



2023

Sustainability Report

Sustainability Report 2023

Contents

Ecogen

History | p. 05
Business Model | p. 08
Segments | p. 09
Solutions and Eco-solutions | p. 10
Operation & Maintenance | p. 12
Presence across the country: | p. 13
2023 Highlights | p. 14
Innovation and Technology | p. 14

Governance

Governance Structure | p. 16
Compliance | p. 18
Tax Approach | p. 20
Sustainability | p. 20
Strategic Planning | p. 21

People

Diversity | p. 24
Occupational Health and Safety | p. 26
Ecogente (Ecopeople) and the Volunteer Program | p. 28
Surrounding Community | p. 29

Environment

About the Report

GRI Contend Index

Complements

Message from the Leadership

(GRI 2-22)

Dear colleagues, partners and stakeholders,

We are delighted to present Ecogen Brasil's inaugural Sustainability Report, reaffirming our enduring commitment to responsible and sustainable business practices.

In a world where environmental and social challenges are becoming more apparent, it is essential for companies to take the lead in seeking environmentally responsible solutions. On our journey, we are committed to facilitating the energy transition, driving social development, promoting diversity, equity, and inclusion, and ensuring the prosperity of future generations.

Mitsui & Co. is committed to sustainable growth and good corporate citizenship. The Management Philosophy (Mission, Vision, and Values) of Mitsui & Co. is reflected in the company's operations, guided by Social Responsibility policies that emphasize environmental and social responsibility, as well as respect for stakeholders. As a company fully owned by Mitsui, Ecogen remains entirely aligned with the ESG values and principles embraced by our shareholder.

In this report, you will find a transparent summary of our initiatives and accomplishments during 2023. From

actions related to investing in projects that drive the decarbonization of our clients to the social projects in which we are involved, each effort reflects our commitment to creating long-term value for all our stakeholders.

The year 2024 will consolidate the Ecogen brand as a company that generates energy and other utilities that enable our customers' energy transition. To achieve this, we are investing in the development and training of our people, establishing partnerships and strategic alliances that drive us toward innovative models, and strengthening relationships with our customers to develop efficient solutions that meet their energy transition and security needs.

We recognize that there is still much to be done. We are committed to continually learning, evolving and improving our practices to address emerging challenges effectively and responsibly.

We sincerely thank all our employees, partners and communities for their support and engagement on this journey. Together, we can build a more sustainable and prosperous future for everyone, by transforming society's relationship with energy.

Luiz Cabral
CEO



Ecogen

History

Ecogen is a company specializing in energy efficiency and utility generation for large industries and commercial complexes. Established in 2002, as Iqara Energy, controlled by the BG Group, it received its current name after a corporate change in 2008.

With a clear objective to provide integrated energy solutions in an intelligent, economically attractive, and environmentally responsible manner, Ecogen was acquired, four years later, by Mitsui & Co. and TGES, one of the largest Japanese conglomerates in the world. It was a period of significant advancements for the company, with a focus on the contract involving generating projects in industrial complexes and its pioneering spirit, demonstrated in 2015 by the installation of a biomass boiler at a major food industry brand in São Paulo. In 2016, Ecogen became wholly owned by Mitsui, which provided the financial boost necessary to significantly diversify its portfolio.

Between 2018 and 2021, Ecogen made important acquisitions, starting with Light Esco, Light's energy efficiency unit. The deal included the acquisition of a plant belonging to a major bottling company, certified to the FSSC22000 food standard, where Ecogen was responsible for cogeneration and part of the utility generation process, including the CO₂ used in the carbonation of beverages. Subsequently, Ecogen acquired 50 percent of Brasil

GTW, a company focused on generating electricity using associated gas obtained from producing fields. BRASIL GTW's solution reuses the associated gas that would otherwise be flared, addressing critical environmental and regulatory aspects by significantly reducing natural gas production losses. Moreover, it increases the supply of distributed energy generation in the regions where it is implemented. This enables Ecogen to further pursue its strategy of increasingly expanding the offer of sustainable services and solutions.

From 2020 onwards, Ecogen launched new products to reach other market niches. In 2022, it started its first Biogas solution project in a large industry.

Another significant milestone was the GPTW 2020 certification, a seal that recognized that Ecogen's employees consider it as an excellent place to work. The distinction was subsequently renewed in 2021, 2022, and 2023.

In a move to increase business and accelerate the digitalization and industrial decarbonization processes, in addition to increasing its value proposition with its customers, the company created Ecogen 360° in 2023. Ecogen 360° is a digital platform that leverages data intelligence to monitor and optimize utility consumption, to analyze CO₂ emissions in industrial plants, and to generate insights to promote energy efficiency and security, cost reductions and the decarbonization of various industrial niches.

Two decades ago, there were fewer than ten employees working in a modest office in São Paulo, focusing on natural gas cogeneration and managing air conditioning systems for shopping centers and commercial buildings. Today, Ecogen is headquartered in the Brooklin Novo district – one of the most renowned business complexes in São Paulo, it has more than 300 employees and around 80 operations in plants spread throughout Brazil. Making the energy transition viable and adapting to the growing demand for renewable energy turn the ecosolutions offered by Ecogen's portfolio into a major strategic priority for the business.



For more than 20 years

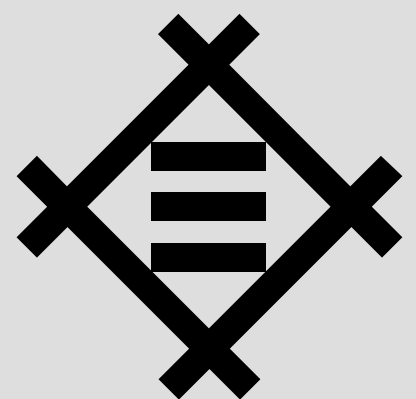


Our Purpose:

To enable the energy transition with efficient utility generation.

Our Value Proposal:

We invest, implement and operate plants to generate utilities, promoting the energy transition.



mitsui & co.

Created in 1947, the Mitsui & Co Group is a Japanese conglomerate present in 62 countries. In Brazil, it has a consolidated presence, with an investment worth US\$ 10 billion in several areas of activity – among them, in the Energy area, represented by Ecogen.

Mitsui expresses a continuous commitment to sustainability across all its global operations, firmly believing that business success cannot be separated from its impact on society and the environment.



Our Values:

Care with people

To communicate our commitment to valuing the lives of all the people who are part of our business to all eco-lovers and partners/clients. To experience security in all our actions, considering physical, mental and financial security.



Safety everywhere

To communicate our commitment to valuing the lives of all the people who are part of our business to all eco-lovers and partners/clients. To experience security in all our actions, considering physical, mental and financial security.



Collaborative environment and relationships

To encourage integration, effective communication and trust.



Focus on the results of Ecogen and its stakeholders

To drive the achievement of our results, always aligning with our vision and ensuring that results are reached both internally and in the view of all stakeholders.

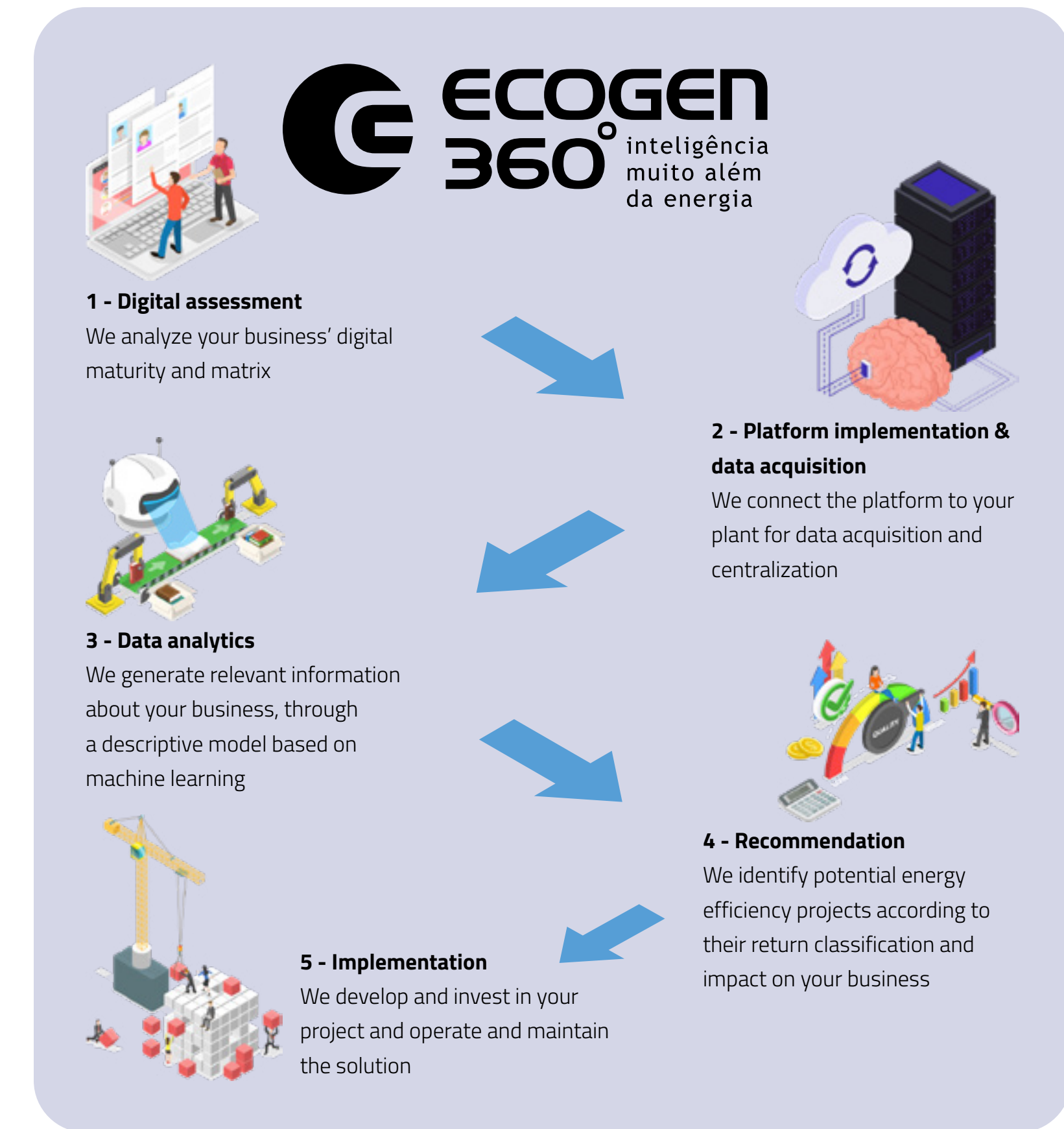
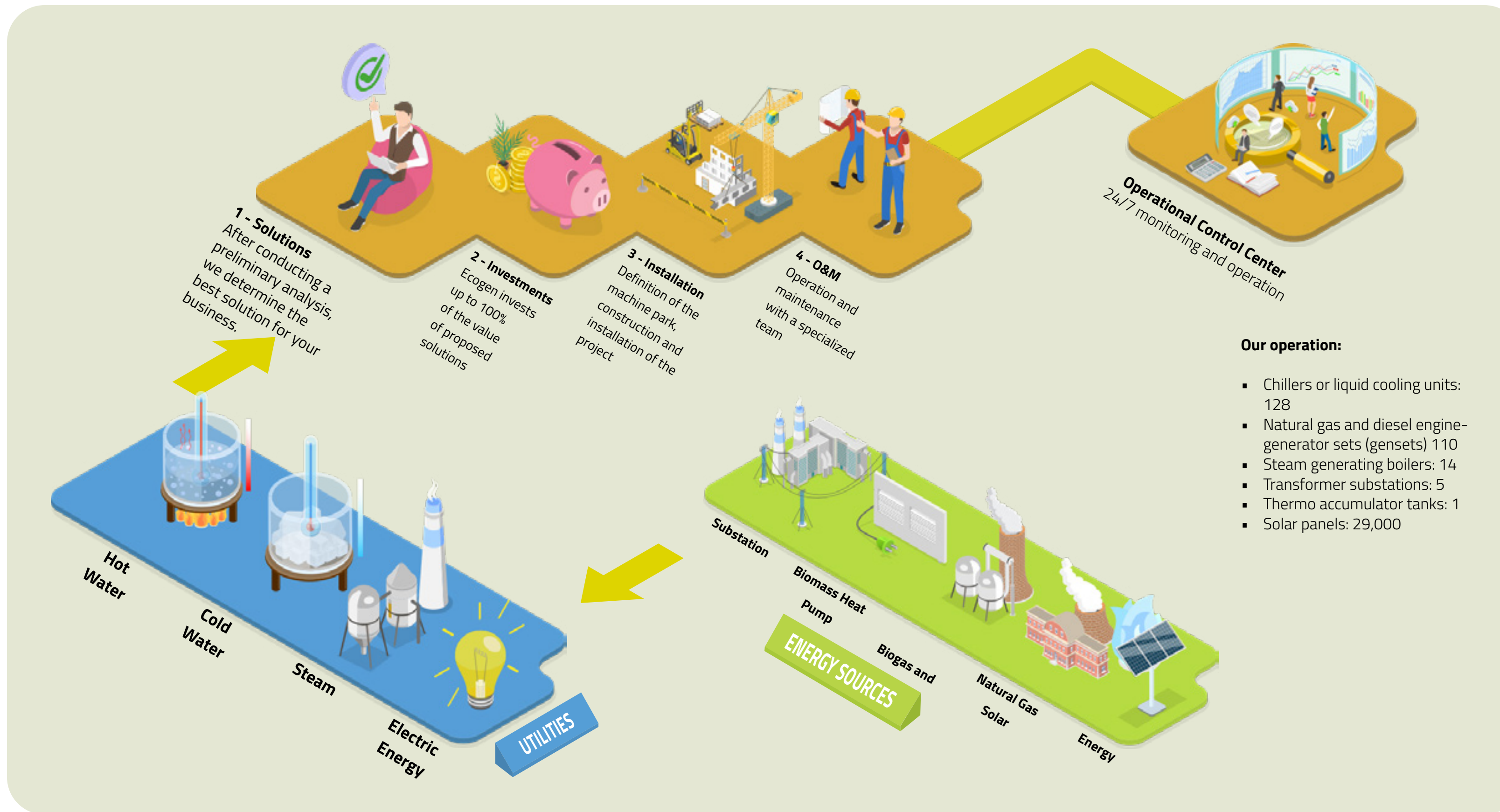


Long-lasting relationships and customer commitment

1. Customers: To reduce costs, generate reliability and energy efficiency.
2. Employees: To promote recognition and a healthy and safe environment.
3. Partners | Influencers: Strengthen relationships and create links to generate business.
4. Shareholder: Dividend payments and information sharing.



