

EXECUTIVE SUMMARY

2022 SUSTAINABILITY REPORT







MESSAGE FROM THE BOARD OF DIRECTORS

We invest in the present to revolutionize the energy of the future



Mauricio Carvalho and Marcel Jorand

Dear shareholders, employees and partners,

It is a great pleasure to announce the executive summary of the first Sustainability Report in the history of Grupo Urca Energia. These documents register an important milestone in our journey towards excellency in corporate responsibility and ongoing commitment with the generation of renewable energy and sustainable practices. Herein you will find information about our environmental, social and economic performance during 2021 and 2022.

Our Group was born from the dream of promoting a positive impact in society by supporting Brazilian companies with effective solutions for energy transition. In Gás Verde we produce biomethane, a 100% renewable fuel; in Urca Gás, we transport this fuel to industry and to gas stations, besides performing natural gas trading operations; in EVA Energia, we transform environmental liabilities into 100% renewable electric power; and in Urca Trading, we commercialize renewable energy in order to find the best value for our clients' money.

Today we celebrate the concrete results achieved thanks to the combined efforts of our employees, partners and shareholders, committed to a greener, more sustainable and, of course, more profitable future. The Report's narrative is based on the Global Reporting Initiative (GRI) methodology, and it consolidates

the efforts we made in the last two years as of the creation of the ESG Committee – comprised by deputies of the Group's strategic areas, ensuring the perspective of the whole organization.

The journey towards decarbonization in the national industry is ongoing and challenging. With our team's dedication and experience in the energy sector, which is key to the success of the company's planning and operation, we are sure to keep overcoming barriers and achieving results even more impressive in the future. We thank everyone who is part of this trajectory, making possible the environment preservation, good business deals and acting as the main character in the Brazilian energetic transition. We believe in a future that is more socially and environmentally responsible. Together, we can build a clean energy-driven world, healthier and more vibrant to the future generations.

Good read!

Mauricio Carvalho

Founding Partner and Executive Director of Grupo Urca Energia

Marcel Jorand

CEO of Gás Verde, Shareholder and Executive Director of Grupo Urca Energia

OUR ACHIEVEMENTS HAVE AN IMPACT

Main highlights of 2022

Reduction of greenhouse gases



+18%

of greenhouse gas avoided in the atmosphere thanks to the use of biomethane instead of fossil fuel. Gás Verde avoided the emission of 113,425 tCO₂e.

Generation of renewable energy EVA



+1086%

OF GROWTH

**50,037 MWh renewable
generated in 2022,**

which would be enough to provide to more than 71 thousand inhabitants.

Emission of greenhouse gases



-22%

of internal emission within Gás Verde, which represents a 94% reduction of our clients' biomethane emission.

Energy trading with Urca Trading



287%

OF GROWTH IN 2022

**+1.5 million MWh
of traded energy**

Generation of renewable energy Gás Verde



+18%

OF GROWTH IN

BIOMETHANE PRODUCTION

35 million M3 in 2022.

This production would be enough to walk 78 million km or to give two thousand turns around the Earth.

Client satisfaction



+45

CLIENTS IN 2022

From 12 to 57 clients served with renewable fuel and/or clean energy, such as Ambev, Ternium, Oi and more than 15 gas stations in the state of Rio de Janeiro.

**Gross revenue
(Grupo Urca)**



+219%

OF GROWTH IN 2022

BRL 611,303,001

**Investments
(Grupo Urca)**



+ de R\$ 111 million

BETWEEN 2021 AND 2022

Diversity and inclusion



38%

of Grupo Urca Energia employees declare themselves as Brown (mixed-races), Black or Yellow (Asian).

11%

are people over 55 years old.

No accidents



GRUPO URCA ENERGIA

472 days

URCA GÁS

898.325 km

COVERED

with safety to deliver biofuel to industrial clients and gas stations.

Social impact



+ BRL 600,000

IN SOCIAL AND EDUCATIONAL PROJECTS

NOVA IGUAÇU FUTEBOL CLUBE,

assisting

330

children and teenagers.

R&D PROJECTS,

in partnership with IFSC - Instituto Federal de Educação, Ciência e Tecnologia de Santa Catarina, assisting more than

12

students and partner teachers.

