INTRODUCTION

Climate change is associated with the increasing concentration of certain greenhouse gases (GHG) resulting from human activities and environmental factors, thereby becoming a potential threat to the environment. The primary cause of global warming is anthropogenic greenhouse gas emissions, including Carbon Dioxide (CO_2), Methane (CH_4), Nitrous Oxide (N_2O), and halocarbons. In its Fifth Assessment Report, the Intergovernmental Panel on Climate Change (IPCC) identified an almost linear relationship between global warming and cumulative CO_2 emissions in the atmosphere.

It is critically important for organizations to identify and quantify the direct and indirect greenhouse gas (GHG) emissions associated with their productive activities. Energy use represents a fundamental aspect of organizational operations, whether for technological equipment, communication systems, lighting, transportation, backup systems, cooling systems, among others. Energy consumption can generate direct emissions (on-site combustion) as well as indirect emissions (combustion occurring outside organizational boundaries), which, depending on the electricity generation source, may represent emissions attributable to both producers and consumers.

Energy sources and supply are highly relevant from social, environmental, and economic perspectives. Their use has enabled societal and industrial growth; however, they also generate environmental impacts that increase with excessive and inefficient consumption patterns. Therefore, the rational use and consumption of both renewable and non-renewable energy sources are essential to achieving sustainable development goals, environmental balance, and social well-being. Many business leaders around the world have recognized that climate change and environmental degradation create significant risks and opportunities for competitiveness, growth, and business development, transforming climate challenges into market opportunities.

Climate change also generates significant implications for organizational activities. Colombia has the highest rate of recurring natural disasters in Latin America, with more than 600 reported events annually on average (World Bank, 2014, p. 6), and ranks tenth globally in terms of highest economic risk exposure derived from two or more natural hazards, given that 84.7% of the population and 86.6% of assets are located in areas exposed to multiple natural hazards (World Bank, 2014, p. 5). Within a global climate change scenario, this implies that hydrometeorological phenomena may increase in intensity and frequency, altering existing risk patterns and generating a greater number of disasters if their implications are not addressed proactively.

The health of ecosystems is a key variable for climate resilience, while ecosystem degradation is associated with increased greenhouse gas emissions. Ecosystem restoration and conservation, together with the preservation of ecosystem services, are crucial for increasing climate resilience and maintaining or improving GHG mitigation capacity.

According to the climate change management policy, climate change management should be oriented toward achieving short-, medium-, and long-term adaptation and mitigation targets. Consequently, the policy defines the governance structures and mechanisms required for adoption, implementation, distribution, and evaluation at national, sectoral, and territorial levels.

1. OBJECTIVES

1.1. General Objectives

- Determine and establish the aspects related to risk identification, energy performance indicators, energy baseline, energy objectives, energy targets, and action plans for energy efficiency management.

- Design, implement, and promote strategies that enable the organization to develop actions aimed at the mitigation and compensation of greenhouse gas (GHG) emissions, as well as adaptation to climate change impacts affecting TGI's infrastructure.

1.2. Specific Objectives

- Quantitatively characterize the environmental and energy impacts generated by the organization through the analysis of energy reviews and monitoring of the corporate carbon footprint.
- Identify, assess, and manage risks associated with energy performance.

- Establish and consolidate objectives, targets, indicators, and baselines for the Energy Management System (EnMS).
- Establish strategies for controlling, preventing, mitigating, and compensating greenhouse gas (GHG) emissions while ensuring compliance with Energy Management System objectives.

2. SCOPE

The Climate Change and Energy Efficiency Program is defined based on the results of energy reviews conducted at sites included within the scope of the Energy Management System (EnMS) and on the calculation of the organization's greenhouse gas (GHG) emissions. This process quantitatively characterizes the environmental and energy impacts generated, enabling the identification of associated risks, followed by the establishment of objectives, targets, indicators, and baselines, and ultimately defining strategies for the control, prevention, mitigation, and compensation of greenhouse gas (GHG) emissions within an energy efficiency framework.

3. DEFINITIONS

3.1. Climate Change Adaptation: Actions and measures aimed at reducing the vulnerability of natural and human systems to the actual or expected effects of climate change. Ministry of Environment and Sustainable Development (MADS).

3.2. EnMS Scope: Group of activities addressed by an organization through an Energy Management System. *Note: The EnMS scope may include multiple boundaries and may encompass transportation operations.*

3.3. Environment: Surroundings in which an organization operates, including air, water, land, natural resources, flora, fauna, human beings, and their interrelationships.

3.4. Environmental Aspect: Elements of an organization's activities, products, or services that can interact with the environment.

3.5. Climate Change: A variation in the state of the climate identifiable, for example, through statistical tests, by changes in mean values or variability of its properties that persists over long periods, typically decades or longer. Law 1931 of 2018.

3.6. Energy Consumption: Amount of energy used. ISO 50001.

3.7. Sustainable Development Committee: Coordinating body whose purpose is to establish guidelines related to environmental, social, real estate, and community and landowner engagement matters within the area of influence, aligned with the Company's Corporate Sustainability Policy and the guidelines established by Grupo Energía Bogotá.

3.8. Energy Performance: Measurable results related to energy efficiency, energy use, and energy consumption. ISO 50001.

3.9. GCS: Gas Compression Station.

3.10. Greenhouse Effect: The accumulation and trapping of heat in the atmosphere (troposphere) near the Earth's surface. Part of the heat returning from the Earth's surface toward space is absorbed by greenhouse gases in the atmosphere and re-radiated back to the Earth's surface. If greenhouse gas concentrations increase, average atmospheric temperatures gradually rise.

3.11. Energy Efficiency: Ratio or other quantitative relationship between performance output, services, products, commodities, or energy, and energy input. ISO 50001.

3.12. Energy Management Team: Person(s) with responsibility and authority for the effective implementation of an Energy Management System and for achieving improvements in energy performance. ISO 50001.

3.13. Energy: Electricity, fuels, steam, heat, compressed air, and other similar media. *Note: For the purposes of the EnMS, energy is attributed to different energy types, including renewable energy, which may be purchased, stored, treated, used in equipment or processes, or recovered.* ISO 50001.

3.14. Greenhouse Gas Emissions: Total mass of greenhouse gases released into the atmosphere during a specified period. ISO 14064-1.

3.15. Direct Greenhouse Gas Emissions: GHG emissions originating from sources owned or controlled by the organization. ISO 14064-1.

3.16. Energy Indirect Greenhouse Gas Emissions: GHG emissions resulting from externally generated electricity, heat, or steam consumed by the organization. ISO 14064-1.

3.17. Baseline Scenario: Represents the GHG emissions that would occur in the absence of a mitigation initiative during a defined future period. Measured in tons of carbon dioxide equivalent (CO_2e). Ministry of Mines and Energy, 2023.

3.18. Static Factor: Identified factor significantly impacting energy performance that does not typically change. ISO 50001.

3.19. Greenhouse Gas Source: Physical unit or process that releases greenhouse gases into the atmosphere. ISO 14064-1.

3.20. Climate Change Management: Coordinated process for designing, implementing, and evaluating GHG mitigation and climate adaptation actions aimed at reducing the vulnerability of populations, infrastructure, and ecosystems to climate change impacts. It also includes actions designed to enable and capitalize on opportunities generated by climate change. Law 1931 of 2018.

3.21. Greenhouse Gases (GHG): Gaseous atmospheric components, either natural or anthropogenic, that absorb and emit infrared radiation reflected by the Earth's surface, atmosphere, and clouds. Major greenhouse gases include carbon dioxide (CO_2), nitrous oxide (N_2O), methane (CH_4), hydrofluorocarbons (HFC), perfluorocarbons (PFC), and sulfur hexafluoride (SF_6). Law 1931 of 2018.

3.22. Energy Performance Indicator (EnPI): Measure or unit of energy performance defined by the organization. ISO 50001.

3.23. Greenhouse Gas Inventory: Compilation of an organization's GHG sources, sinks, emissions, and removals. ISO 14064-1.