Business Model



To manage the projects we develop, in addition to our expertise, we have access to the latest developments from Mitsui. The projects are financed with a combination of resources from Mitsui and financial institutions.

We have a network of suppliers that helps bring projects to life, including equipment suppliers and manufacturers, maintenance service providers, as well as partner EPC (Engineering, Purchasing and Construction) companies and fuel suppliers. (GRI 2-6)

Segments

Operating in everything from feasibility studies to operation and maintenance, and serving the entire production chain or a part of it, Ecogen's solutions and eco-solutions promote energy security and facilitate the transition process. The company aims to build more sustainable energy matrices and, operating in several niches, offers diverse options, covering a variety of industrial and commercial segments.

In the industrial segment, it has plants in the food, beverage, ceramic coatings, packaging and automobile sectors. In the food segment, in 2023, Ecogen installed a biodigester in an industrial unit and a biomass cogeneration thermoelectric plant with a generation capacity of 25 tons per hour of steam and 3 MW of energy. Both facilities are located in a city in the interior of the state of São Paulo.

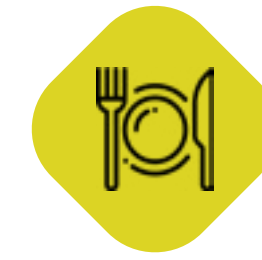
Utility generation is also aimed at segments such as hotels, data centers and hospitals. Also part of Ecogen's scope of action are logistics warehouses, commercial buildings and shopping centers. By making the development or evolution of these projects financially feasible, we provide greater economic dynamism in the regions where clients operate, generating income and creating jobs, both directly and indirectly.

Ecogen's solutions and eco-solutions, in addition to bringing greater efficiency with stability and security in utility supplies, reduce losses by avoiding interruptions in customer operations. The total value of investments in utility infrastructure in industries, commercial buildings and solar energy generation plants, until 2023, was R\$586 million, with the average ticket for each investment ranging from R\$2 to R\$50 million. Such investments have a useful life of 10 to 20 years. (GRI 203-1)

Find out more details about Ecogen's operations in a few segments:



Beverage industries – Action in this sector aims to guarantee the supply of utilities with efficiency and quality through natural gas cogeneration. Ecogen solutions bring several benefits, including predictability of over 80 percent of electrical events caused by the utility, the guarantee of delivering all factory utilities at a fixed price, and the possibility of selling surplus energy to other units in the group with an incentive (50% in TUSD).



Food industry – Ecogen operates in this sector on two fronts. The biodigestion plant offered by Ecogen replaces the consumption of LPG (a polluting fossil fuel) with biogas (renewable and clean) for use in furnaces. With it, it enables the production of biogas from the treatment of 12.6 t/day of organic waste; the decarbonization of the energy matrix, contributing to achieving the "net zero" sustainability goal, and the transformation of environmental liabilities into energy assets.

In another action, Ecogen reduces the cost of steam production by offering a biomass boiler as a solution. In a successful case, the use of biomass resulted in a 25 percent reduction in the cost of steam, making the industry environmentally responsible for emitting 25,000 fewer tons of CO₂ per year.



Commercial buildings – Ecogen's solutions for commercial complexes, which need power and cooling practically 24 hours a day, guarantee the energy and air conditioning businesses need in a reliable, safe and environmentally responsible way. The main results derived from

these solutions include over 90 percent savings in electrical events caused by the utility; predictability in chilled water plant operating and maintenance costs, and the securing of LEED certification – one of the main certifications for sustainable buildings in the world.



Solutions and Eco-solutions



Biomass

Any organic matter, of animal or vegetable origin, that has energy potential can become biomass, a renewable resource that uses an energy conversion process that is much less harmful to the environment. It is as an excellent choice for energy generation and utilities, as it enables the reuse of waste materials that would otherwise be discarded. These include sugar cane bagasse, rice husks, animal manure, and others, or can be sourced from reforestation wood.

[Learn more](#)

Benefits of Biomass

Renewable and sustainable source – Biomass serves as a sustainable fuel option, particularly since it emits fewer Greenhouse Gases (GHGs) and is derived from renewable sources.

Up to 50% lower cost – When compared to fossil fuels like natural gas and fuel oil, Biomass can be up to 50% less expensive.

Decarbonization – Using Biomass can reduce CO₂ emissions from operations. By releasing only Biogenic CO₂ (CO₂ from biological sources), it is an option with low net greenhouse gas emissions. And it also enables generating economically-attractive carbon credits.

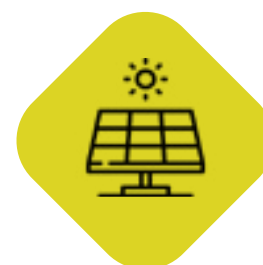
Circular economy – Utilizing Biomass helps reduce and manage organic waste, leading to the creation of both direct and indirect employment opportunities.

Access to energy – The use of biomass in thermoelectric plants, especially in regions that are not covered by the electricity grid, allows access to power in remote locations.



Biogas

A sustainable and environmentally responsible solution, biogas is produced from several types of organic waste. What would otherwise be discarded into the environment becomes a gaseous fuel that contributes to the reduction of greenhouse gas emissions into the atmosphere and to the decarbonization of the energy matrix.

[Learn more](#)


Solar

Solar energy, a renewable energy source produced by harnessing the heat emitted by solar radiation, works by converting the sun's rays' thermal energy into electrical energy. Ecogen provides a solution with solar panels to meet demand either locally or remotely through Distributed Generation. This approach involves installing generating systems at various points, situated nearby or even at the consumer unit, and connected to the public electricity grid.

[Learn more](#)

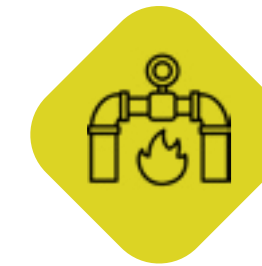
Biogas production sources

Municipal Solid Waste (MSW) – Biogas produced from organic waste can be utilized to generate electricity or converted into biomethane. This biomethane can be injected into natural gas distribution networks or employed as fuel for collection truck fleets.

Industrial waste – Organic matter from various industries, such as food and beverages, paper and cellulose, ethanol and sugar, biodiesel and refrigerators, is an alternative for generating electrical and thermal energy. In this case, biogas can also be consumed in industrial processes, such as food ovens.

Sewage – Coming from domestic and industrial wastewater containing organic loads, Biogas can be used to generate electricity or converted into biomethane and then injected into natural gas distribution networks.

Rural and agricultural waste – Biogas generated from organic matter of animal or vegetable origin (harvest remains, waste and carcasses, for example) can generate electrical energy or be converted into biomethane. The solution provides an alternative to diesel fuel to fire the transport truck and agricultural machinery fleet.



Natural Gas Cogeneration

Cogeneration enables the simultaneous production of electrical, thermal, and steam energy from a single fuel source, typically natural gas. The thermal energy dissipated in the exhaust gases is recovered and produces steam, hot air and cooling, which can be used in industrial processes, generating electrical energy. The solution also recovers energy in the generator block to generate steam, cold water and/or hot water.

[Learn more](#)



Substation

An electrical substation combines conductors, devices, and equipment designed to alter the characteristics of electrical energy, enabling its distribution at suitable levels for various applications. Ecogen works with high voltage transformer substations (69kV or greater), which are those that convert the transmission voltage to a different level, higher or lower, depending on the need.

[Learn more](#)


Chilled Water Plant

Operating a Chilled Water Plant (CWP) involves circulating air and water together, resulting in a decrease in air temperature due to the chilled water's low temperature. The implementation of this solution (new or retrofit) serves air conditioning or industrial processes.

[Learn more](#)


Heat pump

The Heat Pump is a technology industries use to produce utilities, thanks to its efficient capability to transfer heat from one environment to another. This heat transfer can be used for a variety of industrial purposes, such as process heating, air conditioning, and cooling, among others.

You can only find it at Ecogen



Specialized technicians handle the maintenance of motor generators, boilers, chillers (both absorption and electrical), and related peripheral devices.



Energy efficiency management.



Management of major service and maintenance contracts.



Team of engineers with expertise in failure analysis.



Mobile team prepared for local service.



Technical team specialized in the onsite and remote operation of power plants.



Development and implementation of the MOCP (maintenance, operation and control plan).



Operation & Maintenance

(GRI 3-3 PRODUCT/SERVICE QUALITY AND SAFETY)

The Operations and Maintenance (O&M) department is multidisciplinary and includes mobile teams for on-site services, engineers skilled in failure analysis, as well as specialists in the local and remote operation of power plants, among others. In 2023, its three primary objectives were focused on new tools, digitalization, and customer-centricity. These included conducting a survey to assess satisfaction levels with the services provided. The main actions were guided by determining the customer's needs during the first service, balancing the technicalities of each new plant and integrating technologies.

In 2023, the O&M area made a major advance in the Net Promoter Score (NPS) metric, meaning customers are more satisfied with Ecogen's solutions and service. This positive outcome serves as further encouragement to strive for excellence. (GRI 2-29)

In the maintenance process, whether preventive, predictive, or in emergencies, Ecogen prioritizes the immediate availability of equipment. There is a strong emphasis on preventive measures to avoid technical issues and accidents. The primary challenge lies in ensuring smooth operations without excessive costs.

One of the distinguishing features of Ecogen's operations is its Operational Control Center.

It operates and monitors the customers' plants around the clock, and it received a significant investment in 2023. There was an increase in the specialized and multidisciplinary team and new technological resources were implemented. By 2024, the goal is to implement a tool that captures customer information in greater detail, and such data will be managed up to the billing moment. With this, data can be acquired and interpreted in real time without the need to be present at the plant.

It is important to note that carbon dioxide (CO₂), a byproduct of one of Ecogen's operations, is evaluated for its impact on health and safety as part of efforts to drive improvements. Assessment takes place at all stages of the life cycle: Product concept development, R&D, certification (FSSC 2000), manufacturing and production, storage, distribution and supply, use and maintenance, disposal, reuse or recycling. (GRI 416-1)



Presence across the country:



Operation in the North:

Chilled water plants:

- 01 - Amapá.
- 01 - Rondônia.
- 01 - Roraima.



Operation in the Midwest:

Chilled water plants:

- 01 - Federal District.
- 01 - Mato Grosso do Sul.

Natural gas cogeneration:

- 01 - Mato Grosso do Sul.



Operation in the South:

Chilled water plant:

- 01 - Rio Grande do Sul.

Substation:

- 02 - Rio Grande do Sul.



Operation in the Northeast:

Chilled water plants:

- 01 - Alagoas.
- 01 - Bahia.
- 03 - Ceará.
- 02 - Rio Grande do Norte.

Natural gas generation:

- 01 - Ceará.

Substation:

- 01 - Bahia.



Operation in the Southeast:

Biogas:

- 01 - São Paulo.

Biomass:

- 01 - São Paulo.

Chilled water plants:

- 01 - Minas Gerais.
- 07 - RIO DE JANEIRO.
- 08 - São Paulo.

Natural gas cogeneration:

- 06 - RIO DE JANEIRO.
- 10 - São Paulo.

Diesel emergency generation:

- 03 - São Paulo.

2023 Highlights

(GRI 3-3 ECONOMIC AND FINANCIAL PERFORMANCE, GRI 201-1, 207-1)

The year 2023 saw real growth compared to 2022, a significant achievement during a challenging period. With financial results delivered without losing sight of sustainability, Ecogen focused on projects linked to decarbonization and increased its portfolio of air conditioning system retrofit projects.

One of the major focuses of attention during the year was the instability in the supply chain, particularly for imported components, which had an impact on the exchange rate. The variation in biomass values, for instance, was atypical, largely driven by the increase in wood prices and its correlation with fluctuations in natural gas prices. Another adversity was the delay in works, partly due to regulatory factors or issues linked to the lack of infrastructure for access to the energy network. It was necessary to hire extra labor in some plants and look for alternatives in relation to equipment in general.

By controlling external variables and achieving better financial indicators, the company was able to reduce risks and obtain better efficiency and performance. In the treasury area, more robust and structured processes were implemented, along with the establishment of relationships with major financial institutions. Among the solutions offered by Ecogen, it was eco-solutions that demonstrated potential for business growth.

The company increasingly focuses on securing contracts that facilitate a decarbonization process through the utilization of biomass and the production of biogas. In 2023, the food industry was among the sectors with the highest demand for them, seeking to transition from fossil fuels to biomass and bioenergy services to reduce CO₂ emissions.

In 2024, the plan is to increase investments in biogas plant projects, which are still in the early stages in the country, and to double investments in biomass plants to sustain the business's sustainable growth.

ECONOMIC VALUE (R\$)	2023
Direct Generated	397.794
Distributed	360.738
Withheld	37.056



Innovation and Technology

(GRI 3-3 INNOVATION AND TECHNOLOGY)

The big launch in the innovation and technology area, in 2023, was Ecogen 360°, a digital energy efficiency product that enables optimization in utility consumption, digitalization and decarbonization in the industrial segment. Ecogen 360° captures data and delivers valuable insights to customers, enabling them to implement necessary changes based on data intelligence.