Environmental attributes in 2022



57.192

CBIOS EMITTED

300% growth compared with 2021

3,5 m

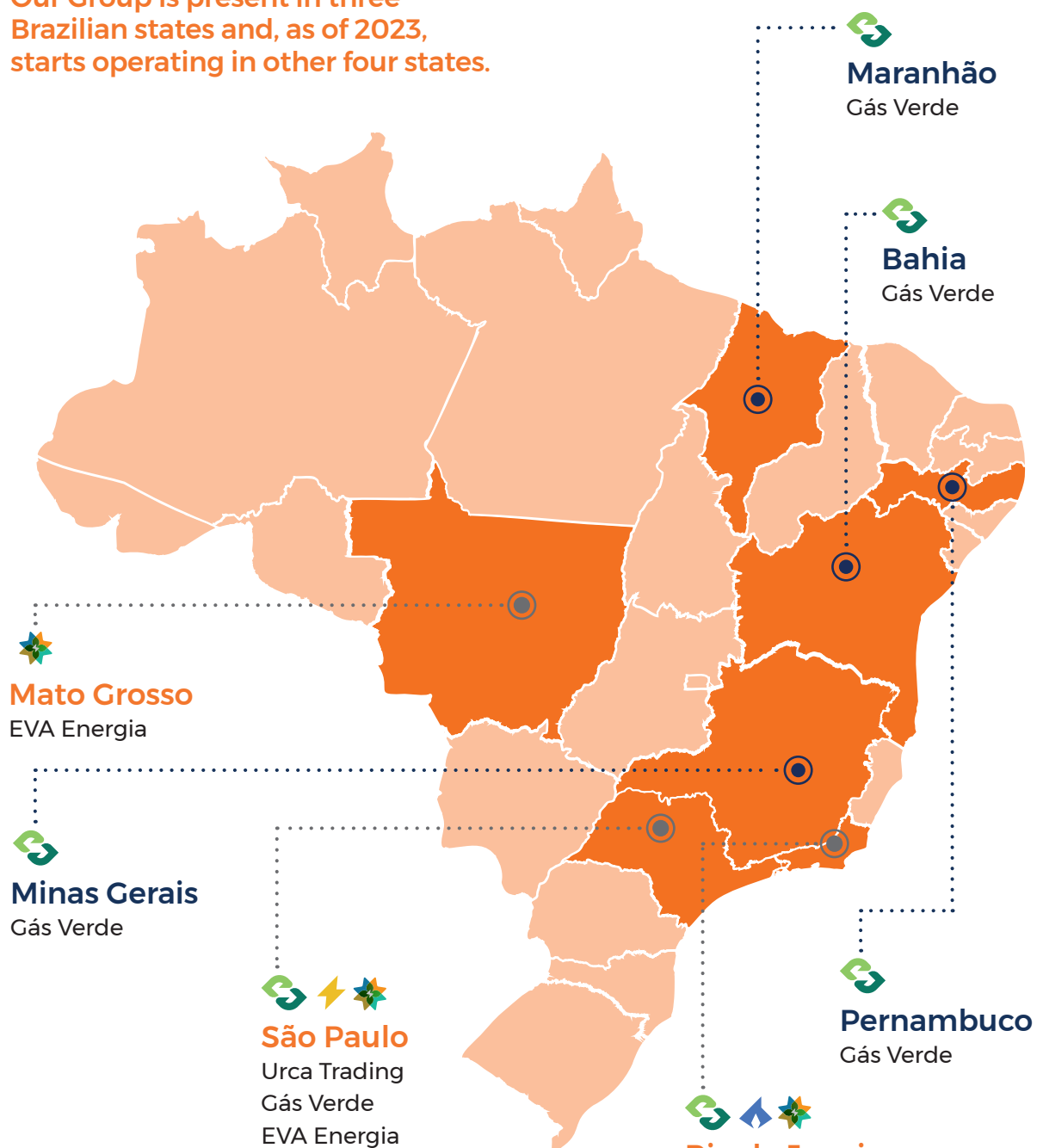
OF BIORECS EMITTED

54.256

I-RECS GENERATED

WHERE WE OPERATE

Our Group is present in three Brazilian states and, as of 2023, starts operating in other four states.