3.24. Environmental Impact: Any change to the environment, whether adverse or beneficial, resulting wholly or partially from an organization's environmental aspects. ISO 14001.

3.25. Energy Baseline (EnB): Quantitative reference providing the basis for comparison of energy performance. ISO 50001.

3.26. Boundaries: Physical, site-related, and/or organizational limits defined by the organization.

3.27. Energy Performance Improvement: Improvement in measurable results related to energy efficiency or energy consumption associated with energy use, compared with the energy baseline. ISO 50001.

3.28. Energy Target: Detailed and quantifiable energy performance requirement applicable to the organization or part thereof, arising from energy objectives and necessary for achieving them. ISO 50001.

3.29. Climate Change Mitigation: Actions, strategies, and pathways enabling the company to reduce its GHG emissions. Ministry of Mines and Energy.

3.30. Normalization: Modification of data to account for changes in energy performance under equivalent conditions. ISO 50001.

3.31. Energy Objective: Specified outcome or achievement established to meet the organization's energy policy and related to improving energy performance. ISO 50001.

3.32. Interested Party: Person or group having an interest in or affected by the organization's energy performance. ISO 50001.

3.33. Pollution Prevention: Use of processes, practices, techniques, materials, products, services, or energy to avoid, reduce, or control the generation, emission, or discharge of pollutants or waste to minimize adverse environmental impacts. ISO 14001.

3.34. Project, Work, or Activity: Includes planning, siting, installation, construction, assembly, operation, maintenance, decommissioning, abandonment, and closure of all actions, land uses, activities, and infrastructure associated with development activities.

3.35. Energy Review: Analysis of energy efficiency, energy use, and energy consumption based on data and other information aimed at identifying Significant Energy Uses (SEUs) and opportunities for improving energy performance. ISO 50001.

3.36. Risk: Effect of uncertainty. ISO 50001.

3.37. Environmental Management System (EMS): Part of an organization's management system used to develop and implement environmental policies and manage environmental aspects.

3.38. Energy Management System (EnMS): Management system used to establish energy policies, objectives, targets, action plans, and processes required to achieve energy objectives and targets. ISO 50001.

3.39. Integrated Management System (IMS): Part of TGI's General Management System used to implement policies and manage processes according to quality standards, environmental impacts, and occupational health and safety risks in a controlled manner, achieving stakeholder satisfaction.

3.40. TGI: Transportadora de Gas Internacional.

3.41. Energy Use: Application of energy. ISO 50001.

3.42. Significant Energy Use (SEU): Energy use accounting for substantial energy consumption and/or offering considerable potential for energy performance improvement. ISO 50001.

3.43. Relevant Variable: Quantifiable factor significantly affecting energy performance and subject to frequent change. ISO 50001.

4. REGULATORY FRAMEWORK

- **United Nations Framework Convention on Climate Change (UNFCCC)**, approved through Law 164 of 1994, under which Colombia committed to adopting precautionary measures to anticipate, prevent, or minimize the causes of climate change and mitigate its impacts, as well as to prepare national inventories of greenhouse gas (GHG) emissions.

- **Kyoto Protocol**, approved through Law 629 of 2000, through which the United Nations Framework Convention on Climate Change became operational. The Protocol established binding emissions reduction targets and encourages signatory states to continue developing policies and measures for emissions reduction and the promotion of energy efficiency.
- **Sustainable Development Goals (SDGs)**, incorporated into Colombia through CONPES 3918 of 2018, which establishes the targets and strategies for implementing the 2030 Agenda and its Sustainable Development Goals within the country.
- **Paris Agreement**, approved through Law 1844 of 2017: an international treaty through which participating countries committed to undertaking all possible efforts to establish measures aimed at maintaining the increase in global average temperature well below 2°C above pre-industrial levels and pursuing efforts to limit temperature increase to 1.5°C.

- **Law 142 of 1994 - Public Utilities Law:** Establishes the regulatory framework for public utility services in Colombia under a mixed-service model and states that public service providers, within the social function of property rights, must fulfill their ecological function by protecting environmental diversity and integrity and conserving areas of special ecological importance.
- **Law 697 of 2001 - Efficient and Rational Energy Use Law:** Through this law, the rational and efficient use of energy is declared a matter of social interest, public interest, and national convenience, while establishing measures to promote rational and efficient energy use.
- **Law 1931 of 2018 - Climate Change Law:** Establishes guidelines for climate change management in Colombia, including adaptation measures and greenhouse gas mitigation actions. Among other provisions, the law establishes that all natural and legal persons, whether public or private, share responsibility for participating in climate change management and assigns governmental entities responsibility for developing Comprehensive Climate Change Management Plans for the sectors under their leadership.

STANDARD	ISSUED BY	DESCRIPTION
NTC-ISO 50001:2018	International Organization for Standardization (ISO)	Energy Management Systems
NTC-ISO 14001:2015	International Organization for Standardization (ISO)	Environmental Management Systems
NTC-ISO 14064-1:2018	International Organization for Standardization (ISO)	Organization-Level Greenhouse Gas (GHG) Inventory
NTC 2050	ICONTEC	Technical Standard 2050 or Colombian Electrical Code
RETIE	Ministry of Mines and Energy	Technical Regulation for Electrical Installations (RETIE)
RETILAP	Ministry of Mines and Energy	Technical Regulation for Lighting and Public Lighting Systems

Table 1. Related Regulations

Refer to the Environmental Legal Requirements Matrix.

5. RESPONSIBILITIES

For the overall implementation of the Climate Change and Energy Efficiency Program at TGI S.A. ESP, leadership and commitment are provided by the Environmental Department under the Government Affairs and Environment Management Division. To ensure the execution of the program across all Company sites, responsibility is delegated to Environmental Professionals, who act as facilitators for the development and implementation of this program at their respective locations. Additionally, Environmental Professionals are responsible for compiling information, conducting verification activities, performing periodic monitoring and follow-up, and evaluating compliance with the targets established under this program to ensure its adaptability to the specific conditions and needs of each site and the Company.

The Environmental Department is responsible for verifying and monitoring compliance with activities carried out within the framework of energy and climate change management defined under this program.

Likewise, energy reviews conducted at sites included within the scope of the Energy Management System (EnMS) identify the roles, responsibilities, and authorities associated with the Energy Management System.

At a strategic level, the Sustainability Committee aims (see Guideline #008) to establish guidelines related to environmental, social, real estate, and community and landowner engagement matters within the area of influence, aligned with the Corporate Sustainability Policy. Additionally, its functions and responsibilities include:

- ✓ Guiding the implementation of the sustainability strategy across different business areas.
- ✓ Proposing and/or recommending feasible initiatives and solutions aimed at reducing environmental, social, and real estate impacts associated with the company's activities, products, and services.
- ✓ Evaluating environmental, energy, and social performance through quarterly reports provided by responsible professionals and proposing required action plans.
- ✓ Monitoring compliance with applicable environmental and energy regulations.
- ✓ Monitoring socio-environmental and energy management practices implemented with suppliers and contractors.
- ✓ Monitoring energy reviews and the objectives, targets, and action plans necessary to achieve improvements in energy performance.

6. CHARACTERIZATION OF ENERGY, ENVIRONMENTAL, AND CLIMATE CHANGE IMPACTS

TGI S.A. ESP recognizes the importance of managing its energy, environmental, and climate-related impacts under prevention, mitigation, adaptation, correction, and compensation principles to proactively identify potential risks associated with natural gas transportation services. Environmental aspects and impacts related to climate change and energy impacts resulting from activities, projects, or services under the Company's control have been identified and assessed to implement appropriate management measures and controls.

Based on the above, and following the guidelines established through the Company's Energy Management System (EnMS) based on ISO 50001 and greenhouse gas emissions quantification based on ISO 14064-1, the following framework has been established:

6.1. Energy Impact Characterization

To carry out natural gas transportation operations, the Company relies on the interaction of multiple administrative, construction, operational, and maintenance processes. These processes are supported by different functional areas. Identifying activities contained within related processes allows critical points to be identified where action plans focused on energy efficiency and climate change management can be implemented.