In a collaboration with a European clean technology company, which granted Ecogen exclusive rights to the tool, Ecogen 360° is marketed throughout Brazil. Used in 20,000 factories around the world, it is capable of analyzing energy consumption, offering cost optimization, and monitoring GHG emissions to measure to what extent operational improvements are contributing to decarbonization.

In the Information Technology department, equipment leasing and cloud backups stood out. Cybersecurity got special attention as an ongoing improvement effort within the company, leading to process enhancements across various areas.

Governance

(GRI 3-3 GOVERNANCE AND COMPLIANCE)

The year 2023 was one of profound changes in Ecogen's organizational structure. Several of the company's talents had the chance to be promoted to managers and even to leadership roles, which led to increased autonomy and fluidity for the areas. A previously rigid hierarchical structure has started to offer more opportunities and trust to younger employees.

Governance Structure

(GRI- 2-9, 2-10, 2-11)

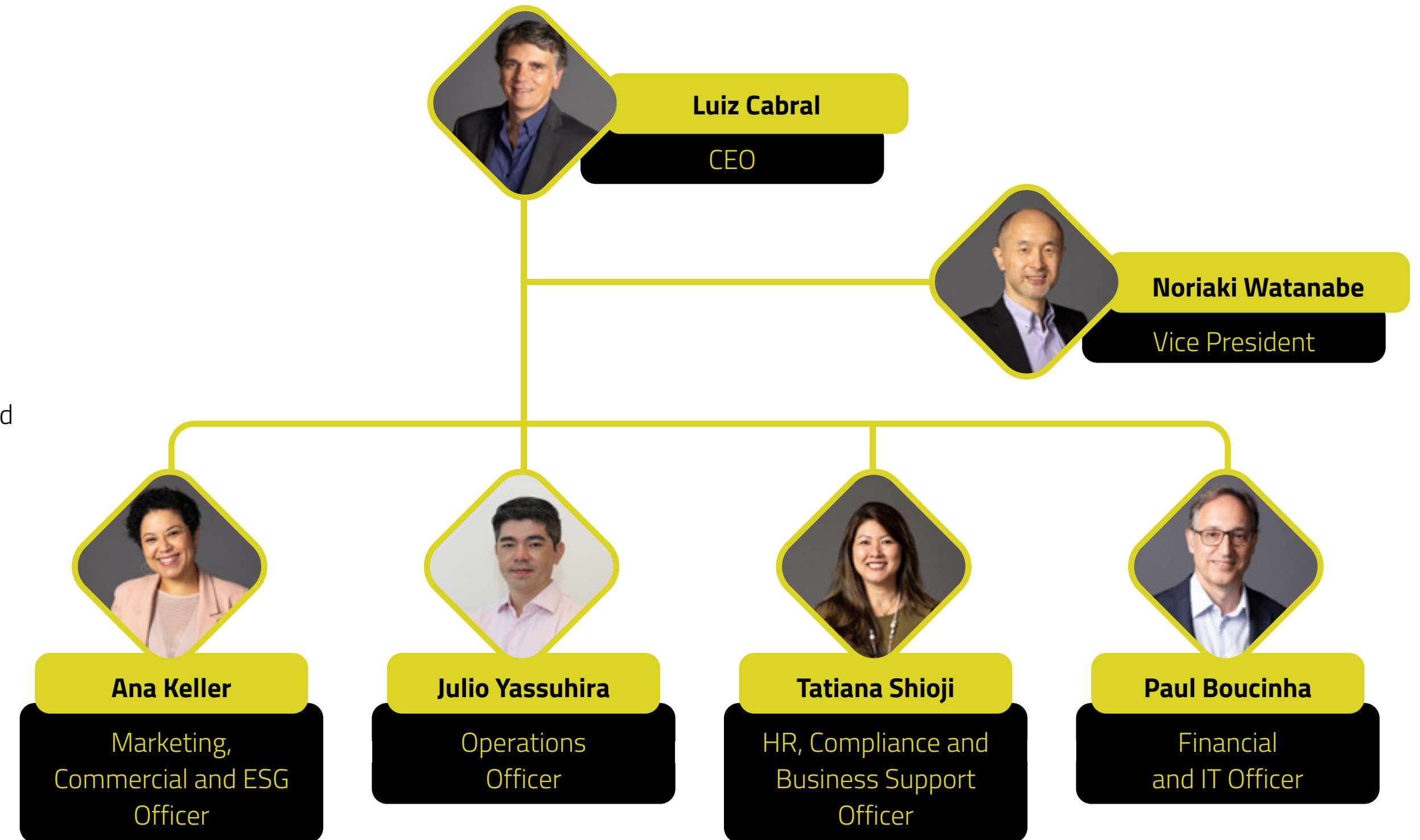
Ecogen Brazil has a Board of Directors consisting of five members, all of whom are male. They are responsible for decision making and for overseeing the organization's management of its impacts on the economy, environment, and on people. As representatives of the shareholder, they are not independent and serve a three-year term with the option for renewal. Board members are designated by Mitsui based on specific positions, such as the General Manager of the Infrastructure Projects Business Unit, the SVP of Mitsui United States, the Financial Manager of Mitsui Brazil, etc. If a person vacates their position, their successor or another individual with a similar position level will participate in the Board.

Members of the Board of Directors:

- Koichi Katayama (Chairman)
- Yosuke Matsumoto
- Ryo Miyajima
- Tadaharu Shiroyama
- Koichiro Nakao

The Executive Committee has an executive role and is made up of six members, two of whom are women. Members of the Executive Committee:

- Luiz Carlos Carolino Cabral (CEO)
- Noriaki Watanabe (Vice-President)
- Julio Cesar Yassuhira (Operations Officer)
- Tatiana Tiemi Ueda Shioji (HR, Compliance and Business Support Officer)
- Ana Paula Keller Lekitsch (Marketing, Commercial and ESG Officer)
- Paul Boucinha (Financial and IT Officer)



Impact Management

(GRI 2-12, 2-13, 2-14, 2-16)

The Board of Directors plays a crucial role in ensuring compliance with regulations concerning the operations' impacts on the economy, environment, and on people. In addition to strengthening reputation, it also contributes to long-term value creation. It delegates the responsibility for managing the organization's impacts to the executive board, which, in turn, commands its multidisciplinary teams in conducting all actions in the economic, environmental and social spheres. This Board is also responsible for approving the information disclosed in this first Ecogen Sustainability Report.

By engaging in various sustainability initiatives, the company relies on shareholder guidance to achieve the objectives of the global pact, which has bolstered actions related to sustainable development. In quarterly meetings, the Board monitors the evolution of projects related to the topic and presents the progress of initiatives in managing the organization's impacts.

The executive committee meets with the board every quarter to present all of the company's results. During these meetings, all topics are discussed, and critical issues are highlighted, with everything being recorded in minutes for later dissemination.

Risks and Climate Change Management

(GRI 3-3 CLIMATE CHANGE, GRI 201-2)

Climate change presents risks and opportunities for organizations, their investors and stakeholders. The limits imposed on greenhouse gas (GHG) emissions create opportunities for companies like Ecogen, which works with solutions for the energy transition. Although we have not calculated the financial implications, we have already identified a few of these risks and opportunities, as follows:

Regulatory Risks

- **Greenhouse Gas Emission limit**
- **Carbon market regulation**



Opportunity: Since organizations have been concerned about the effects of carbon market regulations, this represents a scenario of opportunities for Ecogen, which offers solutions that help organizations' energy transition, such as replacing fossil fuels with others from renewable sources and the supply of clean energy in general.

Physical Risks

- **Frequent and intense storms**



Risk: These could cause power supply shortages from utilities.



Opportunity: To provide power supply alternatives that are not vulnerable to this type of failure.

- **Changes in environment temperature**



Risk: This can cause heating in establishments such as shopping malls and buildings.



Opportunity: To offer a solution for the cooling system, climate changes, and contribute to the Paris Agreement beyond the imminent carbon market regulations. This represents a scenario of opportunities for Ecogen, which offers solutions that help organizations in their energy transition, such as replacing fossil fuels with others from renewable sources and the supply of clean energy in general.

Remuneration

(GRI 2-19)

Mitsui sets the remuneration criteria for the members of the Board of Directors. The Executive Committee's fixed remuneration is determined based on market research conducted by independent firms. Any proposed changes to their remuneration are approved by the Board of Directors. PS (profit sharing) is defined in accordance with the agreement with the union and methodology approved by the company's executive committee (officers) and Board of Directors. Variable remuneration is linked to individual and corporate goals, corporate goals are more focused on the financial aspect, while individual goals vary according to the area and company strategies, not necessarily linked to ESG. There is no Hiring Bonus. The retirement benefits provided to senior leadership are the same as those offered to other employees.

Compliance

(GRI 2-23)

In line with international guidelines, the company adheres to all relevant laws and regulations to uphold responsible business practices (FCPA - Foreign Corrupt Practices Act and Act 12,846/2013). Ecogen regularly assesses and manages the risks and effects linked to business activities and conduct. All employees are responsible for assessing potential risks, considering the impact of their actions, and conducting due diligence when necessary.

In alignment with the precautionary principle, Ecogen adopts a careful and preventive approach, implementing actions to avoid possible negative impacts, focusing on preserving the environment, respect for human rights, occupational safety and business integrity.

Ecogen complies with all laws and regulations linked to labor regulatory standards (NRs) and environmental legislation at national and international levels relating to human rights, applicable in all its operations and commercial activities. This is a commitment extended to different categories of stakeholders, including employees, shareholders, customers and suppliers. This approach encompasses various groups, including those who may be at risk or vulnerable, such as women, migrant workers and their families, national or ethnic minorities, religious and linguistic minorities, individuals who could face discrimination based on their sexual orientation, gender

identity, gender expression, or sexual characteristics, and people with disabilities.

All organization policies are subject to review and approval by Board members and policy commitments apply to all internal and external activities of the organization.

Code of conduct

(GRI 2-23, 2-24, 2-25, 2-26)

Ecogen adheres to the Mitsui Group Compliance Program, which was designed to detect, prevent and combat illegal and unethical acts in business and must be observed by all companies, employees and business partners.

This Code of Conduct sets out the business conduct guidelines applicable to Ecogen to ensure that all of its employees comply with appropriate legal and ethical standards in their business relationships and all applicable laws and regulations, as well as all internal policies, rules and regulations.

The code, available on the Ecogen Portal (<https://ecogenbrasil.com.br/>), outlines stringent policies that promote responsible business practices. These policies apply not only to employees but also to business partners and suppliers, encompassing all transactions and contracts entered into between employees

and customers, suppliers, or third parties. Before establishing a partnership, Ecogen conducts an analysis of its potential customers and suppliers to map risks. Furthermore, all contracts feature clauses that stipulate compliance with ethical standards as a mandatory requirement to be observed by all parties. Ecogen is strongly committed to sustainability, respect for human rights, business ethics and social responsibility in all of its operations. Each leader within the current organizational structure's departments is responsible for delegating this commitment to their respective teams. In this way, everyone contributes equitably to the incorporation of fair and honest conduct in all company areas, respecting human rights without discriminating against any person based on race, creed, sex, social status, religion, nationality, age or physical or mental disability.

Goals are set annually for each new fiscal year, and they are revisited often, as per the frequency defined in the company's strategy.

The company consistently organizes a range of mandatory training sessions, including compliance training, which reinforces the organization's ethical policies and guidelines for all employees. Everyone's engagement is essential because, at the end of each training, feedback is requested to evaluate the program and identify possible improvements.

Alignment with the shareholder

The values and expectations of the controlling shareholder (Mitsui) are considered in all Ecogen operations. Through active communication with shareholders, we continually strive to align interests in a relationship characterized by transparency. This includes sharing objectives and positive and negative results.

Reporting channel

(GRI 2-15, 2-25, 2-26)

One of Ecogen's main guidelines is its commitment to ethics and compliance, the driving force behind its business to ensure good conduct in order to avoid and/or repair negative impacts, when necessary. The Reporting Channel, a mechanism provided by the stakeholder shareholder (Mitsui) that is responsible for reviewing and for improvements, is designed to ensure that Ecogen's activities comply with laws, ordinances, and regulations set forth by government authorities on the subject. It is independent so that any employee or stakeholder can express their concerns or make reports anonymously. This helps to enable the transparent and fair management of the company.

The Compliance Group and the Compliance Committee are jointly responsible for controlling and managing the Reporting Channel and the processing of information received through it. The Group is responsible for analyzing complaints received on the channel and deciding whether or not a more detailed investigation into the matter is necessary. The Committee investigates to determine the facts and defines the appropriate disciplinary measures, when applicable, which can range from a warning to the dismissal of those involved. Meetings are held quarterly, or ad hoc, in accordance with the situations reported.

The Compliance Group shall, on a regular basis or as deemed appropriate, report to management on the handling of concerns raised through the report and on the results of investigations. If one or more board members are involved in the report in question, the group must maintain the appropriate confidentiality of such reports, but will inform Ecogen's Board of Directors.

Whenever there is a complaint regarding non-compliance with any Ecogen policy or current legislation or standard, the Financial and Administrative Vice President of Ecogen must report this to Mitsui SP and Mitsui Tokyo. The report mentioned in this clause must be made as soon as the officer becomes aware of the complaint and also whenever there is an update to it, including the result obtained by the Compliance Group.

An annual survey on compliance topics is sent to all Ecogen Employees, which also serves to track the effectiveness of complaint mechanisms and other redress processes. An external consultancy firm hired by Mitsui conducts the survey, and the results are shared with the shareholder company and Ecogen.

