

Carbon Footprint
Report
2020



This document is a transcript of Appendix II Chapter 15 of the Annual Consolidated Report that has been adapted to a more visual, eye-catching and accessible format to make it easier to read. To access the full report, including references to standards, applicable regulations, verifiers' opinions and other consolidated financial, operating and legal information that the company is required to present at the end of the financial year, scan this QR code or click on the following link:



https://www.naturgy.com/en/shareholders_and_investors/the_company/annual_reports

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Carbon Footprint Report

1. Main figures

■ Greenhouse gas emissions

	2020
Scope 1 (tCO ₂ eq)	14,301,874
Scope 2 (tCO ₂ eq)	1,153,608
Scope 3 (tCO ₂ eq)	123,217,903
CO ₂ emission intensity of electricity generation (tCO ₂ /GWh)	297
Intensity of methane leaks in the natural gas distribution network (tCO ₂ eq/km network)	5.7

■ Electricity generation

	2020
Installed capacity free of emissions (%)	33
Net production free of emissions (%)	32
Total installed capacity in renewables (MW)	4,609
Increase in installed capacity in renewables in 2020 vs. 2019 (%)	10

■ Main climate change targets



01 |

Reduce absolute GHG emissions

Scopes 1 and 2 by 21% in 2022 vs. 2017



02 |

Reduce the CO₂ emission intensity of electricity generation by 22% in 2022 vs. 2017



03 |

Reach a percentage of renewable installed capacity in the generation mix that is greater than 34% by 2022

2. Significant events

In 2020

- 72% of investment spent mainly on increasing renewable generation and extending and improving electricity networks, in line with the energy transition.
- 151 MW of new renewable power in Spain put into operation, increasing installed wind power capacity by 10% compared to 2018 in Spain and by 8% globally.
- Closure of all the group's coal-fired plants, which will lead to a significant reduction in CO₂ emissions.
- Commercialisation of ECO tariffs and products in Spain, such as the ECO electricity tariff, to provide customers with 100% of their energy from renewable sources (approximately 5,400 GWh, 29% of the energy supplied) and the neutral gas tariff, a natural gas supply service offset by neutralising their CO₂ emissions. In 2020, Naturgy offset about 13,783 tCO₂eq for its customers.
- In 2020, 2.02 GWh of biomethane (GHG-neutral renewable gas) from the Butarque WWTP project, which is part of the European ECOGATE initiative, were injected into Spain's gas networks. In addition, we have started the construction of the biomethane plant at the Elena landfill and the injection unit at the Bens WWTP, with the aim of being able to inject renewable gas into the network at the beginning of 2021.
- Reduction of 7% of direct greenhouse gas emissions compared to 2019.
- Naturgy included in the CDP Climate Change 2020 A List in recognition of its climate management in 2020.

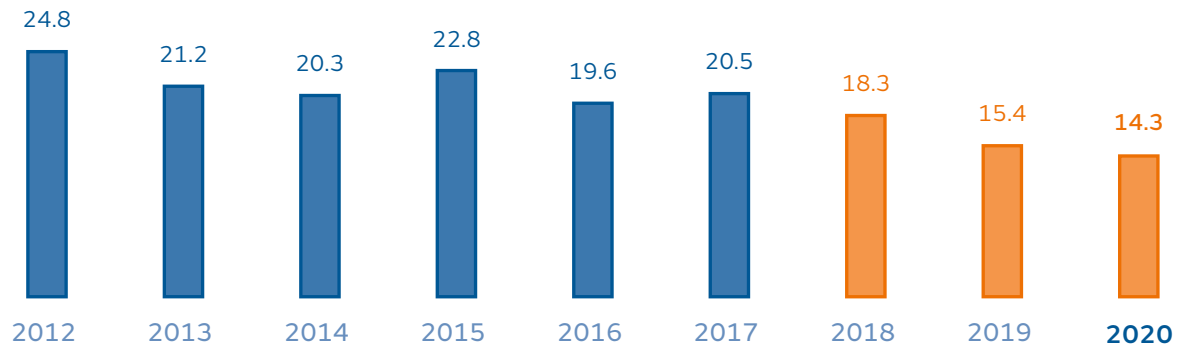
Since the launch of the Strategic Plan

- 30% fall in direct GHG emissions in 2020 vs. 2017.
- 23% reduction of CO₂ intensity in electricity generation in 2020 vs. 2017.
- 16% reduction of carbon footprint (Scopes 1, 2 and 3) in 2020 vs. 2017.

Since 2012

- We have reduced our direct GHG emissions (Scope 1) by 42%. The graph below shows the evolution over time, highlighting the decrease from 2017, with the implementation of the Strategic Plan 2018-2022.

■ GHG emissions Scope 1 (MtCO₂eq)



We have offset all the emissions from our buildings, travel and fleet by 12,114 tCO₂eq and also 13,783 tCO₂eq for our customers with the Neutral Gas product.

3. Climate change governance

At Naturgy, the delegate Sustainability Committee of the Board of Directors is responsible for climate change governance. It oversees the company's actions in the area of sustainable development, focusing on environmental, social and corporate governance policies. In relation to climate change, this committee monitors performance against defined key indicators as well as the management of risks and opportunities related to climate change.

Climate governance involves all of the company's businesses, operating areas, geographies and projects through the Management Committee and the Sustainability Committee.

Environmental and climate change risks are integrated into the global risk management model. Ensuring predictability and sustainability in the company's operational and financial performance is one of the key aspects of risk management at Naturgy.

Governance agencies and responsibilities in climate change

Board of Directors

Sustainability Committee

Oversees sustainability policies, focusing in particular on environmental, social and corporate governance policies.

Audit Committee

Monitors the management and exposure to risk of the different businesses.

Senior Management

Management Committee

Ensures the application and monitoring of business and sustainability policies, strategies, plans and objectives, proposing measures in the area of climate change.

Sustainability Committee

Ensures the performance, implementation and improvement of environmental and climate change policies, commitments, plans and objectives through monitoring and action proposals.

Risk Committee

Determines and reviews the target risk profile and supervises risk management by the units.

Business and Corporate Units

Business and Corporate Units

Responsible for the application of general principles and strategies and the development of plans, projects and activities to meet climate change targets.

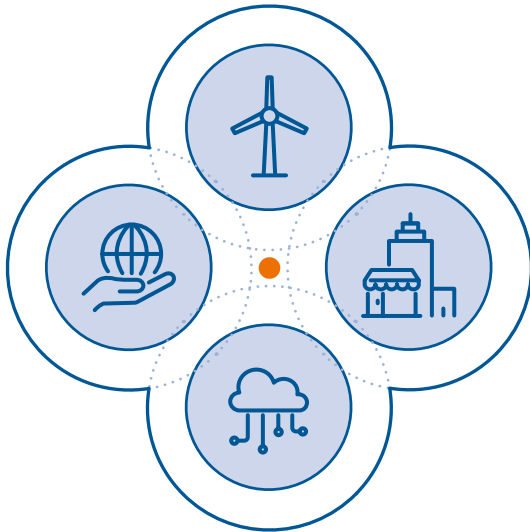
Corporate Environment Unit

Establishes the policy, indicators and objectives for the environment and climate change in coordination with the businesses, monitors the evolution, consolidates the information and centralises reporting for the management committees and Board of Directors.

In accordance with the Regulations for the organisation and functioning of the Board of Directors and its Committees of November 2020, the Sustainability Committee meets at least three times a year. At these meetings, the company monitors performance on climate change and the energy transition, using a high-level indicator scorecard.

This commitment made by senior management is transferred to all business and corporate units through the Global Environmental Policy, which establishes climate change and energy transition as one of its strategic environmental areas, defining the following basic principles of action:

Basic principles of action



- **Promoting renewable energies**, natural gas and energy savings and efficiency as key elements towards a low-carbon model.
- **Offering solutions** for cities and land and maritime transport that reduce emissions and improve air quality.
- **Innovate in technologies and business models** that help reduce greenhouse gas emissions.
- **Supporting international climate change negotiations** and market mechanisms that foster the development of the most appropriate technologies at each stage of the energy transition.

