turbines make it difficult to identify leaks. This issue has gained increasing relevance globally within Statkraft and is one of Statkraft Brasil’s lines of action for emissions mitigation. At the beginning of 2024, several maintenance activities were carried out to address SF₆ leaks, mainly at the Barra dos Coqueiros plant in Sergipe. The resulting reduction in emissions of this gas can be seen in the 2024 GHG emissions inventory compared to 2023, as shown in Table 5.

In addition, when developing new projects, the company continually seeks solutions and alternatives to reduce and mitigate the impacts caused by construction activities. One example of this practice is optimizing the layout of new assets to minimize the area of vegetation suppression required for implementation. In 2024, this approach made it possible to reduce the suppressed area for the construction of one of Statkraft’s solar assets in Bahia by 26 hectares compared to the total area licensed for that purpose, avoiding the emission of 6,431.57 tCO₂, which would have been accounted for under Scope 1, Land Use Change in this inventory.



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Positive impacts of Statkraft's operations



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We also understand that the company's good practices can have an impact on the value chain, bringing benefits beyond the energy generation sector.

Therefore, this inventory also includes the following data on Statkraft's relevant carbon management activities:

Carbon Stock:

Carbon stored in assets that the company manages. In Statkraft's case, the carbon stock is mainly due to the preservation of forestry assets.

Biogenic removals:

Biological mechanisms for removing carbon from the atmosphere, resulting from planting trees.

Avoided emissions:

Emissions that no longer occur as a result of Statkraft's activities. Considering that the company produces renewable energy, its activities end up resulting in a reduction in emissions from consumers in the National Interconnected System, contributing to a reduction in its emission factor.

As seen in Statkraft's GHG inventories, the company's emissions tend to be higher when new assets are developed. However, this increase in emissions is directly linked to a benefit for Brazil's and the world's climate challenge, so that the impacts caused in the short term by the construction of new assets are outweighed by the benefits generated by its operations in the medium and long term, through the decarbonization of the Brazilian energy matrix. As presented in the opening chapters of this report, investment in the expansion of renewable energy sources in Brazil and around the world is essential if the goals of limiting global warming are to be achieved. In view of this, we understand Statkraft's role in acting with social and environmental responsibility in the operation of its assets and in the development of new ventures.

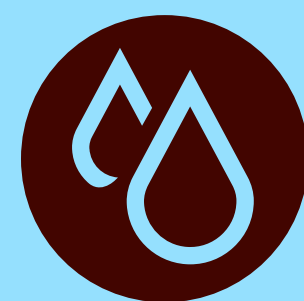


Investment in the expansion of renewable energy sources in Brazil and around the world is essential if the goals of limiting global warming are to be achieved.



That said, a positive element for Statkraft in terms of GHG emissions is the fact that the company maintains around 8,000 ha of native forests. Most of the company's hydroelectric generation assets are located in the south of the country, where the predominant vegetation is the Atlantic Forest. These are areas around reservoirs to be protected, as required by law. The company's wind farms are located in the northeast of the country, where the legal reserves include areas of *Caatinga*.

In addition to conservation activities, Statkraft also undertakes tree planting, which generates CO₂ absorption as the trees grow. Although no new areas were planted specifically in 2024, the trees planted in previous years continue to grow and remove carbon from the atmosphere. It is estimated that in 2024 alone, approximately 4,400 tCO₂ were absorbed. Considering the total CO₂ removals that have taken place since 2009, when the first seedlings were planted, it is estimated that around 56,000 tCO₂e of carbon has been removed from the atmosphere and is now stored in these planted forests. This carbon stock from planted forests can be added to the carbon stored in protected native forests, totaling approximately 790,000 tCO₂ present in Statkraft's forest areas.



Most of the company's hydroelectric generation assets are located in the south of the country, where the predominant vegetation is the Atlantic Forest.



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In addition, regarding avoided emissions, the increased production of renewable electricity fed into the National Interconnected System (SIN) reduces the demand for fossil fuel-based electricity generation. The Brazilian Ministry of Science, Technology and Innovation provides a calculation for the SIN emission factor for the purposes of carbon credit projects. This factor combines the operating margin emission factor — which reflects the CO₂ intensity of the electricity currently dispatched to the grid — and the build margin emission factor, which reflects the CO₂ intensity of the most recently constructed generation plants.

The SIN emission factor is not fixed. It varies depending on several factors, such as:

1. The production of energy from hydroelectric plants, which in turn depends on rainfall volume and distribution;
2. The country’s overall energy demand;
3. The share of production from other renewable sources.



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Table 9 presents the emission factors, measured in tCO₂eq per MWh, for recent years:

Table 9: SIN emission factor

Year	Average factor
2019	0.0750
2020	0.0617
2021	0.1264
2022	0.0426
2023	0.0385
2024	0.0545

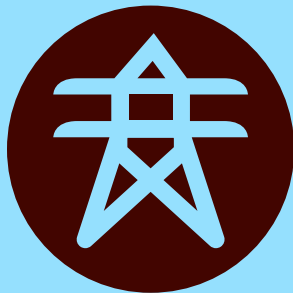
Source: Brazilian Ministry of Science, Technology and Innovation, 2024.