Subtitles:

- Plants operating in the base year 2021-2022
- Plants that were not yet operating under the Group's coordination in the base year 2021-2022.

Rio de Janeiro
Grupo Urca Energia
(headquarters)
Gás Verde
Urca Gás
EVA Energia





POWERED BY BIOMETHANE
The 100% renewable fuel

AFTER ALL, THE FUTURE STARTS TODAY

Grupo Urca Energia

We are Grupo Urca Energia, a holding of investments in intelligent and sustainable energy, that manages four companies: Urca Trading, Urca Gás, EVA Energia and Gás Verde. Together, they present the complete solution for decarbonization, from the production to the trading of renewable energy, for the partners that believe in a future that is more socially and environmentally responsible.

We operate in Free Contracting Market and Regulated Contracting Market, and we offer energy solutions in the fields of generation and trading of biomethane, energy and natural gas.

We are transforming the way of producing, distributing and consuming energy and biofuel in Brazil. We transform environmental liabilities into energy asset, avoiding the consumption of new fossil fuels and generating a virtuous cycle.



Gás Verde

We produce biofuel from the gas emitted during organic matter decomposition in landfills. We are considered a reference in national and international market, as we operate the biggest plant in terms of production and capacity in Latin America.



Urca Gás

We trade and transport natural gas and biomethane produced in Gás Verde's plants to industries and gas stations.



EVA Energia

We generate 100% renewable energy from environmental liabilities. Our business allows reducing the emission of methane in the atmosphere and, at the same time, compensating the use of electrical energy needed for the operation.



Urca Trading

We operate in the buying and selling of energy within Regulated and Free Contracting Markets, we make energy prepayment operations, as well as underwater and source swap operations, we have expertise in managing power plants with ballast recovery operation.



A future with circular economy

HOW WE OPERATE

We work with the concept of circular economy, a method that proposes the use of the raw material until its depletion, transforming what would be the end of a cycle into the beginning of a new chain.

We use the waste as raw material and we transform the gas emitted by the decomposition of this waste - the biogas - into renewable electric energy and biomethane. This way, we reinsert the waste into the production chain, thus reducing the GHG emission in the atmosphere, avoiding the use of new fossil fuels and putting the waste in a circular path of production.

Biomethane is considered a “green gas” which can be consumed by the industry replacing natural gas, LPG and fuel oil, as well as for filling cars and trucks, replacing diesel, gasoline and NGV.

BIOGAS

Biogas is a gas generated from the organic matter decomposition in the absence of oxygen. Its composition is basically methane (around 55% and 60%) and carbon gas, among other trace gases. From the biogas, it is possible to generate renewable electric energy and biomethane, as well as green CO2 and biofertilizers.

