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# Adherence to the New Climate Change Financial Disclosure Standards in Brazil

## Adesão aos Novos Padrões de Divulgação Financeira para Mudanças Climáticas no Brasil

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### RESUMO

O objetivo deste estudo é investigar a aderência das empresas abertas no Brasil às novas normas de divulgação financeira do clima, IFRS S2/CBPS 02, emitidas pelo International Sustainability Standards Board, traduzidas e adaptadas pelo Comitê Brasileiro de Pronunciamentos de Sustentabilidade, e ratificadas pelo Conselho Federal de Contabilidade e órgãos reguladores. Trata-se de um estudo descritivo e exploratório, com pesquisa bibliográfica e documental e análise qualitativa com foco na empresa Eletrobras, escolhida em função da relevância da empresa e do setor elétrico, pioneiro em práticas de responsabilidade social e divulgação da sustentabilidade. A pesquisa investiga a aderência, por meio da análise de relatórios e documentos da empresa, comparativamente aos requisitos da norma IFRS S2/CBPS 02 nas dimensões Governança, Estratégia, Gerenciamento de Riscos e Métricas e Metas. Os achados indicam que a Eletrobras apresentou, no ano exercício de 2024, um nível geral elevado de aderência aos requisitos da IFRS S2/CBPS 02 (86%), sendo 62% de atendimento integral e 24% de atendimento parcial, demonstrando o alinhamento da companhia às mudanças climáticas. Todos os requisitos da dimensão Governança foram plenamente atendidos (100%). Na dimensão Estratégia, foi observada aderência a 72% dos requisitos, sendo 44% de divulgação integral e 28% parcial, enquanto 28% de requisitos restaram não atendidos. Em relação ao Gerenciamento de Riscos, a empresa mostra aderência completa em 67% e parcial em 33% dos requisitos. Com relação às Métricas e Metas, a empresa alcançou 72% de aderência total, 22% de aderência parcial. Conclui-se que a empresa está bem posicionada para atender às exigências regulatórias futuras, mas ainda há espaço para avanços. Deve-se ressaltar que trata-se de um tema novo, as normas ainda não são obrigatórias e a empresa estudada não optou pela divulgação voluntária antecipada. O estudo, portanto, revela a condição existente, prévia à divulgação, voluntária ou obrigatória. A adoção plena e consistente da norma representa, além da obrigação regulatória, uma oportunidade de fortalecer a governança, mitigar riscos do clima, identificar oportunidades e gerar valor sustentável para as partes interessadas. Como contribuições do estudo, destaca-se a aprendizagem propiciada a estudantes e profissionais de ciências contábeis, bem como a profissionais das empresas e do mercado que se preparam para a divulgação obrigatória das novas normas de divulgação financeira do clima.

**Palavras-chave:** ESG; Mudanças climáticas; IFRS S2/CBPS 02; Setor Elétrico; Eletrobras.

### ABSTRACT

The objective of this study is to investigate the adherence of publicly traded companies in Brazil to the new climate-related financial disclosure standards, IFRS S2/CBPS 02, issued by the International Sustainability Standards Board, translated and adapted by the Brazilian Committee for Sustainability Pronouncements, and enforced by the Federal Accounting Council and other standard-setters. The study adopts a descriptive and exploratory approach, based on bibliographic and documentary research, with qualitative analysis, focusing on the company Eletrobras, chosen for its relevance in the electricity sector, a pioneer in social responsibility practices and sustainability disclosure. The research investigates adherence by analyzing company reports and documents, comparing them to the IFRS S2/CBPS 02 standard's requisites on Governance, Strategy, Risk Management, and Metrics and Targets dimensions. Eletrobras showed an overall high level of adherence to the requisites of IFRS S2/CBPS 02 (86%) in fiscal year 2024, with 62% complete compliance and 24% partial compliance, demonstrating the company's commitment to climate change. All requisites in the Governance dimension were fully met (100%). In the Strategy dimension, the company got full compliance for 44% of the disclosure requisites and partial compliance in 28%, while failed to meet 28% of the requisites. Regarding Risk Management, the company showed full compliance in 67% and partial compliance in 33%. As for Metrics and Targets, the company achieved 72% full compliance and 22% partial compliance. In conclusion, the company is well-positioned to meet the future regulatory requirements, although there is still room for improvement. This is a new topic, the standards are not yet mandatory, and the company studied has not opted for early voluntary disclosure. Therefore, this study reveals the existing conditions prior to disclosure, whether voluntary or mandatory. The complete and consistent adoption of these standards represents, besides a regulatory obligation, an opportunity to strengthen governance, mitigate climate risks, identify opportunities, and generate sustainable value for stakeholders. The study's contributions include the knowledge provided to accounting students and professionals, and corporate professionals preparing for the mandatory disclosure under the new climate-related financial disclosure standards.

