



Sustainability Report **2021**

Alupar

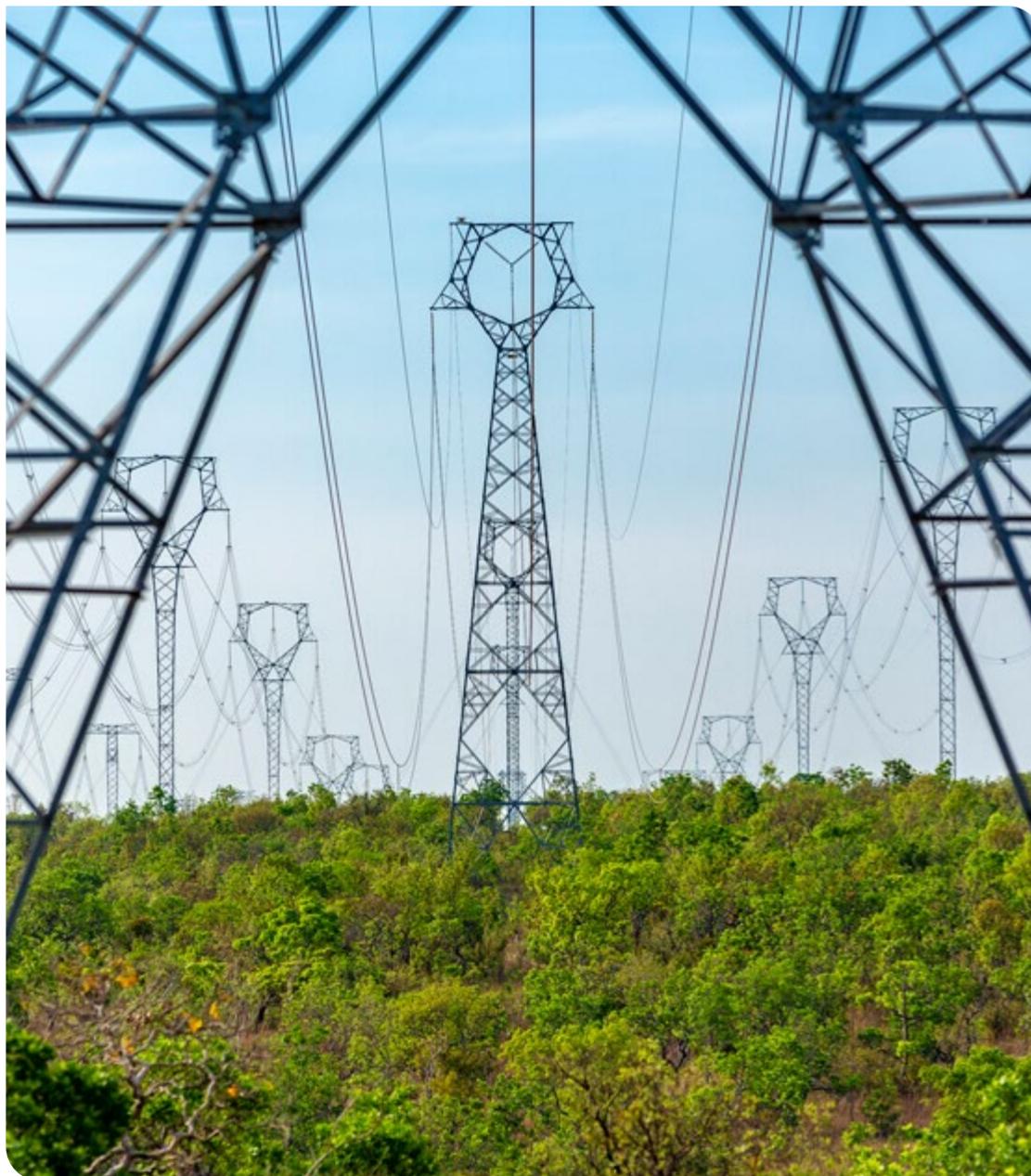


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PRESENTATION

History & future

- Welcome
- Message from Management
- Highlights

Welcome

Alupar publicly presents its second Sustainability Report (employees, investors, suppliers, customers and other *stakeholders*), reflecting the 2021 cycle (results from January 1 to December 31), and discloses operational data in Brazil, including Transmissora Brasileira de Energia (TBE) – *a joint venture* with Taesa – and Sistema de Transmissão Nordeste S.A (STN), a partnership with Chesf –, as well as opportunities and challenges, purposes and Alupar way of being. [GRI 102-40](#), [102-50](#), [102-52](#)

Elaborated pursuant to GRI standards (Global Reporting Initiative), main global sustainability reporting methodology), Core option, this publication reports the qualitative and quantitative indicators focused on the most relevant topics for *the company's stakeholders*, as well as energy sector and the Sustainability Accounting Standards Board (SASB). Financial performance information was audited by Ernest & Young Auditores Independentes.

We also disclose material topics (materiality matrix) and connections with the Sustainable Development Goals (SDG). Report content discusses corporate governance model, engagement and commitments with employees, value chain and environment. [GRI 102-46](#), [102-54](#)

In case of doubts or suggestions about shared information, send a message via e-mail: ri@alupar.com.br [GRI 102-53](#)

Join us in this reading!



Message from Management GRI 102-14

Founded in 2007, Alupar remains committed to create value for society and shareholders, investing in technical expertise, financial discipline, and social responsibility to move forward with sustainable growth. Despite the challenging scenario of a lingering pandemic, the Company endeavored efforts to minimize the impacts, implement projects and deliver positive results.

Various measures were adopted to advance the ESG (environmental, social and governance) agenda, such as, the engagement of an external advisory firm to assess the implementation of ESG criteria and define an action plan; the adoption of initiatives to bolster corporate governance, among them, the creation of a specific Code of Conduct for suppliers, the hosting of the Compliance Day and the outsourcing of a whistleblowing channel for 2022.

In 2021, the Company's adhesion to the United Nations (UN) Global Compact was a milestone in its sustainability journey, this meant the Company's commitment to connect the SDG and

the ten Global Principles to its business. The greenhouse gas (GHG) emission inventory was also a highlight, part of the Company's efforts to fight against global warming and climate change.

The year ended with a net revenue of R\$5.23 billion and an Ebitda of R\$3.92 billion. Net income totaled R\$1.12 billion, versus R\$942.1 million in 2020.

These results were driven by entire team's competence and efforts, recognized by the Company, which continues investing in its employees' development and wellness. An advisory firm was engaged to build a fairer and more diverse company, and take its first step towards the Diversity & Inclusion Program.

In earlier 2022, we concluded the investment cycle of Aneel's auctions 2016/2017, by delivering eight assets (ETAP, ETC, EDTE, ETB, TPE, TCC, TSM and ESTE), totaling 2,031 km of transmission lines.

Amid a scenario of water crisis in 2020/2021, these projects implementation were essential to SIN, by interconnecting the Northeast and Southeast regions, playing an outstanding role in the distribution of energy surplus stemming from wind and solar plants.

Alupar believes in the sustainable development and its business model, in which economic growth, environmental protection and social inclusion are fine-tuned and balanced. With an eye on the future, the Company actively participates in the construction of a legacy for today's and future generations, primarily working with renewable energy projects.

I invite you to get to know Alupar's work and purpose through this Sustainability Report!

Paulo Roberto de Godoy Pereira
CEO



Highlights



The Company becomes signatory of

Global Compact

of the United Nation (UN), committed to the Ten Principles and SDG in businesses.



Implementation of

TCC and TSM Transmission lines

(Transmissora Caminho do Café S.A), between the states of Minas Gerais and Espírito and TSM (Transmissora Serra da Mantiqueira S.A), in Rio de Janeiro and São Paulo.



Ranked amongst

1,000 largest

Brazilian companies by **Isto É Dinheiro ranking**, highlighting: 3rd in the ranking of electricity companies.



127th

largest Brazilian company in the *ranking* of Valor Grandes Grupos magazine, top 4th in revenue growth, 10th in return on equity and 11th in net income.



2nd consecutive year

awarded as “Lugares Incríveis para Trabalhar” (Amazing Places to Work for) and Brazil’s best companies, an initiative of UOL portal and Administration Institute Foundation (FIA) that award the companies’ people management best practices.



719

employees.



1,637

suppliers.



127th

position in the *ranking* of Brazil’s 500 top companies, by Época Negócios magazine.



122nd

posição in the *ranking* of **Valor 1000 magazine**, from **Valor Econômico newspaper**.



ESTE Conclusion

Southeast Energy Transmission Company (Empresa Sudeste de Transmissão de Energia) in earlier 2022.

ESSENCE

Strategic vision

- Alupar way of being
- Sustainability journey
- Corporate Governance





Alupar way of being

Alupar Investimento S.A is a national-private controlled *holding*, headquartered in the city of São Paulo, operating in the transmission and renewable energy generation segments (combining water, wind and solar energies). [GRI 102-1](#), [102-2](#), [102-3](#)

The Company is present in 14 Brazilian states (serving generation, distribution companies, consumers, importers and exporters), as well as in Colombia and Peru, in generation and transmission segments. In Latin America, the objective is to execute projects in countries with economic, institutional and regulatory stability. [GRI 102-4](#), [102-6](#)

Considered one of the largest 100% private companies in Brazil's energy transmission segment, in terms of Annual Permitted Revenue (RAP), its commitment is to create value for society and shareholders with investments in technical expertise, strong financial discipline, social and environmental responsibility. [GRI 102-7](#)

As a publicly-held company, its shares are traded on the Brazilian stock exchange, B3, the Company is governed by its bylaws and other applicable legal provisions, including Law No. 6.404 of December 15, 1976 (Brazilian Corporation Law), and B3 Level 2 Listing Rules. [GRI 102-5](#)

One of the Company's strategies is to seize growth opportunities through *greenfield* projects at ANEEL's auctions for electricity generation and transmission in Brazil. The low-carbon economy energy transition composes Alupar's performance, which seeks to contribute to a sustainable future and fight against climate change that affects the planet and businesses. Renewable energy is the energy of the future.

We create value for society and shareholders with investments in technical expertise, strong financial discipline, social and environmental responsibility.

Mission, Vision and Values

GRI 102-16



Mission

Transmit and generate power with corporate, social and environmental responsibility, creating value for shareholders, economic development, and people's wellness.



Vision

Be a respected, admired, modern and effective company, with the best performance indicators in the sector in which it operates.

Values



Commitment



Meritocracy



Respect



Result



Planning



Innovation



Ethics & Transparency

Institutional Relations

GRI 102-12, 102-13

Alupar values partnership and relationship with institutions relevant for society and its area of activity. In 2021, the Company adhered to the United Nations (UN) Global Compact, another step for the Company connect the SDG and Ten Global Principles to its businesses. The relationship with other associations is essential, such as:

- **Apine** – Brazilian Association of Electricity Independent Producers
- **ABDIB** – Brazilian Association of Infrastructure and Base Industries

- **ABRAGEL** – Brazilian Association of Clean Energy Generation
- **ABEEólica** – Brazilian Association of Wind Energy

Through these associations, we participate in the public policies development and sector planning along with agencies, regulatory authorities and government. [EU 19](#)

We adhered to the United Nations (UN) Global Compact, a relevant initiative to connect the SDG and Ten Global Principles to our businesses.



Timeline

Get to know key events over
Alupar's 14-year history

2008 to 2011

- EBTE, ESDE, ETEM, ETVG, TME, TNE, ETSE, Ferreira Gomes and Energia dos Ventos concession through auctions held by ANEEL.
- Authorization to implement SHPP Morro Azul, in Colombia.

2014

- The Company wins the Lot C (ELTE) of ANEEL's Auction 001/2014, in which it obtained the concession of transmission facilities.

2007

- Alupar is founded, a private-national control holding.
- Corporate restructuring with acquisitions and investments, now holding equity interests in the following energy transmission companies: EATE, ECTE, ENTE, ERTE, ETEP, ETES, Lumitrans, STC, STN, Transirapé, Transleste and Transudeste; as well as energy generation companies: Foz do Rio Claro, Ijuí, Queluz and Lavrinhas.

2013

- Alupar is registered on São Paulo Stock Exchange - BM&FBovespa on April 23, 2013. Its Units are traded under the ticker ALUP11 and are composed of 1 common share and 2 preferred shares (1 Unit = 1 ON + 2 PN).
- Authorization to build the hydroelectric power plant La Virgen (93.8 MW), in Peru is obtained.

2016

- The Company wins the Lots I (ETAP) and T (ETC) of ANEEL's Auction No. 13/2015, in which it obtained the transmission facilities concession.
- The Company wins the Transmission Auction No. 13/2015 – 2nd Phase of Lots 2 (TPE) and 6 (TCC), and through its subsidiary EATE. Lot 22 (ESTE).
- The Company wins the Bid UPME 07-2016 (Colombian Energy Transmission Company), through its subsidiary Alupar Colômbia.

2017

- The Company wins Lot 19 (TSM) of ANEEL Auction No. 05/2016, in which it obtained the transmission facilities concession.
- Equity interest acquired in transmissions company ETB and EDTE.

2018

- The Company wins Lot O, owning equity interest held by Eletrobrás in Aete, through Eletrobras Auction No. 01/2018 to sell equity interests and subsidiaries in Eletrobrás' Special Purpose Entities.



2020

- Grants are issued to make feasible the implementation of two wind power plants composing the Agreste Potiguar wind complex, in the city of Jandaíra (Rio Grande do Norte). These two wind power plants have installed capacity of 63 MW. The Agreste Potiguar Wind Complex has seven power plants, with total installed capacity of 214.2 MW.
- Grant issued to build the photovoltaic power plant Pitombeira, in the city of Aracati (Ceará), with solar energy installed capacity of 61.7 MWp.



2021

- 7,929 km energy transmission lines distributed in 30 companies. Consolidation of 12 generation assets totaling: 598.1 MW (water energy), 161.7 MW (wind energy) and 61.7 MWp (solar energy).
- Out of 42 assets controlled by Alupar, 36 of them are commercially operating, of which 27 are transmission assets, 8 water generation assets and 1 wind generation complex.

How Alupar operates in the market

Transmission

- **30 transmission systems** through concessions, 29 in Brazil (with 30-year duration) and one in Colombia, perpetual concession.
- Wide domestic operating transmission grid composed of aerial and substation lines, with nearly **8 thousand km of lines**.
- Alupar is present in Brazil's five regions, according to the map on page 14.

Generation

Alupar holds the concession/authorization of 12 assets totaling 821.5 MW of installed capacity, distributed by **four** hydroelectric power plants (HPPs), **five** small hydroelectric power plants (SHPPs), **two** wind complexes and **one** photovoltaic power plant, of which:

- **673.8 MW** operational;
- **63.0 MW** wind and **61.7 MWp** solar energy under implementation;
- **23.0 MW** water energy under environmental licensing stage.
- Assets located in Brazil, Colombia and Peru.

Read more about Alupar's business partners on page 29.