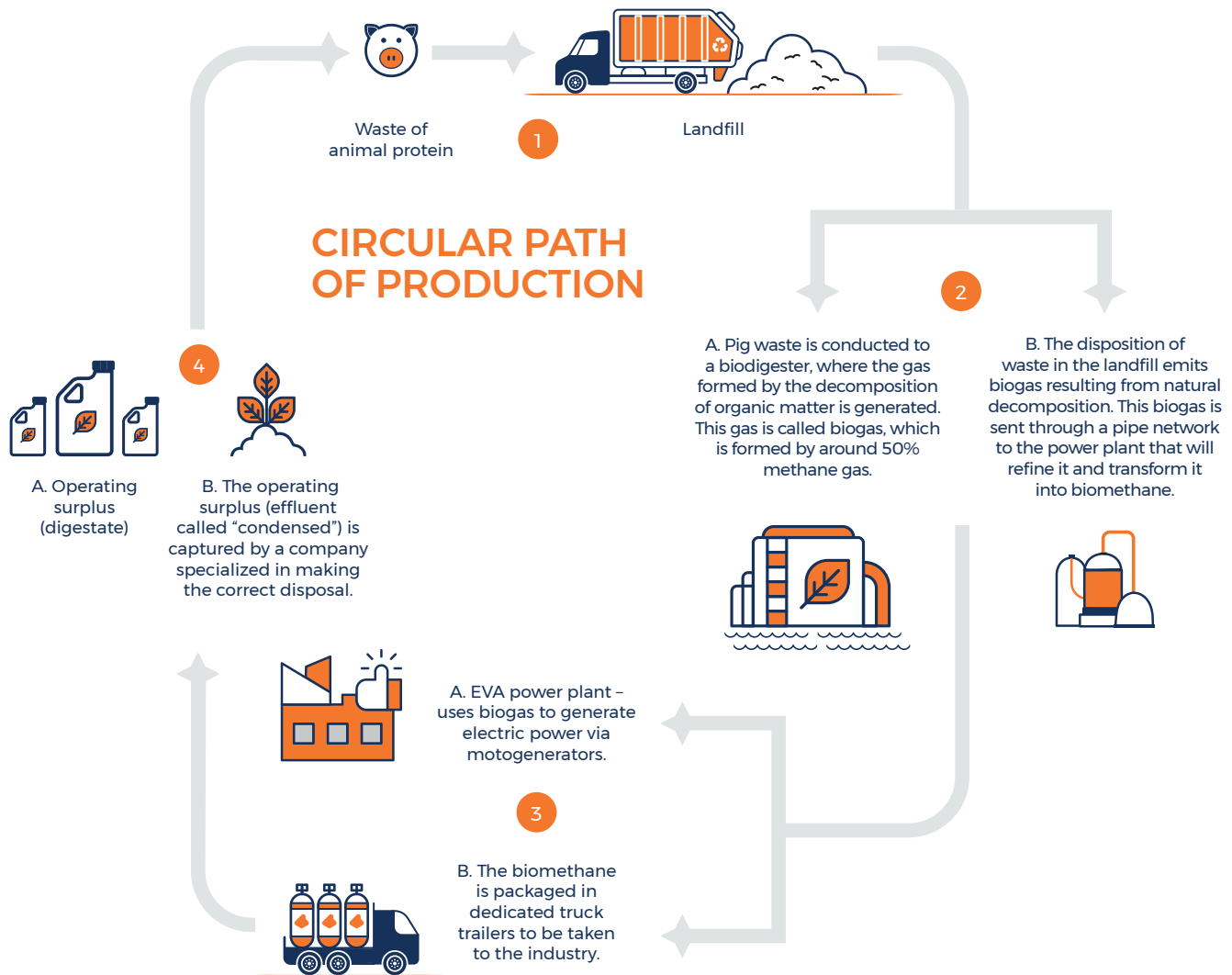
BIOMETHANE

When purified, biogas turns into biomethane, a gas with the same applications and interchangeable with natural gas. In this process, CO2 and other gases are removed, raising the methane concentration, which must be higher than 95%, according to ANP (Brazilian National Agency for Petroleum, Natural Gas and Biofuels).

Gás Verde produces two kinds of biomethane, both regulated by ANP. Industrial biomethane, dedicated to industries; and vehicle biomethane, dedicated to supplying light and heavy fleet.

A future committed to sustainability

Sustainability is part of our Group's ADN. We believe that protecting the environment and making good deals is something possible. We see climate change as an opportunity to create profitable deals.



OUR COMMITMENT HAVE AN IMPACT

Through the biogas, resulting from the decomposition of pig waste and landfill residues, we solve an environmental liability, that is the liberation of methane gas in the atmosphere - which is 28 times more polluting than carbon gas.

We transform this biogas into renewable electric power and into biomethane. Through biomethane production, it is possible to:

- Reduce 99% of GHG emission in the atmosphere.
- Reduce the emission of landfill-derived methane in the atmosphere.
- Transform environmental liability into energy solutions.
- Achieve the companies' Net Zero target.

As of 2022, we are
a member of the Global Pact



We are also committed in taking an action regarding the Agenda for Sustainable Development, especially those related to the operation of our business:



We offer our clients clean energy at a competitive market price, with no fluctuation due to foreign market.