Conflict of interest

The company aims to mitigate and prevent conflicts of interest by providing periodic compliance training, both in-person and online through its Eco+ University digital educational platform. If there is a conflict of interest, the compliance committee defines the appropriate disciplinary measures, which can range from a simple warning to dismissal, depending on the severity of the case. The investigation includes a thorough examination to establish the facts and determine the appropriate disciplinary measures.

Conflicts of interest, including related to cross-participation in other management bodies, cross-shareholding with suppliers and other stakeholders, to the existence of controlling shareholders and related companies, their relations, transactions and outstanding balances, are disclosed to the shareholder (Mitsui).

Supplier chain

(GRI 3-3 SUPPLIER CHAIN,
GRI 2-3 HUMAN RIGHTS, GRI 414-1, 414-2)

Ecogen had a year of process acculturation, with the implementation of simple supplier approval and then moving towards a more consistent and robust process. In 2023, the procurement area began to cover supplies, logistics and inventory, and it also became responsible for registering suppliers, a process previously controlled by the finance department. This is a significant change that was driven by the hiring of a new manager and coordinator. Faced with a great management challenge due to the

fact that many Ecogen suppliers are small or even informal, it was necessary to review the Procurement Policy. Its aim is to establish criteria and guidelines for conducting all types of domestic or international purchases of materials and services, as well as outlining the approval process and responsibilities of all individuals involved at Ecogen Brasil.

Each company department has defined responsibilities for suppliers. Among other duties, the Requester fills out the purchase request; defines technical criteria; approves technical aspects for suppliers; accompanies suppliers during technical visits; confirms merchandise receipt, and enters invoices into the system. The Procurement Department is responsible for processing all purchase requests coming from the technical area. This involves analyzing the requests, obtaining quotations, and defining commercial conditions such as payment terms, adjustment rates, billing with exchange rate variation, variation of raw materials, freight terms (FOB or CIF), advances, minimum billing amount, and following up on the Purchase Request.

The Warehouse is responsible for receiving and confirming deliveries of products to stock at the Distribution Center and for the logistics and shipping of materials as requested. Finally, the Legal Department prepares and reviews all contracts for the purchase of materials and services, while the

Finance Department makes payments and approves changes to authorized deadlines and adjustments as defined in the Policy.

In 2023, Ecogen sent its suppliers the Mitsui Group Sustainable Supply Chain Policy, which contains guidelines related to international standards, human rights issues and environmental issues. For service providers using labor, the selection process requires minimum social criteria such as a certificate of social regularity issued by Caixa Econômica Federal (CEF) and debt clearance certificates.

From April 2024, new service providers will be evaluated more thoroughly. Companies will have to be guided by a previously negotiated price list, with registration, financial, compliance and social aspects being evaluated. We know that we can have a potential negative impact on the value chain in degrading working conditions such as child labor and/or slave-like work and it is important to make progress in this regard. Currently, the Mitsui group publishes a corporate list of prohibited entities in several regions, which does not include any entity with commercial relations with Ecogen Brasil. The characteristics of Ecogen's operation and suppliers mean that we have a positive impact on driving the local economy, but a potential negative impact that needs to be taken care of in the process of negotiating payment terms with a reduction in suppliers' cash flow.

Tax Approach

(GRI 207-2)

Ecogen's governance and tax control structure is made up of the financial officer, controllership manager, the legal department, and the tax and accounting department. In order for the tax approach to be integrated, internal training and monthly meetings are held with the participation of tax experts who present their market views.

Tax updates are monitored using systems and consulting firms. If a more in-depth study is required, a partner is engaged for legal assessment. The ongoing search for new processes within this scope, the acceleration in sales and the digitalization of financial reports also helped the company's positive performance.

Internal audits are conducted by the investor, in which knowledge, monitoring, training and mapping of risks are assessed, and external audits conducted to monitor results. All risks, even after the assessment, continue to be monitored by the tax coordination, controllership, and legal managers.

Any concerns regarding business conduct and the organization's integrity in relation to taxes can be raised in the compliance channel. The entire verification process is conducted confidentially by Mitsui. Ecogen managers are trained to know how to act in the event of complaints.

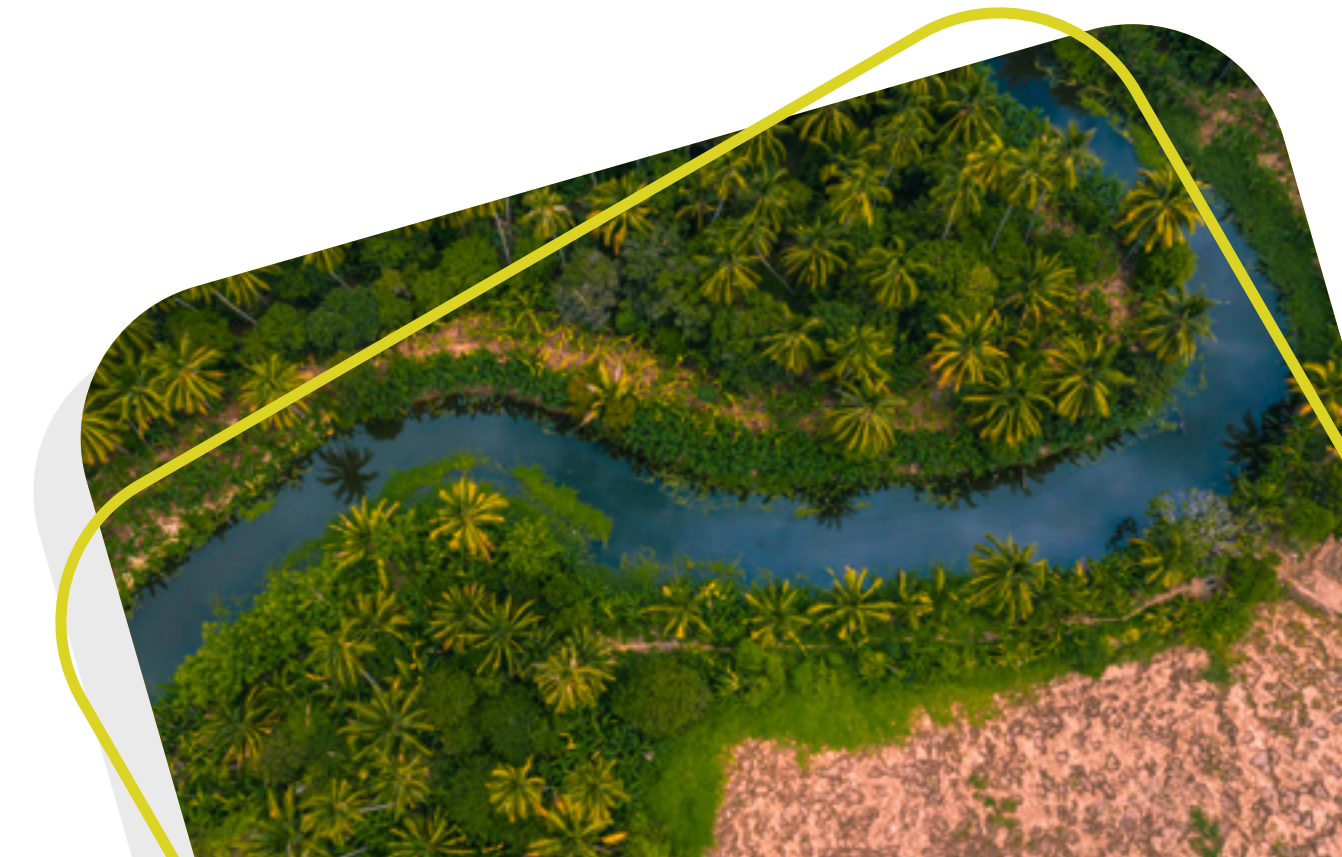
Sustainability

Given Ecogen's mission, it is natural that sustainability is integrated into the solutions it offers. It is crucial to ensure that awareness of this contribution is widespread across all areas of the company. Meeting ESG criteria is directly linked to customer attraction, satisfaction, and retention. With companies increasingly paying attention to climate change, especially linked to global chains and requiring decarbonization measures, Ecogen knows that sustainability and strategy must go hand in hand.

To respond in a more structured way to market demands and ensure internal alignment with regard to sustainability, the year 2023 marked the consolidation of the ESG area, when it gained space in the executive board. The construction of Ecogen's first sustainability

report serves as a tool to enhance the visualization of how sustainable practices interact with operations and strategic decisions, fostering the development of collective knowledge. In addition to alignment meetings with the consultancy firm hired to prepare the sustainability report, the board participated in lectures and meetings on the topic. The ESG team has worked together with the marketing and human resources teams to publicize topics linked to sustainability with actions, lectures and informative materials made available on Ecogen's sustainability page as well as on internal and external communication networks.

One of the goals for 2024 is to structure an ESG track for the company's corporate university. Training is already being carried out for employees in the commercial area so that they understand the value of sustainability actions and have greater ownership of the benefits generated by Ecogen.



Strategic Planning

As part of its planning for 2023, Ecogen outlined eight strategic objectives:



Delighting customers.



Increasing Biogas and Biomass.



Undertaking cultural realignment to generate more engagement and diversity.



Improving governance through risk management.



Increasing performance with new projects, developing new businesses through innovation.



Controlling and reducing financial risks.



Improving effectiveness and performance, thus ensuring business sustainability.



Increasing ESG actions.

Several goals were shared throughout the company for these objectives to be achieved satisfactorily. Among those that have achieved or are close to achieving good results, the following stand out:

- Promoting meetings with Group companies to generate business opportunities.
- Evaluating opportunities brought by Mitsui Group companies.
- Creating new businesses beyond E360°, based on ESG.
- Increasing the number of Biogas and Biomass projects.
- Improving the Customer and Employee Satisfaction Index (e-NPS).
- Increasing the frequency of feedback given by leaders.
- Fifty percent of the proposals in the commercial area must be connected to ecosolutions, especially those involving biomass and biogas.
- One hundred percent of the innovation proposals must be solutions with a positive environmental impact.
- Developing a plan focused on decarbonization.
- Promoting actions to prevent accidents, ensuring employee safety, improving working conditions and equipment.
- Developing an action plan to prevent, manage and monitor Cybersecurity risks.
- Promoting refresher training on compliance topics for all employees.

Furthermore, Ecogen is guided by Mitsui's directive to reduce greenhouse gas emissions by half by 2030, using 2020 as the base year, and to achieve net-zero emissions by 2050.

**in the same
FRE
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CY 2023
echoing our energy**

People



Recognized as an outstanding workplace for four consecutive years by Great Place to Work, Ecogen remains committed to its core principle of valuing human connections and acknowledging the potential of dedicated professionals through collaborative, transparent, and merit-based processes.

Final note: 84
Adherence: 88%
E-NPS: 53

People

(GRI 3-3 PEOPLE ATTRACTION, RETENTION AND DEVELOPMENT,
GRI 3-3 HUMAN RIGHTS)

Ecogen fosters a transparent and inclusive work environment where collaboration is integral to daily operations, alongside a progressively horizontal hierarchy. Driven by innovation and a commitment to excellence in delivery, Ecogen has developed its talent management strategy over the past three years, consistently prioritizing meritocracy. Employees actively engage in goal-setting and skill-based performance evaluations. They are also part of talent mapping initiatives, which include individual development plans and succession planning. Following the establishment of a dedicated committee, 2023 was a year of consolidation for Ecogen, marked by the development of a succession project and the preparation of a 360-degree evaluation process for 2024.

Ecogen provides a range of training and incentive programs for employees, including access to a corporate university with 259 diverse educational resources, scholarship opportunities, leadership programs, and intern development initiatives. In the internal development scope, there are also learning communities, which are led by facilitators who are identified internally according to each person's expertise. The events occur every two months, featuring curated topics such as Excel, English, and data science, which were highlighted this year. Employees sign up to attend meetings with guest experts in these fields. (GRI 404-2). In 2023, the

average hours of training per employee added up to 27.85. This figure was 25.69 for men and 30 for women*. (GRI 401-1)

Average hours of training per year per employee (GRI 404-1)

EMPLOYEE CATEGORY	2023
Officers	84
Managers	75,91
Coordinators and experts	28,97
Technicians and analysts	18,22
Operational	17,18
Apprentice	9,89
TOTAL	39,03

In 2023, an important initiative by Ecogen, led by the CEO and coordinated by the strategic planning department, was the partnership with Fundação Dom Cabral. In a strategic development process involving managers and with active participation from senior leadership, workshops were conducted to provide guidance on how to effectively communicate with the market, specifically focusing on publicizing Ecogen's core business, its central activity. Participants got guidance on creating KPIs (key performance indicators) (what

** Note: All employees trained in 2023, whether active or inactive, who have already been terminated, were considered.*

the organization should focus on to improve software development), and generating responsible action plans. The first stage of the program ended in December, and the second one, which is engaging working groups to put the content learned into practice, will be implemented in 2024.

In the realm of internal communications there was the development of EcoOnline, a tool akin to social media that has garnered significant engagement. This has strengthened internal communications and enabled a better flow of announcements.

In compliance with current legislation, Ecogen conducts annual negotiations with the union to uphold a balanced relationship that considers both the company's interests and those of its employees. All employees are properly registered, and there is a reporting channel in place for identifying any deviations, thus preventing actions that could contravene decent work practices or violate labor rights. Ecogen monitors indicators such as turnover, conducts annual evaluations, and follows-up on the Great Place to Work (GPTW) survey and promotion cycles. To guide people management and the desired culture at Ecogen, the company has established the Human Resources Management Policy, the Working Hours Policy, the Remuneration Policy, and the Code of Conduct.