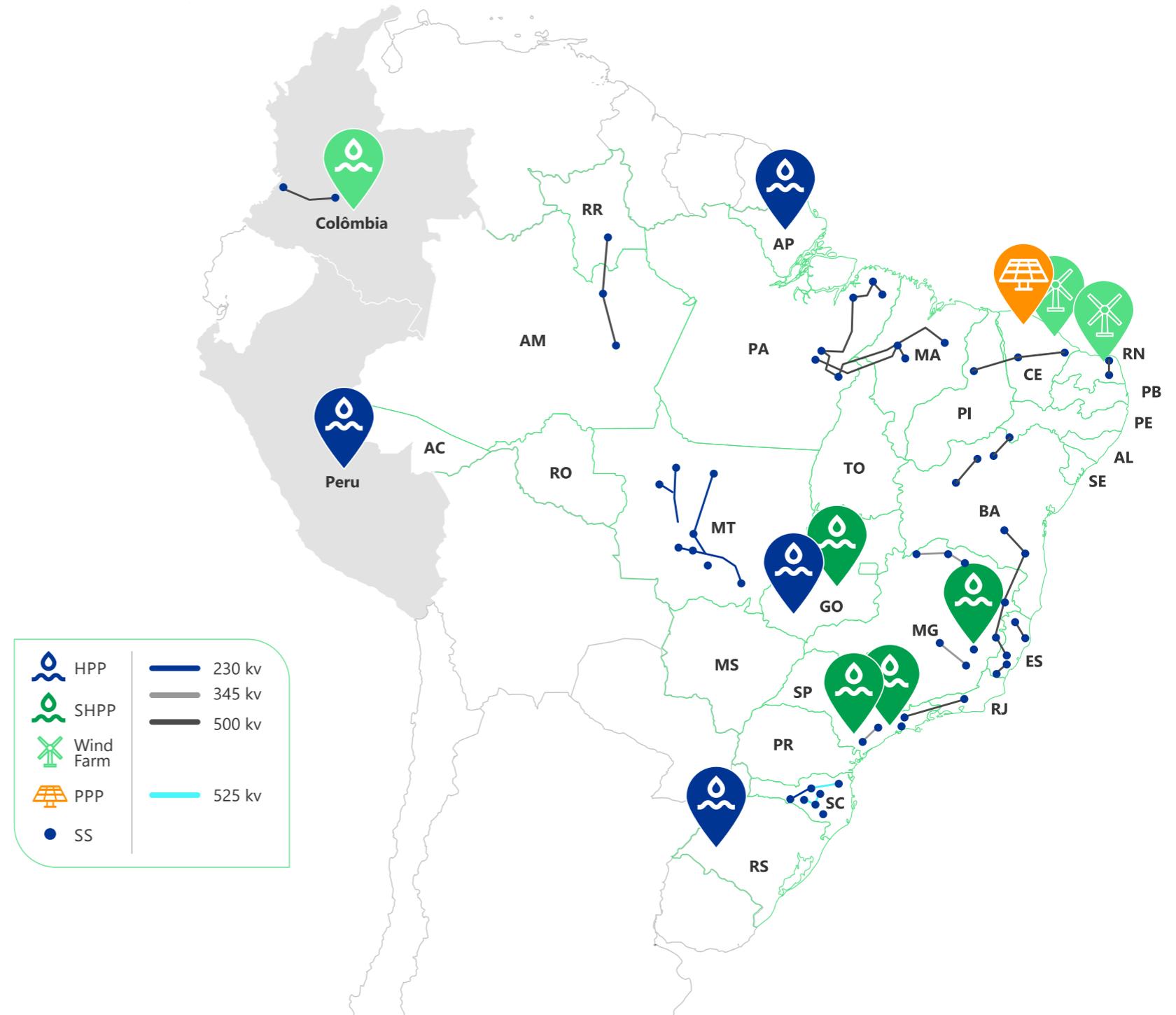


Presence in Brazil and Latin America

GRI 102-4

Climate and water effects

The hydroelectric and small hydroelectric power plants compose the Energy Relocation Mechanism (MRE), a financial provision that seeks to share the hydrological risks affecting the energy generation agents. Therefore, the hydroelectric resources of the National Interconnected System (SIN) can be optimized, assuring the cash generation foreseeability of the company's assets. This is a relevant mechanism to mitigate the climate and water effects connected with electricity production.





Sustainability journey

GRI 102-21, 102-40, 102-42, 102-43, 102-44, 102-46

Alupar's culture always pursued the responsible use of resources. The Company understands that the business-applied sustainable development is a way of operating that does not deplete future resources. This is a model in which economic growth, environmental protection and social inclusion are fine-tuned and balanced. Reinforcing our commitment to this topic, in 2022, we set up the Sustainability Committee.

The first materiality matrix, including priority topics for the Company, considers the vision of key *stakeholders* (public authorities, suppliers and service providers, shareholders, investors, independent board members, employees and local communities). This is a relevant tool to understand how stakeholders see the impacts and the Company's management, prioritizing topics to be discussed by leadership and announced to society by means of public documents, such as this report.

In 2021, the Company became a signatory of the United Nations (UN) Global Compact, supporting the Ten Universal Principles and committed to the Sustainable Development Goals (SDG). An external consulting firm drawn up the Company's action plan to adopt the ESG (Environmental, Social and Governance) criteria in its business model, which shall be implemented between 2022 and 2023. This work, by the way, is a development of the first initiative in 2019, when various issues to build this agenda were diagnosed and mapped.

It is important to understand how stakeholders perceive the Company's impacts for us to prioritize the sustainability topics in our strategic agenda.

Materiality aligned with SDG

The material topics identified were co-related with Sustainable Development Goals (SDG), the global agenda adopted in 2015 by countries participating in the United Nations (UN), with 17 objectives and 169 goals to be achieved by 2030.

We pursue a business model in which economic growth, environmental protection and social inclusion are fine-tuned and balanced.



Material topics

GRI 102-46, 102-47, 103-1

The materiality study conducted in 2020, identified five material topics, as follows.

SDG
7, 8, 12, 13, 14, 15

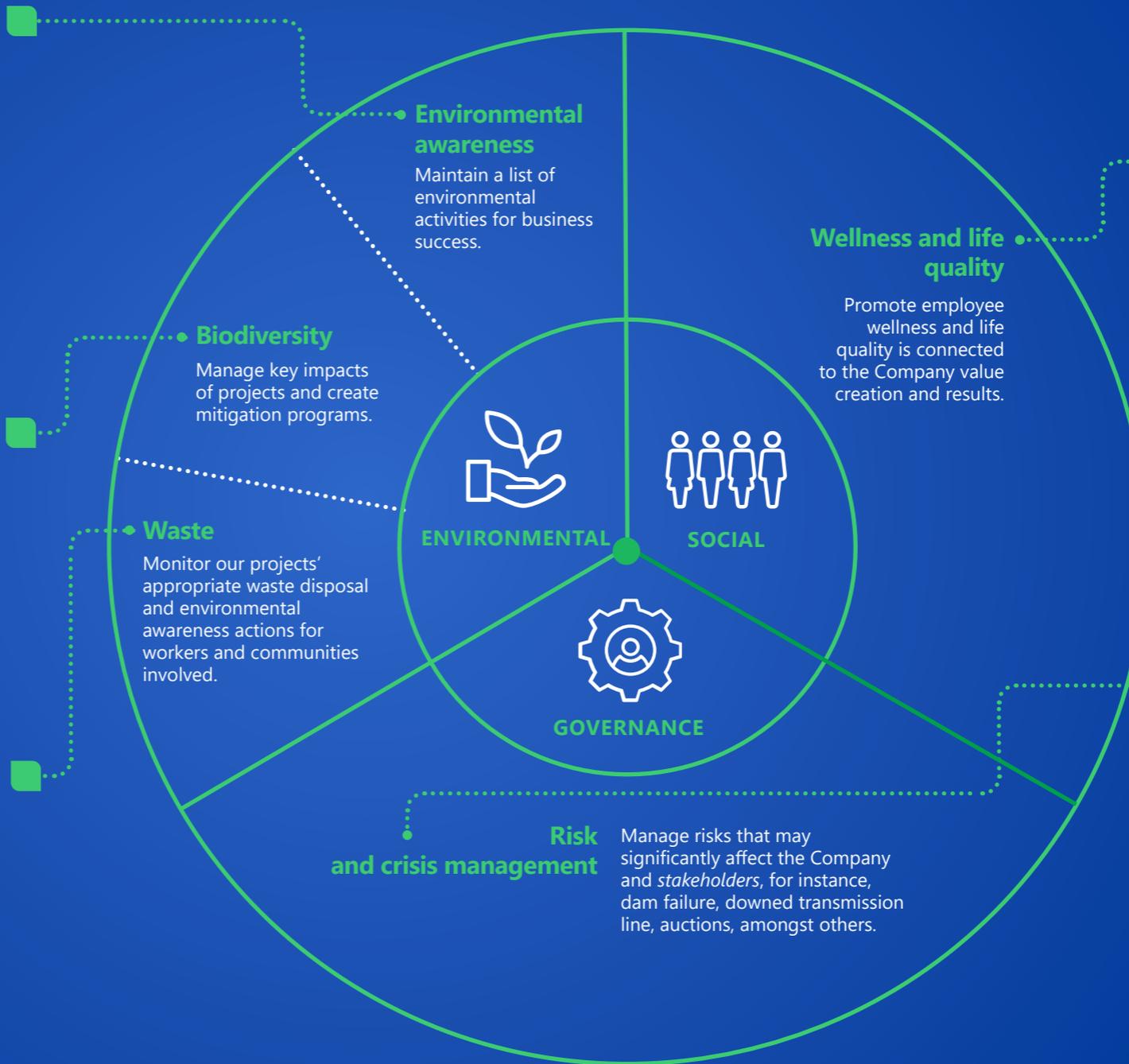
IMPACT BOUNDARY
Inside and outside the organization
GRI
Specific indicator

SDG
13, 14, 15

IMPACT BOUNDARY
Inside and outside the organization
GRI
304-1, 304-2, 304-3, 304-4, EU 13

SDG
6, 12

IMPACT BOUNDARY
Inside and outside the organization
GRI
306-1, 306-2, 306-3, 306-4, 306-5



Environmental awareness
Maintain a list of environmental activities for business success.

Wellness and life quality
Promote employee wellness and life quality is connected to the Company value creation and results.

Biodiversity
Manage key impacts of projects and create mitigation programs.

Waste
Monitor our projects' appropriate waste disposal and environmental awareness actions for workers and communities involved.

Risk and crisis management
Manage risks that may significantly affect the Company and stakeholders, for instance, dam failure, downed transmission line, auctions, amongst others.

SDG
3, 8

GRI
401-1, 401-2, 401-3, 402-1, 403-1, 403-2, 403-3, 403-4, 403-5, 403-6, 403-7, 403-8, 403-9, 403-10, 404-1, 404-2, 404-3, EU16, EU 18, IF-EU-320

IMPACT BOUNDARY
Inside the organization

SDG
16

IMPACT BOUNDARY
Inside and outside the organization

GRI
102-11, 205-1, 205-2, 205-3, 307-1, 308-1, 308-2, 403-2, 403-7, 413-1, 413-2, EU 6, EU 8, EU 10, EU 12, EU 21, EU 30, IF-EU-120, IF-EU-140, IF-EU-320

Corporate governance



Material topic

Risk and crisis management



With an eye on the future, Alupar pursues to consolidate the environmental, social and governance (ESG) criteria to its business model. A continued advancement and development of good governance practices underline an active participation in building a legacy for today's and future generations, meeting society's demands for a more sustainable world, stakeholders' expectations *also* adding value for businesses and strategies perpetuity.

The Company's shares are traded at B3 Level 2, the Brazilian stock exchange, based in the city of São Paulo. In 2021, a few initiatives were adopted that reflect corporate governance advance, such as: a reinforced release of the Code of Ethics, Conduct & Compliance among employees, the Compliance Day, the whistleblowing channel outsourcing, in 2022, to ensure records safety, the elaboration of a specific Code of Conduct for suppliers, an overall audit of information security systems (focused on Data Protection General Law- LGPD), amongst others.

The path of excellence is only achieved if it complies with ethics and transparency. For this reason, these values are reinforced along with all employees, partners, and communities in which the Company operates. The Company adopts various policies to improve its practices: Sustainability, relationship with community, integrity, corporate governance, internal audit, human resources, occupational health and safety, environment, anti-money laundering and counter-terrorism financing.

Good practices prioritization

The corporate governance model is grounded on ethical principles and conduct standards to guide behavior of shareholders, board members, officers, leaders and employees. Therefore, Alupar achieves its mission, vision and values, necessary to position the Company towards its growth and value creation journey. For additional information about the composition and responsibilities of all governance bodies, access [http://ri.alupar.com.br/ GRI 102-22](http://ri.alupar.com.br/GRI-102-22)



Planning and execution

GRI 102-18

The governance structure is composed of a Board of Directors, a Board of Executive Officers and five advisory committees, which support the Board of Directors.



Board of Directors

It outlines our businesses' general guidelines and policies. It is also under its responsibility, the oversight and monitoring of officers activities, the selection of independent auditors, and the creation of committees, defining respective charters and competencies.

The composition of the Board of Directors is defined through elections at Shareholders Meeting, and shall be composed of, at least, seven and at most, ten members for a renewable two-year term of office. [GRI 102-26](#)

Board of Executive Officers

It reports its activities directly to Alupar's Board of Directors and bylaws provide that it shall be composed of up to six members. This body's responsibility is to execute the strategic planning defined by Board of Directors and efficiently apply the resources earmarked for each area. Alupar's current board of executive officers is composed of three executives elected, with two-year term of office, and re-election is authorized.

Fiscal Council

Non-permanent corporate body, which acts independently from the Company's management and audit. The fiscal council's key responsibilities, with an one-year term of office, consist of overseeing the management's activities, reviewing the financial statements and reporting its conclusions to shareholders. Currently, there is no Fiscal Council installed.

Executive committees

Specific committees were set up to advise the Board of Directors and governance bodies to provide strategic inputs in decision-making processes. All of these committees have their charter and are subordinated to the Board of Directors and Board of Executive Officers.