These guidelines, in turn, are translated into high-level climate targets for the framework set by the Strategic Plan 2018-2022 and reflected in the Environmental Plan, which are summarised in the table below:

	Indicator	Target 2022
Climate change and energy transition	Absolute GHG emissions Scope 1 and Scope 2.	Reduce emissions by 21% in 2022 compared to 2017 to 17.3 million tCO ₂ eq.
	CO ₂ intensity in power generation.	Reduce specific CO ₂ emissions from power generation by 22% in 2022 compared to 2017 to 304 tCO ₂ /GWh.
	Percentage of the generation mix from renewable sources measured in installed capacity over the total of the group.	34% renewable power in electricity generation.

Note:

The absolute emissions and GHG intensity targets are in line with the overall objective of the Paris Agreement to keep the temperature increase below 1.5°C.

These commitments are transferred to the assessment of the management team's performance through objectives of transformation of the generation mix, development of renewable energies and energy efficiency, which result in the reduction of GHG emissions.



4. Management of risks, opportunities and strategy in climate change

Risk management

Naturgy identifies and assesses the impact of the main risk factors through the Risk Management Model, which seeks to ensure the predictability of the company's performance in all aspects relevant to its stakeholders.

The elements that allow for continuous improvement in the process of identifying, characterising and determining Naturgy's risk profile are: the Risk Control and Management Policy, the Corporate Risk Map and the Risk Measurement System.

The Corporate Risk Map identifies and quantifies the risks that may affect the company's performance, including those related to the environment, climate change and energy transition. Their measurement allows them to be integrated within the Corporate Strategy and to set targets with the aim of keeping risks to a minimum and maximising opportunities.

These risks are identified following the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) and in accordance with the nomenclature used in that standard. The following classification is established: physical risks (acute and chronic) and transition risks (regulatory, technological, market and reputation).

The assessment analyses the probability of occurrence, the time horizon and the impact, taking into account two scenarios. The first scenario is the 2°C policy scenario, i.e., with the objective of reaching a maximum global warming of 2°C. The second, much more restrictive scenario, corresponds to a global warming objective of 1.5°C or less. The section "Scenarios considered" below gives details of these scenarios.

The time horizons are approximate, although a reference could be: short-term in reference to the Strategic Plan 2018-2022, medium-term until 2030 and long-term beyond 2030.

The information included in the management section develops the company's policies or actions aimed at minimising the risks identified.

The main risks linked to climate change at Naturgy are the following:

Main risks linked to climate change at Naturgy

Identification

Type	Risk	Description
Acute physical risks	Damage from extreme weather events.	Damage to facilities, loss of production and/or interruption of energy supplies (gas or electricity).
	Increased frequency and severity of fires.	Damage to facilities and risk of increased fire frequency on electricity distribution lines with possible damage to third parties.
Chronic physical risks	Effects of increased temperature.	Drop in demand for natural gas for heating (residential and commercial). Decrease in the performance of combined-cycle power stations.
	Impacts of changes in rainfall patterns and extreme variability of weather patterns.	Changes in the generation dispatch. Wholesale electricity market price changes.
Transition: policies and regulation	Regulatory changes of energy and climate policies to mitigate climate change.	Floods. Loss of production and/or interruption of supplies.
		More demanding GHG emission reduction paths. Accelerated transition to decarbonisation. Variations in the carbon markets. Changes in environmental taxation. Electrification to the detriment of natural gas.
Transition: technological	Technological disruption in the energy transition.	Technological improvements, cost reductions or innovations that support the transition to a more efficient and low-carbon economic system. For example, implementation of large-scale electricity storage systems.
Transition: market	Changes in traditional energy business models.	Demand for new low-carbon products and services. Financing difficulties for projects not aligned with the reduction of greenhouse gas emissions. Loss in asset valuation (stranded assets).
Transition: reputation	Increased demand for transparency and climate action by stakeholders.	Loss of relevance in climate change and sustainability indices due to failure to achieve the expected standard of climate management or reputational damage resulting from climate change impacts, which may negatively affect the valuation of company intangibles by stakeholders (shareholders, customers or employees).

Assessment				Management
Probability	Time horizon	2°C impact	1.5°C impact	Management
Possible	Medium	Low	Very low	Policies for: property damage/loss of profit, environmental liability and land liability. All our facilities are designed to operate under extreme weather conditions.
Possible	Short	Medium-High	Medium	Policies for: property damage/loss of profit, environmental liability and land liability. Innovation projects for the improvement of felling and pruning work for the maintenance of power line safety corridors.
Possible	Medium	Low	Very low	Increase the contribution of electricity businesses vs. gas businesses. Operational efficiency plan that establishes objectives to improve specific consumption in thermal power stations, compensating for efficiency losses due to temperature increases.
Possible	Long	Low	Very low	Hydroelectric power station repowering programme. Study of the impact of climate change on hydroelectric power stations. Dominant position in combined-cycle power stations to support the production of electricity from renewable sources.
Possible	Long	Low	Very low	Plans for self-protection and periodic evaluation of emergency environmental issues.
Likely	Medium	Low-Medium	Medium-High	Measures to reduce the company's carbon intensity: divestment of high carbon intensity assets (coal mine in South Africa, fuel oil power generation in Kenya), announcement of coal plants closure, development of new renewable power, increasing the weight of electricity in the company's portfolio and boosting renewable gases. Positioning natural gas in the energy transition as a substitute for high-emission fossil fuels (coal and/or oil derivatives).
Likely	Medium	Medium-High	High	Investment to triple installed renewable capacity by 2022. Promoting innovation in renewable gas, hydrogen, energy storage and other technologies for energy transition to a decarbonised economy.
Likely	Medium	Medium	Medium-High	Accounting adjustment of the book value of conventional electricity generation assets. Announcement of the closure of the coal-fired power stations. Development of new services (self-consumption, commercialisation of renewable electricity, PPAs) and low-carbon products (Neutral Gas, GDO's in the gas sector). Increase the contribution of regulated vs. liberalised businesses and increased weight of electricity in the company's portfolio.
Remote	Short	Medium-High	High	Corporate positioning on climate change with new Global Policy and Environmental Plan that includes emission reduction targets aligned with 1.5 °C scenarios. Presence in the main sustainability indices such as CDP or DJSI.

Climate risk assessment methodology

The climate change risk model is based on a tool developed by MS Excel and @Risk that allows the company's risk exposure to be estimated.

The tool uses a Monte Carlo simulation⁽¹⁾ which determines the optimal abatement cost⁽²⁾ in the European Union to meet the CO₂ reduction targets for 2030 and allows CO₂ price scenarios to be obtained that reflect the evolution of the penetration of renewable energies, fuel prices, electricity demand, electricity prices, impact on Ebitda, Value at Risk, etc.

The model allows the parameters related to energy markets (penetration of renewables, energy efficiency, CO₂ and energy prices) to be modified in order to carry out sensitivity and regulatory analyses and stress tests. In addition, impact assessment scenarios based on new products and services or R&D&I actions can be simulated.

The exposure to the risks of the different scenarios can be broken down into the following areas:

- **Temporary:** the impacts are analysed over various time horizons (2020-2050) and the risks are classified according to their relevance in the short, medium and long-term.
- **Nature of the business:** the impacts that could be caused in the company's different businesses (generation, commercialisation and distribution of electricity and gas and operation in markets of CO₂ emission rights) are analysed.
- **Geography:** the impacts are analysed in the various countries in which Naturgy operates.

Scenarios considered

EIPCC SRES A2 temperature increase scenario (2°C).

- 2DS ETP IEA (2°C) 50% probability of not exceeding 2°C in 2100 (central scenario).
- B2DS ETP IEA (well below 2°C) 66% probability of limiting peak warming between now and 2100.
- SR1.5 IPCC (1.5°C) Scenario defined for 1.5°C by SBTi.

In the last simulation carried out, we worked with 4 scenarios for covering demand in 2030. We obtained abatement costs for 2030 of around Euros 40/tCO₂ for the intermediate scenarios. The CO₂ price is used for:

- Strategic decision-making.
- Investment analysis.
- Identifying opportunities according to the degree of maturity in low-carbon technologies.

⁽¹⁾ The Monte Carlo simulation is a computerised mathematical technique that allows risk to be taken into account in quantitative analysis and decision-making. When applied to the world of energy prices, it gives a measure of the maximum individual and/or joint variation that these prices can have, over a given time horizon and at a given level of confidence.

⁽²⁾ For the purposes of the climate change risk model, work is done with the concept of abatement cost as the optimum CO₂ price for meeting the European Union's emission reduction targets for 2030.