Remuneration Policy

Salary bases are determined through surveys conducted by independent companies, which are then validated by Ecogen's senior management and its shareholders, or adjusted according to the collective agreement in place for the category. The remuneration policy sets the limits for salary increases and, concurrently, HR aims to evaluate internal equity in cases of employee movement. A budget is planned for payroll expenses (including merits and promotions) yearly, and the amounts are approved by senior management and shareholders. (GRI 2-20)

Benefits

Among the benefits available to full-time employees are life insurance, health insurance with co-payment, disability and accident insurance, and food/meal vouchers. Part-time or temporary employees also receive the latter benefit. All employee categories are also entitled to extended maternity/paternity leave, as Ecogen is part of the Citizen Company Program. Private pension plans are available, but optional, and contributions are based on the company's criteria. (GRI 201-3, 401-2)



Diversity

(GRI 3-3 DIVERSITY, EQUALITY AND EQUITY)

The Ecogen Diversity Committee was established in 2022 with the primary goals of promoting racial diversity in all positions, fostering the inclusion of people with disabilities, respecting sexual orientation, and ensuring equal representation of men and women in all areas of the company.

In 2021, a survey was conducted with the participation of 135 employees, focusing on mapping aspects such as color and ethnicity, sexual orientation, and company initiatives related to diversity and inclusion, among other topics. Standing out in 2023 was the internship and training program conducted through the Leadership Development Program. On International Women's Day, the company organized an empowerment event for women. All employees were invited to a special afternoon coffee event, featuring an exchange of experiences, relaxation, and a self-defense class. For 2024, the Committee plans to create the persona on Econline, Braille day, combating homophobia, agender pride and LGBTQIA+ pride day.

In Ecogen's initial materiality process, having defined diversity, equality, and equity as key themes strengthened the company's focus on these aspects. In 2024, the focus will be on expanding affirmative action and developing new policies, commitments, and measures necessary to manage it, along with implementing processes to ensure the effectiveness of these measures.

Ratio of the basic salary and remuneration of women to men (GRI 405-2)

EMPLOYEE CATEGORY	2023
Board of Directors	82%
Managers	103,85%
Coordinators and experts	95,7%
Technicians	100,23%
Operacional	178,97%
Apprentice	100%



Diversity of governance bodies and employees (GRI 405-1)

PERCENTAGE OF MEMBERS OF THE GOVERNANCE BODY AND EMPLOYEES BY EMPLOYEE CATEGORY, GENDER, AGE GROUP AND RACE	2023									
	MALE	FEMALE	UNDER 30 YEARS OLD	30-50 YEARS OLD	OVER 50 YEARS OLD	WHITE	BLACK	MIXED	INDIGENOUS	YELLOW
Board of directors	100%	0%	0%	50%	50%	40%	0%	0%	0%	60%
Officers	80%	20%	0%	40%	60%	100%	0%	0%	0%	0%
Managers and Superintendents	82,35%	17,65%	0%	82,35%	17,65%	88,24%	0%	5,88%	0%	5,88%
Coordinators and experts	77,42%	22,58%	12,9%	83,87%	3,23%	77,42%	3,23%	6,45%	0%	12,9%
Technicians and analysts	73,15%	26,85%	21,3%	70,37%	8,33%	50%	13,73%	36,27%	0%	0%
Operacional	99,25%	0,75%	16,42%	70,15%	13,43%	34,11%	17,05%	48,84%	0%	1%
Apprentice	12,5%	87,5%	100%	0%	0%	62,5	0%	37,5%	0%	0%



Occupational Health and Safety

(GRI 3-3 OCCUPATIONAL HEALTH AND SAFETY)

Comprehensive employee safety is a primary condition for Ecogen. Through a series of initiatives aimed at mitigating risks and potential accidents, Ecogen has been investing in strengthening its safety culture. In August 2023, the company achieved its goal of 365 days without any lost time due to accidents. The creation of a strategic map in 2022, with goals ranging from the review and upgrade of processes to the implementation of programs and awards, was essential in achieving this positive result. Always prioritizing prevention as the best approach, the strategy also involved establishing an Occupational Safety Committee, defining HSE (Health, Safety, and Environment) indicators, implementing a third-party integration system, and introducing a new electromechanical blocking policy.

Pillars of the Strategic Map:

- Excellence in HSE leadership
- Risk management
- Incident communication
- Outsourced worker management
- Compliance in HSE
- Management indicators and tools

The following indicators are used to monitor the effectiveness of these measures: Days without lost-time accidents, training hours, audits conducted, accident frequency rate, accident severity rate, deviation control, and formal safety inspections. The goals include achieving a greater number of days without lost-time accidents, a zero accident frequency rate, a zero accident severity rate, an increase in deviations reported and completed, and conducting 100% audits and formal safety inspections at all Ecogen operational sites.

The hazards that pose a risk of serious work accidents, as identified by incident records, Job Hazard Analyses (JHAs), inspections, and audits, include commuting and collision accidents, driving light vehicles, cutting and drilling, high and low voltage electricity, falling tools, materials, and equipment, work done at heights exceeding 2 meters and in confined spaces. Control hierarchy is used to eliminate additional hazards and reduce the risk of work accidents, and the incident reporting and analysis system has been enhanced, establishing a risk classification for deviations that are identified. In 2023, 15 near misses were identified and there was 1 (one) work accident with mandatory reporting with an index of 1.49, considering 670,652.34 hours worked. This accident, without lost time, occurred in January 2023 and was related to a cut to the finger.

(GRI 403-7, 403-9)

Management System

For the development, implementation, and evaluation of the occupational health and safety management system, which adheres to the parameters set by the HSE (Health, Safety & Environment) Policy, workers are consulted and participate in the processes through the CIPA (Internal Accident Prevention Committee). The committee convenes once a month and organizes an annual internal accident prevention week. Responsibilities include assessing risks and implementing programs to promote health and safety, in addition to analyzing KPIs. Furthermore, pertinent information on occupational health and safety is disseminated through internal social media, e-mails, lectures, and training sessions.

(GRI 403-1, 403-4)

All employees and workers who are not employees, but whose work and/or workplace is controlled by the organization (100%) are covered by an occupational health and safety management system based on legal requirements and/or recognized standards/guidelines. However, this system has not been audited internally, or even certified by an external party. (GRI 403-8)

The HSE (Health, Safety & Environment) Policy aims to establish fundamental guidelines for Ecogen's safety, environmental, and health management for all services provided by Ecogen in order to attain the following outcomes:

- Ensuring Employee health and safety and preserving the

environment, through the identification of hazards and environmental aspects, the assessment of risks and environmental impacts, and the establishment of appropriate control measures;

- Complying with and enforcing all legal requirements and other commitments;
- Educating, training and qualifying Employees on HSE issues, so that the activities conducted get voluntary engagement and awareness;
- Promoting the health and protection of individuals and the environment, involving suppliers, communities, competent bodies, and other stakeholders, when applicable;
- Recording, reporting and analyzing accidents and near misses;
- Establishing measures to respond to emergencies;
- Continuously improving HSE management, through permanent planning and analyses;
- Defining responsibilities and authorities in accordance with the organizational structure.

Throughout the year, EcoMais University conducted 6,000 hours of face-to-face training across more than ten different modalities, among which courses on Electricity Safety, Fire Fighting, use of Personal Protective Equipment (PPE) as per NR-06 regulations, Handling of Chemicals, and Machine Operation and Equipment. (GRI 3-3, 403-3, 403-5)

To ensure a precise assessment of risks and hazards within its operations, Ecogen engages specialized companies to issue documents such as the PGR (the Risk Management Plan) and LTCAT (Technical Report on Working Conditions and Environment). Ecogen guarantees the quality of this process by means of internal inspections and audits. Furthermore, the company has competent and legally qualified personnel in its HSE.

If employees identify dangerous situations, they have the duty and the right to refuse to work in situations that they believe could cause them an accident at work or occupational illness, and they can report them anonymously, or not, through the HSE accident reporting program in order for the security team to take the necessary actions to mitigate hazards. Every quarter, Ecogen recognizes the best solution proposal from among the identified reports. (GRI 3-3, 403-2)

The system complies with all health and safety standards relating to operations, such as

- NR-1 - General Provisions and Management of Occupational Risks
- NR-3 - Embargo and Interdiction
- NR-4 - Specialized Services in Occupational Health and Safety
- NR-5 - Internal Commission on Accident Prevention
- NR-6 - Personal Protection Equipment - PPE
- NR-7 - Occupational Health Medical Control Program.
- NR-8 - Buildings
- NR-9 - Assessment and Control of Occupational Exposure to Physical, Chemical and Biological Agents
- NR-10 - Safety in Electrical Installations and Services
- NR-11 - Transport, Movement, Storage and Handling of Materials
- NR-12 - Safety at Work in Machines and Equipment
- NR-13 - Boilers, Pressure Vessels and Pipes and Metallic Storage Tanks
- NR-15 - Unhealthy Activities and Operations
- NR-16 - Dangerous Activities and Operations
- NR-17 - Ergonomics
- NR-18 - Occupational Health and Safety Conditions in the Construction Industry
- NR-20 - Safety and Health at Work with Flammable and Combustible Materials
- NR-21 - Open-air Work
- NR-23 - Fire Protection
- NR-24 - Sanitary and Comfort Conditions in Workplaces
- NR-25 - Industrial Waste
- NR-26 - Safety Signage
- NR-28 - Inspection and Penalties
- NR-33 - Occupational Health and Safety when Working in Confined Spaces
- NR-35 - Work at Heights

Occupational Health

(GRI 403-3, 403-6)

Ecogen has a contract with an occupational medicine company that provides care when necessary and conducts periodic examinations in accordance with the PCMSO (Occupational Health Medical Control Program). Employees who have an occupational health issue, or one that impacts their duties report this to their superior, who, in turn, reports it to HR and HSE to schedule an assessment. Service quality assessments are based on meeting deadlines and the availability of the contracted service. Furthermore, Ecogen has contracts with companies that identify hazards and minimize risks. They are responsible for conducting Ergonomic Analyses, LTCAT, and the PGR (Risk Management Plan), among other programs, to ensure the employees' health.

Given the nature of Ecogen's business, it is important to be aware of the dangers and risks associated with the activities. The PCMSO (Occupational Health Medical Control Program) identified the following hazards that pose a risk of occupational illnesses: Continuous or intermittent exposure to noise; improper posture; prolonged sitting; exposure to lubricating oil; handling of nitric acid; exposure to sodium nitrite; handling of grease, contact cleaners, disinfectants, mild detergent, diesel fuel, lubricating oil, and WD-40; exposure to degreaser; inhalation of respirable dust; exposure to viruses, fungi, and bacteria, as well as manual lifting

and carrying heavy loads. Despite these factors, in 2023, there were no deaths resulting from occupational diseases, nor cases of occupational diseases that must be reported, considering all employees and workers who are not employees, but whose work and/or workplace is controlled by the organization. (GRI 403-7, 403-10)

Health promotion campaigns and lectures are conducted throughout the year, each linked to specific months and themes, such as Pink October (breast cancer awareness), Blue November (prostate cancer awareness), and Red June (blood donation). Other topics covered include anti-smoking initiatives, encouragement of physical activity, mental health awareness, and education on sexually transmitted infections (STIs). Workers have the freedom to schedule and undergo exams, consultations, and therapies for their health, whether utilizing health insurance or not. This includes emergency care using the health insurance.



Ecogente (Ecopeople) and the Volunteer Program

Ecogen created the Ecogente (Ecopeople) brand with the goal of promoting social responsibility actions within the company that positively impact people through diversity, equity, and inclusion, as well as social promotion and education.

Ecogen launched its Volunteer Policy in August 2023. The event was attended by the CEO and everyone was invited to sign up for the program. The policy, posted on the company's communication channels, provides guidance for employees participating in voluntary actions offered by the company's program.

The proposal aimed to foster a culture of volunteering, helping employees develop new skills and increasing their motivation and engagement. This mobilization also focuses on actions that positively impact the environment and society as a whole, particularly in the communities where Ecogen has operations.

To promote social responsibility initiatives, the ESG department typically presents them during monthly

meetings with the CEO. The entire company participates in these "Fridays with the CEO" meetings online. At the end of the year, we used this platform to engage all employees in a benefit action under the tax incentive law - FIA. We introduced two projects from the Pequeno Príncipe Hospital, in Curitiba, allowing employees to vote and choose which project Ecogen would support.

We understand the importance of increasingly engaging employees in social responsibility actions. Learn more about some of the events linked to the Ecogen volunteering program that were held in 2023:

Japan Festival

Ecogen has always encouraged charitable actions, even before formalizing its volunteering policy. During the Japan Festival in July, employees assisted in preparing and selling snacks at the event. In this partnership with Mitsui, all profits obtained were donated to PIPA programs, a project that funds treatments for children with autism.

Mc Happy Day

The volunteering action was different in August. The company acquired vouchers from the NGO Casa Ronald Mc Donald that entitled them to a Big Mac at any Mc Donald's store and distributed them to all employees. The



amount invested in the vouchers was used to provide food, accommodation, and transportation for children and family members who needed to stay in São Paulo for cancer treatment.

Ecogente (Ecopeople) is Ecopet

Abandoned animals benefited from the campaign Ecogen conducted in partnership with the NGO Ampara Animal. In October, a lecture was held on public health and raising awareness about animal abandonment, featuring testimonies from individuals involved in the animal welfare cause. Operations manager Erick Rocha served as the ambassador of the event and shared his personal experience with adopting abandoned animals - he is the proud father of four pets. Throughout the awareness campaign month, several animals under the care of Ampara Animal and available for adoption, were featured on Ecogen's internal network.



Donation of Blood

In November, the volunteering campaign focused on the importance of blood donation, celebrating the National Blood Donation Day. The newsletters gathered relevant data on the subject, answered the main questions people who wish to donate have, and featured a list of blood centers in the main Brazilian capital cities where Ecogen operates.

Christmas Campaign

Responsible for enhancing Ecogen's social responsibility within the "S" pillar of the ESG department, Ecogente (Ecopeople) facilitated the employees' participation in another initiative: The Christmas Campaign, conducted in partnership with Mitsui Group companies.