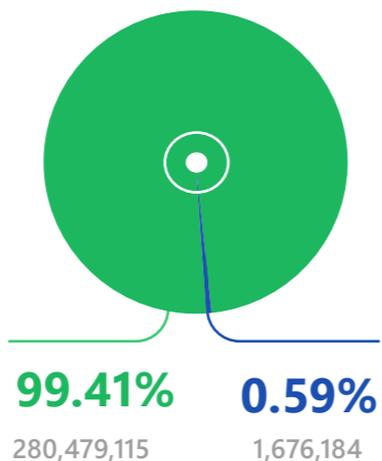
Alupar has five executive committees: Governance, Succession and Compensation Committee; Finance and Related Parties Engagement Committee, Audit Committee, Ethics Committee and Sustainability Committee. [GRI 102-20](#)

Ownership structure



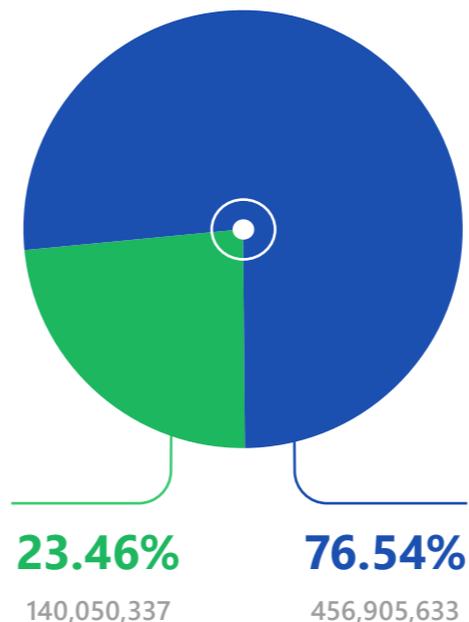
Preferred shares

282,155,299



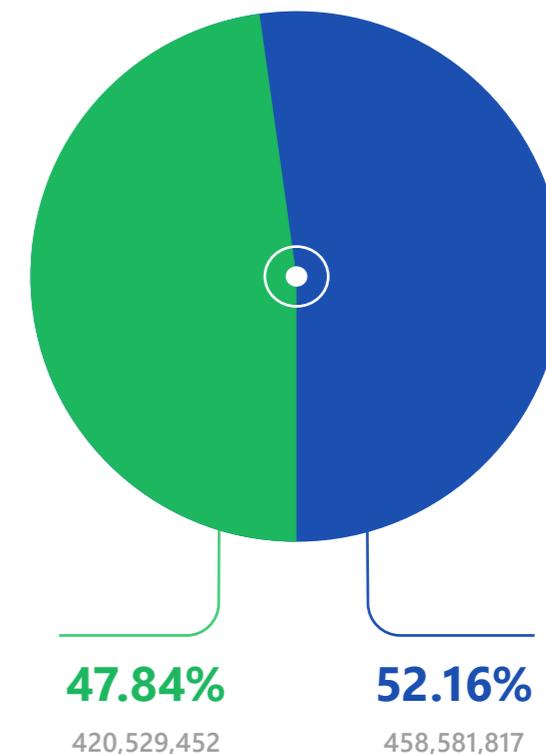
Common shares

596,955,970



Total shares

879,111,269



Controlling shareholder



Other shareholders

Ethics & integrity

GRI 102-16, 103-2, 103-3 |205

The dissemination of an ethical culture guides the practices of transparency, integrity, respect for laws and regulations in business and relationship with *stakeholders*. For cross-sectional values, the Company adopts its Integrity Policy and Code of Ethics, Conduct & Compliance (both made available on the intranet and Investor Relations website) to guide employees' behavior, both in internal relations and with society.

When all employees and members of the management bodies join the Company, they sign the code's liability commitment. Reports of potential infringements to the Company's policies and prevailing laws are received by the whistleblowing channel, which as of 2022, will rely on an independent support and will be available for all the Company's internal and external *stakeholders*. Seven reports were received in 2021, all of them were solved. All complaints received via e-mail (can be sent anonymously) are verified by Compliance area. [GRI 103-2](#)

Information security

The Company is in its final phase of adjusting its processes to conform with Data Protection General Law (LGPD). The personal data privacy-related events shall be directed to an exclusive channel, for analyses and discussions with data protection officer (DPO), under legal requirements.

Solid Compliance

In pursuit of a continued improvement of stakeholders relationship, a culture of *compliance* is disseminated through training sessions, elaboration of policies, actions and use of communication channels available. The first Compliance Day was held in 2021, which involved marketing actions, such as the "cäopliance" mascot to improve this area's policies and initiatives.

In 2021, the suppliers Code of Conduct was elaborated to step up clauses relating to the hiring outsourced workers, social and environmental responsibility. Therefore, this document assists the Company in the compliance with rules, and agreement termination, if this is the case. All Alupar's agreements include an anticorruption clause, and over the past years, the Company has invested in anti-money laundering policies. There is a risk matrix envisaging corruption, managed by Compliance Officer, who is subordinated to the Board of Directors.

Compliance in Colombia and Peru, countries where the Company operates, is under conclusion process, to be in conformity with laws of these countries. [GRI 205-2](#)

Besides anticorruption policies (Integrity Policy, anti-money laundering and prevention, Code of Ethics, Conduct & Compliance), the Company relies on the support of a specialized advisory firm to monitor all the Integrity Program's activities, in line with the best market practices. Alupar's 40 operations were assessed in 2021, and none of them recorded any case of corruption in the period. In 2021, 100% of employees received anticorruption notices. [GRI 205-1](#), [205-2](#)

In April 2022, Alupar's Board of Directors resolved to install an Ethics, Conduct & Compliance Committee, a non-statutory committee of the Company, as well as its charter.

Risks and crisis management

GRI 102-11,103-2, 103-3 | 207

Ethics management is essential to mitigate various risks that may jeopardize business continuity and value chain. Thus, the Company seeks to reinforce its corporate governance structures, map and manage operational and procedural risks, besides establishing an Audit Committee. This management is monitored by Board of Directors, Board of Executive Officers and shareholders.

All the projects phases are guided by the precautionary principle, including preliminary studies to find the best social and environmental alternatives, respecting the communities located in areas covered by projects. During planning phase, a specialized team analyzes each activity to mitigate possible impacts during implementation and operation. Activities are registered in monitoring reports and forwarded to the appropriate environmental authority.

The main social and environmental impacts take place during project installation phase, for instance, the vegetation removal, soil movement, the execution of civil works, amongst others. Therefore, a multidisciplinary team studies mitigation plans a set of impact mitigation plans by carrying out social and environmental programs (to protect local fauna and flora) and social initiatives to support neighboring communities. Environmental studies also enable drawing up action plans for each location. Alupar holds its Environmental Policy to high grounds of requirement and makes it available to all employees on the company's intranet.



We have a multidisciplinary team who manages impact mitigation plans through social and environmental programs, from fauna and flora protection to local communities support.



Contingency planning measures, management, disaster, emergency plans, training programs and recovery/restoration plans ^{EU21}

Mapped risk - Dam structural accidents

In-house emergency plan

The Emergency Action Plan (PAE) composes the Dam Safety Plan, which includes guidelines and definitions for internal and external stakeholders. PAE is in charge of laying down procedures and documentation to identify dams safety level.

External emergency plan - PAE

PAE includes early alert definitions through communication of agents heading the operation and dam safety for internal and external agents, as well as the population located in the Self-Rescue Zone (ZAS).

Emergency plan simulation

Simulation exercises and population's awareness actions, in regions located in the Self-Rescue Zone (ZAS), shall be executed by local governments and/or Civil Defense bodies. Alupar conveyed and filed all the information relating to eventual emergency situations, necessary so that appropriate authorities could plan and execute the simulation exercises. We have not carried out any simulation yet.

Third party's approval

Filed at local governments and Civil Defense, they do not require bodies' approval.

Employees and outsourced workers training program in situations of emergency and application of contingency plan

The assessment of emergency plans reliability, in the lack of actual crisis event, is obtained through a system composed of complexity ascending order:

- Notification and alert systems test;
- In-house exercise: executed at dam's meeting room or appropriate internal area for training;
- Simulation exercise.

Plans jointly with Civil Defense shall define the frequency of exercises suggested.

Compensations and other assistances due to resettlement.

The magnitude of impacts varies and requires a specific study for each case, impacting definitions of compensations and other assistances to be executed.

Plan adhesion to appropriate authorities requirements and/or code of good practices

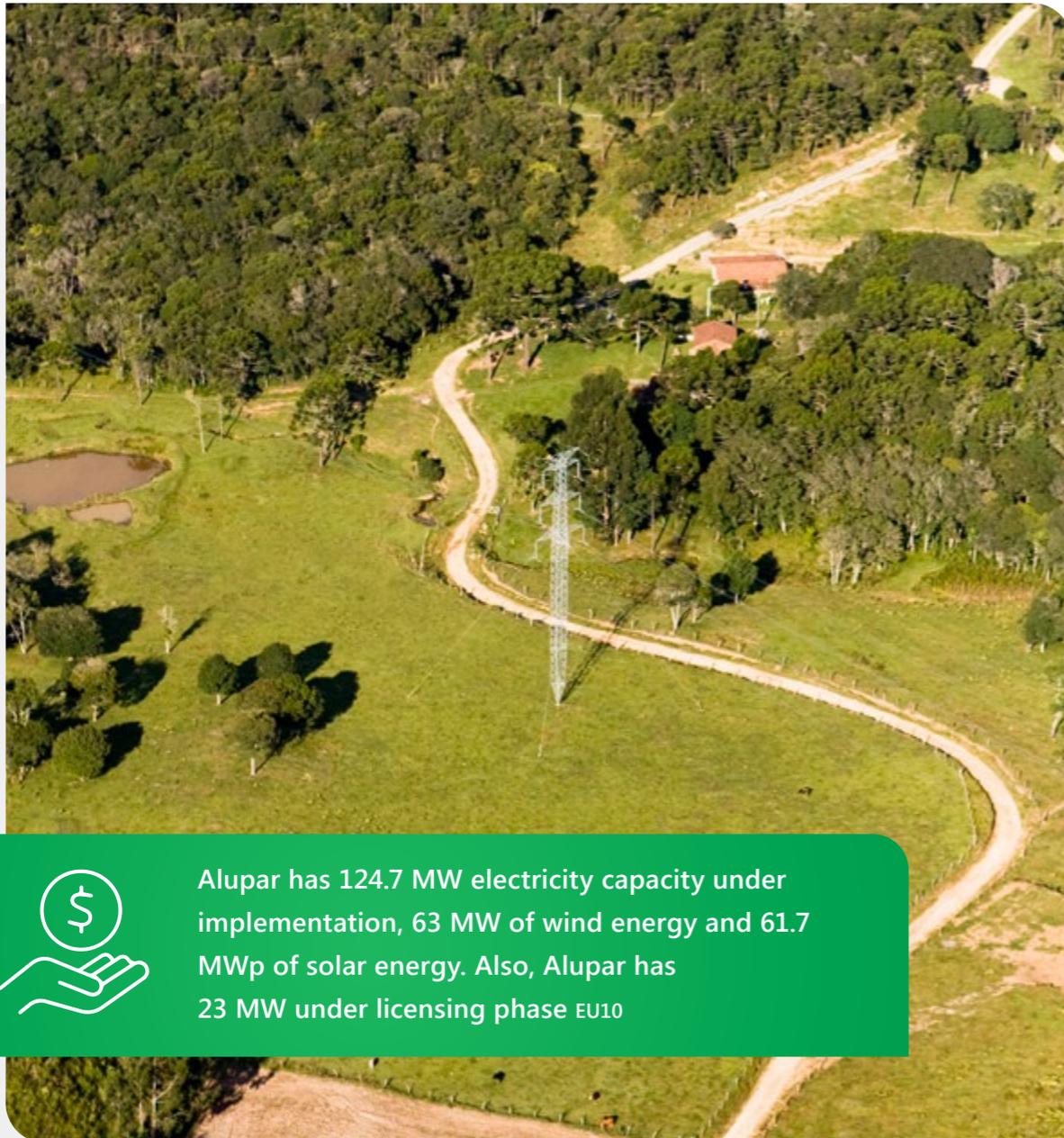
Assets' dam safety plans are in common agreement with federal law No. 14.066/2020, concerning the Dams Safety National Policy. Laws set out the procedures to prevent the occurrence and/or minimize the damages caused in reservoirs and surrounding areas, stemming from critical situations that may occur due to hydrologic risks or dam failure.



CONNECTIONS

Value chain

- Efficient relations
- Financial performance



Alupar has 124.7 MW electricity capacity under implementation, 63 MW of wind energy and 61.7 MWp of solar energy. Also, Alupar has 23 MW under licensing phase EU10

Efficient relations

Alupar concentrates its activities in projects through strategic partnerships with companies renowned by their technical and financial expertise to make feasible small and large-sized projects for the sector. All transmission and substation lines started their operations as of 2002 and, generation units, in 2010. In the transmission segment, the Company holds concession of 30 systems, with 7,928.5 km line extension: 6,973.5 km operational and 955 km under implementation. The concession period is 30 years in Brazil and perpetual in Colombia. EU4

Currently, the Company owns the control of all assets (except for TNE transmission company). In 2021, a *software* was implemented to monitor all the assets in real time, the BI (Business Intelligence) tool as a way of expanding information spectrum. Engineering technological alternatives under project implementation phase have been built, such as the use of drones when launching cables, thus, reducing the quantity of suppressed areas.

According to the electricity sector regulatory framework, the Company invests 1% of its Net Operating Revenue (NOR) in research & development programs (R&D). EU8

The maintenance and operation engineering teams continuously monitor the best technologies available in the market. We can highlight two projects in 2021: the construction of a rainfall forecast computational tool and a new methodology that measures atmospheric discharges. EU6, EU8

In 2021, the I-REC (Renewable Energy Certificate) was issued for SHPP Verde 08, in the city of Turvelândia (GO), which allows building a relationship between generation companies and end consumers interested in renewable energy sources, besides fomenting these projects development. Each I-REC corresponds to 1 MWh of energy. The SHPP Verde 08, authorized to issue I-RECs since 2020, with physical guarantee of average 18.7 MW (average 18.2 MW, including losses), can issue until 157,680 RECs. In turn, EAP I and II projects, under phase of implementation, expect to issue I-RECs upon their commercial startup.

Operations partners

Extension of transmission lines (km) per Voltage (kV)

Company	230 kV	345 kV	500 kV	Company	230 kV	345 kV	500 kV
ETEM	235			ETES	107		
ECTE			252	TME			348
ETSE				ETVG			
ETEP			323	TNE*			715
ESDE				ELTE*	40		
EATE			924	ETAP	20		
ERTE	179			ETC			
ENTE			464	TPE			541
EBTE	775			TCC			288
STN			541	ESTE			236
Transleste		150		TCE			200
Transirapé	65			TSM			330
Transudeste		140		ETB			446
STC	195			EDTE			170
Lumitrans			51	AETE	193		
					1,809	290	5,829
				Total			7,928

* under construction

Alupar Generation Companies

Company	Begin Operations	Installed capacity (MW)
HPP - Foz do Rio Claro	Aug/2010	68.4
HPP – São José – Ijuí	Mar/2011	51
SHPP – Queluz	Aug/2011	30
SHPP – Lavrinhas	Sep/2011	30
HPP – Ferreira Gomes	Nov/2014	252
Wind power – Energia dos Ventos	Mar/2016	98.7
SHPP – Morro Azul	Sep/2016	19.9
SHPP – Verde 08	May/2018	30
HPP – La Virgen	May/2021	93.8
SHPP - Água Limpa	Pre-operational	23
Eólico Agreste Potiguar – AW Santa Régia	Pre-operational	37.8
Eólico Agreste Potiguar – AW São João	Pre-operational	25.2
PPP – Pitombeira (Solar energy)	Pre-operational	61.71 ¹
Total		821.5

1 MWp: megawatt-peak

Energy from North to the Southeast region of the country

At the end of 2021, Alupar eight months in advance delivered the implementation of the 500 kV-transmission line Fernão Dias – Rio Terminal, with 330 km extension. This project crosses 27 municipalities (22 in the state of São Paulo and five in the state of Rio de Janeiro), it meets the reinforcements necessary for the Southeast region, enabling to receive energy surplus from the North region. The work is authorized by the Electric System National Operator (ONS). This project enabled to issue R\$530 million green debentures.