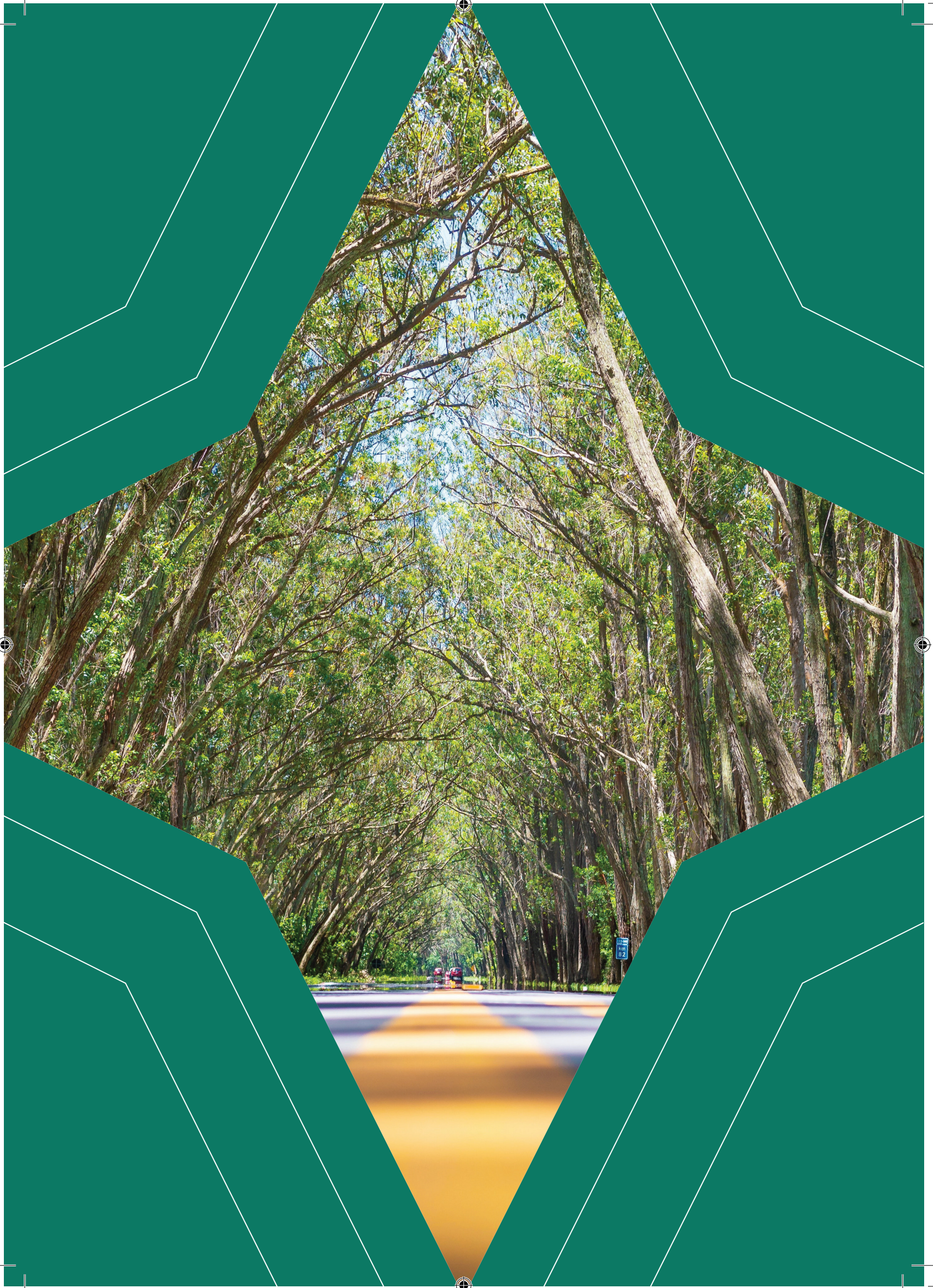


We generate energy from waste, contributing to circularity and avoiding greenhouse gas emission in the atmosphere.



We eliminate the emission of methane in the atmosphere to generate energy and biofuel. That way, we contribute to the companies' decarbonization journey by reducing emissions.