Note:

IPCC: Intergovernmental Panel on Climate Change; ETP: Energy Technologies Perspectives; IEA: International Energy Agency; SBTi: Science Based Target Initiative.

- Climate change and energy transition risk analysis, and stress testing.
- Analysis of climate change and GHG regulation.

One of the main conclusions drawn from this analysis is that the sensitivity of the business is greater to the transition parameters than to the physical ones, since the latter represent a much smaller impact on the company, in part because they are properly covered.

Strategy and opportunities

Risk analysis and development of opportunities linked to the transition energy is one of the pillars of Naturgy's Strategic Plan.

Industrial model

- The customer as the focal point.
- Energy transition as an opportunity.
- Digitalisation.
- Competitive and agile.

Renewables and natural gas

Low carbon and rise of renewables with gas as a key contributor.

- x3 growth in renewable energies by 2022.
- Leadership in combined-cycles.
- Leadership in liquefied natural gas.
- Natural gas in mobility.
- Renewable gas.

Infrastructure

Electrification and energy efficiency.

- Initiatives to increase the weight of electricity in the group to 50% by 2022.
- Leading positions in countries showing strong fundamentals for organic growth based on electrification and renewable gas penetration.

The opportunities linked to climate change considered in the Strategic Plan are detailed below:

Opportunities	Description
Development of new renewable installed capacity (solar and wind)	<p>Development of new renewable projects for the gradual decarbonisation of the generation mix. Reduced investment and operating costs compared to other technologies and the possibility of financing through instruments such as Green Bonds.</p> <p>Positioning in a growing market linked to renewable energies (Power Purchase Agreement, Guarantees of Origin, etc.).</p> <p>In the medium-term, combined-cycle power stations represent the best possible backup for renewable energy.</p>
Promotion and development of renewable gases	<p>The drive and innovation for the development of renewable gas (biomethane and hydrogen) will provide a new energy product, which can replace natural gas, but with neutral CO₂ emissions in a circular economy model. Renewable gas will maintain the value of distribution network assets in the long-term and allow customers to decarbonise with minimal changes to their facilities, in an economically efficient manner thanks to existing gas infrastructures.</p>
Smart and integrated networks (gas and electricity)	<p>The digitisation and integration of electricity and gas networks will enable dynamic demand management, cost reduction, increased security of supply and the development of new services associated with big data.</p> <p>In addition, smart networks, coupled with renewable gas generation from surplus electricity generated on wind or solar farms, will enable energy storage by taking advantage of existing infrastructures, without the need for additional batteries, and on the scale required to meet seasonal variations in demand.</p>
Natural gas as energy for the energy transition	<p>Penetration of natural gas and LNG (liquefied natural gas) in carbon-intensive markets, to replace high-emission fossil fuels (coal, oil) in an efficient and rapid manner, in line with the pace of the international climate agenda. Development of new products, such as Neutral Gas, to offer customers a decarbonised alternative.</p>
Energy efficiency	<p>Promotion of energy efficiency in both internal and customer processes, with a commitment to business models of energy service companies (ESCOs). Energy efficiency provides economic competitiveness and makes possible synergies with other sectors, as in the case of cogeneration.</p>
Strengthening the position in the electricity business	<p>Growth in the electricity distribution business associated with the growing trend towards electrification of the economy.</p>
Digitalisation to provide new customer services	<p>The use of technologies such as the Internet of Things (IoT) and artificial intelligence makes it possible to develop the figure of the active customer, who has tools for monitoring and controlling their facilities in order to consume energy more efficiently and integrate new services such as distributed renewable generation or electrical mobility.</p>
Sustainable mobility	<p>Penetration in the road and maritime mobility sector through the development of electric and gas solutions, which allow the reduction of CO₂ emissions, the improvement of air quality and economic savings for users. In the case of maritime transport, LNG (liquefied natural gas) is the most eco-efficient alternative in terms of GHG emissions.</p>
Positioning, governance and transparency	<p>Strengthening governance and policies on sustainability and climate change to meet the expectations of customers, investors and society in general.</p> <p>Transparency and good performance make it possible to improve the position with ESG investors and access to improved conditions of funding.</p>

Degree of compliance achieved in the first two years of the Strategic Plan

- 72% of the total investment has been devoted to new renewable projects (Euro 503 million) and electricity networks (Euros 408 million).
- Closure of all the group's coal-fired plants.
- Increase in installed renewable wind and solar power capacity by 1,142 MW, up 1.9 times compared to 2017.
- Increase in more than 4,400 km of electricity networks (up 2%).
- Seven bunkering operations have been carried out on two ships, replacing oil-based fuels with liquefied natural gas, which is the most eco-efficient alternative in maritime transport in terms of both GHG emissions and other pollutants.
- Commissioning of 5 new vehicular natural gas stations in Spain.
- Development of the innovative DirectLink LNG and LNG on Wheels projects that allow the arrival of liquefied natural gas (LNG) to areas where it was not viable until now, promoting the replacement of carbon-intensive fuels.
- Launch of low-carbon products and services, such as Neutral Gas, which offers customers natural gas offset by neutralising their CO₂ emissions.
- Start-up of several innovation projects in renewable gas, injecting biomethane into the gas distribution network for the first time in Spain.

5. Objectives and metrics

Targets

Naturgy's climate change strategy is embodied in the following targets:

Targets 2022. Strategic Plan 2018-2022

Naturgy approved high level short-term targets associated with meeting the Strategic Plan 2018-2022, which are included in the Environmental Plan:

- To reach a percentage of the generation mix from renewable sources, measured in installed capacity, greater than 34% by 2022.
- To reduce GHG Scope 1 and 2 emissions by 21% in 2022 compared to the base year 2017 and CO₂ emission intensity in electricity generation by 22% (tCO₂/GWh).

These objectives have been set with the following considerations:

- The targets are aligned with the overall average reduction required under SBTi for a 1.5°C scenario and with the 2025 and 2030 targets.
- Compliance with the objectives in previous years does not ensure compliance in 2022 due to the influence of the variability of hydropower and wind in the electricity generation mix.

Targets 2025. SBTI

In 2015 Naturgy established medium-term objectives to meet the requirements of the Science Based Target Initiative (SBTI) Tool v.8. The targets are defined as a 26% reduction in Scope 1 and 2 emissions in 2025 compared to the base year 2012 and a 33% reduction in the intensity of CO₂ emissions in electricity generation over the same time horizon.

These objectives have been set with the following considerations:

- The targets are aligned with the reduction required under SBTI for a 2°C scenario.
- Compliance with the objectives in previous years does not ensure compliance in 2025 due to the influence of the variability of hydropower and wind in the electricity generation mix.
- The targets have not yet been validated by SBTI as the company has been waiting for the preparation of a sector-specific protocol by this institution since 2017⁽³⁾.
- Although it is a requirement of SBTI to set them in this way, meeting the targets in 2025 does not ensure an overall reduction in the period, so long-term targets were also set, as described below.

Targets 2030. Average values for the period 2013-2030

In 2015 Naturgy set a long-term target expressed as an 18% reduction in average Scope 1 and 2 GHG emissions in the period 2013-2030 compared to the base year 2012. This target was also transferred to the intensity of CO₂ in electricity generation (tCO₂/GWh), as this activity is responsible for over 90% of the group's direct emissions.

This target has been set in the form of average values for two reasons:

- If the average emissions target is met a minimum reduction in the period of 92.9 MtCO₂eq is ensured (26.12-20.96 MtCO₂eq/year × 18 years = 92.9 MtCO₂eq). This would not occur with an annual target, as it could be achieved in the last year, but with a net increase in emissions in the intermediate years.
- To avoid the uncertainty that the variability of hydropower and wind and their influence on electricity generation has when a target is set in a given year.