ESTE transmission company commercial startup

On 02/18/2022 the subsidiary ESTE (Energy Transmission Southeast Company) obtained the Revenue Release Statement – TLR, which authorizes to receive revenue as of 02/09/2022. With ONS' authorization, a RAP of R\$123.6 million will be added to the 2021-2022 cycle.

ESTE is a project located in the states of Minas Gerais and Espírito Santo. This project consists of the implementation of a 500 kV-transmission line Mesquita – João Neiva 2, with 236 km extension and substation João Neiva 2 - 500/345 kV.

Plant's average availability factor, broken down by source of energy and regulatory system¹ EU30

Source	Generation availability	Planned downtime hours	Not planned downtime hours
Hydro power - HPPs (hydroelectric power plants)	0.9148	995.47	247.44
Hydro power - SHPPs (small hydroelectric power plants)	0.8951	2,125.45	5,753.17
Wind power	0.9687	2,152.56	9,249.69

¹ Availabilities below 90% are due to non-recurring events of large-sized scheduled maintenances jointly with corrective actions.



Evidencing our commitment to sustainable development, we raised **R\$530 million green debentures** to finance the construction of a transmission line with **330 km extension in the Southeast region**



In the generation segment, our energy derives from renewable sources, such as hydro, wind and photovoltaic power



Suppliers

GRI 102-9, 103-2, 103-3 | 308

In 2021, the Company issued a specific Code of Conduct for suppliers to improve clauses related to outsourced workers' hiring, social and environmental responsibility. The Company's main partners are located in the Southeast and South regions of the country, as the sector is very specific and technical. In cases of works support services, the Company prioritizes the hiring of local labor, as a way of fomenting the region's economy.

Alupar's supply chain is composed of companies providing substation equipment (transformers, reactors, circuit breakers, lightning rods and cables) and transmission line materials (aluminum cables, insulators, dampers and metal structures), as well as civil works contractors, elaboration, project certification, substations assembly and transmission lines.

In 2021, 1,637 suppliers were contracted. Before contracting, strategic suppliers undergo a documentation analysis process (legal, tax, environment, financial and *compliance* aspects).

As far as environmental issues are concerned, regular status certificates are analyzed and projects references are concluded, besides including an environmental exhibit to the agreement containing all the guidelines and recommendations for ecologic control and preservation, as well as a specific clause on child and slave labor.

Financial performance

GRI 103-2, 103-3 |201

Alupar's sustainable growth is guided by participation in auctions for transmission and generation assets, energy generation project development (SHPPs, wind and photovoltaic power plants), participation in transmission bids in selected Latin American countries, as well as analysis of *brownfield projects*. The Company considers certain climate risks in its business, however management and

analysis of financial implications related to these events will be discussed in the ESG plan, under development. [GRI 201-2](#)

The Company ended 2021 with a net revenue of R\$5.23 billion and an Ebitda of R\$3.92 billion. Net income totaled R\$1.12 billion, versus R\$942.1 million in 2020. Check the list of entities covered in the financial statements in the Exhibit hereto. [GRI 102-45](#)

Gross revenue

Net income totaled R\$1.12 billion, versus R\$942.1 million in 2020.





Direct economic value generated (in thousands of Reais) GRI 201-1

	2020	2021
Revenue	6,929,663	6,265,206

Economic value retained (in thousands of Reais) GRI 201-1

	2020	2021
"Direct economic value generated" less "Economic value distributed"	1,809,354	1,762,380

Economic value distributed (in thousands of Reais) GRI 201-1

Distributed	2020	2021
Operating expenses	2,377,038	1,391,664
Employees' salaries and benefits	194,013	189,120
Payments to capital providers	1,089,181	1,593,939
Payments to the government	1,453,267	1,322,574
Investments in community	6,810	5,529
Total	5,120,309	4,502,826

Economic value distributed (%) GRI 201-1

	2020	2021
Operating expenses	46.42	30.91
Employees' salaries and benefits	3.79	4.20
Payments to capital providers	21.27	35.40
Payments to the government	28.38	29.37
Investments in community	0.13	0.12
Total	100	100

Consolidated Ebitda

In 2021, earnings before income tax, financial result, depreciation and amortization (EBITDA) came to R\$3,919.6 million, 13.5% higher than in previous year.

Transmission

The Ebitda deriving from out energy transmission system increased 9.6%, from R\$3,152.9 million in 2020 to R\$3,454.8 million in 2021, mainly driven by concession asset higher financial yield on the back of commercial startup of ETB, TCC and TPE.

In the energy generation segment, Ebitda increased 39.9% in 2021 versus previous year due to higher volume and average price of MWh traded in the free market and lower operating expenses, on the back of accounting for grant extension.

Generation

The Ebitda (deriving from our energy generation system) surged 39.9%, from R\$364.8 million in 2020 to R\$510.3 million in 2021, fueled by (i) higher volume and average price of MWh traded in the free market and (ii) lower operating expenses due to accounting for grant extension.





Financial result

Net financial result went from a financial expense of R\$461.7 million in 2020 to R\$915.5 million in 2021, due to the following factors:

- Financial expenses increased from R\$513.1 million in 2020 to R\$1,023.4 million in 2021, mainly driven by debt higher interest rates due to the commercial startup of transmission companies TPE, ETB and TCC, totaling R\$436 million (previously these charges were capitalized in these companies' contractual assets) and higher IPCA (extended consumer price index) in 2021 (4.51% accumulated in December 2020 and 10.06% accumulated in December 2021). This index is adopted to update loans of several Alupar's transmission companies.
- Financial income went from R\$51.3 million in 2020 to R\$107.8 million in 2021, driven by higher average rate of interbank deposits (CDI) that recorded 4.42% in 2021, versus 2.75% in 2020; the accounting of R\$18.4 million in SHPPs Queluz and Lavrinhas, due to interest rates and monetary restatement over trade accounts receivable, referring to the balance of outstanding invoices in 2021.

Indebtedness

The Company and its subsidiaries ended 2021 with a net debt of R\$7,995.5 million, 17.7% higher than previous year. Such increase is related to our current flow of investments. Our consolidated leverage (net debt/EBITDA), on December 31, 2021, reached 2.0 x.

Net income for the year

In 2021, net income for the year (excluding non-controlling shareholders) totaled R\$1,115.4 million, compared to R\$942.1 million in 2020, explained by various factors already mentioned above.

Capital market performance

Units are traded on B3 under the ticker ALUP11 and are composed of one common share and two preferred shares (1 UNIT = 1 ON + 2 PN). At all trading sessions held in 2021, Alupar's Units recorded an average daily trading volume of R\$22.2 million. Units ended 2021 quoted at R\$24.10, an 8.1% depreciation compared to 2020. During the same period, the Electric Energy Index (IEE) depreciated by 7.9%. On December 31, 2021, Alupar's market cap totaled R\$7.1 billion.

Investments

In 2021, total investments came to R\$1,165.2 million, R\$1,024.1 million in the transmission segment, R\$138.4 million in the generation segment, and R\$2.7 million in new business development. The volume of investments made

in 2021 mainly reflects the implementation of transmission assets, namely: TSM, ESTE, TCC, TCE and ELTE; and, generation assets, such as the wind power plant, Agreste Potiguar and the hydroelectric power plant, HPP La Virgen.

Value-Added Statement (%)

	2020	2021
Shareholders	5.41	7.40
Employees (employee remuneration and benefits)	3.76	3.31
Government	32.42	27.71
Retained earnings	39.74	36.16
Debt capital remuneration	18.52	25.31
Investments in community	0.15	0.11

Value-added statement –summarized (in thousands of Reais)

	2020	2021
Revenue	6,851,546	6,138,327
Inputs acquired from third parties	2,241,166	1,251,147
Gross value-added	4,610,380	4,887,180
Retentions	135,872	140,517
Net value-added produced by the organization	4,474,508	4,746,663
Value-added received in transfer	78,117	126,879
Total value-added to distribute	4,552,625	4,873,542





Revenue by country (in thousands of Reais)

Country/region	2020	2021
Brazil	6,113,188	5,166,664
Colombia	27,557	38,087
Peru	-	29,457

Costs by country (in thousands of Reais)

Country/region	2020	2021
Brazil	2,689,664	1,367,605
Colombia	9,891	12,686
Peru	-	19,335

Value-added statement (in thousands of Reais)

	2020	2021
Revenue	6,851,546	6,138,327
Sale of goods, products and services	6,745,065	5,803,199
Non-operational	106,481	335,128
Inputs acquired from third parties (including ICMS -State VAT and IPI - excise tax)	2,241,166	1,251,147
Cost of goods sold and services provided	2,083,859	1,142,239
Materials, energy, outsourced services and others	157,307	108,908
Gross acquired value	4,610,380	4,887,180
Retentions	135,872	140,517
Depreciation, amortization and depletion	135,872	140,517
Net value-added produced by the organization	4,474,508	4,746,663
Value-added received in transfer	78,117	126,879
Equity pick up of subsidiaries	(9,224)	(5,255)
Financial income	87,341	121,624
Total value-added to distribute	4,552,625	4,873,542
Distribution of value-added	4,552,625	4,873,542
Personnel and charges	171,154	161,305
Taxes, fees and contributions	1,476,126	1,350,389
Debt capital remuneration	843,030	1,233,503
Equity capital remuneration	246,151	360,436
Retained earnings	1,809,354	1,762,380
Investments in community	6,810	5,529

TEAM

Care for people

- Alupar Team
- Occupational health and safety





The Company invests in on-site and distance training, and offers scholarships to foment employees' professional development.

Alupar Team

GRI 102-8, 103-2, 103-3 | 401| 402| 404



Material topic

Wellness and life quality



A company's success is also a result of people and their talents. Therefore, Alupar believes that united and productive teams mean the extension of a fine-tuned corporate environment, wellness, employees' engagement and leadership in the company's culture dissemination. Thus, the Company relies on Recruiting and Selection, Career & Remuneration Policies, Benefits, Occupational Safety and goals to sustain employees' satisfaction level.

The "Alupar's way of being" was again recognized in 2021 by the award "Lugares incríveis para trabalhar" (Amazing places to work for), an initiative of UOL portal and Management Foundation Institute (FIA) that awards the companies' people management best practices. Two requisites required by the award were met: employees' survey participation percentage with 89% of adhesion, and the achievement of the organizational climate index (i-CO) equal or higher than 75 points.

The Company ended 2021 with 719 employees, mostly concentrated in the Southeast region. Care for people is also reflected in the package of benefits offered, such as: healthcare and dental plans, life insurance, meal and/or food ticket, private pension plan, amongst others. **GRI 401-2**

To stimulate employees' professional development, the Company invests in training sessions (accessed via online platform, with evaluation at the end) – average stood at 13.23 hours per employee – educational programs, as well as a distance education platform with training focused on personal development, business and leadership. Twice a year, Alupar offers scholarships (graduate studies and English courses) paying 50% of tuition fees. **GRI 404-1, 404-2**

Recognize talents

Alupar seeks to attract market professionals, but also aims at retaining and recruiting the Company's internal talents. Therefore, the Company values its team and reduces turnover indexes. To foment employees'

development, an annual evaluation is conducted, composed of three phases: evaluation, head's evaluation and *manager's* feedback. In 2021, 94.85% of professionals received performance analysis. [GRI 404-3](#)



Employees by type of employment agreement and gender [GRI 102-8](#)

	2020			2021		
	Men	Women	Total	Men	Women	Total
Permanent employees	523	146	669	563	156	719
Temporary workers	47	1	48	0	0	0
Total	570	147	717	563	156	719

Employees by type of employment agreement and region¹ [GRI 102-8](#)

Region	2020			2021		
	Permanent employees	Temporary workers	Total	Permanent employees	Temporary workers	Total
Brazil	669	48	717	719	0	719

¹ From the next year, the regions of Colombia and Peru will also be reported.

Employees by type of employment [GRI 102-8](#)

Type of employment	2020			2021		
	Men	Women	Total	Men	Women	Total
Full-time employment	561	156	717	559	156	715
Part-time employment	0	0	0	4	0	4
Total	561	156	717	563	156	719

Employees by age group GRI 102-8

	2021
Under 30 years old	83
30-50 years old	522
Over 50 years old	114
Total	719

¹ In 2020, a different employee category was adopted, also including the chief executive officer, vice chief executive officer and officer.

Governance bodies individuals¹

GRI 102-8

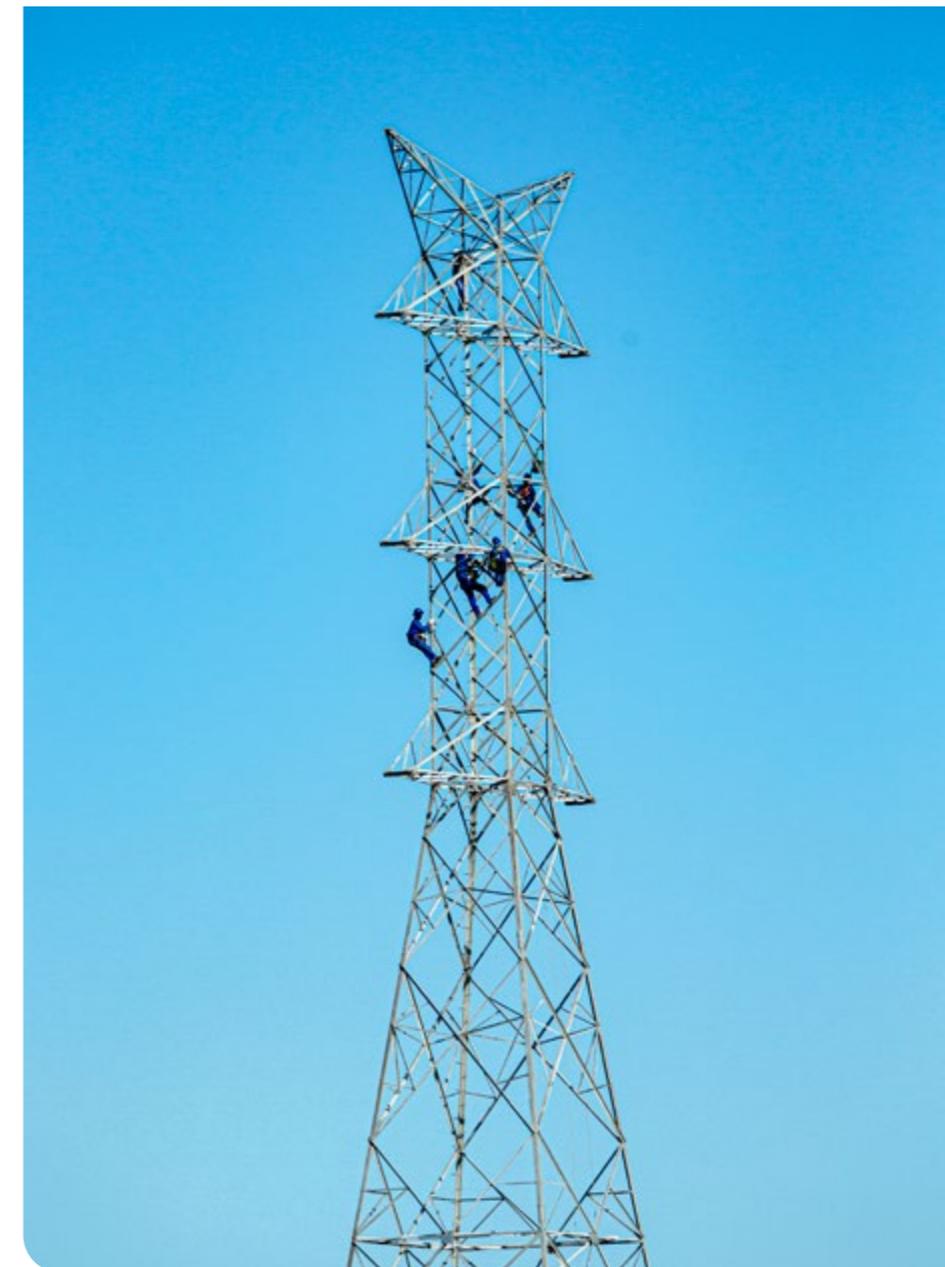
	2020	2021
Governance bodies members	7	7

¹ The number of governance bodies refers to the Board of Directors of *holding* Alupar (sitting members), in December of respective year. Each Group SPE has its board, and information is internally managed by each one.