**Keywords:** ESG; Climate Change; IFRS S2/CBPS 02; Electrical Sector; Eletrobras.

### 1. INTRODUCTION

In today's corporate world, it is essential to highlight the topics represented by the acronym ESG - *Environmental, Social and Governance* - or environmental, social and governance. The ESG theme emerged in the wake of the concept of corporate sustainability in three dimensions – environmental, social and economic – *Triple Bottom Line* (TBL), which proposed to analyze the role of companies for the sustainability of the entire planet, defending the balance of their goals, in order to be financially viable, environmentally responsible and socially fair (Elkington, 1994). According to Colepicolo (2023), the difference between TBL and ESG is the consideration of the principle of governance in the latter, proposing business ethics and the resolution of conflicts of interest between *stakeholders*, as well as a greater scope and depth.

With the publication, in 2004, of the Who *Cares Win report,* a partnership between the United Nations (UN) Global Compact and the World Bank, the term ESG began to be used with reference to corporate sustainability, although they are not synonymous. ESG is a nomenclature used by the financial market to evaluate the performance of companies' practices in its three dimensions. The Global Compact is a UN initiative to mobilize the global business community, with regard to the

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adoption of fundamental values related to sustainable development, social responsibility and good corporate governance practices in business practices (Global Compact, 2025).

For Irigaray and Stocker (2022), ESG is increasingly seen as important and urgent, especially due to the climate and pandemic risks experienced by society, which significantly impact the global economy. Investors and asset managers are increasingly applying these non-financial factors to their business analysis to gain a more complete understanding of their operations, identify material risks, and pinpoint opportunities for growth (Institute of Chartered Financial Analysts, 2023).

In Brazil, the Corporate Sustainability Index (ISE) stands out, created by the current Brasil, Bolsa, Balcão (B3), in 2005, with initial financing from the International Finance Corporation (IFC), the financial arm of the World Bank. This index supports investors in making investment decisions and encourages companies to adopt the best sustainability practices (B3, 2025). With the creation of the International Sustainability Standards Board (ISSB), from an international perspective, in 2021, and the Brazilian Committee on Sustainability Pronouncements (CBPS), from the Brazilian national perspective, in 2022, and the publication of their respective standards, there is an expectation of greater transparency and corporate responsibility in sustainability business issues and ESG skills. The issuance of these standards is a relevant effort to improve practices by organizations and support the market and investors focused on responsibility and sustainability (Molter, 2024).

Regarding the adoption of these standards in the Brazilian capital market, the Brazilian Securities and Exchange Commission (CVM) published Resolution193, in 2023, which instituted the voluntary adoption of sustainability standards for fiscal years starting on or after January 1, 2024, and mandatory adoption for fiscal years starting on or after: January 1, 2026 (CVM, 2023). In view of this, as a result of the deadline, it is even more important for interested parties to understand the rules, especially by publicly-held companies, which have a tight deadline to comply with the new financial disclosure requirement.

In this context, the objective of this study is to investigate the adherence of publicly traded companies in Brazil to the new IFRS S2/CBPS 02 climate financial disclosure standards, issued by the ISSB and translated by the CBPS. In the scenario of major changes related to ESG that is taking place, in Brazil and in the world, and the implementation of the new financial disclosure standards for sustainability and climate change, it is important to understand how adherent the current corporate communications of companies in Brazil are. This is of interest not only in the improvement of ESG issues by organizations, but also in regulatory aspects of the capital market itself, which will hold the company responsible for not meeting the disclosure requirements linked to IFRS S1 and S2 standards. Thus, the theme of this study is justified by its timeliness and relevance.

The study was carried out with a significant company in the electricity sector, Centrais Elétricas Brasileiras (Eletrobras), whose selection criteria are explained in the Methodology. The relevance of this research is amplified by the choice of a company in the electricity sector, with a high affinity for ESG issues, due to the strong regulation by the National Electric Energy Agency (ANEEL) and consequent pioneering in the disclosure of ESG information (ANEEL, 2006). In addition, the electricity sector is an important global emitter of greenhouse gases, deserving attention in view of the increase in emissions in recent years (Botelho, 2024).

## 2. THEORETICAL FOUNDATION

National and international norms or standards and *frameworks* related to Sustainability/ESG have been disseminating more intensely recently. Because they are aligned with the research, the ISSB international standards stand out in this chapter, especially IFRS 02, published in Brazil as CBPS 02 standard (CBPS, 2024), ratified for publicly-held companies by Resolutions 217 and 218 (CVM, 2024a, 2024b), which establish the general requirements for the disclosure of sustainability and climate change financial information by companies. The regulatory context in Brazil is also addressed in this chapter alluding to the ESG/Sustainability theme for companies opened in the country.