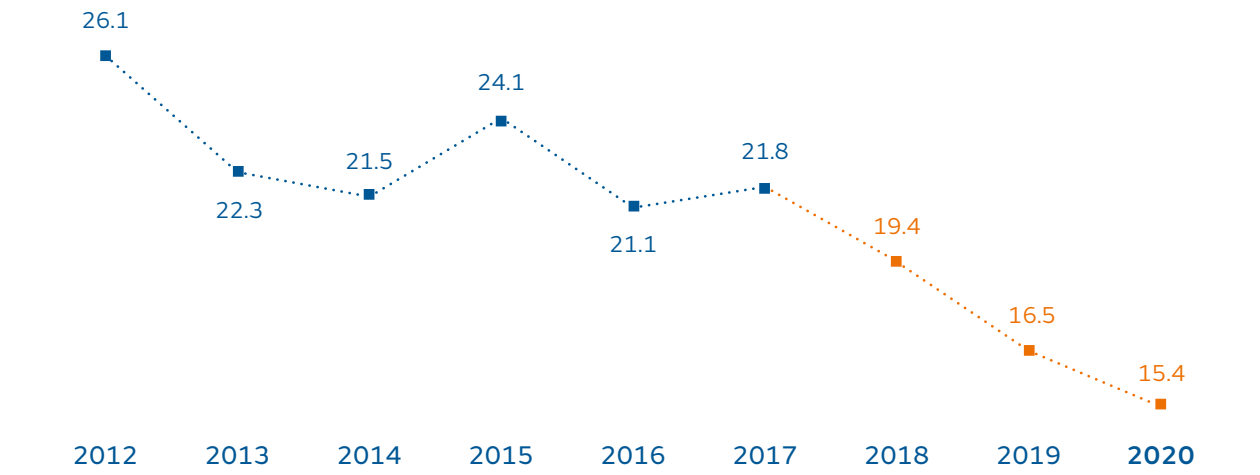
⁽³⁾ Although over 90% of direct GHG emissions correspond to electricity generation, SBTI includes Naturgy in the gas sector by the weight represented by gas in the net turnover.

Absolute emissions target

	Emissions	Type	Approval year	Base year	Target date	Target	Base year value (MtCO ₂ eq)	Target Value (MtCO ₂ eq)	Value 2020 (MtCO ₂ eq)	Tracking
Strategic Plan 2022	S1 + S2	Annual	2019	2017	2022	↓21%	21.85	17.26	15.46	139% ^(*)
2025 SBTi	S1 + S2	Annual	2016	2012	2025	↓26%	26.12	19.38	15.46	158% ^(*)
Average 2030	S1 + S2	Average for the period	2015	2012	2013 2030	↓18%	26.12	21.48	20.28	126% ^(*)

^{*} On track. The compliance percentage is above the set target and indicates the good evolution of the target, although it must be clarified that compliance with the targets in previous years does not ensure compliance on the target date.

■ GHG emissions Scopes 1 and 2 (MtCO₂eq S1+S2)



■ Naturgy Strategic Plan 2018-2022.

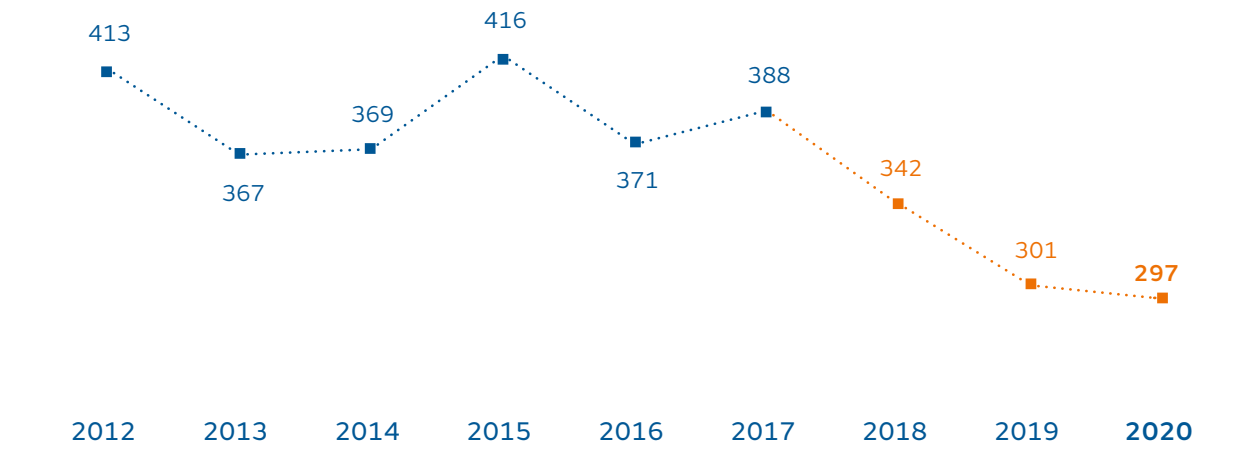
Relative emissions target

	Emissions	Type	Approval year	Base year	Target date	Target	Base year value (tCO ₂ /GWhe)	Target value (tCO ₂ /GWhe)	Value 2020 (tCO ₂ /GWhe)	Tracking
Strategic Plan 2022	tCO ₂ /GWhe	Annual	2019	2017	2022	↓22%	388	304	297	108% ^(*)
2025 SBTI	tCO ₂ /GWhe	Annual	2016	2012	2025	↓33%	413	278	297	86% ^(**)
Average 2030	tCO ₂ /GWhe	Average for the period	2015	2012	2013 2030	↓18%	339	339	356	77% ^(**)

^{*}On track. The compliance percentage is above the set target and indicates the good evolution of the target, although it must be clarified that compliance with the targets in previous years does not ensure compliance on the target date.

^{**}On track.

■ Carbon intensity Electricity generation (tCO₂/GWh)



■ Naturgy Strategic Plan 2018-2022.

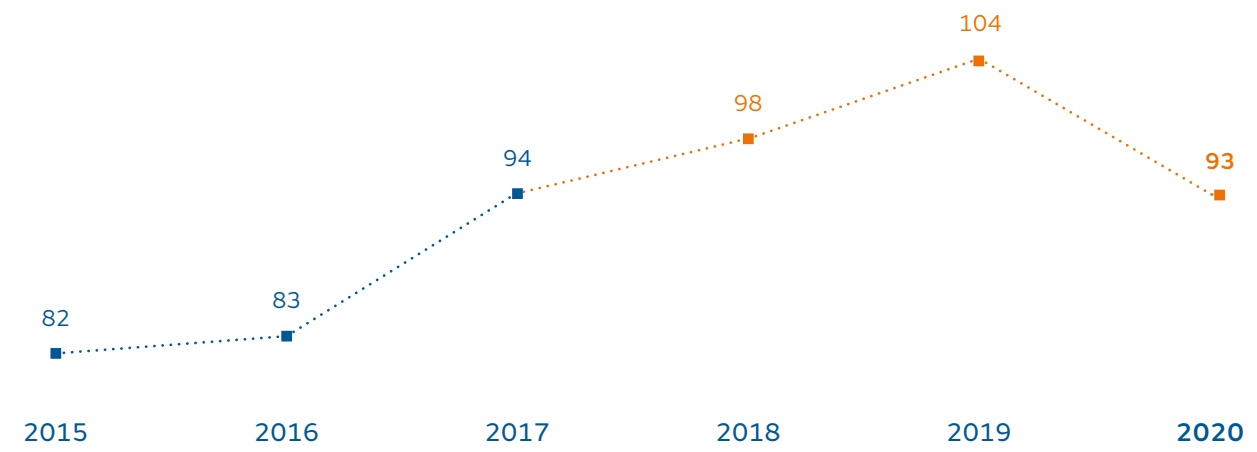
Climate balance sheet target

In 2015 Naturgy set a “Climate Impact Balance Sheet” target for 2050. The climate balance sheet sets out the relationship between our emissions (direct and indirect) and the emissions prevented by our assets, products and services, for example by displacing high-emission fossil fuels such as coal and oil derivatives (see table of emissions prevented).

This balance sheet, while subject to the variability inherent in the business and the environment in which we operate, marks a long-term trend that shows whether we are aligned with the global objective of climate neutrality introduced in the Paris Agreement.

	Emissions prevented vs. footprint emissions	Type	Approval year	Base year	Target date	Target	Value Base year	Target value	Value 2020
2050	tCO ₂ /GWhe	Annual	2015	2015	2050	100%	68%	100%	93%

■ Climate balance (%)

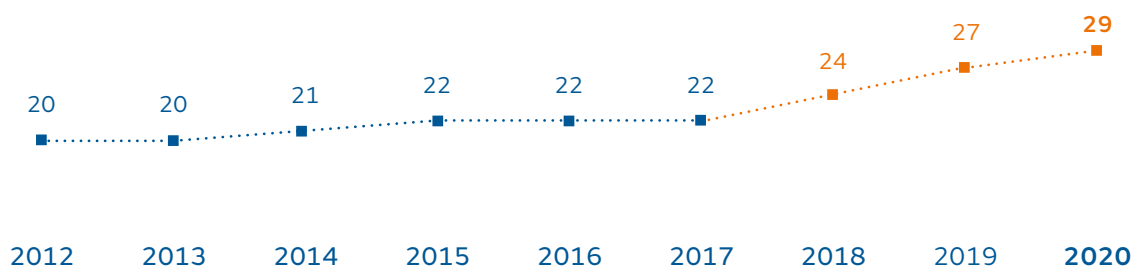


■ Naturgy Strategic Plan 2018-2022.