Therefore, considering that Statkraft delivered 6,064,865.20 MWh of renewable electricity to the National Interconnected System (SIN), it is possible to assure that the company avoided the emission of 330,535.15 tCO₂ in 2024 as a result of its activities. This would be equivalent to avoiding the deforestation of approximately 1,337 hectares of the *Caatinga* biome — an area equal to about 1,872 soccer fields. These data show how renewable energy generation is a strong ally in the fight against climate change, since, even though there are emissions during the construction of new assets, the provision of renewable energy in the national system avoids the emission of greenhouse gases on a larger scale, fact that when analyzed in the long term throughout the life cycle of the assets, becomes even more relevant.

Therefore, in addition to the nearly 190% increase in Statkraft’s renewable energy production in 2024 compared to 2023, the impact in terms of avoided emissions was even greater due to the SIN Emission Factor, which in 2024 was about 40% higher than in 2023. If the SIN Emission Factor had remained at the previous year’s level, the avoided emissions would have been 233,497.31 tCO₂ — based solely on the additional renewable energy generation.

Additionally, Statkraft is in the process of retiring more than 4,078 I-RECs (International Renewable Energy Certificates) to offset the company’s Scope 2 emissions for the period from January 1 to December 31, 2024, which will bring its Scope 2 emissions to zero using the market-based approach.

Finally, since Statkraft’s emissions are directly linked to a positive contribution to Brazil’s and the world’s climate challenge — the decarbonization of the Brazilian energy mix — it is important to present emissions data in relation to renewable energy generation. For this purpose, the Carbon Intensity (CI) indicator, shown in Table 10, measures how many tonnes of CO₂e are emitted per unit of energy generated.



Considering that Statkraft delivered 6,064,865.20 MWh of renewable electricity to the National Interconnected System (SIN), it is possible to assure that the company avoided the emission of 330,535.15 tCO₂ in 2024 as a result of its activities.



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OF STATKRAFT'S
ACTIVITIES

Table 10: Carbon Intensity, 2024

Emission sources	Intensity (gCO ₂ eq/kWh)
Passos Maia SHPP	0.17
Polo Francisco Gros Complex*	0.15
Santa Rosa SHPP	0.15
Santa Laura SHPP	0.27
Polo Suíça Complex**	0.31
Moinho SHPP	0.34
Esmeralda SHPP	0.15
Brotas de Macaúbas Wind Complex	2.06
EOL Barra dos Coqueiros	0.29
Monjolinho HPP	0.06
Ventos de Santa Eugênia Wind Complex	0.05
Morro do Cruzeiro Wind Complex	0.00
Jerusalém and Boqueirão Wind Farm	0.01
Osório Wind Complex	0.02
Palmares Wind Complex	0.03
Ventos de São Fernando Wind Complex	0.03
Overall CI	0.11

Source: Report

*Francisco Gros Complex: Francisco Gros SHPP and Alegre SHPP;
**Suíça Complex: Suíça HPP, Rio Bonito SHPP, São João SHPP, Fruteiras SHPP, Jucu SHPP e Viçosa SHPP.

Credits

CORPORATE INFORMATION STATKRAFT BRAZIL

Rodovia José Carlos Daux,
Nº 5500, Bloco Jurerê, A - 3º Andar
Saco Grande, Florianópolis - SC 88032-005

GRAPHIC DESIGN AND LAYOUT

Agência Lacomunica

PREPARATION OF CALCULATIONS AND REPORT

Grupo Report

CONTACT

Sustainability Team
socioambiental@statkraft.com
www.statkraft.com.br



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References

- IPCC. Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, H. Lee and J. Romero (eds.)]. Geneva: IPCC, 2023. **Available at:** <https://www.ipcc.ch/report/ar6/syr/>. Accessed on: June 16, 2025.
- IRENA. Renewable capacity statistics 2025. Abu Dhabi: International Renewable Energy Agency, 2025. **Available at:** <https://www.irena.org/Publications>. Accessed on: June 16, 2025.
- UNITED NATIONS BRAZIL. What is climate change? [O que são mudanças climáticas?] [S.I.]: United Nations Brazil, [2022?]. **Available at:** <https://brasil.un.org/pt-br/175180-o-que-s%C3%A3o-mudan%C3%A7as-clim%C3%A1ticas>. Accessed on: June 16, 2025.
- BRAZIL. Presidency of the Republic - Civil House. COP 30 in Brazil [COP 30 no Brasil]. **Available at:** <https://www.gov.br/planalto/pt-br/agenda-internacional/missoes-internacionais/cop28/cop-30-no-brasil>. Accessed on: June 16, 2025.
- REPORTER BRASIL. What is decarbonization? [O que é descarbonização?] **Available at:** <https://reporterbrasil.org.br/2024/12/o-que-e-descarbonizacao/>. Accessed on: June 16, 2025.
- EPE. Energy sources [Fontes de energia]. **Available at:** <https://www.epe.gov.br/pt/abcdenergia/fontes-de-energia>. Accessed on: June 16, 2025.
- EPE. Energy and electricity matrix [Matriz energética e elétrica]. **Available at:** <https://www.epe.gov.br/pt/abcdenergia/matriz-energetica-e-eletrica>. Accessed on: June 16, 2025.
- EPE. What is energy [O que é energia] **Available at:** <https://www.epe.gov.br/pt/abcdenergia/o-que-e-energia>. Accessed on: June 16, 2025.
- IRENA. International Renewable Energy Agency. **Available at:** <https://www.irena.org/>. Accessed on: June 16, 2025.
- B20 BRAZIL. Energy Transition and Climate Policy Paper. **Available at:** <https://b20brasil.org/documents>. Accessed on: June 16, 2025.