Under TGI S.A. ESP's current operating model, the following energy sources have been characterized: natural gas, electricity, and liquid fuels including diesel and gasoline.

Based on this characterization, the following sections present energy reviews, energy performance assessments, and identified and evaluated risks associated with sites included within the scope of the Energy Management System.

a) **Energy Reviews for Sites within the EnMS Scope**

The primary objective of the energy review is to analyze past, present, and future energy uses and consumption patterns, as well as energy performance together with the variables influencing it, identify existing energy types, determine Significant Energy Uses (SEUs), and identify opportunities for improvement related to energy management at operational sites.

According to the Integrated Management System (IMS) Energy Review Procedure (P-ASI-022), requirements are established for documentation associated with sites included within the scope of the Energy Management System, based on ISO 50001:2018.

ENERGY REVIEWS FOR SITES WITHIN THE ISO 50001 SCOPE			
SPECIFIC OBJECTIVE	Conduct Energy Reviews in accordance with the Energy Management System - ISO 50001:2018 for TGI S.A. ESP operational sites included within the scope.		
TARGET	Documentation of Energy Reviews applicable to all sites included within the scope of the Energy Management System (EnMS).		
RESPONSIBILITIES	**IMPLEMENTATION:** Environmental Professional		
	MONITORING AND CONTROL: Environmental Leader		
JUSTIFICATION	The energy review represents the analysis of energy efficiency, energy use, and energy consumption based on data and other relevant information aimed at identifying Significant Energy Uses (SEUs) and opportunities for improving energy performance.		
DESCRIPTION OF ACTIVITIES	• Analysis of information related to energy uses, energy sources, and energy consumption. • Assessment of equipment associated with energy consumption, monitoring, and measurement. • Identification of Significant Energy Uses (SEUs), including the identification of relevant variables and static factors associated with them. • Evaluation of current and historical energy performance. • Identification of personnel responsible for energy-related activities. • Identification of opportunities to improve energy performance. • Projection of future energy consumption. • Planning for energy data collection activities. • Implementation of operational controls.		
MONITORING	Review and update of documentation according to the Integrated Management System (IMS) Energy Review Procedure (P-ASI-022).		
MANAGEMENT INDICATOR			
INDICATOR NAME	**INDICATOR TYPE**	**CALCULATION FORMULA**	**MEASUREMENT FREQUENCY**
Energy Reviews	Management	Energy reviews conducted at operational sites within the scope of the EnMS	Annual

Table 2. Energy Review Subprogram for Sites within the EnMS Scope

b) **Results of Energy Reviews for Sites within the Scope**

The energy consumption identified for 2024 at the operational sites included within the scope of the Energy Management System (EnMS) is presented below.

Consolidated Energy Consumption (GJ)				
Site Consumption (2024)	**Natural Gas**	**Electricity**	**Liquid Fuels**	**Total Energy Consumption (GJ)**
ECG Mariquita	**48070**	**347**	**411**	**48828**
ECG Padua	**341710**	**450**	**11**	**342171**
ECG Miraflores	**661183**	**780**	**158**	**662121**
ECG Sabana	**0**	**895**	**2**	**897**
Administrative Headquarters	**0**	**141**	**0**	**141**
ECG Puente Guillermo	**626693**	**757**	**732**	**628182**

ECG Vasconia	**301644**	**565**	**486**	**302695**
ECG Villavicencio	**76105**	**574**	**280**	**76959**
ECG Paratebueno	**111755**	**575**	**673**	**113003**
Cogua Operations Center (CO)	**54684**	**586**	**451**	**55721**
ECG San Alberto	**41952**	**374**	**209**	**42535**
ECG Jagua del Pilar	**7042**	**365**	**388**	**7795**
ECG Curumani	**3940**	**309**	**243**	**4492**
ECG Casacara	**68307**	**331**	**23**	**68661**
ECG Barrancabermeja	**1107**	**554**	**389**	**2050**
ECG Hatonuevo	**60640**	**488**	**86**	**61214**
ECG Norean	**4194**	**349**	**247**	**4790**
Villavicencio Operations Center (COG)	**0**	**184**	**638**	**822**
Total	**2.409.026**	**8.440**	**4.789**	**2.422.255**

Table 3. 2024 Energy Consumption for Sites within the EnMS Scope

The information related to the most recent reporting year (2025) is consolidated in Table 4 below.

Consolidated Energy Consumption (GJ)				
Site Consumption (2025)	**Natural Gas**	**Electricity**	**Liquid Fuels**	**Total Energy Consumption (GJ)**
ECG Mariquita	**26007**	**437**	**167779**	**194223**
ECG Padua	**216101**	**397**	**268**	**216766**
ECG Miraflores	**121919**	**613**	**150**	**122681**
ECG Sabana	**0**	**810**	**66**	**876**
Administrative Headquarters	**0**	**133**	**0**	**133**
ECG Puente Guillermo	**709289**	**783**	**832**	**710904**
ECG Vasconia	**19130**	**412**	**448**	**19990**
ECG Villavicencio	**53914**	**538**	**429**	**54881**
ECG Paratebueno	**79576**	**568**	**623**	**80767**
Cogua Operations Center (CO)	**54684**	**535**	**566**	**55784**
ECG San Alberto	**112826**	**413**	**432**	**113671**
ECG Jagua del Pilar	**7109**	**429**	**707**	**8245**
ECG Curumani	**1854**	**318**	**192**	**2364**
ECG Casacara	**4195**	**304**	**763**	**5262**
ECG Barrancabermeja	**1025**	**554**	**439**	**2018**
ECG Hatonuevo	**121287**	**618**	**525**	**122430**
ECG Norean	**5868**	**318**	**230**	**6416**
Villavicencio Operations Center (COG)	**0**	**183**	**650**	**833**
Total	**1.534.784**	**8.363**	**175.099**	**1.718.246**

Table 4. 2025 Energy Consumption for Sites within the EnMS Scope

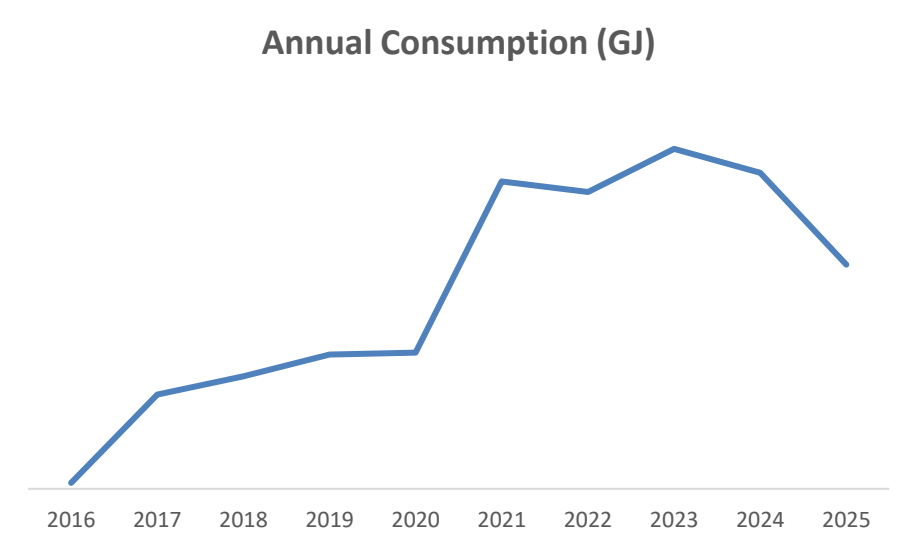
As observed in Table 3 (Energy Consumption for Sites within the EnMS Scope), it can be concluded that a Significant Energy Use (SEU) corresponds to the natural gas used in the compression process. Electricity is also considered a Significant Energy Use due to its use in areas, equipment, or processes with potential for energy savings, efficiency improvements, or where energy performance improvement opportunities have been identified, particularly in those areas with the highest potential for performance enhancement.