Renewable energy target

To reach a percentage of renewable installed capacity in the generation mix greater than 34% by 2022.

■ Renewable Power (%)



■ Naturgy Strategic Plan 2018-2022.

6. Inventory

The data of the GHG emissions Scopes 1, 2 and 3 derived from all of Naturgy's activities and businesses are listed below (tCO₂eq):

	2020	2019	2018
Scope 1	14,301,874	15,415,253	18,305,632
Scope 2	1,153,608	1,098,662	1,093,343
Market	-	-	-
Location	1,153,608	1,098.66	1,093.34
Scope 3	123,217,903	129,433,473	131,390,996
Goods and services purchased	-	-	-
Capital goods	-	-	-
Activities associated with upstream fuels and energy	30,638,299	28,390,264	29,786,118
Coal	107,120	67,446	373,124
Natural gas	20,137,098	16,583,367	17,488,011
Oil	185,822	392,403	435,839
Electricity	10,208,259	11,347,048	11,489,144
Transport and distribution of goods	-	-	-
Waste produced in the operation	-	-	-

Continues >

	2020	2019	2018
Business trips	621	3,108	1,568
Mobilisation of employees	8,286	9,314	9,985
Upstream leased goods	-	-	-
Downstream transport and distribution	-	-	-
Procedure for products sold	-	-	-
Use of products sold	92,462,851	100,959,590	100,756,160
Natural gas	92,462,851	100,959,590	100,756,160
Coal	-	-	-
End-of-life processing of products sold	-	-	-
Downstream leased goods	-	-	-
Franchises	-	-	-
Investments	107,846	71,197	837,165
Total	138,673,385	145,947,388	150,789,971

Note:

For Scope 3 emissions, within the categories defined by the GHG Protocol, those weighing less than 1% have been excluded, as long as the sum of all of them does not exceed 5%.

Inventory of GHG emissions Scope 1 by gas type and process (tCO₂eq)

	Electricity generation	Gas distribution	Electricity distribution	Gas infrastructures	Commercialisation	Corporate	Total
CO ₂	12,481,522	8,570	229,194	717,252	29,730	8,873	13,475,140
CH ₄	5,822	774,663	116	4,304	66	75	785,046
N ₂ O	9,660	5	151	3,383	16	115	13,331
SF ₆	914	-	26,288	-	6	-	27,208
HFC	713	-	-	-	-	437	1,150
PFC							
Total group	12,498,631	783,237	255,749	724,938	29,817	9,501	14,301,874
Net turnover (€M)							15,345
Ratio (tCO ₂ eq/€M)							932

Inventory of GHG emissions Scopes 1, 2 and 3 (tCO₂eq)

Country	Scope 1	Scope 2	Scope 3
Spain	6,866,646	187,184	36,700,466
Mexico	6,238,979	855	3,783,773
Chile	332,891	709,914	11,058,192
Dominican Republic	328,214	-	354,978
Argentina	311,767	105,076	17,896,847
Morocco	115,233	1,169	727,715
Brazil	102,141	724	15,481,422
Panama	5,979	148,686	885,507
Costa Rica	14	-	6
Australia	10	-	4
Rest	-	-	36,212,241
Total	14,301,874	1,153,608	123,101,150^(*)

(*) Scope 3 in the table above refers to energy emissions (excluding: business travel, mobilisation of workers and investments).

Inventory of GHG emissions Scopes 1, 2 and 3 by business area

	Scope 1	Scope 2	Scope 3
Generation Spain	6,133,425	-	1,000,261
International generation (GPG)	6,365,206	-	828,109
Supply, LNG and Commercialisation	637,980	-	62,140,111
Gas distribution Spain	69,763	-	9,441,904
Electricity distribution Spain	19,745	187,172	2,081,574
EMPL&Up/mid	116,776	1,082	727,894
Gas distribution Argentina	311,119	1,686	17,227,161
Electricity distribution Argentina	23	102,758	669,495
Gas distribution Brazil	101,286	429	14,845,273
Gas distribution Chile	100,303	1,064	3,546,998
Electricity distribution Chile	230,510	708,547	6,614,242
Gas distribution Mexico	200,766	184	3,089,655
Electricity distribution Panama	5,472	148,686	885,294
Corporate	9,501	1,999	3,179
Total	14,301,874	1,153,608	123,101,150^(*)

(*) Scope 3 in the table above refers to energy emissions (excluding: business travel, mobilisation of workers and investments).

7. Climate balance sheet 2020

The climate balance sheet sets out the relationship between our emissions (direct and indirect) and the emissions prevented by our assets, products and services. This balance sheet, while subject to the variability inherent in the business and the environment in which we operate, marks a long-term trend that shows whether we are aligned with the global objective of climate neutrality introduced in the Paris Agreement.

The criteria for the quantification of emissions prevented are as follows:

- During the reporting period, projects and activities must produce quantifiable reductions in GHG emissions and energy with respect to a baseline, which is defined on a case-by-case basis.
- The emissions prevented are calculated as the difference between the emissions of the “with project” and “without project” scenarios. The emissions of the “with project” scenario represent the actual level of GHG emissions. Emissions from the “without project” scenario represent the GHG emission levels that would have been achieved with other more emitting sources if the project had not been implemented.
- The emission factors used for the “with project” and “without project” scenarios have been obtained following the 2006 IPCC guidelines for the preparation of national GHG inventories.
- Calculations have been made in accordance with the UNFCCC methodologies and tools for the Clean Development Mechanism (CDM) projects.

Emissions prevented	Emissions prevented 2020 (tCO ₂ eq)	Energy savings 2020 (GWh)	Emissions prevented 2019 (tCO ₂ eq)	Energy savings 2019 (GWh)
Natural gas: reduction of CO₂ emissions by displacing coal and oil derivatives, with higher emissions	120,304,619	161,637	139,922,516	195,207
Electricity production	76,787,895	133,522	95,991,693	166,697
Industry	22,497,930	10,353	22,414,029	10,198
Residential/commercial	10,906,893	11,461	11,622,165	12,183
Transport	2,801,792	2,807	2,811,566	2,817
Cogeneration	7,310,108	3,493	7,083,063	3,312
Renewable energies: displacement of fossil fuel generation	5,001,239	19,593	6,252,903	16,917
Wind farms	2,494,745	9,723	2,607,393	7,213
Hydroelectric production	2,179,056	8,616	3,280,482	8,594
Photovoltaic production	327,438	1,253	365,028	1,110
Energy savings and efficiency in own and customer's facilities	1,058,308	2,198	1,190,936	2,942

Continues >

Emissions prevented	Emissions prevented 2020 (tCO ₂ eq)	Energy savings 2020 (GWh)	Emissions prevented 2019 (tCO ₂ eq)	Energy savings 2019 (GWh)
Own facilities: Energy Efficiency Operations Plan	-	-		
Renewal of gas transmission and distribution networks	746,958	545	742,898	553
Actions in electricity distribution	1,109	4	20,191	146
CCGTs	47,361	242	85,352	428
Coal-fired power stations	7,952	24	11,790	35
Fuel oil-fired power stations	12,680	46	26,894	105
Customer facilities				
Energy services	242,249	1,336	303,811	1,675
Other				
Nuclear production	2,309,669	-4,574	4,047,879	-3,603
Total	128,673,836	178,854	151,414,234	211,463

Direct and indirect emissions (tCO ₂ eq)	138,673,385
Prevented emissions (tCO ₂ eq)	128,673,836
Balance sheet 2020	93%

⁽¹⁾ Natural gas is the best fossil fuel to replace other fossil fuels.

⁽²⁾ Generation of renewables to replace combustion of fossil fuels.

⁽³⁾ Energy saving and efficiency actions at our facilities or those of the end customer.