WE VALUE CORPORATE TRANSPARENCY AND GOVERNANCE

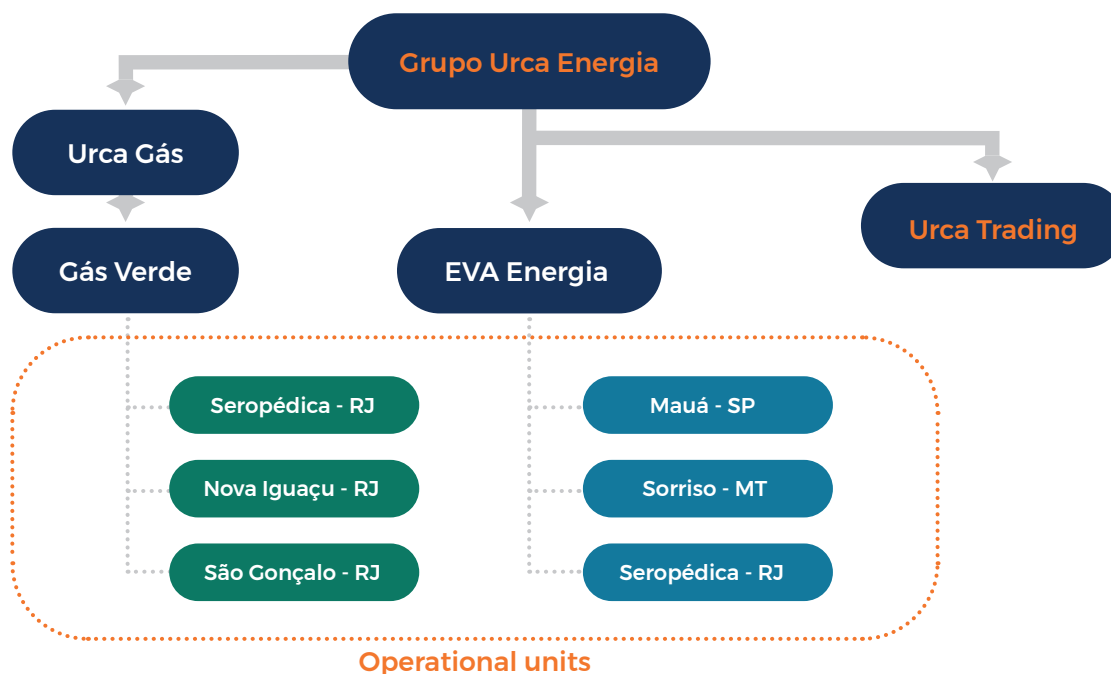
Grupo Urca Energia's governance structure has been updated in 2022, first year of Gás Verde operation under the management of the new shareholders. All other companies (Urca Trading, Urca Gás and EVA Energia) have an independent operation; they are however submitted to the same governance programs, managed by the ESG Committee of Grupo Urca Energia.

Our structure is lean and efficient. Our processes aim to maintaining the transparency of all operations and negotiations before our stakeholders, especially in a moment of ongoing expansion.

ESG COMMITTEE

Created in 2021 by a multidisciplinary team, this Committee aims to establish, implement and monitor the goals related to Grupo Urca Energia environmental, social and governance performances, based on the documents that rule Grupo Urca's Integrity Program: Policy of Ethical Conduct and Integrity, Policy of Anticorruption and Channel of Ethics.

Corporate Organization Chart





WE VALUE PEOPLE

We are a young company that is being structured and growing simultaneously. We have implemented a Culture Guideline to be shared with all employees, and we perform a safety integration with every new employee that arrives in the Group, where we present the risks and rules of our operations.

We invest in training and qualification, and we are building a career plan to stimulate the talents that are already with us.

Certified by Great Place To Work



OUR TEAM

We have ended 2022 with 158 employees, of which 80 have been hired along the year.

TOTAL NUMBER OF EMPLOYEES BY GENDER AND BY COMPANY OF THE GROUP

COMPANY	FEMALE	MALE
EVA*	2	13
GÁS VERDE*	7	73
URCA ENERGIA	14	8
URCA TRADING	3	11
URCA GÁS	7	20

* We consider the total amount of employees in EVA Energia (three units - EVA Mauá, EVA Seropédica and EVA Sorriso, based in São Paulo, Rio de Janeiro and Mato Grosso respectively) and in Gás Verde (three units, based in Seropédica, São Gonçalo and Nova Iguaçu).



HEALTH, SAFETY AND ENVIRONMENT IN OPERATIONS

We meet all requirements to perform a safe operation within our plants. We use a few tools that help us in this process:

Emergency Response Plan (ERP):

a system that works elaborating ergonomic, insalubrity and hazard reports, covering base documents as well (Risk Management Plan and Workplace Health Medical Control Plan - operational procedures and technical instructions).