The following section presents a summary of the general characteristics of the energy sources identified at the sites within the scope of the Energy Management System (EnMS).

IDENTIFIED ENERGY SOURCES	**Natural Gas, Electricity, and Other Fuels**
SOURCES	**Natural Gas:** This resource is directly supplied through the gas received at Gas Compression Stations (GCS) via the gas pipeline and is the main input for the operation of compressor engines. In some operational sites, Compressed Natural Gas (CNG) is used for vehicles, supplied by service stations. **Electricity:** • The energy supply for the sites within the scope of the Energy Management System (EnMS) is provided through transmission lines operated by regional utility companies. **Liquid Fuels:** • Diesel and gasoline are purchased from authorized fuel suppliers through service stations.
ENERGY USES	**Natural GAS:** • Fuel gas, flare gas, pilot gas, and start-up gas. **Electricity:** - Operation and control of electrical consumption equipment such as compressors, auxiliary systems, laptops and computers, monitors, printers and multifunction devices, air conditioning systems, televisions, indoor and outdoor lighting, refrigerators and microwaves, UPS systems, switches and servers, among other equipment applicable to EnMS sites. **Liquid Fuels:** - Operation of backup power generators for electricity production at GCS facilities. - Operation of vehicles required for personnel transportation at GCS facilities. - Use of brush cutters.
ANNUAL CONSUMPTION	Annual consumption is derived from the total sum of the energy sources identified across the sites within the scope of the Energy Management System (EnMS).

Consumos energéticos consolidados (GJ)

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
ECG Mariquita	43.664	82.396	68.192	61.182	55.073	58.793	58.158	52.210	48.828	194.223
ECG Padua	No hacia parte del SGE	139.732	236.707	274.359	235.345	265.232	281.598	289.984	342.171	216.766
ECG Miraflores		494.313	554.884	692.319	749.196	814.684	819.470	805.303	662.121	122.682
ECG Sabana	1.371	5.787	1.418	980	2.994	3.238	2.581	2.722	897	876
Sede Administrativa	304	332	392	461	300	230	210	124	141	133
ECG Puente Guillermo	No hacia parte del SGE					638.151	734.120	761.105	628.182	710.904
ECG Vasconia						446.076	227.811	505.832	302.695	19.990
ECG Villavicencio						13.232	12.540	44.773	76.959	54.881
ECG Paratebueno						117.742	116.727	101.226	113.003	80.767
CO Cogua						535	950	958	55.721	55.785
ECG San Alberto	No hacia parte del SGE						16.874	13.777	42.535	113.671
ECG Jagua del Pilar							4.901	8.523	7.795	8.245
ECG Curumani	No hacia parte del SGE							8.389	4.492	2.364
ECG Casacara								9.433	68.661	5.262
ECG Barrancabermeja								2.160	2.050	2.018
ECG Hatonuevo	No hacia parte del SGE								61.214	122.430
ECG Norean	No hacia parte del SGE								4.790	6.416
COG Villavicencio	No hacia parte del SGE								184	833
TOTAL	45.339	722.560	861.593	1.029.301	1.042.908	2.357.913	2.275.940	2.606.519	2.422.439	1.718.246



ENERGY SIGNIFICANCE		
SEUs (Significant Energy Uses)	Evaluation of greenhouse gas (GHG) emissions measurement or energy consumption in energy units (natural gas).	**X**
	Areas, equipment, or processes with energy saving potential, efficiency improvement opportunities, or where performance improvement initiatives have been implemented-particularly those with the highest potential for energy performance improvement (electricity).	**X**
RELEVANT VARIABLES	**Natural Gas:** Operational conditions of the National Transmission System (NTS), regulation, nomination, force majeure events, unforeseeable circumstances, extreme weather conditions, and engine technology.. **Electricity:** Number of personnel at the station per month, operational activities involving high-consumption electrical equipment, detailed work plan (DWP), and technical characteristics of electrical consumption equipment at the station.	
STATIC FACTORS	**Natural Gas:** Type of activity (gas compression), compression process, and compressor units. **Electricity:** Working hours and technologies.	

DATA NORMALIZATION FOR SEUs	**Natural Gas:** Analysis and exclusion of major venting events at GCS where climatic conditions are involved, when applicable. Periods without gas compression activity are also considered. **Electricity:** Data analysis based on consumption and generation formats. For electricity, observations identified during the energy review process are taken into account.

Table 5. Energy Consumption for Sites within the EnMS Scope

c) **Energy Performance**

For the calculation of energy performance indicators (see Annex 1: F-GEG-009 Energy Performance Indicator), relevant variables and annual energy consumption monitoring are considered for the types of energy identified in the energy reviews for the sites within the scope of the Energy Management System (EnMS).

The following considerations are taken into account:

- Since multiple energy sources are used (natural gas, electricity, and other fuels), the energy performance calculation is based on the conversion and aggregation of all identified energy consumption into a common energy unit, namely Gigajoules (GJ).

For conversion purposes, the following units are used:

- 1 Kwh = 0,00360 GJ
- 1 MBTU= 1,05506 GJ
- 1 Gal Diesel= 0,13670 GJ
- 1 Gal Gasolina= 0,12940 GJ

- For TGI Gas Compression Stations (GCS), energy performance is defined as the ratio between the total energy consumption (GJ) and compressed gas output in volumetric units (KPC). This approach follows the guidelines established in ISO 50006:2014.

$$DE = \sum Energeticos\ (GJ) / \text{Gas Entregado (KPC)}$$

Where:
EP *= Energy Performance*
Total Energy Consumption = *consumption of fuel gas, electricity, and other fuels, expressed in energy units (GJ).*
Gas Delivered = *total compressed or delivered gas, expressed in volumetric units (KPC: thousand cubic feet).*

Year	Site within EnMS Scope	Energy Consumption (GJ)	Gas Transported (KPC)	Energy Performance (GJ/KPC)
2025	ECG Mariquita	194.223,00	3.354.587	0,0579
2025	ECG Padua	216.766,00	29.063.759	0,0075
2025	ECG Miraflores	122.682,00	23.893.604	0,0051
2025	ECG Sabana	876,00	18.444	0,0475

Year	Site within EnMS Scope	Energy Consumption (GJ)	Gas Transported (KPC)	Energy Performance (GJ/KPC)
2025	ECG Puente Guillermo	710.904,00	107.391.230	0,0066
2025	ECG Vasconia	19.990,00	2.899.636	0,0069
2025	ECG Villavicencio	54.881,00	6.828.219	0,0080
2025	ECG Paratebueno	80.767,00	11.039.068	0,0073
2025	ECG San Alberto	113.671,00	20.508.892	0,0055
2025	ECG Jagua del Pilar	8.245,00	328.016	0,0000
2025	ECG Curumani	2.364,00	178.940	0,0132
2025	ECG Casacara	5.262,00	668.500	0,0079
2025	ECG Barrancabermeja	2.018,00	86.447	0,0233
2025	ECG Hatonuevo	122.430,00	25.540.617	0,0048
2025	ECG Norean	6.416,00	757.302	0,0085

Table 6. Energy Performance of GCS within the EnMS Scope

NOTES:

- For 2025, Cogua Operations Center (COG Villavicencio) and ECG Norean are included within the scope of the Energy Management System (EnMS). For these sites, the 2024 calculated results are established as the baseline, which are also defined as the performance targets.