Employees by employee category and gender¹ GRI 102-8

	2020			2021		
	Men	Women	Total	Men	Women	Total
Chief Executive Officer				1	0	1
Vice Chief Executive Officer				1	0	1
Officer				13	0	13
Controller	1	0	1	3	0	3
Manager	18	9	27	19	8	27
Coordinator/ Supervisor/ Specialist	35	16	51	41	19	60
Auxiliary services	14	18	32	24	11	35
Administrative/ Technical- Operational	493	113	606	460	119	579
Total	561	156	717	562	157	719

¹ In 2020 a different employee category was adopted, also including the chief executive officer, vice chief executive officer and officer.





Diversity incentive

The Company believes that employees' individuality adds different viewpoints, also contributes to business competitiveness, as well as reflects the country's social diversity and collaborates to overcome social inequalities. Therefore, an advisory firm was engaged in 2021, to develop the Diversity & Inclusion Program, aiming at building a more inclusive, fair and equal Company. Since 2016, Alupar has been relying on the Gender & Race Pro-Equity seal, granted by federal government.

In line with SDG 5 (equal gender), Alupar undertook to promote women to leadership positions, which currently is reflected as follows: managers (eight women and 19 men); coordinator, supervisor, specialist (19 women and 41 men); controller (no women and three men) and a deputy board member at the Board of Directors.

Employees' new hires and turnover GRI 401-1

Employees by age group – 2021 GRI 401-1

	Total	Hires	Dismissals	Turnover
Under 30 years old	83	36	19	0.33
30-50 years old	522	65	80	0.15
Over 50 years old	114	12	13	0.11
Total	719	113	112	0.16

Employees by gender – 2021 GRI 401-1

	Total	Hires	Dismissals	Turnover
Men	563	82	86	0.15
Women	156	31	26	0.18
Total	719	113	112	0.16

Footnote: Turnover calculation *methodology*: $[(\text{hired} + \text{dismissed employees})/2]/\text{total headcount}$. As Alupar, is only reporting Brazil region this year, total *turnover* corresponds to *turnover* by region.

Maternity/paternity leave GRI 401-3

	2021	
	Men	Women
Employees entitled to leave	563	156
Employees under leave	12	4
Employees who returned to work, during reporting period, after the end of leave	12	7 ¹
Employees who returned to work after leave and continued employed 12 months after returning to work	6	6
Return rate	1	1
Retention rate	1	1

1.Data include employees under maternity leave in 2020 who returned to work in 2021.



In 2021, we engaged an advisory firm to develop a Diversity & Inclusion Program, aiming at building a more include, fair and equal Company





Occupational health and safety

GRI 103-2, 103-3, 403-2

The Company values people's safety, which is guided by various practices that ensure a safe workplace for employees and outsourced workers. The Occupational Health and Safety Policy outlines the criteria to take care of people's physical integrity, while the Occupational Health and Safety Management System promotes a continued improvement of processes. [GRI 403-1](#)

The Company also manages occupational risks to identify sensitive points and execute improvement actions. Various procedures are adopted to ensure people's safety, such as: personal or collective protection equipment; monitoring programs, environmental risk control, training sessions and safety inspections, training of work at height, in confined spaces, facilities safety and electricity services. [GRI 403-5](#)

Employees are guided to report hazard situations in operations and can refuse to execute any activity should they identify any risk or they do not feel safe to execute the task. Areas are consulted as to work procedures and monthly meetings at units are held to discuss occupational safety. Results on leaves and illness are monitored by indicators, also risk prevention measures are adopted in activities. In 2021, neither occupational accident nor work-related illness was recorded. [GRI 403-4, 403-7, 403-9, 403-10](#)

All services agreements include clauses to ensure the compliance with the Company's guidelines, as well as regulatory rules and laws prevailing in the country. On the back of the pandemic, a few training sessions took place hybrid (online and on-site) in 2021. [EU16](#)

A specialized company conducts the occupational health management, carrying out health checks once a year, guiding employees on their health condition and the adoption of healthier life habits – 100% of employees are included in an occupational health and safety management system. The Company is involved in awareness initiatives about breast cancer prevention and early diagnosis (Rose October), prostate (Blue November) and influenza vaccination campaigns across all units. [GRI 403-3, 403-6, 403-8](#)



Covid-19 Prevention

Due to a lingering pandemic, Alupar heightened its prevention actions and disclosure of information along with employees, by distributing hand sanitizer, hygiene kits, PPE (Personal Protection Equipment), masks, mental health support lectures and *lives* with infectologist.

The Company set up a Safety Committee for a safe return to work, in the city of São Paulo. The remote work was implemented 2x3 in the second half of 2021– two days at home, three days at the office, at the end of 2021, 40% of employees were working from home and 60% at the headquarters (employees underwent weekly quick testing). Acrylic barriers were installed at meeting rooms and prevention practices (use of mask, social distancing, etc.) are continuously reinforced.



Relationship with communities GRI 103-2, 103-3 |413|413-1

Alupar has a sense of ownership in the communities in which it operates, as it believes that companies are responsible for building a legacy for current and future generations. The respect for history and opinion of communities and all stakeholders are essential in this relationship. Every time a project feasibility analysis is conducted, the Company carries out a social and environmental diagnosis, enabling to identify the location's hardships and potentialities. **EU 19**

Based on this diagnosis, social communication, environmental education and training actions are developed, which contribute to local development. There is a dialogue channel through Social Communication Programs (PCS), an important tool to exchange information between the company and community, ensuring the transparency of collective interest information. During transmission assets construction phase, we provide qualified professionals to monitor communities and provide the support necessary. The same applies to generation companies, hydroelectric dams are overlooked, stringent safety standards are observed and emergency action plans are adopted to protect people. **GRI 413-2**

Social responsibility investments are allocated according to each region's needs, such as:

- In Bahia semi-arid communities, without access to quality water, the Company since 2020 has been supporting the Aqualuz Project: an equipment (Aqualuz) that purifies water through sun rays, improving water condition for consumption, health and well-being of 173 households benefited with this project. In 2021, this equipment was monitored.
- In certain municipalities of Bahia, social and environmental mitigation and compensation programs were implemented at Quilombola communities.
- In the city of Umburanas (BA), seven families of Cravadas community received the implementation of dry toilet social technology (including waste treatment), avoiding diseases due to the lack of sanitary conditions in the city.

- The Social Investment Plan (PIS) of transmission company Serra da Mantiqueira TSM, which includes:



Donation of 50 containers

operating as Voluntary Delivery Stations (PEV) of materials destined to recycling or local cooperative, in the cities of Lorena (SP), Pirai and Paracambi (RJ).



Artisan Support Program in Monteiro Lobato (SP)

Continued training of local artisans (community assets) and the development of a digital sale platform jointly with digital marketing actions to result in higher craftwork sales.



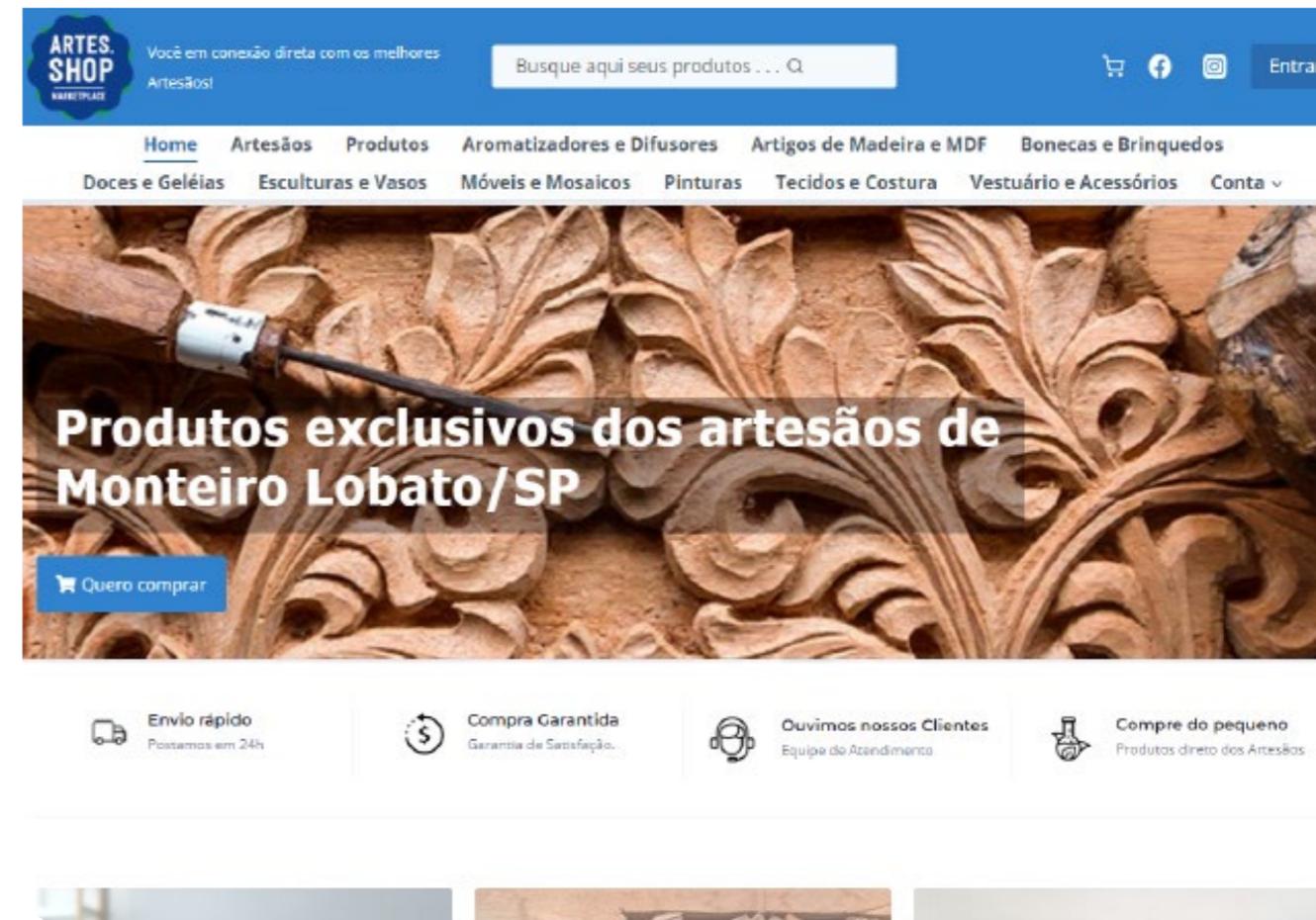
15 thousand people benefited by TSM actions

Qualification of 333 individuals, 120 public school students benefited and 29 events held discussing the Mental Health topic.

- Social Investment Plan (PIS) of HPP Ferreira Gomes (AP) is composed of four pillars: 1. social and cultural actions integrated to sustainable tourism; 2. community tourism; 3. small-scale fishing support and 4. incentivized funding support. In 2021, we highlight:

Training of artisans of “Casa de Costura Quilombola” and the Group of Artisans “Mãos de Fada”, with a focus on pricing and sale techniques.

This unit organized and financed the Ferreira Gomes fair of arts and craftwork, to foment the trade of items produced by artisans of associations supported by the Company.





In 2021, the Company invested R\$2.7 million in tax incentives to support various social institutions throughout the country.

- The “Vencedores” (Winners) Project, by OBI Institute, in the city of São Sebastião (SP): Alupar supports this project concerned with children, adolescents and young people social inclusion through sports, environmental and educational activities, including people with disabilities and Autism Spectrum Disorder (ASD).

Through projects connected to the Tax Incentive Law, communities are also provided with reading, culture, education and sports actions, training centers maintenance and support. In 2021, R\$2.7 million were invested to support various institutions:

Culture Incentive Law: Social Action for Music, Fernanda Bianchini Association of Ballet for the Blind, São Paulo Biennial Foundation, Demócrito Rocha Foundation, Relicário Cultural and Editorial Productions (Menino Deus).

Sports Incentive Law: Sports Institute, Rugby Brazilian Confederation, Baureri Volleyball Club, Tennis Institute.

Elderly Support Fund: Barretos Elderly Municipal Fund, Terra Arcoverde Foundation.

PRONON (Oncologic Support National Program): Santa Casa de Misericórdia Fellowship, in Marília.

PRONAS (PwD Support National Program): Integrative Medicine Institute Prof. Fernando Figueira (IMIP).

Municipal Fund of Children and Adolescents Rights (FUMCAD): Santa Fé Association, OBI Institute, Verdescola Institute, Pequeno Príncipe Hospital; Municipal Fund of Children and Adolescents Rights of Ferraz de Vasconcelos – Philanthropic and Missionary Work and Social Welfare Betânia Lar da Criança; Municipal Fund of Children and Adolescents Rights of Manduri (José Luiz G. Pereira) – Community Center of Manduri José Luiz Muller de Godoy Pereira “Sol do Amanhã” Project.

Together in the fight against the pandemic

Alupar holds concessions of long-term electricity generation and transmission assets, maintaining a permanent relationship with neighboring communities. In 2021, the Company remained committed to fight against the Covid-19 pandemic, by distributing staple baskets, hand sanitizers, hygiene kits, PPE (Personal Protection Equipment) and masks. Staple baskets were also delivered for Bahia municipalities that struggled with floods caused by heavy rainfalls in 2021. Overall, the Company donated 242 tons of food in different campaigns during 2021.

In earlier 2022, a marketplace was launched in the city of Monteiro Lobato (SP), *along with* artisans for local craftwork promotion and e-commerce, affected by the pandemic. This project envisaged entrepreneurship training, income generation and procedures to create an association concerned with local artisans' development.

Projects in Latin America

Through subsidiary La Virgen, Alupar invests in social actions in Peru, along with population living in the project's direct area of influence.