### 2.1 ESG Norms/Standards and Frameworks

Although the focus of this research is the analysis of ESG regulations in Brazil, it is important to mention some reports and guidelines from organizations outside the country that exert or have exerted influence on the country. It is noteworthy that the set of *frameworks* and standards addressed is not exhaustive and that they were cited in alignment with the purpose of the research.

The reports associated with the Global Reporting Initiative (GRI)- stand out for their pioneering spirit. The set of standards known as GRI *Standards* focuses on economic, environmental, and social impacts and their contributions to the sustainable development of companies (GRI, 2021).

The Value Reporting Foundation*'s (VRF)* Integrated Reporting, incorporated in August 2022 into the IFRS Foundation, is based on its Conceptual Framework (IIRC, 2021), emphasizes capital suppliers, the integration of financial and non-financial information, and prioritizes value creation. It is based on seven basic principles (strategic focus and orientation for the future, connectivity and information, relationship with stakeholders, materiality, conciseness, reliability and completeness, coherence and comparability) and eight content elements (organizational overview and external environment, governance, business model, risks and opportunities, strategy and resource allocation, performance, perspective and basis for presentation).

#### 2.1.1 TCFD

The Task Force on Climate Related Financial Disclosures (TCFD) was created in 2015 by the Financial Stability Board (FSB) with the objective of publish ing recommendations to organizations around the world on climate information to be disclosed to support *stakeholders*. The recommendations are divided into four elements (TCFD, 2021):

– Governance: organizational governance regarding climate-related risks and opportunities;

– Strategy: real and potential impacts of climate-related risks and opportunities on the organization's business, strategy, and financial planning;

– Risk Management: processes used by the organization to identify, assess, and manage climate-related risks;

– Metrics and Targets: metrics and targets used to assess and manage relevant climate-related risks and opportunities. The TCFD was dissolved in 2023, with the FSB announcing that the work was completed, due to the TCFD's alignment with the ISSB and the release of IFRS S1 and IFRS S2 standards, aligned with the recommendations. The FSB has asked the IFRS Foundation to take over the monitoring of progress in companies' climate disclosures, previously monitored by the TCFD (2025).

#### 2.1.2 IFRS S1 and IFRS S2

The IFRS S1 and IFRS S2 standards, issued in June 2023 by the ISSB, adopted in their scope the four elements of the TCFD (Governance; Strategy; Risk Management; Metrics and Goals). These constructs have been improved, with more detailed disclosure requirements and expanded scopes (IFRS Foundation, 2023). These are standards that establish general requirements for the disclosure of financial information related to sustainability and climate, seeking to ensure that the information is useful to investors, creditors, and other users in making decisions about the allocation of resources. The following year, CBPS issued its translation and adaptation, the CBPS 01 and CBPS 02 standards.

IFRS S1/CBPS 01 is aimed at sustainability financial disclosures, requiring an entity to disclose information about its sustainability-related risks and opportunities to key users of financial reporting. With regard to IFRS S2/CBPS 02 (CBPS, 2024), the objective is to require the entity to disclose information about its risks and opportunities related to climate change that is relevant to the main users of financial reporting in decision-making related to the provision of r esources to the entity. As with IFRS S1/CBPS 01, the disclosure requirement refers to risks and opportunities that, in reasonable judgment, may impact the entity's cash flows and/or prospects.

## 2.2 Recent Regulatory Context of ESG in Brazil

In 2020, the CFC issued General Technical Communiqué CTG 09 – Integrated Reporting, approving Technical Guidance CPC 09, related to the topic of integrated reporting. The standard does not oblige companies to integrate financial and non-financial information, but introduces a reference to the Integrated Reporting framework (CFC, 2020). The CVM, in turn, approved the CFC rule for the Brazilian capital market (CVM, 2022d).

In 2021, through Resolution No. 59, the CVM updated the reference form that publicly traded companies must disclose, with the inclusion of ESG information to be completed (CVM, 2021).

In 2022, the Brazilian Committee on Sustainability Pronouncements (CBPS) was created, through CFC Resolution No. 1.670, whose objective is the "study, preparation and issuance of technical documents on sustainability disclosure standards and the disclosure of information of this nature", always in line with the international standards issued by the ISSB (CFC, 2022, Art. 3).