HSE Team:

responsible for all safety procedures developed from the plant activities' inherent risks. We elaborate rules and training for the team, and we are constantly monitoring if the activities are being developed correctly.

Operational controls, and processes and procedures evaluation through sampling tests:

to identify and mitigate the risks related to the Group's operations, especially regarding Gás Verde and EVA Energia.

Workplace Safety Standards:

established by the Brazilian Ministry of Labor and Brazilian National Standards Organization (ABNT).

PRA - Preliminary Risk Analysis:

daily activity plan, which can be started only after the release of WP - Work Permit - and PTW - Permit-to-work - by the supervisory authorities.

Daily Safety Dialogue:

precautionary measure, whose goal is to secure the team regarding the activities performed in the field.

WE MAKE AN EFFICIENT RESOURCE MANAGEMENT

We like to ensure a responsible activity and we invest so that our operations use the least number of resources as possible, besides managing our greenhouse gas emissions.

RESOURCES MANAGEMENT

In 2022, we have created the Solid Waste Management Plan, which plans, manages and gathers information of the main waste and effluents generated, as well as their final destination.

We forward paper and cardboard to recycling, and oil to re-refining. The companies' operations follow a strict protocol to avoid any leak, whether of gas, which can result in atmospheric pollution, whether of slurry and lubricating oil, with a potential risk of soil contamination

and water pollution. Every waste disposal, as well as the water resource management, is notified to the competent environmental agency, and the MTR (Manifesto de Transporte e Resíduos_ Waste Transport Manifest) is issued.

WASTE

Waste managed within the operation

The raise in the amount of Gás Verde waste was caused mainly due to the investments made in the revamp of the unity Seropédica with the goal of achieving a bigger production, both in quantity and efficiency. EVA Energia has not generated any waste in 2021, as it was not yet operational.

WASTE MANAGEMENT WITHIN THE ORGANIZATION

UNITS IN TONS/YEAR	GÁS VERDE TOTAL		EVA ENERGIA TOTAL	
	2021	2022	2021	2022
TYPE OF WASTE (IN TONS)				
CLASS II (NOT HAZARDOUS)	12,85	101,46	0	0,05
CLASS I (HAZARDOUS)	7.627,59	8.886,19	0	6,7



WATER

Condensed effluents (Gás Verde Seropédica and Nova Iguaçu)

They are collected periodically in vacuum trucks by specialized companies.

Condensed effluents (EVA Mauá)

In general, the process does not generate effluents, except from the condensate accumulated in the pipes. It is forwarded to the landfill slurry treatment plant, which makes the physical, chemical and biological treatment according to the standards established by Conama Resolution 357/2005.

Effluents (EVA Sorriso)

The effluents coming out of the operation biodigester are directed to a tailings dam, where the water undergoes a regular acidity (pH) control. The biodigester dam goes through regular chemical analysis in order to assess the decomposition rate and the organic matter level. Therefore, no disposal is made in the hydrous body. The maintenance of the silt removal in the lake is constant, in order to prevent that any material get in touch with the groundwater and water bodies in the area, such as streams and lagoons.

Sanitary effluents (Gás Verde Nova Iguaçu and São Gonçalo)

The management is made by the company responsible by the respective landfills.

Sanitary effluents (Gás Verde and EVA Seropédica)

They have a closed pit that stores temporarily all the sanitary effluent to be collected and properly allocated by a third-party company.

ENERGY

The biggest control instrument for energy use is the Emission Inventory (read more on page 19). In 2021, in our first operating year, we created the GHG Emission Inventory of Gás Verde (Seropédica, Nova Iguaçu and São Gonçalo) according to the GHG Protocol methodology. From it, we made internal improvements and more accurate diagnosis on which base our strategic decisions. In 2022, we expanded the emission mapping to all the Group companies to reformulate and adapt engineering projects to future plants, so that our operation is more and more energy-intensive. Besides that, we have published our inventory in the Emissions Public Report to bring business transparency to our stakeholders and to contribute with references that can support the industry in creating public policies.



Improvements as of our first GHG Emission Inventory

- Assessment and replacement of equipment by other ones less energy-intensive in order to reduce our carbon intensity.
- Assessment and replacement of supplies, such as cooling gases, for example, by less polluting options..
- Assessment of backup options for clean energy, with the deployment of intelligent power meters.