Carried out in December, this campaign collected 377 basic food baskets, 60 percent more than the 236 baskets set as the initial objective. They were earmarked for institutions chosen by the Mitsui Foundation Committee, which serve children in socially vulnerable situations in the states of São Paulo and Rio de Janeiro.

The four institutions that got the basic food baskets were: Núcleo de Convivência Menino Jesus (São Caetano - SP), Criança Brasil Unidade 4 (São Paulo - SP), Criança Brasil Unidade 3 (São Paulo - SP), and Orfanato Santa Rita de Cássia (Rio de Janeiro - RJ). Employees enrolled in the Ecogen volunteer program delivered the baskets in person to the institutions.

Surrounding Community

(GRI 3-3 COMMUNITY)

With each new project that Ecogen undertakes, there is a mobilization of resources and people, including those from local communities. In addition to corporate social responsibility programs, as described in the volunteering section, which address certain local needs, Ecogen also contributes to the creation of local employment opportunities. The increased demand for biomass has the potential to contribute to agricultural development. To manage positive impacts, there are measures such as selecting and hiring local teams, training and development.

Projects developed by Ecogen may also cause negative impacts, such as community conflicts arising from the construction and operation of Ecogen facilities, in addition to changes in landscapes and habitat loss resulting from the installation of solar farms. Possible death and asphyxiation, which could be caused by ammonia leaks during transport or operations, have been identified as potential negative impacts. To prevent or mitigate such impacts, Ecogen observes legal requirements concerning operational safety, environmental licensing, and technical specifications. Periodic maintenance is conducted for operational

equipment and alarm systems. Also carried out are regular evacuation drills and training for the local team. When real, all impacts are brought to specific committees, and action plans are developed based on collective knowledge.

Meeting minutes, training records and HSE audits are used to track measure effectiveness. Progress is assessed using HSE and HR indicators (training hours). As part of the lessons learned, Ecogen incorporates risk analyses and benchmarking with other companies within the Mitsui group. Specific committees within the company, such as HSE, CIPA, and HR, among others, are involved in managing these topics. In their meetings, these committees discuss the issues at hand, allowing everyone to express their opinions. Following a decision, action plans for implementing the decisions are developed and regularly monitored through reports. The HSE Policy, Volunteer Program Policy, and Training and Development Policy support interactions with the local community.





Environment

Environment

(GRI 3-3 ENVIRONMENTAL MANAGEMENT, GRI 3-3 COMMUNITIES)

For Ecogen, which has a clear commitment to providing integrated environmentally responsible energy solutions, sustainability is embedded in its business practices and contributes to generating value for society. This strategy includes mitigating environmental impacts in general and, mainly, tackling climate change. In 2023, Ecogen conducted its first greenhouse gas emissions inventory, which will support the development of action plans to mitigate the effects of emissions and explore potential fuel substitutions.

With a comprehensive and conscientious approach to the environment, it is essential to manage natural resources such as water and materials, as well as waste and wastewater. Environmental permits and their associated conditions at the federal, state, and municipal levels are overseen to ensure they remain current. The effectiveness of these measures is reported to the officers responsible for the HSE department through monthly reports.

Both of Ecogen's operational units have engagement actions aimed at the local community to assess environmental impacts and continuous monitoring, as well as an internal accident prevention committee (CIPA). (GRI 413-1). The ammonia leak in Rio de Janeiro - RJ was identified as a potential impact on the community. Real impacts included noise in Campo Grande - MS and Rio de

Janeiro - RJ, as well as changes in landscape in Araguari - MG. Check out the classification of each impact below (GRI 413-2)

CLASSIFICATION OF THE IMPACTS	AMMONIA LEAK	NOISE	CHANGES IN LANDSCAPE
Intensity or severity	Moderate	Moderate	Moderate
Likely duration	Moderate	Moderate	Moderate
Reversibility	Critical	Reduced	Reduced
Scale	Critical	Severe	Severe

To prevent or mitigate potential negative impacts, Ecogen adheres to legal requirements concerning operational safety, environmental licensing, and technical specifications. Periodic maintenance is conducted for operational equipment and alarm systems. Also carried out are regular evacuation drills and training for the local team. When real, all impacts are brought to specific committees, and action plans are developed based on collective knowledge. Meeting minutes, training records and HSE audits are used to track measure effectiveness. Progress is assessed using HSE and HR indicators (training hours). As part of the lessons learned, Ecogen incorporates risk analyses and benchmarking with other companies within the Mitsui group.

Power

(GRI 3-3 ENERGY EFFICIENCY, GRI 302-1, 302-3)

Ecogen's operations primarily occur at customer premises. Thus, Ecogen's electricity consumption is restricted to that of its offices, which adds up to 643.09 gigajoule. Given this characteristic, it makes sense to establish an external and internal energy intensity rate.

The energy intensity rate, considering the energy consumption related to fuels purchased by Ecogen and used in operations at customer premises, is 3.51. The calculation uses the company's total EBITDA as the denominator. Another energy intensity rate, considering the energy consumed internally at Ecogen's offices, is 5.31*. The denominator used here was the number of company employees allocated to the office, given that the office's energy consumption is linked to the presence of people there. Significant savings rates were achieved by customers where Ecogen conducted air conditioning equipment retrofits, including savings of 67 percent

(5,980,000 kWh/year) and 60 percent (967,000 kWh/year) for two different customers. Furthermore, a commercial building achieved a reduction of 928,000 m³/year in Natural Gas consumption (saving R\$3 million/year and reducing 2,000 tonCO₂ per year) and water savings of 35 percent (7,000,000 liters/year).

The better the energy efficiency, the greater the positive impacts, such as lower energy consumption, GHG emissions, and operating costs. Ecogen is carrying out its first Greenhouse Gas Inventory to improve its management of GHGs.

The primary types of energy considered were natural gas, diesel fuel, gasoline, ethanol, A1 fuel oil, biomass (eucalyptus chips), and electricity.



Water and Wastewater

(GRI 303-1, 303-2, 303-3, 303-5)

Water is sourced from water companies in the states where Ecogen operates and from underground wells. It is then discharged directly into the public sewage network. The water that is captured is consumed in the offices and in the operation. It is then discharged into the public sewage network, as it is only domestic wastewater. In 2023, Ecogen captured and consumed 264.997.1 megaliters of water from third parties, of which 174,390.1 of surface water coming from areas identified as being of water stress. This figure only includes water captured for the cooling towers of nine client shopping malls. The profile of the water body that receives the discharge is considered during the environmental permit stage of the operations (LP, LI, LO).

The main water-related impacts are water stress, supply issues, reduced water quality, and ecosystem health, which are moderate in scope, along with excessive consumption, which is of a lesser scope.

Locations with water stress

- Campinas – SP: Water Stress - Medium - High (20-40%)
- São José dos Campos – SP: Water Stress - Low (<10%)
- Porto Velho – RO: Water Stress - Low (<10%)
- Campo Grande – MS: Water Stress - Low (<10%)
- Taboão da Serra – SP: Water Stress - Medium - High (20-40%)
- Belo Horizonte – MG: Water Stress - Low - Medium (10-20%)
- Fortaleza – CE: Water Stress - Medium - High (20-40%)
- Rio de Janeiro – RJ: Water Stress - Low - Medium (10-20%)
- Nova Iguaçu – RJ: Water Stress - Low - Medium (10-20%)

Locations with high and medium water stress were considered to calculate water stress, according to the classification provided by WRI (World Resource Institute).

In 2024, a comprehensive mapping of water consumption will be carried out in all units to identify areas with significant impacts. Based on this information, an action plan will be devised to implement more efficient management measures.

Waste

(GRI 306-1, 306-2)

In 2023, Ecogen conducted its first environmental impact analysis, with the goal of implementing future measures and improvements. No actions have been taken yet to prevent waste production in activities. Organics are the primary category of waste generated, which are then shipped to a landfill by a contracted company.

Real positive impacts that have been identified include the recycling of organic waste to produce biogas, in addition to other potential impacts awaiting studies to enable the recycling of boiler ash to generate organic fertilizer. The ash results from the burning of organic material (eucalyptus chips) in the boilers that generate energy. It is currently managed by the customer.

Ecogen's activities may have a potential negative impact, which is soil and water contamination in the event of inadequate disposal of waste generated during operations and maintenance, or due to leaks. To prevent this, waste is disposed of in accordance with Act No. 12,305/10. It is either stored appropriately for the customer to dispose of or disposed of on behalf of Ecogen through approved companies.

When utilizing contracted companies for waste disposal, waste manifests are examined for data monitoring purposes. Nevertheless, there is no defined process for verifying the legal and contractual compliance of third parties responsible for waste management.



Biodiversity

(GRI 3-3 BIODIVERSITY AND LAND USE,
GRI 3-3 CLIMATE CHANGE, GRI 304-2)

As part of the materiality process, several impacts on biodiversity resulting from Ecogen's business relationships were identified. Actual negative impacts include vegetation suppression (due to the installation of solar farms) and habitat loss, as well as the introduction of invasive species (from biomass production and large-scale cultivation of energy crops). Deforestation and forest degradation, decreased soil quality, water quality and ecosystem health were identified as potential negative impacts. Sustainable forest management was identified as a potential positive impact.

As this is a new topic in impact management, it will be further explored throughout 2024. This will involve conducting studies to evaluate the identified impacts, proposing an action plan, and establishing policies, commitments, and measures necessary to manage them. It will also involve implementing processes to ensure the effectiveness of these measures.

Concerning the factors that can affect biodiversity due to pollution, the following potential impacts were identified and categorized in accordance with their cause:

Greenhouse Gases (GEE):

- Climate Change: The rise in greenhouse gas concentrations in the atmosphere contributes to global warming and climate change. This can result in extreme weather events, rising sea levels, and changes in rainfall patterns, among others.
- Impacts on Ecosystems: Climate change can affect biodiversity and species distribution, leading to habitat loss and to the extinction of a few species. It can also affect agriculture, causing changes in crop growth patterns and in water resource availability.
- Human Health: Climate change can directly impact human health, leading to an increase in vector-borne diseases such as malaria and dengue fever. Extreme weather events can disproportionately affect the most vulnerable communities, impacting their basic survival conditions.

Methane Leak:

- Accelerated Global Warming: Methane is a more powerful GHG than carbon dioxide in terms of global warming potential. Methane leaks contribute significantly to global warming in the short term.
- Safety: Methane is flammable and can pose safety risks if it leaks in large quantities. Furthermore, in closed spaces, methane leaks can create risks to human health.
- Local Impacts on Ecosystems: Methane leaks in terrestrial or aquatic ecosystems can affect local flora and fauna, leading to changes in the ecological balance.

Soil and Water Contamination:

- Harm to Human Health: Soil and water contamination by toxic substances can directly impact human health, leading to diseases such as cancer, neurological disorders, and gastrointestinal issues.
- Ecosystem Degradation: Soil and water contamination can harm local biodiversity by causing the death of aquatic and terrestrial organisms, leading to the degradation of ecosystems.
- Impacts on Agriculture: Contaminated soils can affect the quality of cultivated food, compromising food safety. Water contamination can also harm aquatic ecosystems and, indirectly, food production.

Further research is needed to understand these impacts, including which species are affected, the extent of affected areas, the duration of impacts, the reduction of species, and the reversibility of the impacts.



An aerial photograph of a paper mill facility. On the left, a dense forest of green trees borders a paved road. To the right of the road, several large, cylindrical, corrugated metal storage silos are arranged in a row. A complex network of pipes and conveyor systems connects these silos to a large industrial building with a grey roof and yellow structural accents. The scene is captured from a high angle, showing the layout of the mill and its proximity to the forest.

About the Report

About the Report

(GRI 2-1, 2-2, 2-3)

Ecogen has released its first Sustainability Report, which was developed in accordance with the Global Reporting Initiative (GRI) guidelines for content and materiality processes. The report highlights the results and achievements of 2023. Targeted at both internal and external audiences, the report provides information on profile and governance, data on people management, advances in innovation and sustainability, and the main financial and operational indicators for the year.

The information presented in the report pertains to the operations of Ecogen Brasil Soluções Energéticas S.A., based in São Paulo (SP), a private equity company structured as a for-profit corporation, and its subsidiary Ecogen Rio Soluções Energéticas. It covers the period from January 1 to December 31, 2023, which aligns with that of the financial statements. The content of the financial statements differs from that of this report, since in addition to the companies listed here it also includes GTW, a company in which Ecogen holds 50 percent stakes, using the equity accounting method.

Ecogen intends to publish its report annually. Comments and information regarding the publication can be e-mailed to esg@ecogenbrasil.com.br.

Materiality

(GRI 2-9, 2-29, 3-1, 3-2)

The identification of impacts was the first stage of Ecogen's materiality process. This was conducted with the support of a specialized consultancy firm, which analyzed internal documents, industry reports and benchmarkings. Impact validation and assessment were then conducted. The process involved working groups of employees representing the Social, Environmental and Governance pillars. The impacts were classified as of low, medium and high significance based on the intensity, amplitude, nature of remediation and likelihood criteria.

All impacts were validated by the company's senior management and subsequently correlated with potential material topics. Those of medium and high significance were prioritized, resulting in the list used in the stakeholder consultation process that encompassed 14 priority topics. The consultation form was sent to these stakeholders: Employees, suppliers, customers, financial institutions, surrounding communities, press, business partners and shareholders.

The purpose of stakeholder engagement was to establish an open and ongoing dialogue between the organization and its stakeholders, aiming to gather information, gain valuable insights, and incorporate external perspectives. The consultation was also useful for identifying actual and potential impacts or defining prevention and mitigation responses to negative impacts.