Note:

This year the methodology has been adjusted to include the reductions prevented in Spain and Mexico by the electricity generation in combined-cycle plants. Previous years have been recalculated in the same way. This modification allows us to calculate the emissions prevented from our products and services in a more realistic manner.

Naturgy's Emissions Offsetting Plan: Compensa2 Initiative

Activities offset in 2020 (tCO₂ eq)

Scope 1 emissions from fuel use in workplaces (fixed sources and fleet)	9,501
Scope 2 emissions from electricity consumption in workplaces	1,992
Scope 3 emissions from business trips (air and train)	621
Total Compensa2	12,114

In 2020, Naturgy also offset 12,114 tCO₂eq corresponding to the emissions from its buildings, travel and fleet and 13,783 tCO₂eq for its customers with the Neutral Gas product.

8. Annexes

Assessment and reduction of uncertainty

The uncertainty associated with reporting Scope 1 emissions for 2020 is 5.63%.

For facilities under the EU Emissions Trading Scheme, in accordance with Decision 2007/589/EC of 18 July, uncertainties regarding GHG emission values will be lower than those corresponding to the approach levels approved by the competent authority. For all other emission sources, the uncertainty associated with the calculation of GHG emissions is a combination of the uncertainties associated with the activity data and emission factors, using the references established in 2.38. 2006 IPCC GHG, Vol.2, table 2.12.

To minimise the uncertainty associated with the activity data, all emission sources have environmental and quality management systems that conform to ISO 14001:2015 and ISO 9001:2015 standards. In order to minimise the uncertainty associated with the emission factors, official sources are always used, as are, by default, the core values recognised in the 2006 IPCC Guidelines for GHG Inventories.

Methodology

To quantify Naturgy's greenhouse gas emissions, an application and calculation methodology has been developed based on the following standards and methodologies:

- Scopes 1, 2 and 3 emissions are included according to "The Greenhouse Gas Protocol. A Corporate accounting and reporting standard".
- Scope 3 report in accordance with Corporate Value Chain (Scope 3).
- It includes the emissions of the six GHG set out in IPCC in accordance with the 2006 IPCC Guidelines for national GHG inventories (hereinafter 2006 IPCC GHG).
- Standard UNE-ISO 14064-1. Greenhouse gases. Part 1: Specification with guidance, at organisation level, for the quantification and reporting of greenhouse gas emissions and removals.
- Standard UNE-ISO 14064-2. Greenhouse gases. Part 2: Specification with guidance, at project level, for the quantification, monitoring and reporting of the reduction of emissions or increase in removal of greenhouse gases.
- Standard UNE-ISO 14064-3. Greenhouse gases. Part 3: Specification with guidance for the validation of greenhouse gas statements.
- Definition of the life cycle in accordance with the UNE- EN-ISO 14040 and ENE-EN-ISO 14044 standards for life cycle analysis.
- Use of specific emission factors in accordance with the 2006 IPCC guidelines for national GHG inventories (hereinafter 2006 IPCC GHG) and use of other verifiable documentary and bibliographic sources.

Operational limits

Naturgy's Carbon Footprint inventory includes GHG emissions from the following group activities:

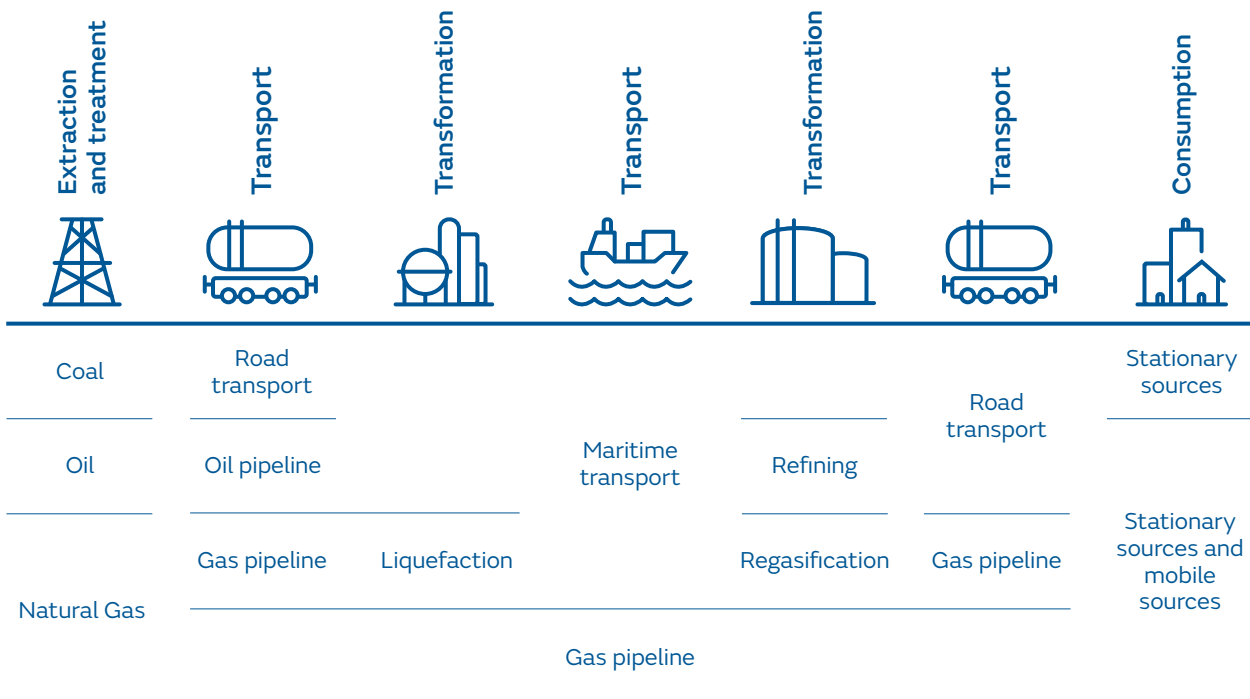
- Extraction, road transport, maritime transport, distribution and commercialisation of natural gas.
- Thermal power stations from coal and fuel oil, combined-cycle power stations, cogeneration, generation at wind farms, photovoltaic power stations and hydroelectric power stations.
- Distribution of electrical power.
- Offices, fleets and travel.

Within the aforementioned activities, different calculation units corresponding to each of the facilities comprising those activities have been defined. These calculation units or facilities are treated according to the global consolidation criteria, in accordance with the shareholding percentages.

Life cycles of fuels used

Energy (fuels, electricity) is consumed throughout the various processes, producing emissions throughout its life cycle. A diagram with the life cycles of the main fuels used is included below.

The fuels used in both fixed sources (fuels from thermal power stations, offices, gas transport and distribution facilities, etc.) and in mobile sources have been considered.



Electrical energy

Emissions derived from electrical energy have only been considered when it is used in primary energy terms and is not generated by any of the group's calculation units:

- Electricity consumption purchased from external suppliers.
- Losses arising from the transport and distribution of energy distributed and not generated by the company in each country.
- Emissions from the life cycle of the fuels used in the generation mix of each country.

Geographical limits

All the countries in which activities are carried out, as well as the countries from which the fuels originate, have been considered.

For the annual preparation of the inventory, a series of prior studies are carried out to update the initial data, such as the review of gas, coal and crude oil supply routes (there are more than 500 routes connecting 165 extraction points in 30 destination countries).

Three types of data are updated each year:

- Characteristics of the extraction points (specific factors depending on the country, technology, type of well or mine, etc.).
- Definition of the routes themselves (distances from each country of passage and specific factors).
- Fuel balances in destination countries.

Types of emissions

Scope 1

Direct GHG emissions, meaning those from sources controlled by the company itself.

Scope 2

Indirect emissions due to the generation of electricity that is acquired by the company for its own consumption but is not generated by the group.