In the following year, the CVM issued Resolution No. 193, aiming to provide visibility and predictability to capital market agents regarding the normative acts issued, which provides for the preparation and disclosure of the report of financial information related to sustainability, on a voluntary basis, by publicly-held companies, investment funds and securitization companies, based on the international standard issued by the ISSB. as of the fiscal years started on or after January 1, 2024 (CVM, 2023, Art. 1). Article 2 of Resolution No. 193 establishes the date on which the obligation to disclose the sustainability-related financial information report, in accordance with the ISSB/CBPS, for publicly-held companies, becomes effective as of the fiscal years started on or after January 1, 2026 (CVM, 2023).

Thus, it becomes evident that the CVM determined to voluntarily adopt sustainability regulations for fiscal years started on or after January 1, 2024, as well as mandatory adoption for fiscal years started on or after January 1, 2026. As for voluntary adoption, comparative information is required from the second year of adoption and assurance is 'limited', by an independent auditor registered with the CVM, while in mandatory adoption, assurance is 'reasonable', according to the definitions of NBC TO 3000 (CFC, 2012).

Shortly thereafter, Resolution No. 1.710 was issued, in which the Federal Accounting Council (CFC) deliberated on the adoption of Brazilian standards for the preparation and assurance of sustainability reports converged with international standards, inserting the Brazilian Accounting Standards for Disclosure of Sustainability Information

(NBC TDS), convergent with the standards issued by the ISSB, and the Brazilian Accounting Standards for Assurance of Disclosure of Sustainability Information (NBC TAS), convergent with the international standards to be issued by the International Federation of Accountants (IFAC), in the framework of the Brazilian Accounting Standards(CFC, 2023).

### 2.2.1 CVM Regulation

CVM Resolution No. 14/20 paved the way for the disclosure of sustainability information, through Integrated Reporting, establishing "Guiding Principles and Content Elements that govern the general content of Integrated Reporting, and to explain the fundamental concepts that support them" (CVM, 2020, p.5). Resolution No. 59/21 now requires publicly-held companies to disclose information with a particular focus on ESG practices, with additional assistance when ESG information is disclosed by Companies (CVM, 2021). As an example, if the report is in line with the TCFD and if there is an inventory of greenhouse gas emissions, when this information is not disclosed, companies need to explain the reason for not disclosing it. The description of risk factors with effective potential for influencing investment decisions, such as reporting social, environmental and climate issues with included physical and transition risks. The CVM also requests a description of the role of governance bodies in the assessment, management and supervision of climate-related risks and opportunities. The republication of Resolution No. 59 was determined due to changes resulting from the issuance of Resolution No. 87 and 168 of 2022 (CVM, 2022b, 2022c).

Resolution No. 80 of 2022 (CVM, 2022a) addresses the same ESG topics as Resolution No. 59 of 2021 (CVM, 2021), however, elements of updating and standardization of the requirements for periodic and occasional disclosure of information by publicly-held companies were incorporated. Among the points corresponding to the indication and comment by the board of directors of the main elements of the Company's business plan is the disclosure of opportunities related to ESG issues. The CVM also requires the Board of Directors (BoD) to indicate, if any, the channels instituted for critical demands related to ESG topics, practices, and compliance that come to its attention. In addition, it is required to disclose the composition of the managers' compensation base, including, if any, indicators related to ESG issues.

## 3. METHODOLOGICAL PROCEDURES

The present study has a descriptive and exploratory nature, with bibliographic and documentary research and a qualitative approach (Gil, 2008), seeking to meet the purpose of investigating the adherence of publicly-held companies in Brazil to the new climate financial disclosure standard, issued by the ISSB and translated by the CBPS, namely, the IFRS S2/CBPS 02 standard. It is an exploratory research, carried out with the aim of increasing the researcher's familiarity with an environment, fact or phenomenon, to carry out a more precise future research or to modify and clarify concepts. For Gil (2008, p.50), bibliographic research "is developed from material already prepared, consisting mainly of books and scientific articles", where information from books, scientific articles, monographs, theses, standards and *websites* of official entities related to the dissemination of ESG information were identified and gathered.

Documentary research, on the other hand, is similar to bibliographic research, differing in terms of the nature of the sources of information, as its focus is on documents that have not yet been analyzed or that have already been analyzed, but not related to the objectives considered (Gil, 2008). In this sense, public information was obtained from documents such as annual and sustainability reports, reference forms, strategic plans, financial statements, standards, internal regulations and policies, among others, available on the *websites* of the companies and institutions surveyed.

### 3.1 Sample Selection

The electricity sector was chosen for this research because it is a heavily regulated sector, as well as its regulatory agency, ANEEL, requires a high standard of ESG disclosures. Looking for companies involved with the ESG theme, the electricity sector was filtered by the companies that make up the ISE (2025b). Of the total of 78 companies in the ISE Portfolio, at the end of 2024, ten companies in the electricity sector were found, whose identification was obtained by cross-referencing with the CVM's register of active companies in the "Electric Energy" sector (2025). Finally, these companies were ranked by Shareholders' Equity (PL) and Eletrobras was selected, as it has the highest PL among the ten companies – about four times higher, compared to Neoenergia, second in the sector. Currently, Eletrobras is the leading company in the electricity generation and transmission segment in the country and the largest in Latin America (Eletrobras, 2025).