These are various fronts: school, environmental campaigns, actions to fight against the pandemic, amongst others. In Colombia, the subsidiary TCE also supports communities affected by the project. In partnership with Uniminuto University, in Colombia, we created the Nueva Esperanza Museum that shelters a 500 B.C. archeologic asset (16 tons of material), found in the Andes Mountains, during TCE works.

We monitor the impacts on communities

Monitoring actions of social impacts on plants are centralized in the Social Communication Program and Environmental Education Program, commitments in charge of implementation and operation of companies ombudsman channel (Contact Us). These actions monitor complaints, and other requests of population directly affected by our assets.

Communication channels are continuously promoted, and contacts received are analyzed and are an *input* for environmental education actions planned and conducted in the region.



Operations with significant actual and potential negative impacts on local communities¹ GRI 413-2

Operation location	Impact location	Description of significant actual and potential negative impacts of operations in this location	
1 HPP Ferreira Gomes (Araguarinas river, in Ferreira Gomes – AP)	10 km away from dam downstream, condition is valid for the worst scenario identified in probability simulations.	Intensity or severity:	Low risk and high associated potential damage
		Scale:	Class B
2 SHPP Queluz (Paraíba do Sul river, in Queluz – SP)	10 km away from dam downstream, condition is valid for the worst scenario identified in probability simulations.	Intensity or severity:	Low risk and high associated potential damage
		Scale:	Class B
3 HPP São José (Ijuí river, in Salvador das Missões- RS)	10 km away from dam downstream, condition is valid for the worst scenario identified in probability simulations.	Intensity or severity:	Low risk and high associated potential damage
		Scale:	Class B
4 HPP JLMGP (Rio Claro, between Caçu and São Simão- GO)	10 km away from dam downstream, condition is valid for the worst scenario identified in probability simulations.	Intensity or severity:	Low risk and low associated potential damage
		Scale:	Class C
5 SHPP Lavrinhas (Paraíba do Sul river basin, in Lavrinhas-SP)	10 km away from dam downstream, condition is valid for the worst scenario identified in probability simulations.	Intensity or severity:	Low risk and high associated potential damage
		Scale:	Class B
6 SHPP Verde 08 (Rio Verde or Verdão, in Santa Helena de Goiás- GO)	10 km away from dam downstream, condition is valid for the worst scenario identified in probability simulations.	Intensity or severity:	Low risk and high associated potential damage
		Scale:	Class B
7 SHPP Antônio Dias (Piracicaba river, in Antônio Dias-MG)	10 km away from dam downstream, condition is valid for the worst scenario identified in probability simulations.	Intensity or severity:	No survey was conducted, under phase of environmental licensing.
		Scale:	To define

¹ Out of 36 operating units (excluding TNE, ESTE, ELTE, TCE, EAP and PPP), 100% of them rely on environmental, social impact assessments, monitoring and local development programs based on communities' needs. These studies are not public.



ENVIRONMENT

Care for the planet

- Environmental Management
- Biodiversity
- Emissions
- Energy
- Water and effluents
- Waste



Environmental Management



Material topic

Environmental awareness, biodiversity, waste



Alupar believes that future can be more efficient, sustainable and driven by renewable energies. Growth is in line with technological transformation focused on avoided greenhouse gas (GHG) emissions, aiming at collaborating to diminish higher temperatures on earth.

In this regard, the Company monitors the global trends signaling that the renewable energies are in the core of energy transition to a sustainable future. This thesis is bolstered by a recent study of the Energy International Agency, foreseeing that the percentage of renewable energy in the global electricity sector will jump from current 25% to 85% by 2050.

As the Company is present in 14 Brazilian states– also in Peru and Colombia – Alupar’s Environment Policy is in line with prevailing environmental laws. From implementation to operation, all our environmental licenses are related to environmental education programs.

Each work has specific characteristics which are observed and analyzed in Environmental Studies, thus ensuring a more efficient action plan for each site.

This analysis enables to advance preservation and recovery initiatives of protected areas, native vegetation, fauna and flora, maintain water source quality, amongst other environmental actions directed to the Conservation Units maintenance.

Over 3,806 hectares of Permanent Preservation Area (APP) are preserved in our operational hydroelectric projects.

Biodiversity

GRI 103-2, 103-3 | 304

Each Alupar's project has unique characteristics in which biodiversity is respected through Environmental Studies, to build a more efficient action plan for each site.

A commitment to protect biodiversity composes Alupar's entire project, before or after its implementation. No transmission or administration unit is located in a protected area, and energy transmission works primarily comprise areas already modified by human action.

In the event interference in sensitive regions, or preservation, and environmental relevance is required, Alupar makes feasible works along with environmental authorities in compliance with requirements, also adopting measures of impact control and mitigation. Under these circumstances, Alupar receives the assistance of specialized advisory firms in ecologic and degraded areas restoration projects.

Within the conservation projects maintained by Alupar, such as the endangered bird *Nemosia rourei* Conservation Program, two nests were discovered in the remnants of the Atlantic Forest, in the Capixaba region. This project involves various researchers and composes the environmental actions relating to the implementation of TCC project, including the states of Minas Gerais e Espírito Santo and near the ecologic corridor Pedra Azul-Forno Grande. Alupar also monitors other 49 species composing the red list of the International Union for the Conservation of Nature (IUCN), at different extinction risk levels, in other operational regions. Overall, Alupar has 54 km² of habitats compensated in forest areas, at different regeneration stages [GRI 304-4, EU13](#)



The biodiversity protection covers various programs (below) and each one's initiatives are broken down in the Environmental Basic Plan (PBA):



Environmental Programs



Environmental Compensation Plan



Permanent Preservation and Reforestation Area Protection Program



Monitoring and Control of Erosive Processes



Degraded Areas Recovery Program



Environmental Education and Social Communication



Fauna & Flora Monitoring and Management



Environmental Actions Management



Major impacts refer to the accesses opening and vegetation removal; earth movement and ground excavation; noise, heavy equipment movement, as well as changes in the water cycle of hydroelectric projects. For all of these, Alupar has a specific management involving specialist teams, areas recovery, monitoring and natural barriers containment measures GRI 304-2.



In 2021, the Company sponsored the publication of the book *“Aves de São Francisco Xavier”*, in the Mantiqueira Mountain Range, where the TSM – Transmissora Serra Mantiqueira S.A. project is located.

Proprietary, leased or managed operating units, inside or nearby environmental protection areas¹ GRI 304-1

Name of the Area	Geographic Location	Proprietary, leased or managed surface and underground areas of the organization	Operating unit size in km ²
HPP São José	Salvador das Missões, Rolador and Cerro Largo (RS)	37.96 km ²	0.1 km ²
Energia dos Ventos I, II, III, IV and X	Aracati (CE)	11.38 km ²	11.38 km ²
HPP Engenheiro José Luiz Muller Godoy Pereira	Caçu and São Simão (GO)	12.85 km ²	0.1 km ²
HPP Ferreira Gomes	Ferreira Gomes (AP)	31.43 km ²	0.5 km ²
SHPP Verde 08	Santa Helena de Goiás, Acreúna and Turvelândia (GO)	12.9 km ²	0.1 km ²
SHPP LAVRINHAS	Lavrinhas and Paraíba Valley (SP)	1.6 km ²	0.1 km ²
SHPP Queluz	Queluz and Paraíba Valley (SP)	4.33 km ²	0.1 km ²

¹ All operations are related to the production of industrial energy and are located in permanent preservation areas (APP).

Habitats protected or restored GRI 304-3, EU13

Generation

Unit	Location	Area	Status
HPP São José ¹	Salvador das Missões, Rolador and Cerro Largo (RS)	13.6 km ²	The APP surrounding the reservoir has been regenerated, with favorable adaptation of planted species. The cultivation of native seedlings and the extraction of invasive seedlings continue for 1 km.
HPP JLMGP ¹	Caçu and São Simão (GO)	4.38 km ²	Vegetation recovery at the edge of reservoir and reforestation on the site concluded, with arboreal stage consolidated.
SHPP Verde 08	Santa Helena de Goiás, Acreúna and Turvelândia (GO)	5.25 km ²	Restoration project underway by planting native seedlings in 0.5 km ² out of 2.8 km ² estimated for APP.
SHPP Lavrinhas	Lavrinhas and Vale do Paraíba (SP)	0.8 km ²	Recovery areas under intermediary stage of forest succession.
SHPP Queluz	Queluz and Paraíba Valley (SP)	2.78 km ²	Recovery areas under intermediary stage of forest succession.
HPP Ferreira Gomes	Ferreira Gomes (AP)	11.25 km ²	Area recovery underway through actions bolstering the region's natural regeneration.

¹ Projects analyzed by an external environmental advisory firm.

Transmission

Unit	Location	Area	Status
EDTE	Boa Nova (BA)	0.1 km ²	Approximately 60 % of the area (0.1 km ²) was revegetated, with recovery methodology using protected species, according to the project submitted and validated by ICMBio.
EDTE	Ibicoara (BA)	0.1 km ²	Fully preserved 0.92 km ² compensation area, with exclusive methodology for such purpose.
Lumitrans	Maximiliano de Almeida (RS)	0.0047 km ²	0.0047 km ² preserved area, compliant with Rio Grande do Sul state laws.
ETSE ²	Urubici (SC)	0.3148 km ²	0.3148 km ² fully preserved area.
ETSE ²	Gaspar (SC)	0.005 km ²	0.005 km ² fully preserved area.
ETC	Rio Novo do Sul (ES)	0.05 km ²	0.05 km ² compensation area for vehicle gases and Forest Exploration Authorization (AEF), (initiated in 2022), with planting for reforestation.
TCC	Inhapim, Alvarenga, Pocrane, Mutum and Turumirim (MG)	0.1312 km ²	0.1312 km ² reforestation area, with planting concluded.
TPE	Campanário, Governador Valadares, Itabacuri, Jampruca, Mathias Lobato, Jequitinhonha and Catuji (MG)	1.949 km ²	Reforestation of 1.949 km ² with planting under monitoring stage.
ETB	Paratinga, Brotas de Macaúbas (BA)	0.1509 km ²	Reforestation of 0.1509 km ² , with planting in the early stage.
ETC	Cachoeiro do Itapemirim and Vargem Alta (ES)	8.614 km ²	Environmental compensation of 8.6 km ² , with management plan under early stage.
ETC	Cachoeiro do Itapemirim (ES)	1.63 km ²	Environmental compensation of 1.63 km ² , with management plan under elaboration.
ETC	Jerônimo Monteiro (ES)	0.0627 km ²	Environmental compensation of 0.0627 km ² , with studies approved for management plan elaboration.
TPE	Jequitinhonha (MG)	1.24 km ²	Reforestation of 1.24 km ² , with donation procedures underway.

² Except for these units, others maintain partnerships with third parties.

Emissions

GRI 103-2, 103-3 | 305

To deal with global warming and climate changes, in 2022, Alupar initiated its greenhouse gas inventory, which allowed to quantify the direct and indirect emissions stemming from production process.

The Company creates carbon credits (Emission Certified Reductions- RCEs) traded in the international market. This practice created by the UN contributes to reduce greenhouse gases in the atmosphere and control global warming.

Alupar has four projects in different stages of UN's approval to issue the RCEs: HPP Engenheiro José Luiz Muller Godoy Pereira. (HPP JLMGP); wind power plants Energia dos Ventos I, II, III, IV and X; SHPPs Queluz and Lavrinhas. In 2021, Alupar contracted a study to assess credit amounts and an audit for Ferreira Gomes asset. Between 2010 and 2021, HPP Ferreira Gomes, SHPP Lavrinhas and SHPP Queluz were provenly jointly responsible for avoiding the emission of 3 million tons of carbon in the atmosphere. **EU 5**

Greenhouse gases direct emissions (tCO₂ equivalent)¹ – 2021

GRI 305-1

Stationary combustion - Generator	25.41
Stationary combustion -Chainsaw and Brushcutter	1.75
Effluents processing	15.29
Transportation of materials, products, waste, employees and passengers	668.16
Fugitive emissions	1,275.38
Total gross CO₂ emissions	1,985.99

¹ The gases included in the calculation are CO₂, CH₄, N₂O, R-410A, SF₆.

Biogenic emissions of CO₂ (tCO₂ equivalent) – 2021

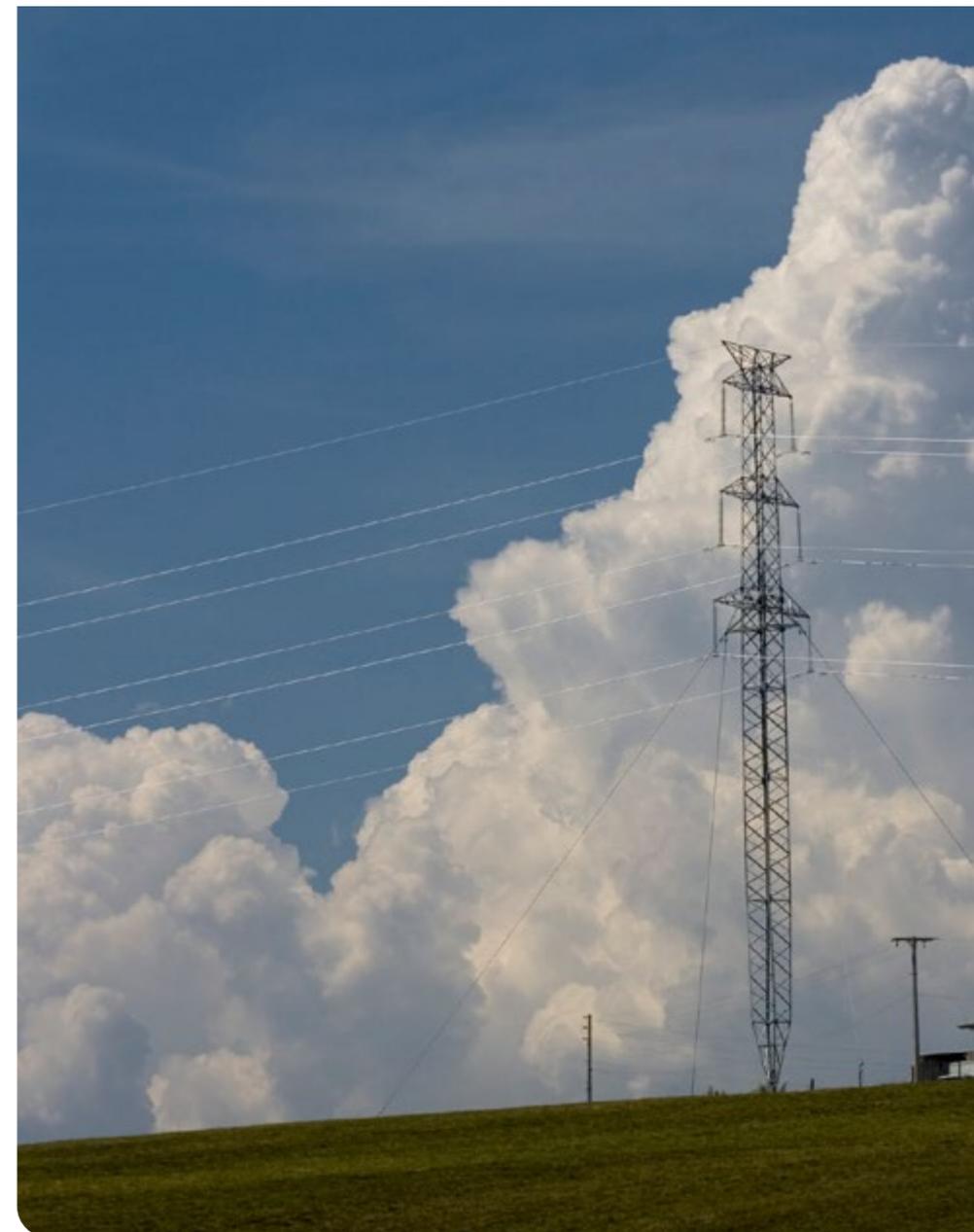
GRI 305-1

CO ₂ emissions	147.72
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Greenhouse gas indirect emissions (tCO₂ equivalent) - 2021

GRI 305-2

Energy generation	226.05
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Energy

GRI 103-2, 103-3 | 302

Following a global trend of transition to a renewable energy matrix, Alupar has diversified the energy generation through wind and photovoltaic sources. The first photovoltaic power plant is under phase of implementation and first two wind power plants have been built, out of a total of seven new power plants.