Scope 3

Indirect emissions, not included in Scope 2, derived from the value chain of activities, including upstream and downstream emissions, over which the group has no direct influence or control. Within the categories defined by the GHG Protocol, those with a weight of less than 1% have been excluded, provided that the sum of all of them does not exceed 5%. The categories reported are:

- Fuel life cycles: Emissions derived from the life cycles of fuels. This category includes the following subcategories:
 - Emissions from coal extraction, treatment and transport.
 - Emissions derived from the extraction, treatment (liquefaction and regasification) and transport (by gas pipeline and/or methane tanker not owned by the company) of natural gas.
 - Emissions derived from the extraction, treatment (refining) and transport (by oil pipeline and/or oil tanker) of petroleum products.
 - Emissions produced in the life cycles of the fuels used for electricity generation of the energy mix of each country.
 - Emissions due to electricity losses in the transmission and distribution of electricity consumed but not generated.
 - Emissions of energy that has been consumed by the group but not generated and/or distributed.
- Business trips: these are the emissions derived from the movement of employees by plane, train or any other means of transport not belonging to the fleet of vehicles owned by the group. It is divided into two subcategories:
 - Trips made by company employees by train.
 - Trips made by company employees by plane.
- Employees commutes: emissions derived from employees commuting from their respective homes to the workplace.
- End use of products sold: emissions derived from the combustion of products, which correspond to those derived from the combustion of natural gas sold by the group to the customer, discounting the gas consumed within the organisation.
- Investments: Includes emissions derived from the investment in Unión Fenosa Gas.

Organisational limits

The GHG emissions inventory in the Carbon Footprint Report includes all businesses and activities under financial consolidation criteria, according to the shareholding percentages.

Emission factors used

Unit	Unit	Value	Source
LCV gn	MJ/kg	48.20	OECC Carbon Footprint Calculation Guide v.15 (June 2020)
HCV gn	MJ/kg	53,496	OECC Carbon Footprint Calculation Guide v.15 (June 2020)
LCV petrol	MJ/kg	44.3	OECC Carbon Footprint Calculation Guide v.15 (June 2020)
LCV diesel/gas oil A & C Spain	MJ/kg	43	OECC Carbon Footprint Calculation Guide v.15 (June 2020)
LCV ethanol	MJ/kg	27	Table 1.2. 2006 IPCC Guidelines for National Greenhouse Gas Inventories
LCV biodiesel	MJ/kg	27	Table 1.2. 2006 IPCC Guidelines for National Greenhouse Gas Inventories
LCV fuel oil	MJ/kg	40.4	OECC Carbon Footprint Calculation Guide v.15 (June 2020)
Density gn	kg/m ³	0.8076	Naturgy internal data
Density petrol	kg/l	0.7475	OECC Carbon Footprint Calculation Guide v.15 (June 2020)
Density diesel/gas oil A	kg/l	0.8325	OECC Carbon Footprint Calculation Guide v.15 (June 2020)
Density diesel/gas oil C	kg/l	0.9	OECC Carbon Footprint Calculation Guide v.15 (June 2020)
Density ethanol	kg/l	0.789	Naturgy internal data
Density biodiesel	kg/l	0.845	Royal Decree 61/2006
Density methane	kg/m ³	0.7175	Naturgy internal data
Density propane	kg/l	0.5185	CEPSA product sheet
LCV propane	MJ/kg	46.2	OECC Carbon Footprint Calculation Guide v.15 (June 2020)
HCV propane	MJ/kg	49.98	CEPSA product sheet
EF CO ₂ petrol	kg CO ₂ /GJ	69.30	OECC Carbon Footprint Calculation Guide v.15 (June 2020)
EF CH ₄ petrol	kg CH ₄ /GJ	0.025	Table 3.2.2. 2006 IPCC Guidelines for National Greenhouse Gas Inventories
EF N ₂ O petrol	kg N ₂ O/GJ	0.008	Table 3.2.2. 2006 IPCC Guidelines for National Greenhouse Gas Inventories
EF CO ₂ diesel/gas oil A	kg CO ₂ /GJ	74.10	OECC Carbon Footprint Calculation Guide v.15 (June 2020)
EF CO ₂ diesel/gas oil C	kg CO ₂ /GJ	73.00	OECC Carbon Footprint Calculation Guide v.15 (June 2020)
EF CH ₄ diesel/gas oil fixed sources ("fs")	kg CH ₄ /GJ	0.01	Table 2.4. 2006 IPCC Guidelines for National Greenhouse Gas Inventories
EF N ₂ O diesel/gas oil fs	kg N ₂ O/GJ	0.0006	Table 2.4. 2006 IPCC Guidelines for National Greenhouse Gas Inventories

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Unit	Unit	Value	Source
EF CO ₂ MDO carriers	tCO ₂ /tMDO	3.206	4th IMO GHG survey (July 2020): based on Resolution MEPC.308(73). (adopted on 26 October 2018) 2018 GUIDELINES ON THE METHOD OF CALCULATION OF THE ATTAINED ENERGY EFFICIENCY DESIGN INDEX (EEDI) FOR NEW SHIPS
EF CH ₄ diesel/gas oil mobile sources ("ms" hereinafter)	kg CH ₄ /GJ	0.007	Table 3.5.3. 2006 IPCC Guidelines for National Greenhouse Gas Inventories
EF N ₂ O diesel/gas oil ms	kg N ₂ O/GJ	0.002	Table 3.5.3. 2006 IPCC Guidelines for National Greenhouse Gas Inventories
EF CH ₄ diesel/gas oil power generation	kg CH ₄ /GJ	0.003	Table 2.2. 2006 IPCC Guidelines for National Greenhouse Gas Inventories
EF N ₂ O diesel/gas oil electric generation	kg N ₂ O/GJ	0.0006	Table 2.2. 2006 IPCC Guidelines for National Greenhouse Gas Inventories
EF CO ₂ HFO carriers	tCO ₂ /tHFO	3.1144	4th IMO GHG survey (July 2020): based on Resolution MEPC.308(73). (adopted on 26 October 2018) 2018 GUIDELINES ON THE METHOD OF CALCULATION OF THE ATTAINED ENERGY EFFICIENCY DESIGN INDEX (EEDI) FOR NEW SHIPS
EF CH ₄ fuel oil ms	kg CH ₄ /GJ	0.007	Table 3.5.3. 2006 IPCC Guidelines for National Greenhouse Gas Inventories
EF N ₂ O fuel oil ms	kg N ₂ O/GJ	0.002	Table 3.5.3. 2006 IPCC Guidelines for National Greenhouse Gas Inventories
EF CH ₄ fuel oil electricity generation	kg CH ₄ /GJ	0.003	Table 2.2. 2006 IPCC Guidelines for National Greenhouse Gas Inventories
EF N ₂ O fuel oil electricity generation	kg N ₂ O/GJ	0.0006	Table 2.2. 2006 IPCC Guidelines for National Greenhouse Gas Inventories
EF CH ₄ domestic coal	kg CH ₄ /GJ	0.0006	Table. 1.4.2. (01.01.01) National Atmospheric Emission Inventories 1990-2012. Volume 2: Analysis by SNAP Activities
EF N ₂ O domestic coal	kg N ₂ O/GJ	0.0008	Table. 1.4.2. (01.01.01) National Atmospheric Emission Inventories 1990-2012. Volume 2: Analysis by SNAP Activities
EF CH ₄ imported coal	kg CH ₄ /GJ	0.0006	Table. 1.4.2. (01.01.01) National Atmospheric Emission Inventories 1990-2012. Volume 2: Analysis by SNAP Activities
EF N ₂ O imported coal	kg N ₂ O/GJ	0.0008	Table. 1.4.2. (01.01.01) National Atmospheric Emission Inventories 1990-2012. Volume 2: Analysis by SNAP Activities
EF CH ₄ coke	kg CH ₄ /GJ	0.0003	Table. 1.4.2. (01.01.01) National Atmospheric Emission Inventories 1990-2012. Volume 2: Analysis by SNAP Activities
EF N ₂ O coke	kg N ₂ O/GJ	0.0025	Table. 1.4.2. (01.01.01) National Atmospheric Emission Inventories 1990-2012. Volume 2: Analysis by SNAP Activities
EF CO ₂ natural gas	kg CO ₂ /GJ	55.98	OECC Carbon Footprint Calculation Guide v.15 (June 2020)
EF CH ₄ natural gas fs	kg CH ₄ /GJ	0.005	Table 2.4. 2006 IPCC Guidelines for National Greenhouse Gas Inventories
EF N ₂ O natural gas fs and electricity generation	kg N ₂ O/GJ	0.0001	Table 2.2. 2006 IPCC Guidelines for National Greenhouse Gas Inventories
EF CH ₄ natural gas ms	kg CH ₄ /GJ	0.092	Table 3.2.2. 2006 IPCC Guidelines for National Greenhouse Gas Inventories