### 3.2. Data Analysis

With the purpose of investigating Eletrobras' adherence to IFRS S2/CBPS 02, based on the Implementation Guide, prepared by Gordiano *et al.* (2023), with the support of the National Association of Graduate Studies in Accounting Sciences (ANPCONT), the disclosure requirements in the standard were identified, highlighted and separated by the elements of the TCFD: Governance, Strategy, Risk Management, Metrics and Goals. It should be noted that the requirements contained in the Guide, prepared in 2023, were supplemented to include the full text of the CBPS 02 standard, that is, the IFRS standard translated and adapted by CBPS.

A qualitative analysis was carried out regarding the adherence to the requirements of CBPS 02 in the documents of the selected company, especially the annual and sustainability report of the last period available at the time of the analysis, the 2024 fiscal year (Eletrobras, 2025), in addition to the greenhouse gas emission report, policies, strategic plans and internal regulations related to the governance bodies obtained from the Eletrobras website. From the analysis of the documents, a spreadsheet was prepared that served as support, containing the requirements and an adherence scale that ranged from 0 (Does not meet) to 1 (Partially meets) and 2 (Fully meets) where adherence to each requirement, as well as the source of the information in the documentation.

## 4. PRESENTATION AND DISCUSSION OF RESULTS

The Brazilian electricity sector is one of the largest in the world, which is due to the country's continental dimensions and the abundant possibilities for capturing energy, such as hydro, solar, wind, nuclear, biomass, among others. Composed of the subsectors of generation, transmission, distribution and commercialization of energy, it is a strategic sector for the economic and social development of the country; Under the terms of the Federal Constitution of 1988, in addition to being the competence of the Union, it can be exploited through authorization, concession, permission or other instruments (Montoya *et al.*, 2015).

The electricity sector has always been at the forefront in the adoption of sustainability or ESG reports, which is justified based on the institution of the Public Service Accounting Manual (ANEEL, 2001), which established the rites for the disclosure of social responsibility information based on the Annual Corporate Social Responsibility Report, opting for the use of the structure and content of social reports proposed by the GRI, AccountaAbility, ETHOS Institute and Brazilian Institute of Social and Economic Analysis (IBASE) (ANEEL, 2001). In 2006, ANEEL improved the Annual Report on Corporate Responsibility of electric companies, through the publication of the Manual for the Preparation of the Annual Report on Social and Environmental Responsibility of Electric Energy Companies (ANEEL, 2006), where it established that the Annual Report is an instrument "that highlights its contribution to the development of an environmentally sustainable society, socially fair and economically viable" (ANEEL, 2006, p. 9).

### 4.1 Eletrobras

Eletrobras leads the electricity generation segment in Brazil, accounting for 22% of the country's total installed capacity and 38% of all transmission lines of the National Interconnected System (SIN) in its core grid. Founded in 1962, the company operates in the generation, transmission, and commercialization of electricity. Its generation matrix is predominantly composed of hydroelectric, wind, solar, and thermoelectric plants — the latter currently being decommissioned — reflecting the diversity of the country's energy mix (Eletrobras, 2025).

Recently, in 2022, Eletrobras underwent a privatization process in which the Brazilian government reduced its equity stake while retaining a *golden share* that allows it to influence strategic decisions. This privatization aims to increase efficiency and competitiveness in the electricity sector. It is worth noting that Eletrobras is a publicly traded company under CVM regulation, and is also listed on the U.S. stock exchange under the regulation of the Securities and Exchange Commission (SEC). This dual listing entails compliance with rigorous standards of transparency, financial reporting, and governance practices, as stated by the company (Eletrobras, 2025).

### 4.2 Adherence to IFRS S2/CBPS 02 Standard on Climate Change

In this topic, the results of the adherence of the company's reports to the IFRS S2/CBPS 02 standard (CBPS, 2024) related to the analysis of each standard are presented, namely: Governance; Strategy; Risk Management; Metrics and Goals.

#### 4.2.1 Governance

All six disclosure requirements are compliant with the standard, representing 100% adherence. The information was obtained from the company's website, in the following documents: 2024 Annual Report; Internal Regulations of the Board of Directors and the Sustainability Committee; Members' CVs; and Remuneration Policy.