- For the administrative headquarters and operational centers of TGI (except COG Cogua), energy performance is defined as the ratio of total electricity consumption (GJ) to the number of TGI personnel at the site, in accordance with ISO 50006:2014 guidelines.

$$DE = \sum Energeticos\ (GJ) / \text{Personal sede TGI (\# persona)}$$

Where:
EP *= Energy Performance*
Total Energy Consumption *= electricity consumption, expressed in energy units (GJ).*
TGI Site Personnel *= total number of employees on TGI payroll at the site, expressed as a headcount (#).*

Sede Alcance	Sumatoria Energéticos 2025 (GJ)	Personal Sede 2025(#)	Desempeño 2025 (GJ/Persona)
Sede Administrativa Calle 73	133	2478	0,0538
COG Villavicencio	833	6042	0,1379

Table 7. Energy Performance of Administrative Headquarters

- For TGI's Cogua Operations Center (COG Cogua), energy performance is defined as the ratio between total energy consumption (GJ) and gas delivered from the COG to the La Sabana gas pipeline, expressed in volumetric units (KPC). This approach follows the guidelines established in ISO 50006:2014.

$$DE = \sum Energeticos\ (GJ) / \text{Gas Entregado (KPC)}$$

Where:
EP *= Energy Performance*
Total Energy Consumption *= consumption of fuel gas, electricity, and other fuels, expressed in energy units (GJ).*
Gas Delivered *= total gas delivered, expressed in volumetric units (KPC: thousand cubic feet).*

Site within EnMS Scope	Total Energy Consumption 2024 (GJ)	Gas Delivered (KPC)	2024 Energy Performance (GJ/KPC)
COG Cogua	55.784	47.338.550,17	0,0012

Table 8. Energy Performance - Cogua Operations Center (COG Cogua)

Energy Baseline and Change Management

The Energy Baseline (EnB) is defined as a quantitative reference that provides the basis for comparing energy performance. As a complement to Energy Performance, a breakdown of variables is provided considering the sites within the scope of TGI's Energy Management System (EnMS), given that operational stations with reciprocating and centrifugal compression technologies, as well as an administrative headquarters and an operations center, have been identified.

For baseline definition, sites with comparable energy consumption and production units were selected, using the reference year as a basis to ensure data comparability across periods where information has been consistently collected.

NOTE: Energy Baselines (EnB) will be reviewed at the end of each year once the activities established in this program have been completed.

- **Integrated Baseline - Reciprocating GCS: (ECG Mariquita, ECG Padua, ECG Miraflores, ECG Puente Guillermo, ECG Villavicencio, ECG Vasconia, ECG Paratebueno, ECG San Alberto, ECG Jagua del Pilar, ECG Curumaní, ECG Casacará, ECG Barrancabermeja, ECG Hatonuevo, ECG Norean)**

This baseline relates natural gas, electricity, and liquid fuel consumption (GJ) to compressed gas volume (KPC). A weighted approach is applied based on each reciprocating GCS contribution to gas transportation during the reporting year.

The following section presents the weighted results for the last two measurement periods.

EnMS Scope Site	Gas Transported 2024 (KPC)	Weighting (%)	Weighted Energy Performance 2024 (GJ/KPC)
ECG Mariquita	**4.800.973**	**1,28%**	**0,0001**
ECG Padua	**37.041.632**	**9,87%**	**0,0009**
ECG Miraflores	**117.024.834**	**31,18%**	**0,0018**
ECG Puente Guillermo	**127.005.611**	**33,84%**	**0,0017**

EnMS Scope Site	Gas Transported 2024 (KPC)	Weighting (%)	Weighted Energy Performance 2024 (GJ/KPC)
ECG Vasconia	**45.693.380**	**12,17%**	**0,0008**
ECG Villavicencio	**11.136.380**	**2,97%**	**0,0002**
ECG Paratebueno	**15.066.987**	**4,01%**	**0,0003**
ECG San Alberto	**6.985.853**	**1,86%**	**0,0001**
ECG Jagua del Pilar	**908.880**	**0,24%**	**0,0000208**
ECG Curumaní	**34.876**	**0,01%**	**0,0000**
ECG Casacará	**9.410.647**	**2,51%**	**0,0002**
ECG Barrancabermeja	**0**	**0,00%**	**0,0000**
ECG Hatonuevo	**61.214**	**0,02%**	**0,000001**
ECG Norean	**135.114**	**0,04%**	**0,00001**
Total	**375.306.381**	**100,00%**	**0,0061**

Table 9. Energy Performance Weighting 2024

Site within EnMS Scope	2025 Gas Transported (KPC)	Weighting (%)	Weighted Energy Performance 2025 (GJ/KPC)
ECG Mariquita	3.354.587	1,44%	0,00084
ECG Padua	29.063.759	12,50%	0,00093
ECG Miraflores	23.893.604	10,28%	0,00053
ECG Puente Guillermo	107.391.230	46,18%	0,00306
ECG Vasconia	2.899.636	1,25%	0,00009
ECG Villavicencio	6.828.219	2,94%	0,00024
ECG Paratebueno	11.039.068	4,75%	0,00035
ECG San Alberto	20.508.892	8,82%	0,00049
ECG Jagua del Pilar	328.016	0,14%	0,00000
ECG Curumani	178.940	0,08%	0,00001
ECG Casacara	668.500	0,29%	0,00002
ECG Barrancabermeja	86447	0,04%	0,00001
ECG Hatonuevo	25.540.617	10,98%	0,00053
ECG Norean	757.302	0,33%	0,00003
Total	**232.538.817**	**100,00%**	**0,0071**

Table 9. Energy Performance Weighting 2025

Note:

Due to the expansion of the EnMS scope to include additional reciprocating compression operational sites, the weighted results are updated in accordance with the established weighting factors. For this purpose, the Integrated Energy Baseline (Reciprocating GCS) is defined as 0.0080 GJ/KPC. The annual target is to remain below the Energy Baseline (EnB).

- **Centrifugal GCS Baseline (ECG Sabana):**
This baseline relates electricity and liquid fuel consumption (GJ) to transported gas volume (KPC).

Baseline (GJ/KPC)	2025 Performance (GJ/KPC)
0,048	0,047

Note: *For the 2024 and 2025 periods, very low compression values were observed at the GCS; therefore, the decision was made to adjust the baseline, considering that similar trends are expected in the coming years. However, this decision will be reviewed annually.*

- **Baseline (Administrative Headquarters - Bogotá and COG Villavicencio):**
This baseline relates electricity consumption (GJ) to site personnel (headcount).

Site	Baseline (GJ/Person)	2025 Performance (GJ/Person)
Administrative HQ Calle 73	0,1159	0, 0538
COG Villavicencio	0,1425	0,1379

- **Baseline (COG Cogua):**
This baseline relates gas, electricity, and liquid fuel consumption (GJ) to the gas delivered from the COG to the La Sabana pipeline (KPC).

Site	Baseline (GJ/KPC)	2025 Performance (GJ/KPC)
COG Cogua	0,0061 GJ/KPC	0,0012

Note: *For the 2024 period, the energy performance indicator was redefined considering the increase in fuel gas consumption for the operation of the COG heater. The baseline is defined based on gas delivery levels, which are of the same order of magnitude as ECG Vasconia.*

d) **Future Energy Consumption**

Future energy consumption (2026) is reflected in the energy reviews of each site within the EnMS scope.

e) **Energy Objectives, Targets and Action Plans**

- Promote environmental and energy programs and projects that contribute to environmental improvement and quality.
- Promote the application and dissemination of best practices in environmental and energy management in infrastructure operation and maintenance.

Targets:

- **Integrated Target - Reciprocating GCS (EnMS scope, weighted):** ≤ 0.0080 GJ/KPC
    - 2025 Individual Targets:
        - ECG Mariquita <= 0,0106 GJ/KPC.
        - ECG Padua <= 0,0090 GJ/KPC.
        - ECG Miraflores <= 0,0064 GJ/KPC.
        - ECG Puente Guillermo <= 0,0051 GJ/KPC.
        - ECG Vasconia <= 0,0061 GJ/KPC.
        - ECG Villavicencio <= 0,0453 GJ/KPC.
        - ECG Paratebueno <= 0,0101 GJ/KPC.
        - ECG San Alberto : <= 0,0106 GJ/KPC.
        - ECG Jagua del Pilar <= 0,0119 GJ/KPC.
        - ECG Curumani: <= 0,0106 GJ/KPC.
        - ECG Casacara <= 0,0173 GJ/KPC.
        - ECG Barrancabermeja <= 0,0228 GJ/KPC.
        - ECG Hatonuevo <= 0,0080 GJ/KPC
        - ECG Norean <= 0,0080 GJ/KPC
        - COG Villavicencio <= 0,1300 GJ/employee
- Centrifugal GCS Target (ECG Sabana): <= 0,048 GJ/KPC
- Administrative Headquarters Target: <= 0,1300 GJ/employee
- COG Villavicencio Target: <= 0,1425
- COG Cogua Target: <= 0,0061 GJ/KPC

Note: Targets will remain applicable for 2026 unless Energy Baselines (EnB) are updated. For ECG Norean, the target is defined in accordance with the 2024 baseline.