Material topics

The material topics, prioritized based on the intersection of the company’s vision, the significance of impacts, and the stakeholders’ perspective, are:

MATERIAL TOPIC		DESCRIPTION
Economic and financial performance	Balance and financial health of the organization. Maintaining profitability and liquidity, contributing to the long-term growth and sustainability of the business. The organization’s market positioning and resilience, as reflected in its business model.	
Occupational health and safety	Ensuring the well-being and health of employees through the management of the organizational environment, with an emphasis on both mental and physical health.	
Climate changes	Monitor, reduce and mitigate greenhouse gas emissions, seeking to reduce the carbon footprint. Study the effects of global warming to adapt to climate changes foreseen for the coming years.	
Attracting, retaining and developing employees	Attracting and retaining talent by structuring career plans, implementing recognition programs, offering competitive remuneration and benefits, fostering engagement, and providing employee training, all aimed at reducing turnover.	
Product/service quality and safety	Management and investments to ensure the high quality of products and services, with a focus on customer satisfaction.	
Energy efficiency	Ensure maximum energy efficiency internally and in the projects that are developed, utilizing the most advanced technologies available on the market.	
Environmental management	Management of the impacts of operations related to the water sourcing and consumption, wastewater disposal, energy use, and waste treatment and disposal.	
Governance and compliance	Ensure high standards of conduct and compliance with laws, rules and regulations. Establish and adopt corporate risk management policies, standards and procedures, including corruption and ethics in relationships with all stakeholders, with guidelines that guarantee the mapping and periodic assessment of threats and risks to allow preventive and/or reactive impact mitigation. Also, establish procedures for crisis management, minimizing impacts on those involved.	
Diversity, equity and Inclusion	Ensure a diverse work environment and guarantee equal treatment, opportunities and remuneration free of discrimination related to gender, origin, race, color, sexual orientation, physical condition, religion, marital status, age or family status. Create professional development policies and practices.	
Innovation	Investment in innovation that enables the ability to adapt to new market scenarios and trends.	
Biodiversity and land use	Prevent and minimize negative impacts on the environment, recognizing the value of biodiversity and habitat conservation and restoration.	
Communities	Strengthen the local community through actions that have a positive social impact, by means of corporate volunteering programs, private social investments, promotion of entrepreneurship, education, training programs and the creation of jobs.	
Human Rights	Ensure decent working conditions, valuing health, safety and well-being, and in compliance with local laws and regulations, respecting human rights in all relationships, avoiding and repudiating forced, slave and child labor, internally and in the supply chain value.	
Supplier chain	Requirement, control and monitoring of suppliers’ quality standards, including socio-environmental criteria when contracting inputs and services.	



GRI Contend Index

STATEMENT OF USE

ECOGEN REPORTED IN ACCORDANCE WITH THE GRI STANDARDS FOR THE PERIOD RANGING FROM JANUARY 1 TO DECEMBER 31, 2023.

GRI 1 USED

GRI 1: FUNDAMENTALS 2021

GRI STANDARD	CONTENT	LOCATION/RESPONSE	OMISSION		
			REQUIREMENT (S) OMITTED (S)	REASON	EXPLANATION
GRI 2: General Content 2021	2-1 Organizational details	p. 35			
	2-2 Entities included in the organization’s sustainability reporting	p. 35			
	2-3 Reporting period, frequency, and contact point	p. 35			
	2-4 Restatements of information	There is none, as this is the 1st report			
	2-5 External assurance				
	2-6 Activities, value chain, and other business relationships	p. 08			
	2-7 Employees	p. 48			
	2-8 Workers who are not employees	There are 23 interns and service providers as resident third-parties, in this case to provide pantry, cleaning, reception, motorcycle courier and IT services. This figure does not consider the provision of specific services or projects or works.			
	2-9 Governance structure and composition	p. 16			
	2-10 Nomination and selection of the highest governance body	p. 16			
	2- 11 Chair of the highest governance body	p. 16			
	2-12 Role of the highest governance body in overseeing the management of impacts	p. 17			
	2-13 Delegation of responsibility for managing impacts	p. 17			
	2-14 Role of the highest governance body in sustainability reporting	p. 17			
	2-15 Conflicts of interest	p. 19			
	2-16 Communication of critical concerns	p. 17	Item b	Information unavailable	To date, there is no numerical indicator in which crucial concerns are recorded.

GRI STANDARD	CONTENT	LOCATION/RESPONSE	OMISSION		
			REQUIREMENT (S) OMITTED (S)	REASON	EXPLANATION
GRI 2: General Content 2021	2-17 Collective knowledge of the highest governance body		All content	Information unavailable	Since the Board of Directors is formed and managed by Mitsui, any measure related to enhancing the knowledge of its members is within its area of authority.
	2-18 Evaluation of the performance of the highest governance body		All content	Information unavailable	Since the Board of Directors is formed by Mitsui, any evaluation is within its area of authority.
	2-19 Remuneration policies	p. 17			
	2-20 Process to determine remuneration	p. 20			
	2-21 Annual total compensation ratio		All content	Confidential restrictions	Ecogen understands that this content is strategic information.
	2-22 Statement on sustainable development strategy	p. 03			
	2-23 Policy commitments	p. 18			
	2-24 Embedding policy commitments	p. 18			
	2-25 Processes to remediate negative impacts	p. 18			
	2-26 Mechanisms for seeking advice and raising concerns	p. 18			
	2- 27 Compliance with laws and regulations	In 2023, there were no significant cases of non-compliance with laws and regulations.			
	2-28 Membership in associations	Ecogen is affiliated with the COGEN World Coalition, CIBIOGÁS (International Center for Renewable Energy) and the Brazil-Japan Chamber of Commerce.			
	2-29 Approach to stakeholder engagement	p. 12 e 35			
	2-30 Collective bargaining agreements	100% of the 300 employees are covered by a collective bargaining agreement.			
MATERIAL TOPICS					
GRI 3: Material Topics 2021	3-1 Process of determining material topics	p. 35			
	3-2 List of material topics	p. 35			

GRI STANDARD	CONTENT	LOCATION/RESPONSE	OMISSION		
			REQUIREMENT (S) OMITTED (S)	REASON	EXPLANATION
ATTRACTING, RETAINING AND DEVELOPING EMPLOYEES					
GRI 3: Material Topics 2021	3-3 Management of material topics	p. 23			
GRI 201: Economic performance 2016	201-3 Defined benefit plan obligations and other retirement plans	p. 23			
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	p. 49			
	401-2 Benefits provided to full-time employees that are not provided to temporary or part time employees	p. 23			
	401-3 Parental leave	p. 48			
GRI 402: Labor/Management Relations 2016	402-1 Minimum notice periods regarding operational changes	There is no minimum notice period, however, for planned changes, those involved are notified well in advance.			
GRI 404: Training and education 2016	404-1 Average hours of training per year per employee	p. 23			
	404-2 Programs for upgrading employee skills and transition assistance programs	p. 23			
	404-3 Percentage of employees receiving regular performance and career development reviews	p. 48			
BIODIVERSITY AND LAND USE					
GRI 3: Material Topics 2021	3-3 Management of material topics	p. 33			
GRI 304: Biodiversity 2016	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas		All content	Not applicable	We do not have identified operational units owned, leased or managed within or adjacent to environmental protection areas and areas of high biodiversity value located outside environmental protection areas.
	304- 2 Significant impacts of activities, products, and services on biodiversity	p. 33			
	304-3 - Habitats protected or restored		All content	Not applicable	We do not have protected or restored habitats under the management of Ecogen.
	304- 4 IUCN Red List species and national conservation list species with habitats in areas affected by operations		All content	Information unavailable	We only conduct assessments as requested by environmental agencies and/or applicable legislation. In 2023, there was no recognition of the need to assess species listed in the IUCN Red List and national conservation lists that inhabit areas affected by the organization’s operations.

GRI STANDARD	CONTENT	LOCATION/RESPONSE	OMISSION		
			REQUIREMENT (S) OMITTED (S)	REASON	EXPLANATION
SUPPLIER CHAIN					
GRI 3: Material Topics 2021	3-3 Management of material topics	p. 19			
GRI 308: Environmental Assessment of Suppliers 2016	308-1 New suppliers that were screened using environmental criteria	There are no environmental criteria in Ecogen’s supplier selection process. A supplier approval process/system will be implemented, which includes the analysis of environmental aspects, by April 2024.			
	308-2 Negative environmental impacts in the supply chain and actions taken		All content	Information unavailable	We do not evaluate suppliers regarding environmental impacts.
GRI 407: Freedom of association and collective bargaining 2016	407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk		All content	Information unavailable	Ecogen did not evaluate the presence of violations or risks related to freedom of association or collective bargaining. A tool for verifying suppliers is in the process of being implemented, and is scheduled to be operational in April 2024.
GRI 408: Child labor 2016	408-1 Operations and suppliers at significant risk for incidents of child labor		All content	Information unavailable	Today, Ecogen does not have a tool that certifies 100% compliance with these assumptions with suppliers, nor does it have mapping. Starting in April 2024 we will have it partially.
GRI 409: Forced labor or similar to slavery 2016	409-1 Operations and suppliers at significant risk for cases of forced or compulsory labor		All content	Information unavailable	Today, Ecogen does not have a tool that certifies 100% compliance with these assumptions with suppliers, nor does it have mapping. Starting in April 2024 we will have it partially.
GRI 414: Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria		All content	Information unavailable	It was not possible to specify the exact number of suppliers that were selected based on the currently used social criteria. In any case, these criteria will be enhanced with a new tool.
	414-2 Negative social impacts in the supply chain and actions taken	p. 19			
COMMUNITIES					
GRI 3: Material Topics 2021	3-3 Management of material topics	p. 29			
GRI 413: Local communities 2016	413-1 Operations with local community engagement, impact assessments and development programs	p. 31			
	413-2 Operations with significant actual and potential negative impacts on local communities	p. 31			

GRI STANDARD	CONTENT	LOCATION/RESPONSE	OMISSION		
			REQUIREMENT (S) OMITTED (S)	REASON	EXPLANATION
ECONOMIC AND FINANCIAL PERFORMANCE					
GRI 3: Material Topics 2021	3-3 Management of material topics	p. 14			
GRI 201: Economic performance 2016	201-1 Direct economic value generated and distributed	p. 14			
	201-4 Financial assistance received from government	Ecogen has in its debt liabilities with BNDES, using the FINAME line, subsidized funding with interest funded by the TLP rate. The balance of this debt in 2023 was R\$8,479.			
GRI 203: Indirect economic impacts 2016	203-1 Infrastructure investments and services supported	p. 09			
	203-2 Significant indirect economic impacts	No significant negative indirect economic impacts were identified. The increase in customer productivity was identified as a significant direct economic impact, with improved efficiency and cost reduction, as shown on page 31.			
HUMAN RIGHTS					
GRI 3: Material Topics 2021	3-3 Management of material topics	p. 19			
GRI 407: Freedom of association and collective bargaining 2016	407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk		All content	Information unavailable	Ecogen did not assess the existence of violations or risks regarding freedom of association or collective bargaining. It is in the process of implementing a tool to verify suppliers, scheduled to become operational in April 2024.
GRI 408: Child labor 2016	408-1 Operations and suppliers at significant risk for incidents of child labor		All content	Information unavailable	Today, Ecogen does not have a tool that certifies 100% compliance with these premises with suppliers nor mapping. Starting in April 2024 we will partially have this.
GRI 409: Forced labor or similar to slavery 2016	409-1 Operations and suppliers at significant risk for cases of forced or compulsory labor		All content	Information unavailable	Today, Ecogen does not have a tool that certifies 100% compliance with these premises with suppliers nor mapping. Starting in April 2024 we will partially have this.
GRI 410 Safety Practices	410-1 Security personnel trained in human rights policies or procedures	0% of the security personnel got formal training in the organization’s human rights policies or procedures and their application to security. In 2023, Ecogen had 4 security guards who are outsourced workers.			

GRI STANDARD	CONTENT	LOCATION/RESPONSE	OMISSION		
			REQUIREMENT (S) OMITTED (S)	REASON	EXPLANATION
DIVERSITY , EQUITY AND INCLUSION					
GRI 3: Material Topics 2021	3-3 Management of material topics	p. 24			
GRI 202: Market presence 2016	202-1 Ratios of standard entry level wage by gender compared to local minimum wage	The proportion is 103% for men and 155% for women. Minor apprentices were not considered for this calculation.			
	202-2 Proportion of senior management hired from the local community	Of the six people who make up the executive board, five (83%) were hired from the local community, that is, from the city of São Paulo.			
GRI 405: Diversity and equal opportunity 2016	405-1 Diversity of governance bodies and employees	p. 25			
	405-2 Ratio of the basic salary and remuneration of women to men	p. 24			
GRI 406: Non-Discrimination 2016	406- 1 Incidents of discrimination and corrective actions taken	No cases of discrimination were identified.			
ENERGY EFFICIENCY					
GRI 3: Material Topics 2021	3-3 Management of material topics	p. 31			
GRI 302: Energy 2016	302-3 Energy intensity	p. 31			
	302-5 Reductions in energy requirements for products and services	There is currently no specific action to reduce energy requirements at Ecogen. Therefore, any upward or downward variation is not measured systematically.			
ENVIRONMENTAL MANAGEMENT					
GRI 3: Material Topics 2021	3-3 Management of material topics	p. 31			
GRI 301: Material 2016	301-1 Materials used by weight or volume	p. 51			
	301-2 Recycled input materials used	Ecogen does not use recycled input or materials in its services.			