#### 4.2.2 *Strategy*

Of the 43 disclosure requirements identified in the standard, 19 were fully met and 12 partially. 12 requirements were also not met. Paragraph 9 requests the disclosure of information to facilitate the understanding of financial reports by its users. In sub-topic "d", "the effects of these climate-change-related risks and opportunities on the entity's balance sheet, income statement and cash flows for the reporting period and their anticipated effects on the entity's balance sheet, income statement and cash flows in the short, medium and long term, taking into account how these risks and opportunities related to climate change were considered in the entity's financial planning", there was partial compliance, due to the lack of disclosure of the effects of risks and opportunities in the financial statements.

Paragraph 10 (climate-related risks and opportunities) requires the disclosure of information that allows users to understand the risks and opportunities related to climate change, for which there is a reasonable expectation that they may affect the entity's prospects. In subtopic "d", there was no disclosure regarding the definitions of short, medium and long term, nor how these definitions are linked to the entity's planning.

Paragraph 13 (business model and value chain) requests information to understand the current and anticipated effects of climate change-related risks and opportunities on the entity's business model and value chain. Subtopic "a", which requires "a description of the current and anticipated effects of climate change-related risks and opportunities on the entity's business model and value chain", and subtopic "b", "a description of where climate change-related risks and opportunities are concentrated in the entity's business model and value chain", were partially complied with, as no direct disclosure was found regarding the entity's value chain.

In paragraph 14 (strategy and decision-making), which requires the disclosure of information to understand the effects of climate change-related risks and opportunities on the entity's strategy and decision-making, sub-topic (i), "current and anticipated changes to the entity's business model, including its allocation of resources, to address climate change-related risks and opportunities", was partially complied with, due to the lack of report regarding the allocation of resources. In subtopics (ii) "direct mitigation and adaptation efforts, current and planned" and (iii), "indirect mitigation and adaptation efforts", there was also partial compliance, due to the lack of greater detail on direct and indirect actions aimed at adaptation. Sub-topics "b", "information about how the entity is making available, and plans to make available, resources for the activities disclosed in accordance with paragraph 14(a)" and "c", "quantitative and qualitative information about the progress of the plans disclosed in reports from previous periods, in accordance with paragraph 14(a)", were not met because there was no disclosure.

Paragraph 15 (balance sheet, income statement and cash flows), which requests the disclosure of information for users' understanding, subtopic "a", "the effects of risks and opportunities related to climate change on the entity's balance sheet, income statement and cash flows for the reporting period (current financial effects)", was not addressed, as there was no disclosure of current financial impact, only projected impact.

Subtopic "b", which provides for the disclosure of "the anticipated effects of climate-change-related risks and opportunities on the entity's balance sheet, income statement and cash flows in the short, medium and long term, taking into account how climate-change-related risks and opportunities are included in the entity's financial planning (anticipated financial effects)", was partially complied with, due to the lack of connection with the financial statements, that is, Although there was disclosure of the expected financial impact, there was a lack of connection between climate-related risks and opportunities and the financial statements.

Paragraph 16 requires the disclosure of quantitative and qualitative information by the entity. In subtopic "a", "how the risks and opportunities related to climate change affected its balance sheet, income statement and cash flows for the reporting period", it is considered that there was no compliance, due to the absence of correspondence with the financial statements in the reporting period. In sub-topic "b", "the risks and opportunities related to climate change identified in paragraph 16(a) for which there is a significant risk of material adjustment in the carrying amounts of assets and liabilities in the annual financial statements for the following period", there was also no correspondence of climate-related risks and opportunities with the financial statements, in addition to the absence of disclosure of a significant risk of material adjustment in the book values.
In subtopic "c", which requires the disclosure of information about As the entity expects its balance sheet to change in the short, medium and long term, given its strategy for managing climate-related risks and opportunities, item "i", "its investment and disposal plans", was partially met, as the expectation of change in the financial statements was not directly disclosed. In item "ii", "its planned funding sources to implement its strategy", a relationship with the financial statements was also not established, and there was no emphasis on the planned funding sources. In subtopic "d", "how the entity expects its income statement and cash flows to change in the short, medium and long term, given its strategy for managing risks and opportunities related to climate change", there was partial compliance, as no direct disclosure of the expectation of change in-the financial statements and its relationship with the entity's strategy was observed.

Paragraph 22 (climate resilience) requires the disclosure of information for users to understand the resilience of the entity's strategy and business model to climate-related changes, developments and uncertainties. In subtopic "a", related to the entity's assessment of climate resilience on the reporting date, there was partial compliance with item "i", "the implications, if any, of the entity's assessment of its strategy and business model, including how the entity would have to respond to the effects identified in the analysis of climate-related scenarios", as there was no response to the effects identified, although Eletrobras disclosed that the plans would be completed in 2025.