Continues >

Unit	Unit	Value	Source
EF N ₂ O natural gas ms	kg N ₂ O/GJ	0.003	Table 3.2.2. 2006 IPCC Guidelines for National Greenhouse Gas Inventories
EF CH ₄ natural gas electricity generation	kg CH ₄ /GJ	0.001	Table 2.2. 2006 IPCC Guidelines for National Greenhouse Gas Inventories
EF CO ₂ LNG carriers	tCO ₂ /tGNL	2.75	4th IMO GHG survey (July 2020); based on Resolution MEPC.308(73). (adopted on 26 October 2018) 2018 GUIDELINES ON THE METHOD OF CALCULATION OF THE ATTAINED ENERGY EFFICIENCY DESIGN INDEX (EEDI) FOR NEW SHIPS
EF CH ₄ natural gas carriers	kg CH ₄ /GJ	0.004	Table 2.7. 2006 IPCC Guidelines for National Greenhouse Gas Inventories. By analogy with the type of turbine. Gas turbines >3MW
EF N ₂ O natural gas carriers	kg N ₂ O/GJ	0.001	Table 2.7. 2006 IPCC Guidelines for National Greenhouse Gas Inventories. By analogy with the type of turbine. Gas turbines >3MW
EF CO ₂ propane	kgCO ₂ /GJ	63.6	OECC Carbon Footprint Calculation Guide
EF CH ₄ propane ms	kgCH ₄ /GJ	0.062	Table 3.2.2. 2006 IPCC Guidelines for National Greenhouse Gas Inventories LPG
EF N ₂ O propane ms	kgCO ₂ /GJ	0.0002	Table 3.2.2. 2006 IPCC Guidelines for National Greenhouse Gas Inventories LPG
EF CH ₄ propane fs	kgCO ₂ /GJ	0.005	Table 2.4. 2006 IPCC Guidelines for National Greenhouse Gas Inventories
EF NO ₂ propane fs	kgCO ₂ /GJ	0.0001	Table 2.4. 2006 IPCC Guidelines for National Greenhouse Gas Inventories
GWP Methane	kgCO ₂ /kgCH ₄	25	IPCC 4th Assessment Report
GWP SF ₆	kgCO ₂ /tSF ₆	22800000	IPCC 4th Assessment Report
GWP N ₂ O	kgCO ₂ /tN ₂ O	298000	IPCC 4th Assessment Report
GWP HFC	kgCO ₂ /tHFC	14800000	IPCC 4th Assessment Report
GWP PFC	kgCO ₂ /kg PFC	12200000	IPCC 4th Assessment Report

Independent Verification Statement of the Inventory of greenhouse gas emissions



INDEPENDENT VERIFICATION STATEMENT

This Independent Verification Statement is an extract from the Verification Report of Verico SCE, number LK-2021-01-HC-NATURGY, prepared as a consequence of the verification process of Naturgy's 2020 Greenhouse Gas Emissions Inventory.

Naturgy has commissioned **verico SCE** to carry out the verification of the 2020 Greenhouse Gas Emissions Inventory, contained in the document "Carbon Footprint Report 2020", corresponding to the corporate carbon footprint for the period 2020.

During the verification process of the 2020 Greenhouse Gas Emissions Inventory, the following elements were reviewed:

- The consistency of the report with previous reports and the procedure for allocating emissions.
- Implementation of monitoring processes.
- Compliance of the measures to ensure the accuracy of required measurements and their quality.
- Information on fuels and raw materials
- Data management
- Integrity and correctness of manual and electronic data flow
- Internal quality control

The verification process checks and confirms the correctness, by an independent third party, of the information given in the annual emissions report, and also examines the annual emissions and the implementation of internal control and management procedures.



Scope:

Naturgy is present in 20 countries serving more than 16 million customers. Naturgy operates in the regulated and liberalized gas and electricity markets, mainly in the following areas:

- Gas and electricity distribution
- Generation and commercialization of electricity
- Infrastructure, supply and marketing of gas

The organization has decided to include in its Greenhouse Gas Emissions Inventory scopes 1, 2 and 3.

- Scope 1:
 - Direct GHG emissions, understood as those coming from sources controlled by the company itself.
 - They are mainly due to CO₂ emissions from thermal electricity generation and CH₄ emissions as diffuse emissions from natural gas distribution networks.
- Scope 2:
 - Indirect emissions due to the generation of electricity that is acquired by the company for its own consumption but is not generated by the group.
 - Are mainly due to CO₂ emissions associated with electricity distribution losses
- Scope 3:
 - Indirect emissions, not included in Scope 2, derived from the value chain of activities, including upstream and downstream emissions, over which the group has no direct control or influence. Within the categories defined by the GHG Protocol, those with a weight of less than 1% have been excluded, provided that the sum of all of them does not exceed 5%.
 - Are mainly due to CO₂ emissions in the combustion of natural gas by the final use of natural gas distributed and marketed.

Inventory coverage includes the entire corporate activity, differentiating the following Business segments

- Generation
- Electricity Distribution
- Gas Distribution
- Gas (infrastructure, supply and marketing of natural gas)
- Office

The Greenhouse Gases included in this carbon footprint calculation are:

- CO₂
- CH₄
- N₂O
- SF₆
- HFC



Inventory Result 2020:

The aggregate result of the 2020 Greenhouse Gas Emissions Inventory is as follows:

Naturgy's 2020 GHG Emissions Inventory	
	tCO ₂ e
Scope 1	14.301.874
Scope 2	1.153.608
Scope 3	123.217.903
1. Purchased and good services	-
2. Capital goods	-
3. Fuel and energy related activities	30.638.299
4. Upstream transportation and distribution	-
5. Waste generated in operations	-
6. Business travel	621
7. Employees commuting	8.286
8. Upstream leased assets	-
9. Downstream transportation and distribution	-
10. Processing of sold products	-
11. Use of sold products	92.462.851
12. End-of-life treatment of sold products	-
13. Downstream leased assets	-
14. Franchises	-
15. Investments	107.846



Verification Statement

verico SCE has carried out the verification of the 2020 Greenhouse Gas Emissions Inventory, contained in the document "Carbon Footprint Report 2020", corresponding to Naturgy's corporate carbon footprint for that monitoring period, in accordance with the requirements established in standards UNE-ISO 14064 and GHG Protocol (for the definition of sectoral scopes), and other rules applicable to Naturgy's Greenhouse Gas Emissions Inventory.

The verico SCE verification team has reached the opinion that Naturgy's 2020 Greenhouse Gas Emissions Inventory is prepared in accordance with the requirements defined in the Standard, complies with the greenhouse gas quantification methodology, and the monitored data and emissions calculation are evaluated and confirmed as substantially correct. Therefore, verico SCE hereby confirms that the reported emissions during the 2020 monitoring period amount to **138.673.385 tCO₂e**.

Madrid, 28/01/2021

A handwritten signature in blue ink, consisting of a large loop and a horizontal line.

LUIS ROBLES OLMOS
Lead Verifier

VERICO SCE is a European Cooperative Society accredited by the German Accreditation Entity, DAkkS (D-VS-19003-01-00), for the verification of greenhouse gas emissions, according to ISO 14065 (translated as UNE EN ISO 14065 in Spain and DIN EN ISO 14065 in Germany) and EU Regulation No. 600/2012. Likewise, VERICO SCE is accredited for the verification of non-regulated schemes, such as EN ISO 14064-1; EN ISO 14064-2; and EN ISO 14064-3..

Certificate of the Greenhouse Gas Emissions Inventory



Certificate

The Greenhouse Gas Emissions Inventory for the year 2020 of

NATURGY

meets the requirements according to UNE ISO 14064-1

Verification carried out in January 2021 at Naturgy's Headquarters (Spain).

GHG emissions amount to:

Scope 1:	14.301.874	tCO ₂ e
Scope 2:	1.153.608	tCO ₂ e
Scope 3:	123.217.903	tCO ₂ e

Total Emissions 2020:

138.673.385 tCO₂e

Certificate N° LK-2021-01-HC_NATURGY



Langenbach, 28th January 2021

Javier VALLEJO DREHS

verico SCE, Hagenaustrasse 7, 85416 Langenbach, Alemania

verico SCE is accredited by DAkkS according to DIN EN ISO 14065: 2013.
Accreditation applies to the scopes detailed in the certified D-VS-19003-01-.

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