Action Plans: The implementation of action plans is detailed in the energy reviews of each site within the EnMS scope.

6.1.1. Identification and Assessment of Risks Associated with Energy Performance

Risk information for the EnMS is contained in document **F-GEG-046 Risk and Controls Matrix**.

6.1.2. Relevant Communications for the EnMS

Information is contained in **Annex 3: EnMS Communication Matrix**.

6.2. Characterization of Environmental and Climate Change Impact

6.2.1. Climate Change Mitigation Component

6.2.1.1 Baseline Year Definition and Recalculation Policy

The baseline year corresponds to the 2021 greenhouse gas (GHG) inventory, as this was the first inventory prepared in compliance with **ISO 14064-1 (NTC ISO 14064-1)** and verified by a third party.

As the capacity for inventory development increases and data availability improves, calculation methodologies will be updated and refined. Such changes or improvements are appropriate when they result in more accurate and complete estimates.

Therefore, it is considered good practice to recalculate previous-year emissions when methodologies are changed or improved, new emission source categories are included in the inventory, or errors in estimates and/or emission factors are identified and corrected.

The significance threshold for this GHG inventory recalculation is defined as changes exceeding **10% of base year emissions**, applied cumulatively from the established base year.

The following considerations are taken into account for base year adjustments, in line with best practice:

- Structural changes related to mergers, acquisitions, divestments, or outsourcing/insourcing of emission-generating processes or activities.
- New emission factors that provide lower uncertainty and higher accuracy.
- Methodological changes or improvements in activity data accuracy that result in significant changes to base year emissions.
- Inclusion of new business lines or previously unaccounted emission sources within organizational or operational boundaries.
- Changes in operational boundaries, ownership, or control of emission sources.
- Identification of significant errors, or accumulation of minor errors that collectively have a material impact on emissions levels.

When recalculation is applied, a comparison with the reported inventory must be conducted, and both the updated and base year results must be disclosed to stakeholders.

6.2.1.2 Greenhouse Gas (GHG) Emissions Inventory - Carbon Footprint

For the development of the Company's greenhouse gas inventory, the methodology currently follows the **WRI/WBCSD Greenhouse Gas Protocol** and the **NTC-ISO 14064-1 guideline: "Greenhouse gases - Part 1: Specification with guidance at the organizational level for quantification and reporting of greenhouse gas emissions and removals."** This part of ISO 14064 establishes the principles and requirements for the design, development, and management of GHG inventories for companies and organizations, as well as for the reporting of such inventories.

In addition, emission factors for Colombian fuels published by the **Mining and Energy Planning Unit (UPME)**, **FECOC 2016 - Ministry of Mines and Energy**, and the **GHG Protocol 2017 - Emission Factors from Cross-Sector Tools** are considered. The electricity emission factor is calculated based on Colombian energy market data published by **XM Expertos**, while fuel emission factors are based on the **Colombian Mining-Energy Information System (SIMEC)**, which includes the **Environmental Mining-Energy Information System (SIAME)** module. SIAME calculates emission factors for fuels in Colombia.

For corporate flight emissions, the **ICAO (International Civil Aviation Organization) Carbon Emissions Calculator** is used, which estimates emissions in $kgCO_2$ based on flight routes.

The GHG inventory is structured according to the following classification (see Figure 1), covering:

- Direct emissions (Scope 1)
- Indirect emissions from energy consumption (Scope 2)
- Other indirect emissions (Scope 3)

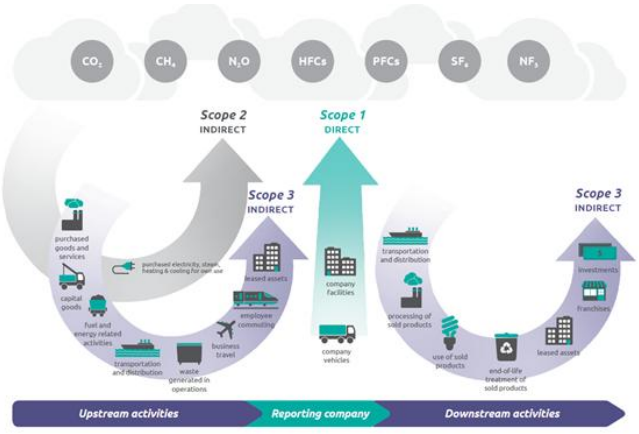


Figure 1. Scopes under the GHG Protocol (2013).

TGI S.A. ESP has established the methodology for preparing the GHG emissions inventory through Instruction **I-ASI-052 - GHG Monitoring and Environmental Indicators**, which defines the information flow, responsibilities, and procedures for completing Form **F-ASI-173 - GHG Reporting and Environmental Indicators**. These tools support the calculation of greenhouse gas emissions and the carbon footprint generated by the Company's activities, based on the defined methodology.

In accordance with the above, sub-programs are defined to establish indicators focused on mitigating climate change-related impacts.

GREENHOUSE GAS (GHG) EMISSIONS QUANTIFICATION			
SPECIFIC OBJECTIVE	To annually quantify the carbon footprint of TGI S.A. ESP.		
TARGET	Absolute sum of all GHG emissions directly and indirectly generated by the organization.		
RESPONSIBILITIES	**IMPLEMENTATION:** Environmental Professional		
	MONITORING AND CONTROL: Environmental Manager		
JUSTIFICATION	To measure the negative environmental impact generated by the Company's activities on the environment and climate change, determined by the amount of GHG emissions produced, expressed in units of carbon dioxide equivalent (CO_2e).		
DESCRIPTION OF ACTIVITIES	• Prepare the monthly report using Form **F-ASI-173 GHG Reporting and Environmental Indicators**. • Prepare the annual greenhouse gas inventory report (Carbon Footprint). • Manage the contractual process for the verification of the GHG Inventory (Carbon Footprint Report). • Obtain third-party verification statements for GHG emissions. • Manage, according to the periodicity defined by TGI S.A. ESP senior management, the contract to develop a methodology incorporating efficient and cost-effective technologies and practices for the detection, quantification, and management of methane fugitive emissions within TGI's natural gas transportation infrastructure. • Compile quantification results and communicate them to relevant stakeholders.		
MONITORING	Verify monthly indicator generation and conduct semiannual reviews of documentation and contract management required to ensure compliance with the activities defined under this sub-program.		
MANAGEMENT INDICATORS			
INDICATOR NAME	**INDICATOR TYPE**	**CALCULATION FORMULA**	**MEASUREMENT FRECUENCY**
Emissions Reduction	Compliance	Emissions Reduction 2024 = (1 - (Cumulative monthly emissions / BAU or baseline or reference scenario)) × 100	Monthly
Emissions Intensity	Compliance	((Total CO_2e emissions 2024 / m^3 of gas transported 2024) / (Baseline CO_2e emissions / m^3 of gas transported baseline)) × 100	Semiannual

Table 9. GHG Emissions Quantification Sub-Program

The different sites of the organization have their own GHG inventory in accordance with the provisions established in the referenced form. In addition, the Company's annual greenhouse gas emissions report (carbon footprint) is prepared.