In item "ii", "the significant areas of uncertainty considered in the entity's assessment of its climate resilience", there was no attendance, due to the lack of disclosure of the significant areas of uncertainty. In item "iii", which requires "the entity's ability to adjust or adapt its strategy and business model to climate change in the short, medium and long term", sub-item "1", "the availability and flexibility of the entity's existing financial resources to respond to the effects identified in the analysis of climate-related scenarios, including to address climate change-related risks and take advantage of climate-related opportunities", was not met, due to the lack of disclosure about the availability and flexibility of resources. In subtopic "b", "how and when the analysis of climate-related scenarios was carried out", item "i", "information on the data that the entity used", sub-item "4", "whether the entity used, among its scenarios, a scenario related to climate change in line with the last international agreement on climate change", no alignment with the last international agreement was found, although the meteorological drought scenario was highlighted, it was shown to be in line with the scenarios presented by COP29 in 2024.

In sub-item "7", "what scope of operations did the entity use in the analysis", there was partial compliance, as the places of operation and business units were not evidenced. In item "ii", "the main assumptions adopted by the entity in the analysis", sub-item "2" was not met, due to the absence of reporting on macroeconomic trends, sub-item "3", "variables at the national or regional level", was also not met, due to the non-verification of the treatment of these variables, and sub-item "4", "energy use and energy mix", was considered not met, for the lack of disclosure.

The information was captured from the 2024 Annual Report and the 2024 Greenhouse Gas Emissions Inventory, obtained from the company's website.

### 4.2.3 Risk Management

Of the nine requirements of the standard identified, six were fully met (67%), while three were partially met (33%). To comply with paragraph 25 of the standard, the objective of disclosing information on related processes and policies, which are used to identify, assess, prioritize and monitor climate-related risks, is evidenced.

In subtopic (a, IV) "whether and how the entity prioritizes climate-related risks over other types of risk", there was no comparability with other types of risks to identify a prioritization directly, however, from reading the Annual Report as a whole, it can be inferred that prioritization in climate risks can be inferred.

In subtopic (a, VI) "if and how the entity changed the processes it uses compared to the previous reporting period", no comparison effect was found in the processes, but new actions were evidenced, such as the implementation of the *Geograph Building Information Modeling* (GeoBIM) Methodology for the construction of virtual models of the company's assets, providing a detailed and integrated view of the projects, at all times of its life cycle, and the implementation of the Integrated Asset Monitoring Center for monitoring and managing generation and transmission assets remotely and centrally.

In partial compliance with paragraph 26, "when preparing disclosures to comply with the requirements of paragraph 25, an entity shall avoid unnecessary duplication in accordance with IFRS S1", no material duplications were observed in the 2024 disclosures. However, it is worth noting that this disclosure was contained in the information released for 2023, through reports that could be summarized with the Annual Report, such as the SASB report, SDG Booklet and Thematic Booklets (such as relationships with communities, biodiversity and ecosystem services, climate change TCFD), in line with the disclosures already analyzed for 2024 and in compliance with IFRS S/CBPS standards.

The information was captured from the 2024 Annual Report, Obtained from the company's website.

### 4.2.4 *Metrics and Goals*

In order to facilitate the analysis, the division between Metrics and Goals was reproduced, along the lines of Giordano *et al.* (2023).

#### a) Metrics

Of the 23 requirements related to climate metrics, 14 (61%) were fully met, seven partially (30%) and two (6%) were not met. In paragraph 29, the duty to disclose relevant information focused on cross-industry metrics is highlighted. In subtopic (a, V) the disclosure of Scope 2 greenhouse gas emissions by location and by any contractual instruments used is required. It is noted that there was no service, due to the lack of disclosure of emissions by location and also the use of any contractual instruments.

Regarding the non-compliance with subtopic (a, VI), it was considered that category number 15 and all of the company's investments in accordance with the GHG Protocol (GHG Protocol, 2025) were not reported. It was informed that the reported data considers the *holding company*, as well as all operating subsidiaries and Special Purpose Companies (SPE).

As for subtopic (b), "climate-related transition risks - value and percentage of assets or commercial activities vulnerable to climate-related transition risks", it was considered partial compliance, as it highlights only one risk and does not demonstrate the value and percentage of assets or commercial activities.

In subtopic (c), "climate-related physical risks - value and percentage of assets or business activities vulnerable to climate-related physical risks", partial compliance was considered, as it highlighted only one risk and the value and percentage of assets or commercial activities were not demonstrated.

Referring to subtopic (d), "climate-related opportunities - value and percentage of assets or business activities aligned with climate-related opportunities", was considered as partial service, as it highlights only one opportunity and does not show the value and percentage of assets or business activities.