GRI STANDARD	CONTENT	LOCATION/RESPONSE	OMISSION		
			REQUIREMENT (S) OMITTED (S)	REASON	EXPLANATION
GRI 301: Material 2016	301-3 Reclaimed products and their packaging materials	The only Ecogen product that is sold in a package is CO ₂ bottled in cylinders; however, the cylinder is not owned by Ecogen, rather it is supplied by the customer.			
GRI 302: Energy 2016	302-1 Energy consumption within the organization	p. 31			
	302-2 Energy consumption outside of the organization		All content	Information unavailable	In this first report, Ecogen chose to only analyze consumption within the organization.
	302-4 Reductions of energy consumption	There is no reduction of energy consumption			
GRI 303: Water and Wastewater 2018	303-1 Interactions with water as a shared resource	p. 32			
	303-2 Management of water discharge-related impacts	p. 32			
	303-3 Water withdrawal	p. 32			
	303-4 Water discharge		All content	Information unavailable	We recently conducted a survey of impacts at Ecogen. From this first survey, we are setting deadlines, tools, methodologies and actions to mitigate or control the scope of these impacts. Therefore, we have not quantified the amount of surface water used.
	303-5 Water consumption	p. 32			
GRI 306: Waste 2020	306-1 Waste generation and significant waste-related impacts	p. 32			
	306-2 Management of significant waste-related impacts	p. 32			
	306-3 Waste generated	p. 52			
	306-4 Waste diverted from disposal	p. 52 e 53			
	306-5 Waste directed to disposal	p. 53			
GOVERNANCE AND COMPLIANCE					
GRI 3: Material Topics 2021	3-3 Management of material topics	p. 15			
GRI 205: Anti-corruption 2016	205-1 Operations assessed for risks related to corruption	Due to the characteristics of our business, no significant risks were found.			

GRI STANDARD	CONTENT	LOCATION/RESPONSE	OMISSION		
			REQUIREMENT (S) OMITTED (S)	REASON	EXPLANATION
GRI 205: Anti-corruption 2016	205-2 Communication and training about anti-corruption policies and procedures	p. 50			
	205-3 Confirmed incidents of corruption and actions taken	There were no confirmed cases of corruption.			
GRI 206: Anti-competitive Behavior 2016	206- 1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	There were no legal actions for anti-competitive behavior, anti-trust or monopoly practices.			
GRI 207: Tax 2019	207-1 Approach to tax	p. 14			
	207-2 Tax governance, control and risk management	p. 20			
CLIMATE CHANGES					
GRI 3: Material Topics 2021	3-3 Management of material topics	p. 17 and 33			
GRI 201: Economic performance 2016	201-2 Financial implications and other risks and opportunities due to climate change	p. 17			
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions		All content	Information unavailable	Ecogen is conducting its first GHG Inventory and expects to release data next year.
	305-2 Energy indirect (Scope 2) GHG emissions		All content	Information unavailable	Ecogen is conducting its first GHG Inventory and expects to release data next year.
	305-3 Other indirect (Scope 3) GHG emissions		All content	Information unavailable	Ecogen is conducting its first GHG Inventory and expects to release data next year.
	305-4 GHG emissions intensity		All content	Information unavailable	Ecogen is conducting its first GHG Inventory and expects to release data next year.
	305-5 Reduction of GHG emissions		All content	Information unavailable	Ecogen is conducting its first GHG Inventory and expects to release data next year.
	305-6 Emissions of ozone-depleting substances (ODS)		All content	Information unavailable	Ecogen is conducting its first GHG Inventory and expects to release data next year.
	305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions		All content	Information unavailable	Ecogen is conducting its first GHG Inventory and expects to release data next year.

GRI STANDARD	CONTENT	LOCATION/RESPONSE	OMISSION		
			REQUIREMENT (S) OMITTED (S)	REASON	EXPLANATION
PRODUCT/SERVICE QUALITY AND SAFETY					
GRI 3: Material Topics 2021	3-3 Management of material topics	p. 12			
GRI 416: Client health and safety 2016	416-1 Assessment of health and safety impacts of product and service categories	p. 12			
	416- 2 Incidents of non-compliance concerning the health and safety impacts of products and services	No cases of non-compliance were identified.			
OCCUPATIONAL HEALTH AND SAFETY					
GRI 3: Material Topics 2021	3-3 Management of material topics	p. 26			
GRI 403: Occupational health and safety 2018	403-1 Occupational health and safety management system	p. 26			
	403-2 Hazard identification, risk assessment, and incident investigation	p. 27			
	403-3 Occupational health services	p. 27			
	403-4 Worker participation, consultation, and communication on occupational health and safety	p. 26			
	403-5 Worker training on occupational health and safety	p. 27			
	403-6 Promotion of worker health	p. 27			
GRI 403: Occupational health and safety 2018	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	p. 26			
	403-8 Workers covered by an occupational health and safety management system	p. 26			
	403- 9 Work-related injuries	There were no deaths resulting from work accidents, nor work accidents with serious consequences (except deaths) in 2023, considering employees and workers.			
	403-10 Work-related ill health	p.27			



Complements

People

Number of employees by gender (GRI 2-7)

TOTAL NUMBER	2023		
	FEMALE	MALE	TOTAL
Employees	48	255	303
Permanent employees	48	255	303
Temporary employees	0	0	0
Full-time employees	41	254	295
Part-time employees	7	1	8

Note: Ecogen does not have employees without a guaranteed workload. The number of employees on the last day of the year was used.

Number of employees by region (GRI 2-7)

DATA BY REGION	2023					TOTAL
	NORTH	NORTHEAST	SOUTH	SOUTHEAST	MIDWEST	
Total employees	9	15	0	271	8	303
Permanent employees	9	15	0	271	8	303
Temporary employees	0	0	0	0	0	0
Full-time employees	9	15	0	263	8	295
Part-time employees	0	0	0	8	0	8

Note: All employees with an employment contract and present on our payroll were counted (permanent and temporary (CLT) - full-time; apprentices - part-time). The data used refers to the end of the reported period. Ecogen does not have employees without a guaranteed workload.

PARENTAL LEAVE (GRI 401-3)	2023	
	MALE	FEMALE
No. of employees entitled to take maternity/paternity leave	255	48
No. of employees who took maternity/paternity leave in the reporting year	11	1
No. of employees who returned to work after the end of maternity/paternity leave	17	3
No. of employees returning to work after the end of maternity/paternity leave and who continued to be employed twelve months after returning to work	4	0
Rate of return to work (%)	100	100
Women Retention rate, broken down by gender (%)	50	ND*

Note: No woman had a maternity leave ending in 2022, so it is not possible to calculate the retention rate.

Percentage of employees receiving regular performance and career development reviews (GRI 404-3)

EMPLOYEE CATEGORY	2023		
	MEN	WOMEN	TOTAL
Officers	25%	100%	40%
Managers	78,57%	100%	82,35%
Coordinators and experts	87,5%	57,14%	80,65%
Technicians and analysts	48,1%	51,72%	49,07%
Operational	93,98%	100%	94,03%
Apprentice	0%	0%	0%
TOTAL	76,86%	50%	72,61%

Note: Employees who were not evaluated were due to their time with the company, as they need to be hired at least 3 months before the end of the fiscal year.

New employee hires and employee turnover (GRI 401-1)

Total number and rate of new employee hires, by age group

AGE GROUP	2023	
	PEOPLE HIRED	RATE
Under 30 years old	31	0,54
30 to 50 years old	53	0,25
Over 50 years old	6	0,18
TOTAL	90	0,3

Total number and rate of new employee hires, by gender.

GENDER	2023	
	PEOPLE HIRED	RATE
Men	67	0,09
Women	23	1,4
TOTAL	90	0,3

Total number and rate of new employee hires, by region

REGION	2023	
	PEOPLE HIRED	RATE
North	4	0,44
Northeast	3	0,2
South	0	-
Southeast	81	0,3
Midwest	2	0,25
TOTAL	90	0,3

Total number and rate of employee turnover by age group

AGE GROUP	2023	
	DISMISSALS	RATE
Under 30 years old	19	0,33
30 to 50 years old	56	0,26
Over 50 years old	5	0,15
TOTAL	80	0,26

Total number and rate of employee turnover, by gender

GENDER	2023	
	DISMISSALS	RATE
Men	66	0,26
Women	14	0,29
TOTAL	80	0,26

Total number and rate of employee turnover, by region

GÊNERO	2023	
	DISMISSALS	RATE
North	4	0,44
Northeast	3	0,2
South	0	-
Southeast	71	0,26
Midwest	2	0,25
TOTAL	80	0,26

Note: The calculation method is the number of people hired or dismissed divided by the number of employees in the category (age group, gender or region).

Anti-corruption

Communication and training about anti-corruption policies and procedures (GRI 205-2)

TOTAL NUMBER AND PERCENTAGE OF GOVERNANCE BODY MEMBERS THAT THE ORGANIZATION'S ANTI-CORRUPTION POLICIES AND PROCEDURES HAVE BEEN COMMUNICATED TO		
2023		
	NUMBER	PERCENTAGE
Total members reported	5	100%
Total members trained	5	100%

TOTAL NUMBER AND PERCENTAGE OF BUSINESS PARTNERS THAT THE ORGANIZATION'S ANTI-CORRUPTION POLICIES AND PROCEDURES HAVE BEEN COMMUNICATED TO		
2023		
	NUMBER	PERCENTAGE
B2B customer	88	100%
Direct suppliers	71	100%
Interns	10	100%
Total	169	100%

TOTAL NUMBER AND PERCENTAGE OF EMPLOYEES WHO WERE INFORMED AND TRAINED ABOUT THE ANTI-CORRUPTION PROCEDURES AND POLICIES ADOPTED BY THE ORGANIZATION		
2023		
	NUMBER	PERCENTAGE
Officers		
Total members reported	5	100%
Total members trained	5	100%
Managers and Superintendents		
Total members reported	17	100%
Total members trained	17	100%
Coordinators, Specialists and Consultants		
Total members reported	31	100%
Total members trained	31	100%
Technicians, Analysts and Supervisors		
Total members reported	108	100%
Total members trained	108	100%
Operational		
Total members reported	134	100%
Total members trained	134	100%
Apprentice		
Total members reported	8	100%
Total members trained	8	100%
TOTAL		
Total members reported	303	100%
Total members trained	303	100%

Environment

Materials used by weight or volume (GRI 301-1)

TOTAL WEIGHT OR VOLUME OF MATERIALS USED TO PRODUCE AND PACKAGE THE ORGANIZATION'S MAIN PRODUCTS AND SERVICES DURING THE REPORTING PERIOD, BROKEN DOWN BY:	
NON-RENEWABLE MATERIALS USED	2023
Natural gas (m³)	23.527.988,86
Diesel fuel (ton)	34,38
A1 fuel oil (ton)	1.747,05
RENEWABLE MATERIALS USED	
Biogas (m³)	792.897,00
Biomass: Eucalyptus wood chips (ton)	43.420,44

Waste

Total waste generated in tons (GRI 306-3)

	2023
Hazardous waste	95,19
Absorbents, filter materials, cleaning cloths and protective clothing	10,13
Used or contaminated engine, transmission and lubricating oils	9,04
Content of oil/water separators	2,97
Gases in pressure containers and discarded chemicals	72,5
Wood, glass and plastic	0,55
Non-hazardous waste	17,11
Waste from inorganic chemical processes not previously specified services	11,06
Waste from aluminum pyrometallurgy	1,22
Packaging (including municipal waste and similar packaging waste, collected separately)	0,05
End-of-life vehicles of different means of transport (including off-road machines) and waste from the dismantling of end-of-life vehicles and vehicle maintenance	2,31
Metal scraps (including alloys)	1,69
Resíduos de estações de tratamento de água (ETA) para consumo humano ou de água para consumo industrial	0,78
TOTAL WEIGHT OF THE WASTE GENERATED	112,31

Note: In addition to the waste in the table, 35 fluorescent lamps were also generated

Total waste diverted from disposal, in metric tons (GRI 305-4)

	2023
Waste from inorganic chemical processes not previously specified	3,19
Used or contaminated engine, transmission and lubricating oils	9,04
Content of oil/water separators	2,97
Packaging (including municipal waste and similar packaging waste, collected separately)	0,05
Absorbents, filter materials, cleaning cloths and protective clothing	2,19
End-of-life vehicles of different means of transport (including off-road machines) and waste from the dismantling of end-of-life vehicles and vehicle maintenance - recycling	2,31
Gases in pressure containers and discarded chemicals	1,92
Metal scraps (including alloys)	1,69
Wood, glass and plastic	0,55
TOTAL	23,91

Hazardous waste not intended for disposal in metric tons, by process

RECOVERY OPERATION	2023		
	WITHIN THE ORGANIZATION	OUTSIDE THE ORGANIZATION	TOTAL
Processing	0	1	1
Recycling	0	2,742	2,742
Refining	0	9,04	9,04
Effluent treatment	0	3,89	3,89
TOTAL	0	16,742	16,742

Non-hazardous waste intended for disposal in metric tons, per process (GRI 306-4)

RECOVERY OPERATION	2023		
	WITHIN THE ORGANIZATION	OUTSIDE THE ORGANIZATION	TOTAL
Recycling	0	7,237	7,237
TOTAL	0	7,237	7,237

Waste directed to disposal in metric tons (GRI 306-5)

	2023
Waste from inorganic chemical processes not previously specified	7,877
Waste from aluminum pyrometallurgy	1,22
Absorbents, filter materials, cleaning cloths and protective clothing	7,94
Gases in pressure containers and discarded chemicals	70,58
Waste from water treatment plants (WTP) for human consumption or water for industrial consumption	0,78
TOTAL	88,399

Hazardous waste intended for disposal in metric tons, per process

DISPOSAL OPERATION	2023		
	WITHIN THE ORGANIZATION	OUTSIDE THE ORGANIZATION	TOTAL
Temporary storage	0	68,86	68,86
Blending for co-processing	0	14,66	14,66
TOTAL	0	78,52	78,52

Non-hazardous waste intended for disposal in metric tons, per process

DISPOSAL OPERATION	2023		
	WITHIN THE ORGANIZATION	OUTSIDE THE ORGANIZATION	TOTAL
Landfill		7,36	7,36
Blending for co-processing	0	2,4	2,4
Municipal Solid Waste Transfer Station	0	0,12	0,12
TOTAL	0	9,88	9,88

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