Alupar's sustainability guidelines guide as to energy and fuel conscious consumption, especially during phase of works. In 2021, 12,027.71 GJ were consumed (compared to 8,746.14 GJ, in 2020), including transmission and generation operations. The Company foments lower consumption, however, it does not have a program outlined for these initiatives. [GRI 302-1](#), [302-4](#)

In 2021, Alupar's assets installed capacity totaled 560.1 MW (461.4 MW hydro and 98.7 MW wind power), with a net production of 2,462.78 GWh (2039.82 GWh hydro and 422.96 GWh wind power). [EU1](#), [EU2](#)

To quantify the energy consumed generated by fuels, we rely on supply control tools that issue reports on diesel, gasoline and ethanol consumption. For electricity consumption, we adopt monthly reports issued by local distribution companies.

Fuel consumption from renewable sources (GJ) [GRI 302-1](#)

	2020	2021
Ethanol	43.00	523.96
Total	43.00	523.96

Fuel consumption from non-renewable sources (GJ) [GRI 302-1](#)

	2020	2021
Gasoline	494.15	5.71
Diesel	1,107.00	15,923.43
Total	1,601.15	15,929.14

Energy consumed (GJ) [GRI 302-1](#)

	2020	2021
Electricity	8,746.14	12,027.71
Total	8,746.14	12,027.71

Energy sold (GJ) [GRI 302-1](#)

	2020	2021
Electricity	7,680,231.36	8,866,008.01
Total	7,680,231.36	8,866,008.01



In 2021, 12,027.71 GJ were consumed, including energy transmission and generation operations



Total energy consumed (GJ) GRI 302-1

	2020	2021
Fuels from non-renewable sources	1,601.35	15,929.14
Fuels from renewable sources	43.00	523.96
Energy consumed ¹	8,746.14	12,027.71
Energy not consumed	7,680,231.36	8,866,088.01
Energy sold ²	7,680,231.36	8,866,088.01
Total	10,390.29	28,480.00

¹ Information about consumption were obtained through electricity bills. Fuel consumption data derive from supply control reports.

² Generation plants consumption was not considered, these data will be reported in the next cycle. The energy deemed as sold corresponds to the non-consumed self-generated energy.

Energy intensity¹ (GJ) GRI 302-3

	2021
Inside the organization	39.61

¹ Electricity and fuel were considered as energy to calculate energy intensity, in GJ/employees.



Water & effluents

GRI 103-2, 103-3 | 303-1

The Company drawn up policies and guidelines governing the rational and controlled use during projects construction and operational phases. Other initiatives include consumption awareness campaigns among employees, suppliers and neighboring communities by disclosing environmental good practices in the Company's communication network.

Concerning energy transmission companies, water is not an element connected to activity. In the lack of local concessionaire supply at substations, artesian wells are built to meet the needs of local consumers, and consumption is low during works.

As to hydroelectric generators, water has been used on a non-consuming basis to generate power, that means, it is used and returned in the same amount and with the same quality. Water used by employees is obtained through utility grid or drilled artesian wells.

In 2021, a water consumption of 323.12 megaliters (ML) was recorded at the Company, between transmission and generation – 110% higher than the previous cycle. So far, it is not possible to attribute higher consumption to current controls. **GRI 303-5**

In 2021, Alupar moved forward with hydroelectric projects limnological monitoring, whose duty is to control water quality (artificial reservoirs and water environment) that receive pollutant loads and effluents. This is a monitoring considered one of the most important by environmental authorities. In projects, effluents are discharged through collection utility system or septic tank. In 2021, an event was recorded in Ferreira Gomes (AP), referring to exceeded limit of effluent discharge. **GRI 303-2, 303-4**

The environment department conducts the water consumption and effluent discharge management, which considers a low risk of water stress. The reason is that no group project conducts water withdrawal in regions with these characteristics. **IF-EU-140 a.3**

Alupar has guidelines on the water rational use in projects, as well as it promotes employees' awareness campaigns.

Total water volume withdrawn across all areas and areas with water stress¹, by source (ML) GRI 303-3

Source	2020		2021	
	Transmission	Generation	Transmission	Generation
Surface water (Total)		0.13		0.95
Freshwater (≤ 1.000 mg/l total dissolved solids)		0.13		0.95
Other water (> 1.000 mg/l total dissolved solids)				
Underground water (Total)	44.12	109.98	6.4	317.74
Freshwater (≤ 1.000 mg/l total dissolved solids)	44.12	109.89	6.4	317.74
Other water (> 1.000 mg/l Total Dissolved Solids)				
Third-party water (Total)			0.98	0.06
Freshwater (≤ 1.000 mg/l total dissolved solids)			0.98	0.06
Other water (> 1.000 mg/l total dissolved solids)				
Total	44.12	110.02	7.38	318.75

¹ Neither consumption deriving from seawater and water withdrawn internally, no in any area with water stress





Total water discharge across all areas and stress areas, broken down by following sources (ML), where applicable - 2021 [GRI 303-4](#)

Type of source ¹	Transmission	Generation
Surface water	NA	2.45
Underground water	NA	0.56
Total	NA	3.01

¹ The Company does not have water source in water stress areas. Data are not available in Transmission, most of assets rely on septic tanks, cleaning is not required.

Water volume discharged by type of treatment (ML)¹ - 2021 [GRI 303-4](#)

Physical treatment	3.01
Chemical treatment	3.01
Biologic treatment	3.01
Total volume of water discharged (ML)	3.01

¹ The same water volume underwent three types of treatment.

Waste

GRI 103-2, 103-3 | 306

The appropriate disposal of waste generated in projects is one of the Company's commitments to the environment. The appropriate disposal during works operational stage is executed by municipal collection or specialized companies. Maintenance activities which contain hazardous waste involve the reverse logistics with suppliers, in charge of management, treatment and final disposal. **GRI 306-1, 306-2**

Concerning transmission, the higher-risk waste would be the reactor insulating oil leakage, controlled by a containment basin. Concerning generation, lubricant oil and grease (used in equipment maintenance in hydroelectric and wind power plants) are components with hazardous characteristics, as well as the sludge resulting from effluents anaerobic treatment.

Waste generated at units through household (food, sanitary, kitchen and cleaning in general) and industrial consumption (equipment scrap, cables, wires, amongst others) are considered non-hazardous and forwarded for municipal collection utility systems or screening centers available in the regions.

On the other hand, Class I waste is packaged, identified and stored in specific locations for destination external to the duly licensed company.

Employees receive training to reinforce waste management good practices, as well as suppliers engagement is directed by these partners' social and environmental responsibility. All the group generation companies have a solid waste management plan and in transmission companies, the monthly monitoring is conducted by each unit's employees. **GRI 306-3**

The Company has been standardizing across all its units, waste collectors and weighing devices to separate these materials and raise users' awareness at facilities.

In 2021, a total of 72.12 tons of Class I and Class II waste was generated. At EDVs (Energia dos Ventos), waste is quantified in cubic meters; in 2021, 88.8m³ Class II waste and 14.4 m³ Class I waste were generated. HPP São José's lamps are reported at units, which totaled 543 in the period.



Total waste destined for final disposal, by composition in metric tons (t) – 2021 GRI 306-5

Composition	Transmission	Generation
Plastic, paper and cardboard	55.56	9.68
Effluents local treatment sludge		0.80
Absorbers, filter materials (including oil filters not previously specified), cleaning cloths, protective garment, contaminated by hazardous substances		10.64
Battery, lead-based electric accumulator and waste, including plastic deriving from battery outer casing		0.45
Total	55.56	21.57
Overall Total	77.13	

Total waste generated, by composition (t) GRI 306-3

Category	Type (hazardous or non-hazardous)	2020		2021	
		Transmission	Generation	Transmission	Generation
Class I	Absorbers, filter materials (including oil filters not previously specified), cleaning cloths, protective garment, contaminated by hazardous substances	-	-	-	11.08
Class II	Plastic, paper and cardboard	260	112	50.56	10.48
Total	-	260	112	50.56	21.56

Total waste not destined for final disposal, by composition in metric tons – 2021 (t) GRI 306-4

Composition	Transmission	Generation
Used oil of engines, lubricants, filters and contaminated	0	1.20
Metal scrap	0	0.60
Total	-	1.80



Total hazardous waste destined for final disposal, by operation, in metric tons (t) – 2021 GRI 306-5

Hazardous waste	Out of organization/Offsite		Total
	Transmission	Generation	
Burning with energy recovery			
Burning without energy recovery		10.64	10.64
Specialized Company	0.10		0.10
Resale		0.45	0.45
Total	0.10	11.09	11.19

Total non-hazardous waste destined for final disposal, by recovery operation, in metric tons (t) – 2021 GRI 306-5

Non-hazardous waste	Out of organization/Offsite		Total
	Transmission	Generation	
Landfill	55.56	9.68	65.24
Sanitation station/public utility		0.80	0.80
Total	55.56	10.48	10.48
Total waste destined for final disposal	55.56	21.57	77.13

In 2020, we did not receive consolidated information about waste disposal, therefore, this was not possible to report.



List of entities and/or subsidiaries included in the Company's financial statements GRI 102-45

- **ETEP** – Empresa Paranaense de Transmissão de Energia S.A
- **ENTE** – Empresa Norte de Transmissão de Energia S.A
- **ERTE** – Empresa Regional de Transmissão de Energia S.A
- **EATE** – Empresa Amazonense de Transmissão de Energia S.A
- **ECTE** – Empresa Catarinense de Transmissão de Energia S.A
- **STN** – Sistema de Transmissão Nordeste S.A
- **Transleste** – Companhia Transleste de Transmissão
- **Transudeste** – Companhia Transudeste de Transmissão
- **Transirapé** – Companhia Transirapé de Transmissão
- **STC** – Sistema de Transmissão Catarinense S.A
- **Lumitrans** – Companhia Transmissora de Energia Elétrica
- **ETES** – Empresa de Transmissão do Espírito Santo S.A
- **EBTE** – Empresa Brasileira de Transmissão de Energia S.A
- **ESDE** – Empresa Santos Dumont de Energia S.A
- **ETEM** – Empresa de Transmissão de Energia do Mato Grosso S.A
- **ETVG** – Empresa de Transmissão de Várzea Grande S.A
- **ETSE** – Empresa de Transmissão Serrana S.A
- **ELTE** – Empresa Litorânea de Transmissão de Energia S.A
- **ETAP** – Empresa Transmissora Agreste Potiguar S.A
- **ETC** – Empresa Transmissora Capixaba S.A
- **TCC** – Transmissora Caminho do Café S.A
- **TPE** – Transmissora Paraíso de Energia S.A
- **ESTE** – Empresa Sudeste de Transmissão de Energia S.A
- **TSM** – Transmissora Serra da Mantiqueira S.A
- **TCE** – Transmissora Colombiana de Energia S.A.S.E.S.P.
- **EDTE** – Empresa Diamantina de Transmissão de Energia S.A
- **AETE** – Amazônia – Eletronorte Transmissora de Energia S.A
- **TME** – Transmissora Matogrossense de Energia S.A
- **ETB** – Empresa de Transmissão Baiana S.A
- **Foz** – Foz do Rio Claro Energia S.A
- **Ijuí** – Ijuí Energia S.A
- **Lavrinhas** – Usina Paulista Lavrinhas de Energia S.A
- **Queluz** – Usina Paulista Queluz de Energia S.A
- **Ferreira Gomes** – Ferreira Gomes Energia S.A
- **EDVI** – Energia dos Ventos I S.A
- **EDVII** – Energia dos Ventos II S.A
- **EDV III** – Energia dos Ventos III S.A
- **EDV IV** – Energia dos Ventos IV S.A
- **EDV X** – Energia dos Ventos X S.A
- **GET** – Geração de Energia Termoelétrica e Participações S.A
- **Risaralda** – Risaralda Energia S.A.S.E.S.P.
- **Verde 8** – Verde 8 Energia S.A
- **Água Limpa** – Água Limpa S.A
- **La Virgen** – La Virgen S.A.C
- **EAP I** – Eólica do Agreste Potiguar I S.A
- **EAP II** – Eólica do Agreste Potiguar II S.A
- **EAP III** – Eólica do Agreste Potiguar III S.A
- **EAP IV** – Eólica do Agreste Potiguar IV S.A
- **EAP V** – Eólica do Agreste Potiguar V S.A
- **EAP VI** – Eólica do Agreste Potiguar VI S.A
- **EAP VII** – Eólica do Agreste Potiguar VII S.A
- **Alupar Chile** – Alupar Chile Inversiones SpA
- **Alupar Colômbia** – Alupar Colômbia S.A.S
- **Alupar Peru** – Alupar Inversiones Peru S.A.C
- **Apaete** – Apaete Participações em Transmissão S.A
- **Transminas** – Transminas Holding S.A
- **UFV Pitombeira** – Ufv Pitombeira S.A.
- **Windepar** – Windepar Holding S.A
- **AF** – AF Energia S.A
- **ACE** – ACE Comercializadora Ltda

EXHIBITS

GRI Content index



EXHIBITS

Stakeholder engagement approach and key topics raised

GRI 102-43, 102-44

Stakeholder name	Engagement	Topics and concerns
Public authorities Electricity National Agency (Aneel), Brazilian Institute of Environment and Renewable Natural Resources (Ibama), Biodiversity Conservation Chico Mendes Institute (ICMbio), System National Operator (ONS).	<i>In loco</i> visit, written communication, meetings, letters.	Regulatory and licensing issues.
Suppliers and service providers Environmental advisory services, designers, assemblers, contractors, manufacturers.	Satisfaction surveys, negotiation meetings, emails.	Contracts, terms, negotiations, services rendering
Shareholders Independent board members and board of executive officers.	Presentations and meetings	Advances, challenges and next steps for successful projects.
Employees	Surveys (climate, return to office), whistleblowing channel, intranet, institutional website, social networks, e-mail, training, communication campaigns, employee portal.	Company's material facts, training, corporate policies, performance evaluation, compensation and benefits, career management, goals, open opportunities.
Local communities Families and groups of people residing in projects influence area	Focal points in communities, on-site visits, online or on-site meetings.	Doubts about activities and the operation.