PRODUCTION OF BIOMETHANE (GÁS VERDE) AND ENERGY (EVA ENERGIA)

COMPANY	2021	2022	%
GÁS VERDE	30.135.619 M ³	35.546.380 M ³	+18%
EVA ENERGIA	4.219,18 MWH	50.037,47 MWH	+ 1.086%



Greenhouse Gas Emission Inventory

Our 2022 GHG Emission Inventory adopted concepts and guidelines established by the specifications of the GHG Protocol accounting and quantification, The Greenhouse Gas Protocol and in accordance with ABNT standard NBR ISO 14.064:2007.

Additionally, we consider the following accounting criteria and methodologies: IPCC Guidelines for National Greenhouse Gas Inventories (1996 and 2006) and IPCC Fifth Assessment Report: Climate Change (AR5, 2013).

Greenhouse gases considered in the Inventory*

- Carbon dioxide (CO₂);
- Methane (CH₄);
- Nitrous oxide (N₂O);
- Sulphur hexafluoride (SF₆);
- Nitrogen trifluoride (NF₃);
- Hydrofluorocarbons (HFCs);
- Perfluorocarbons (PFCs).

** CH₄, N₂O, SF₆, NF₃, HFCs and PFCs emissions are expressed as CO₂. The gases identified in Urca Gás were: CO₂, CH₄, N₂O and HFC.*



Sources of emission included in 2022 inventory:

	CATEGORY	GÁS VERDE (IN TCO _{2E})	GRUPO URCA ENERGIA (IN TCO _{2E})
SCOPE 1	Stationary combustion	25,98	14,82
	Fugitive emissions	2.869,00	46,00
	Industrial processes	0	0,32
	TOTAL IN SCOPE 1	2.894,98	61,14
SCOPE 2	Electricity purchase in the network	2.201,06	6,73
	TOTAL IN SCOPE 2	2.201,06	6,73
SCOPE 3	Waste generated within the operations	45,24	0,11
	Transport and distribution (downstream)	661,45	0,00
	TOTAL IN SCOPE 3	706,69	0,11
	TOTAL OF EMISSIONS	5.802,73	67,98



AND WE STILL HAVE A LONG ROAD AHEAD

We are closing the year of 2023 with the release of the Group's first Sustainability Report (base year 2021/2022) and Emission Inventory (base year 2022). Besides the accountability to our stakeholders, these documents will be used as a strategic tool for the Group. From the consolidated information and our targets, we will determine the goals to be established for the next years, as of 2024.

We will keep promoting biomethane as the best solution for the energy transition in Brazil, as to include it permanently in the market of renewable energy. We will operate as a reference Group in promoting custom environmental solutions to our clients and as an important player in the market. We will work actively alongside ABiogás (Brazilian Biogas Association) so that the biomethane market gets regulated, thus raising its business capabilities.

Internally, our main goal is to keep building a robust corporate culture before a Group that quickly increases its assets. For that, we will consolidate a governance more and more effective, participative, transparent, with good practices and clear methods. In this process, we will have Communication and Human Resources as main areas of support, qualification and training alongside our employees.

Under the environment aspect, we pull out our stops in operational efficiency, as to use less and less resources and reducing more and more greenhouse gas emissions through the increase of biomethane production.

In terms of business, we will carry on breaking new horizons. We will produce and sell green CO₂ in Gás Verde's Seropédica unit.

As of 2024, with a capacity expectation of 100 ton/day. The raw CO₂ gas is a byproduct of biomethane production and can be applied in different industry sectors, such as metalworking, food and beverage, textile, paper and cellulose and sanitation. We would like to invest more in negotiations on carbon credit and we are studying alternative investments and projects related to Artificial Intelligence data processing, as to operate in the market of cryptoassets mining (trading of commodities) with clean energy. We are aware of the new regulations in the energy free market, taking a position as a Group that can help the transition of companies that are fit to use this market as of 2024.

We are convinced that our next report will bring comparisons of results and qualitative analysis of the goals. This way, we can release a report in accordance with GRI standards, bringing even more transparency and reliability to our stakeholders.



GRUPO
URCA 
ENERGIA



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