DECARBONIZATION PATHWAY			
SPECIFIC OBJECTIVE	To formulate the different actions, strategies and/or pathways that enable the Company to reduce its greenhouse gas (GHG) emissions in a cost-effective manner, in accordance with the targets defined for 2030 and 2050. The result of this formulation will be reflected in the development of TGI S.A. ESP's Decarbonization Pathway.		
TARGET	To have a decarbonization pathway aligned with the operational reality of TGI S.A. ESP, in order to ensure the Company's sustainability and the reduction of emissions.		
RESPONSIBILITIES	**IMPLEMENTACIÓN:** Environmental Professional; Professional from the Planning and Financial Control Department; Professional from the Planning and Performance Management Department; and professionals responsible for emission reduction projects.		
	MONITORING AND CONTROL: Corporate Affairs and Environment Management; Technical Vice Presidency.		
JUSTIFICATION	This subprogram is defined in relation to the design and implementation of TGI S.A. ESP's Decarbonization Pathway, within the framework of compliance with the guidelines established in corporate integrated climate change management plans.		
DESCRIPTION OF ACTIVITIES	• Define the Business as Usual (BAU) or reference scenario for TGI S.A. ESP. • Define projects, activities and/or measures related to emission reductions to be considered within the Company's decarbonization pathway. • Develop emission projections for 2030 and 2050, considering both the reference scenario and mitigation scenarios that allow estimating the abatement potential of selected projects and measures for GHG reduction. • Based on projections and marginal cost analysis, define the corporate scenario by establishing abatement measures considering the most cost-effective projects that ensure competitiveness towards 2030 and 2050. • Develop a scenario aligned with national climate change targets, establishing measures mainly aimed at avoiding and reducing emissions that contribute to the 51% reduction target by 2030 and carbon neutrality by 2050. This scenario aims to identify both opportunities and challenges faced by the Company in achieving national targets.		
MONITORING	A semiannual follow-up and/or update of the decarbonization pathway shall be carried out in order to assess progress, identify implementation challenges, and define action plans.		
MANAGEMENT INDICATOR			
INDICATOR NAME	**INDICATOR TYPE**	**CALCULATION FORMULA**	**MEASUREMENT FRECUENCY**
Decarbonization pathway review and/or update	Compliance	(Reviews and/or updates performed on the decarbonization pathway / Planned reviews and/or updates of the decarbonization pathway) × 100	Annual

Table 10. Decarbonization Pathway Subprogram

6.2.2. Climate Change Adaptation

The measures and actions implemented by the Company to develop a climate change adaptation strategy are carried out through the identification, quantification, and assessment of risks and impacts associated with climate variability and climate change events that may directly or indirectly affect TGI S.A. ESP's projects and operations.

Based on the above, the climate change adaptation subprogram is presented below, describing the actions and measures defined to enhance the climate resilience and adaptability of TGI S.A. ESP, with the aim of maintaining its competitiveness and financial sustainability in the short, medium, and long term.

CLIMATE CHANGE ADAPTATION			
SPECIFIC OBJECTIVE	To develop initiatives, actions and measures that reduce vulnerability and increase the climate adaptability of TGI S.A. ESP projects in construction or operation phases, in response to the real or expected effects of climate change.		
TARGET	To develop a climate change adaptation model for TGI S.A. ESP.		
RESPONSIBILITIES	**IMPLEMENTATION:** Environmental Professional		
	MONITORING AND CONTROL: Environmental Manager and Planning and Performance Management Department		
JUSTIFICATION	It is essential that the Company adopts measures, actions and practices to increase resilience and climate adaptability in response to probable climate-related damages and disturbances. Therefore, climate change adaptation must not only focus on reducing vulnerability to negative impacts, but also on leveraging potential positive effects or opportunities. Consequently, adaptation measures and actions must be oriented to the short, medium and long term, and include environmental, economic, governance, planning, and disaster management components.		
DESCRIPTION OF ACTIVITIES	Capacity building within the Company aimed at achieving a prosperous and climate-adaptive business that delivers economic, environmental, social and governance benefits through: • Identification, analysis and assessment of climate risks and opportunities that may directly or indirectly impact TGI S.A. ESP. • Prioritization of the most significant climate risks affecting the Company (aligned with Disaster Risk Management Plans, Climate Change Adaptation Plans, and TCFD recommendations). • Definition of a strategic model that establishes planning, implementation, monitoring and control of cost-effective measures and/or projects focused on climate resilience and adaptability.		
MONITORING	Quarterly verification of the development of the model and contract management required to ensure compliance with the target.		
MANAGEMENT INDICATORS			
INDICATOR NAME	**INDICATOR TYPE**	**CALCULATION FORMULA**	**MEASUREMENT FRECUENCY**
Development, review and/or update of the TGI S.A. ESP Climate Change Adaptation Model	Management	Document with the climate change adaptation model of TGI S.A. ESP approved, reviewed and/or updated	Annual
Development, review and/or update of climate change adaptation plans for each licensed project	Management	Number of climate change adaptation plans developed, reviewed and/or updated / Number of planned adaptation plans	Annal

Table 12. Climate Change Adaptation Subprogram

6.2.3. Governance

At TGI, we ensure the long-term sustainability of our activities and operations through the responsible, efficient, and timely management of all material issues. TGI operates under the precautionary principle to ensure effective risk control

and the leveraging of opportunities, seeking to contribute to high performance in environmental, social, and corporate governance sustainability.

In line with the Paris Agreement and the regulatory framework outlined above, TGI faces the long-term challenge of achieving “net zero”, once it sustains the reduction of GHG emissions and offsets its entire carbon footprint.

This corporate target is based on TGI’s Climate Change Policy and, to achieve it, the Company commits to implementing actions related to: (I) Risk and opportunity assessment, (II) Climate change mitigation, including the quantification, verification, and monitoring of greenhouse gas emissions in projects and operations, (III) Adaptation measures, and (IV) Energy transition.

From an environmental perspective, this document serves as a management tool for fulfilling the Company’s sustainability commitments, particularly those related to mitigation and energy transition.

Governance of the Tool

Board of Directors: The main responsibility of the Board of Directors is decision-making aimed at achieving strategic objectives and monitoring the actions taken to achieve them. This includes ensuring consistency between the Company’s statements, strategy, and the activities, plans, and programs managed with stakeholders and industry associations.

Sustainability Committee: Oversees compliance with the Climate Change Policy and monitors actions and commitments that contribute to achieving established targets.

Corporate Affairs and Environment Management: Responsible for the implementation, compliance, and evaluation of this program. In its stakeholder engagement role, this area also reviews and monitors whether trade associations are aligned with the Company’s climate change and sustainability policies and, consequently, with the Paris Agreement. In case misalignment is identified between the climate positions of trade associations and the Company’s own position, action will be taken in accordance with the Stakeholder Engagement Protocol: Government Entities and Industry Associations.

Cooperation for Low-Carbon and Resilient Development

The governance component is essential for strengthening TGI S.A. ESP’s climate change management and promoting it as a driver toward a more competitive and sustainable future. Therefore, actions must be developed to create spaces for dialogue, analysis, reflection, and agreement on the policies and/or strategies adopted by the Company regarding climate change mitigation and adaptation.

These spaces should be established following the identification and mapping of internal and external stakeholders that may influence decisions related to climate change management, enabling the development of robust and well-founded guidelines that contribute consistently and coherently to the design and approval of TGI S.A. ESP’s mitigation and adaptation measures.

Likewise, the governance component will lead the process of identifying and managing access to financial incentives (public and private funds, multilateral and bilateral sources, international or national mechanisms, credit lines, venture capital investments, carbon market transactions, guarantees, taxes, etc.) that support the structuring and feasibility of climate change mitigation and adaptation programs and projects, ensuring their integration into the Company’s financial planning processes.

It is the responsibility of the Corporate Affairs and Environment Management and the Sustainability Directorate to manage collaboration with industry associations in which the Company participates, ensuring alignment with national mitigation and adaptation targets in accordance with the commitments under the Paris Agreement. Therefore, efforts will be made to ensure coherence between public policy positions on climate change and the Company’s own declarations within the associations to which it belongs.