Our stakeholders management is strategic and engagement is continuous throughout the year, conducted according to each stakeholder's particular characteristics and through specific channels with each stakeholder. As a company of infrastructure projects in the electricity sector, certain relationship groups stand out in our engagement actions, such as public authorities, service providers and local communities.

Our engagement work crosses all the phases of our business, from feasibility and implementation to project operation, creating value for society and intensified in each group according to the need.



Employees receiving performance analyses by employee category (%) GRI 404-3

	2021		
	Men	Women	Total
Chief Executive Officer	0	N/A ¹	0
Vice Chief Executive Officer	0	Not applicable	0
Officer	76.92	Not applicable	76.92
Controller	100	Not applicable	100
Manager	94.74	100	96.3
Coordinator/Supervisor/Specialist	100	100	100
Auxiliary Services	95.83	90.91	94.22
Administrative/Technical-Operational	95.65	92.44	94.99
Total	95.2	93.63	94.85

¹ The Not Applicable (N/A) refers to the calculation not possible, due to the lack of women in respective categories.

Number of species included in IUCN Red List and conservation national lists, broken down by risk level and extinction GRI 304-4

Extinction risk level	2020		2021	
	Transmission & Generation	Transmission	Generation	Total
Critically endangered species ¹	3	4	0	4
Endangered species ²	3	3	3	6
Vulnerable	3	3	15	18
Near-threatened	3	3	14	17
Least concern	0	3	1	4

¹ Criticality classified according to lists of endangered fauna ICMBio (2018), IUCN (2021), MMA (2014) and Decree No.63.853/2018 (State of São Paulo).

² Species indicated as "in danger" in national lists were considered under "endangered species" class hereof.

GRI Content Index GRI 102-55

General Content

GRI Standards	Content	Page/URL	Omission	SDG
GRI 101: GENERAL DISCLOSURES 2016				
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	102-3 Headquarters location	8		
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GRI 102: General Disclosures 2016	102-6 Markets served	8		
	102-7 Size of organization	8		
	102-8 Information about employees and other collaborators	37 to 39		8, 10
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	102-11 Precautionary principle or approach	23		
	102-12 External initiatives	10		
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	EU4 Length of above and underground transmission and distribution lines by regulatory regime	26		
	EU5 Allocation of CO ₂ emissions allowances or equivalent, broken down by carbon trading framework	55		13, 14, 15

GRI Standards	Content	Page/URL	Omission	SDG
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ETHICS & INTEGRITY				
GRI 102: General Disclosures 2016	102-16 Values, principles, standards and norms of behavior	9		16
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	102-40 List of stakeholder <i>groups</i>	4, 15		
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REPORTING PRACTICE				
	102-45 Entities included in the consolidated financial statements	30, 64		
	102-46 Defining report content and topic boundaries	4, 15 and 17		
	102-47 List of material topics	17		
	102-48 Restatements of information	Not applicable.		
	102-49 Changes in reporting	Not applicable.		
GRI 102: General Disclosures 2016	102-50 Reporting period	4		
	102-51 Date of most recent report	2020		
	102-52 Reporting cycle	4		
	102-53 Contact point for questions regarding the report	4		
	102-54 Claims of reporting in accordance with the GRI standards	This report was prepared in accordance with the GRI standards "Core" option		
	102-55 GRI Content Index	66		
	102-56 External assurance	Not applicable.		

Material topics

GRI Standards	Content	Page/URL	Omission	SDG
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	103-2 The management approach and its components	22		
	103-3 Evaluation of the management approach	22		
GRI 205: Anticorruption 2016	205-1 Operations assessed for risks related to corruption	22 Points of concern refer to relationship with public authorities in negotiations of business, asset acquisition and donations on behalf of communities and various institutions located in regions where the company operates.		16
	205-2 Communication and training on anticorruption policies and procedures	22 All employees were informed in 2021, however, the Company does not have information about training by employee category.		16
	205-3 Confirmed cases of corruption and actions taken	No cases of corruption in the period.		16
ENERGY				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	17		
	103-2 The management approach and its components	56		
	103-3 Evaluation of the management approach	56		

GRI Standards	Content	Page/URL	Omission	SDG
GRI 302: Energy 2016	302-1 Energy consumption within the organization	56 and 57		7, 8, 12, 13
	302-2 Energy consumption outside of the organization	Not applicable, since the Company does not have energy consumption outside of the organization.		7, 8, 12, 13
	302-3 Energy intensity	57		7, 8, 12, 13
	302-4 Reduction of energy consumption	56		7, 8, 12, 13
WATER AND EFFLUENTS				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	17		
	103-2 The management approach and its components	58		
	103-3 Evaluation of the management approach	58		
GRI 303: Water and effluents 2019	303-1 Interactions with water as a shared resource	58		6, 12
	303-2 Management of water discharge-related impacts	59		6
	303-3 Water withdrawal	59		6, 8, 12
	303-4 Water discharge	58		6
	303-5 Water consumption	58		6
BIODIVERSITY				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	17		
	103-2 The management approach and its components	51		
	103-3 Evaluation of the management approach	51		

GRI Standards	Content	Page/URL	Omission	SDG
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	53		6, 14, 15
	304-2 Significant impacts of activities, products and services on biodiversity	52		6, 14, 15
	304-3 Habitats protected or restored	54 HPP Ferreira Gomes APP actions comply with Environmental Basic Plan, approved by Amapá's environmental authority. In other habitats, actions are supported by the fact that the APP creation is entrepreneur's responsibility, provided for by Law No. 12.651/2012 (Article 4, III) and the plant's operation license conditions. In case of the state of Rio Grande do Sul, the mandatory reforestation is provided for by State Law No. 9.519/1992 and SEMA Normative Instruction No. 01/2018. SHPP Queluz and SHPP Lavrinhas APP restoration project also comply with SMA Resolution No. 08/2008 and SMA No. 32/2014, as well as TCRA 111.394/2017. EDTE (Boa Nova-BA) executed recovery by using protected species, according to ICMBio's validation. EDTE (Ibicoara-BA) exclusively conducted the preservation. Lumitrans was supported by Rio Grande do Sul laws (State Law No. 9.519/1992 and State Decree No. 38.355/1998). ETSEs complied with Normative Instruction No. 46 of Environment Foundation – FATMA and Federal Law No. 11.428 of 2006. ETC (Rio Novo do Sul-ES) conducted planting in fencing areas, thus, promoting reforestation. TCC, TPE and ETB conducted planting aiming forest recovery. ETC (Cachoeiro do Itapemirim e Vargem Alta-ES) based on the forest code and reference statement was issued by State Institute of Environment and Resources. ETC (Cachoeiro do Itapemirim-ES) observed the forest code and reference statement was issued by municipal government. ETC (Jerônimo Monteiro-ES) conducted environmental studies that subsidized the public consultation to create the Maciço das Andorinhas Conservation Unit. TPE (Jequitinhonha-MG) observed the area donation rules.		6, 14, 15
	304-4 Species included in IUCN red list and Brazilian conservation lists with habitats in areas affected by the organization's operations	51, 67		

GRI Standards	Content	Page/URL	Omission	SDG
Energy Sector – Biodiversity	EU13 Biodiversity of replacement habitats compared to the biodiversity of affected areas	51		6, 14, 15
EMISSIONS				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	51 and 54		
	103-2 The management approach and its components	17		
	103-3 Evaluation of the management approach	55		
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	55		3, 12, 13, 14, 15
	305-2 Indirect (Scope 2) GHG emissions deriving from energy acquisition	55		
WASTE				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	17		
	103-2 The management approach and its components	61		
	103-3 Evaluation of the management approach	61		
GRI 306: Waste 2021	306-1 Waste generation and significant waste-related impacts	61		3, 6, 11, 12
	306-2 Management of significant waste-related impacts	61		3, 6, 11, 12
	306-3 Waste generated	61 and 62		3, 6, 12, 14, 15
	306-4 Waste diverted from disposal	62		3, 11, 12
	306-5 Waste directed to disposal	62 and 63		3, 6, 11, 12, 14, 15
ENVIRONMENTAL COMPLIANCE				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	17		
	103-2 The management approach and its components	23		
	103-3 Evaluation of the management approach	23		

GRI Standards	Content	Page/URL	Omission	SDG
GRI 307: Environmental Compliance 2016	307-1 Non-compliance with environmental laws and regulations	The Company received fines totaling R\$5 million referring to the discharge of effluents out of standards required in Araguari river. Alupar appealed and proceeding has been analyzed at court levels.		16
SUPPLIERS ENVIRONMENTAL ASSESSMENT				
	103-1 Explanation of the material topic and its boundary	17		
GRI 103: Management approach 2016	103-2 The management approach and its components	29		
	103-3 Evaluation of the management approach	29		
	308-1 New suppliers that were screened using environmental criteria		Information not available. Suppliers connected with environment-related activities evaluate environmental criteria, however, we do not have this information consolidated for this cycle.	
GRI 308: Suppliers environmental assessment 2016	308-2 Negative environmental impacts in the supply chain and actions taken		For this cycle, we do not have methodology to quantify suppliers' negative environmental impacts. Information will be available in the next report.	
EMPLOYMENT				
	103-1 Explanation of the material topic and its boundary	17		
GRI 103: Management approach 2016	103-2 The management approach and its components	37		
	103-3 Evaluation of the management approach	37		
	401-1 Employees' new hires and turnover	40		5, 8, 10
GRI 401: Employment 2016	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	37		3, 5, 8
	401-3 Maternity/paternity leave	41		5, 8

GRI Standards	Content	Page/URL	Omission	SDG
Energy Sector Supplement – Employment	EU14 Programs and processes to ensure the availability of a skilled workforce		Not applicable, since the Company did not have programs relating to this indicator until 2021.	4, 8
	EU16 Policies and requirements regarding health and safety of employees, contractors and subcontractors	43		8
	EU17 Days worked by contractor and subcontractor employees involved in construction, operation & maintenance activities	Civil construction activities are executed by contractors. Operations & maintenance are executed by our employees.		8
	EU18 Percentage of contractor and subcontractor employees that have undergone relevant health and safety training	Information not available. The Company does not have consolidated information, it will report this in the next cycle.		8
LABOR RELATIONS				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	17		
	103-2 The management approach and its components	37		
	103-3 Evaluation of the management approach	37		
GRI 402: Labor relations 2016	402-1 Minimum notice period regarding operational changes		Term is 30 days on average, regarding any change in benefits after officers' approval. Collective bargaining agreements do not have minimum notification period.	8
OCCUPATIONAL HEALTH AND SAFETY				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	17		
	103-2 The management approach and its components	42		
	103-3 Evaluation of the management approach	42		

GRI Standards	Content	Page/URL	Omission	SDG
GRI 403: Occupational health and safety 2019	403-1 Occupational health and safety management system	42		8
	403-2 Hazard identification, risk assessment and incident investigation	42		3, 8
	403-3 Occupational health services	43		3, 8
	403-4 Worker participation, consultation and communication on occupational health and safety	42		8, 16
	403-5 Worker training on occupational health and safety	42		8
	403-6 Promotion of worker health	43		3
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	42		8
	403-8 Workers covered by an occupational health and safety management system	43	Information not available – we do not have consolidated information about contractors for this report, this will be reported in the next cycle.	8
	403-9 Work-related injuries	42		3, 8, 16
	403-10 Work-related ill health	42		3, 8, 16
TRAINING & EDUCATION				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	17		
	103-2 The management approach and its components	37		
	103-3 Evaluation of the management approach	37		
GRI 404: Training & education 2016	404-1 Average hours of training per year, per employee	37		4, 5, 8, 10
	404-2 Programs for upgrading employee skills and transition assistance programs	37		8
	404-3 Percentage of employees receiving regular performance and career development reviews	38, 67		5, 8, 10

GRI Standards	Content	Page/URL	Omission	SDG
LOCAL COMMUNITIES				
	103-1 Explanation of the material topic and its boundary	17		
GRI 103: Management approach 2016	103-2 The management approach and its components	44		
	103-3 Evaluation of the management approach	44		
GRI 413: Local communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	44		
	413-2 Operations with significant actual and potential negative impacts on local communities	44, 48		1, 2
Energy Sector Supplement – local communities	EU19 Stakeholder participation in decision-making processes related to energy planning and infrastructure development	10 and 44		1, 2, 9, 16
	EU20 Approach to managing the impacts of displacement		Not applicable, since no displacements occurred in 2021.	1, 2, 11
	EU22 Number of people physically or economically displaced and compensation, broken down by type of project	New facility: ELTE unit acquired area for Domênico Rangonim substation, indemnifying one person, in the amount of R\$9 million. Current facility expansion: TSM unit indemnified four persons for utility easement and improvements, in the amount of R\$419,338.10.		Information not available. No consolidated information on any project referring to the number of people benefited considering access to energy or employment, nor the number of people directly or indirectly employed in the works.
	EU8 Research and development activity and expenditure reliable electricity and sustainable development promotion	26		
AVAILABILITY & RELIABILITY				
	EU6 Management approach to ensure short and long-term electricity availability and reliability	26		7
Energy Sector Supplement – Availability & reliability	EU10 Planned capacity against long-term projected electricity demand		As generation/transmission company, Alupar does not conduct demand planning by energy source. This work is executed by the Energy Research Company (EPE)	7

GRI Standards	Content	Page/URL	Omission	SDG
SYSTEM EFFICIENCY				
Energy Sector Supplement – System efficiency	EU12 Transmission and distribution losses as a percentage of total energy		Information not available for this report.	7, 8, 12, 13, 14
PLANNING AND ANSWER FOR EMERGENCIES AND DISASTERS				
Energy Sector Supplement – Planning and response to emergencies and disasters	EU21 Contingency planning measures, disaster/emergency management plan and training programs, and recovery/restoration plans	24		1, 11
ACCESS				
Energy Sector Supplement – Access	EU30 Plant's average availability factor, broken down by source of energy and regulatory system	28		1, 7
SASB				
Water management	IF-EU-140 a.1	In cubic meters, the quantity of water withdrawn is 326,130m ³ and consumer water is 323,120m ³ .		
	IF-EU-140 a.2	An incident was recorded not compliant with quantity of water and/or quality licenses, standards and rules, regarding effluents discharge.		
	IF-EU-140 a.3	58		
Workforce health and safety	IF-EU-320 a.1	No incidents or fatalities were recorded in 2021. The rate of nearly accident is null.		
Demand efficiency and final use	IF-EU-420 a.1		Not applicable. Alupar is not an energy concessionaire.	
	IF-EU-420 a.2	0% of electric charge is served by smart network technology.		
	IF-EU-420 a.3		Not applicable.	

Sustainable Development Goals



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Adelson Sales – Page 56

Olivo Mecabo – Page 60

André Prietsch - Pages 2, 3, 4, 5, 7, 8, 10, 13, 15,
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João Grecco – Page 24

Leandro Matias – Page 32

Luiz Botelho – Pages 52 and 53

Andres Sossa - Page 37

Eros Bonilha - Page 36

Spell Checking

Katia Shimabukuro



Alupar