As for subtopic (f), there was partial compliance because the Company did not report the internal carbon price directly, however, it was evidenced as a metric for assessing climate risks and opportunities.

Finally, with regard to subtopic (g), it is considered that there was partial compliance, due to the lack of disclosure of the percentage of the remuneration of senior management in view of climate-related considerations.

**b) Goal**

Of the twenty-three requirements of the standard, 19 (83%) were fully met, 3 (13%) were partially met and one requirement was not met (4%). In this sense, in subtopic "f", "any milestones and intermediate targets", there was partial compliance because there was no disclosure of intermediate targets related to the main goal, aimed at the company's commitment to be *net zero* by 2030.

Paragraph 34 specifies that the "entity shall disclose information about its approach to setting and reviewing each target and how it monitors progress against each target", in sub-topic "d", "any revisions to the target and an explanation for those revisions". Partial compliance was considered, as it did not show how the reviews are carried out. In paragraph 35, which informs, "the entity must disclose information on its performance against each climate-related target and an analysis of trends or changes in the entity's performance", partial compliance was considered, as no analysis of trends was observed.

In summary, the findings show that Eletrobras presented, in the year 2024, a high overall level of adherence to the requirements of IFRS S2/CBPS 02 (86%), with 62% of complete compliance and 24% of partial compliance, demonstrating that the company's disclosure is aligned with climate change.

## 5. CONCLUSION

The objective of this research was to analyze the adherence of publicly-held companies, with a focus on Eletrobras, to the IFRS S2/CBPS 02 climate disclosure standards, considering the context of growing relevance of ESG practices in Brazil and in the world. The analysis carried out, based on the CBPS 02 standard and the ANPCONT Implementation Guide, revealed that Eletrobras presented, in the 2024 fiscal year, a high level of adherence to the requirements of IFRS S2/CBPS 02 (86%), with 62% of complete compliance and 24% of partial compliance with the standard. All the requirements of the Governance construct were fully met (100%), demonstrating the company's commitment to governance related to climate change. The analysis also highlighted points of attention. In the construct *strategy*, 72% of the questions were met, with the only 44%, 28% partial, while 28% of the requirements were not met. It is noteworthy that the relationship between risks and opportunities with the financial statements is not directly disclosed. In this dimension, improvements in disclosure are needed. Most likely, the results are due to the fact that Eletrobras is not yet disclosing according to the new rules. Regarding *Risk Management*, there was complete adherence of 67% and partial adherence of 33% of the requirements. The partial compliance is due to the lack of comparability with the other risks, in order to highlight climate prioritization. In the changes in processes, there was a lack of comparability in relation to the previous period. As for *Metrics and Targets*, 69% were completely met, 23% partially met and 8% of the requirements were not met. It was observed that the result was mainly impacted by Metrics, with only42% of requirements with full adherence and 18% of requirements not met. Specifically for the Metrics, issues related to the non-disclosure of information by location related to Scope 2, Scope 3 information linked to the 15 categories of the GHG Protocol, value and percentage of assets related to climate risks and opportunities are highlighted. For the Goals, the lack of disclosure of intermediate goals, how the goals are reviewed, the absence of disclosure of trend analysis and, finally, the lack of third-party verification and/or certification for carbon credits.

These gaps, although they do not compromise the overall quality of disclosure, indicate opportunities for improvement, especially considering the mandatory adoption of ISSB standards as of 2026. If the company so decides, anticipating these regulatory requirements can position Eletrobras even more strategically in the market, reinforcing its organizational legitimacy and its attractiveness to investors who value sustainable and transparent practices.

In view of the above, it is concluded that the company Eletrobras, the object of this study, has a satisfactory general level of adherence to the requirements for financial disclosure of climate, IFRS S2/CBPS 02, but there is room for advancement, especially in the Strategy dimensions and in the detailing of Climate Metrics and Targets. The full and consistent adoption of these standards should be seen not only as a regulatory obligation, but as an opportunity to strengthen governance, mitigate risks, identify opportunities and generate sustainable value for all stakeholders, contributing to the maturation of the capital market and to the consolidation of a more responsible, transparent corporate culture aligned with environmental challenges. social and governance issues.

As limitations of the work, it is pointed out that it is a new theme, whose knowledge is being forged. The chosen company had not yet opted for early disclosure in accordance with the standard, so the study signals the current information condition of the company prior to the implementation of the standard. In addition, the analysis is essentially qualitative, and is therefore subject to interpretation by researchers. It is suggested that more empirical studies be carried out to assess the adherence of Brazilian companies to international standards for climate financial disclosure, allowing the construction of a database, comparisons between companies and over time.

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