7. IDENTIFICATION OF GREENHOUSE GAS (GHG) EMISSIONS REDUCTION PROJECTS

Monitoring will be carried out for projects or initiatives focused on the reduction of greenhouse gas (GHG) emissions, in accordance with the following subprogram:

GHG EMISSIONS REDUCTION PROJECTS			
SPECIFIC OBJECTIVE	To identify, plan, implement, and monitor projects and initiatives related to climate change mitigation (reduction of GHG emissions).		
TARGET	To implement cost-effective GHG emissions reduction projects within TGI S.A. ESP or in collaboration with external stakeholders, contributing to climate change mitigation.		
RESPONSIBILITIES	**IMPLEMENTATION:** Company-wide (cross-functional responsibility)		
	MONITORING AND CONTROL: Technical Directorate, Environmental Manager, and Planning and Performance Management Department		
JUSTIFICATION	In order to comply with the emissions reduction targets established by TGI S.A. ESP, there is a need to promote the development of mitigation-focused projects that can be implemented by employees or through agreements with external stakeholders.		
DESCRIPTION OF ACTIVITIES	• Identify projects or initiatives for emissions reduction. • Engage relevant organizational areas in potential projects and/or initiatives. • Monitor and control planned or implemented projects or initiatives for emissions reduction.		
MONITORING	Quarterly monitoring of progress in the identification, planning, and implementation of emissions reduction projects or initiatives.		
MANAGEMENT INDICATOR			
INDICATOR NAME	**INDICATOR TYPE**	**CALCUTATION FORMULA**	**MEASUREMENT FREQUENCY**
Monitoring of emissions reduction projects	Compliance	(Number of emissions reduction projects monitored / Number of identified emissions reduction projects) × 100	Quarterly

7.1. Greenhouse Gas (GHG) Emissions Compensation

When activities related to the quantification of the organization's GHG emissions are carried out, and once the GHG report for the corresponding year has been validated, GHG emissions compensation shall be implemented in accordance with the following provisions:

GREENHOUSE GAS (GHG) EMISSIONS COMPENSATION	
SPECIFIC OBJECTIVE	To voluntarily offset the GHG emissions generated by TGI, provided that the costs of emission reduction are higher than the prices of carbon credits that certify avoided or reduced emissions.
TARGET	To voluntarily offset emissions resulting from operational events, provided that this activity is financially sustainable and approved by the Company's Board of Directors, and to contribute to achieving the targets defined by senior management for 2030 and 2050.
RESPONSIBILITIES	**IMPLEMENTATION:** Environmental Professional
	MONITORING AND CONTROL: Lider Ambiental
JUSTIFICATION	To capture and/or offset a quantity of CO_2 equivalent emissions generated by our activities through the implementation of emission reduction projects, carbon sinks (such as reforestation activities), and/or the purchase of carbon credits, with the purpose of contributing to climate change mitigation and carbon neutrality goals.
DESCRIPTION OF ACTIVITIES	• Implementation of habitat banking schemes. • Conservation projects and sustainable land use practices.

	• Acquisition of carbon certificates (carbon credits).		
MONITORING	Quarterly verification of document preparation and contract management required to ensure compliance with the activities defined under this subprogram.		
MANAGEMENT INDICATOR			
INDICATOR NAME	**INDICATOR TYPE**	**CALCULATION FORMULA**	**MEASUREMENT FREQUENCY**
Emissions offset	Compliance	Number of tons of CO_2 equivalent offset	Annual

Table 11. GHG Emissions Compensation Subprogram

7.2. Environmental and Energy Awareness

Through awareness-raising activities, information related to this program will be communicated as established below:

ENERGY AND ENVIRONMENTAL AWARENESS			
SPECIFIC OBJECTIVE	To raise awareness among employees and contractors at TGI facilities on topics related to climate change and energy efficiency.		
TARGET	To complete 90% of the planned awareness-raising activities.		
RESPONSIBILITIES	**IMPLEMENTATION:** Environmental Professional		
	MONITORING AND CONTROL: Environmental Professional		
JUSTIFICATION	Energy and environmental awareness is a key tool for strengthening the knowledge and awareness of employees and contractors at TGI facilities regarding climate change and energy efficiency. It promotes positive attitudes and generates a multiplier effect across the organization.		
DESCRIPTION OF ACTIVITIES	Two environmental awareness activities are proposed to be carried out at work sites, either in-person or virtually, using the following internal communication channels: • Wallpaper • Intranet • Email communications (mailing) • WhatsApp groups • News bulletin • Virtual training sessions		
MONITORING	The responsible party for this subprogram shall ensure that all planned activities are fully executed. Supporting evidence such as photographic records and attendance lists must be provided to demonstrate participation of workers across TGI facilities.		
MANAGEMENT INDICATOR			
INDICATOR NAME	**INDICATOR TYPE**	**CALCULATION FORMULA**	**MEASUREMENT FREQUENCY**
Awareness activities	Compliance	(Number of activities completed / Number of planned activities) × 100	Annual

Table 13. Awareness Subprogram for Energy and Environmental Topics

8. INTERNAL MONITORING AND EVALUATION

Monitoring and evaluation are interrelated activities that provide a framework for action guided by the need to understand results in advance and make timely adjustments. Within the continuous improvement approach, the Plan-Do-Check-Act (PDCA) cycle includes monitoring, control, and evaluation activities aimed at implementing necessary adjustments and achieving improvements in climate change management and energy efficiency at TGI.

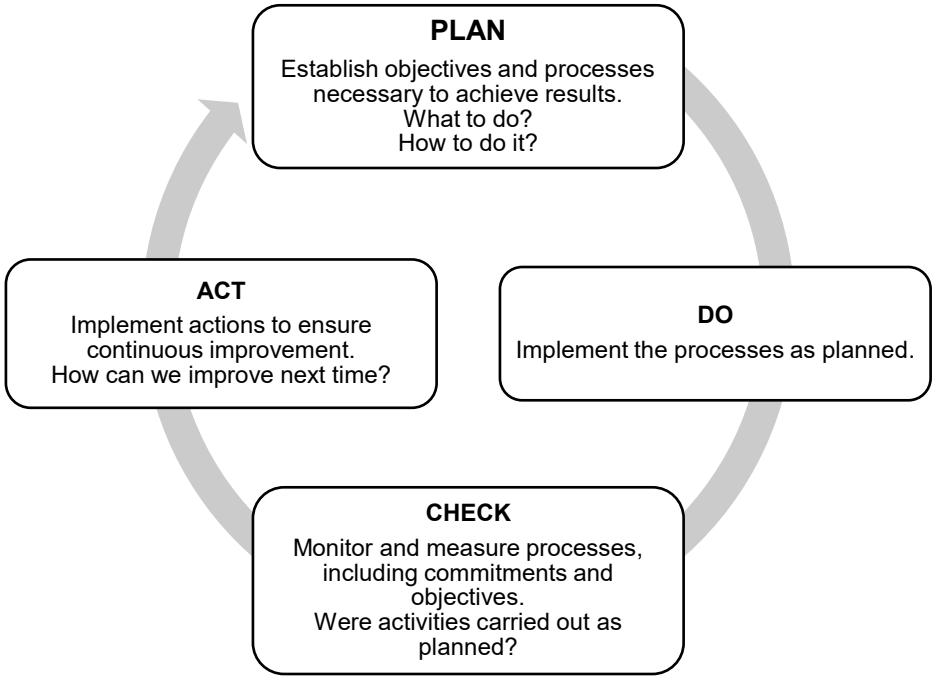


Figure 2. PDCA Cycle

Program Validity: The Program will have an annual validity and will be updated or modified according to the results obtained from the Energy Performance indicators.

9. IMPLEMENTATION SCHEDULE

Through the establishment of an activity schedule (see Annex 4. Climate Change and Energy Efficiency Program Schedule 2023), the way to achieve the proposed objectives and targets is planned according to the identified action plan. This schedule outlines what will be done, the required resources, responsible personnel, estimated execution timelines, and result evaluation. It supports the following aspects related to the proposed actions.

RELATED DOCUMENTS

- P-ASI-022 Energy Review of the Integrated Management System (SGI)
- I-ASI-052 Greenhouse Gas (GHG) Monitoring Procedure

ANNEXES

F-GEG-009 Energy Performance Indicator