

C0. Introduction

C0.1

**(C0.1) Give a general description and introduction to your organization.**

Enagás is an international standard bearer in the development and maintenance of gas infrastructures and in the operation and management of complex gas networks. It is **accredited as an independent TSO by the European Union** and carries out its activities in nine countries. Enagás is a Spanish's leading natural gas transmission company and the Technical Manager of the Spanish gas system. It has around 11,000 Km of gas pipelines, three underground storage facilities in Serrablo (Huesca), Gaviota (Vizcaya) and Yela (Guadalajara) and four regasification plants in Barcelona, Huelva, Cartagena and Gijón.

Enagás is a natural gas transmission company with **94.2% of revenues coming from regulated activities**. Current 2021–2026 regulatory framework establishes a methodology to determine those revenues that does not include concepts related to the level of use of gas infrastructures, which is the parameter directly related to environmental impacts. The methodology established by this regulatory framework includes:

- Remuneration linked to net assets during this regulated period to compensate investment.
- Remuneration for continuity of supply linked to the long-term availability of the assets of the Gas System with adequate maintenance, whereby the income established for 2020 for this concept will progressively decrease to 20% by the end of the 2026 regulatory period.
- Incentives to extend the life of assets through remuneration at OPEX standards, with a margin for efficiency.

Enagás Group includes different participations in affiliates in which the company does not have management control (each affiliate has an autonomous management) and Enagás influences through its membership of the Board and working groups in order to make them adopt Enagás management standards (depending on the percentage of ownership). These **affiliates** are:

- In Mexico: TLA Altamira regasification plant (40% share), Morelos gas pipeline (50% share) and the Soto La Marina compressor station (50% share).
- In EEUU: Energy LP (30.2% share) including 11,000 km of gas transmission pipelines, 2,400 km of gas gathering pipelines and 1,300 km of oil pipeline.
- In Peru: Transportadora de Gas del Peru (TgP) (28.94% share) and Compañía Operadora de Gas del Amazonas (Coga) (51% share).
- Enagás is also involved in the construction of the Trans Adriatic Pipeline (TAP) (16% share), which will link Greece, Albania and Italy.
- In Brazil: GNL Quintero S.A. (45.4%) regasification plant.
- In Spain, it also owns 50% of the BBG regasification plant in Bilbao, 72.5% of the regasification plant in Sagunto and 100% of Gascán, a company constructing two regasification plants in the Canary Islands

All of these subsidiaries for which Enagás has been able to provide data are under scope 3 emissions (investment category) given that we do not have operational control.

The following subsidiaries are thus included as scope 1 and 2 emissions:

- Enagás, S.A.: corporate headquarters
- Enagás Transporte del Norte, S.L.: Naturgas pipeline
- Enagás Transporte, S.A.U.: Enagás infrastructures
- Gasoducto Al-Andalus, S.A.: Pipelines in operation
- Gasoducto de Extremadura, S.A.: Pipelines in operation
- Castor: underground storage

**At the end of 2019**, Enagás had:

- Employees: 1,306
- Net profit: 422.6M€
- Natural gas demand: 398,200 GWh
- Natural gas output (regasification plants): 138,882 GWh
- Compressed natural gas (compressed stations): 163,949 GWh
- Net injection (underground storages): 12,714 GWh
- Gross extraction (underground storages): 4,989 GWh

**Enagás Sustainability Strategy** (driver included in our Strategic outlook 2019-2023) is aligned and a cornerstone of the Company's strategic priorities. In terms of sustainability it considers three main pillar being (1) and (3) influenced by climate-related issues:

1. **Energy efficiency and reduction of emissions:** Enagás is committed to minimise the environmental impact through solutions that enable us to reduce our energy consumption, reducing our carbon footprint.
2. **People and culture:** Enagás must be capable of attracting and retaining the best talent, creating work environments that allow us to continue transforming ourselves and provide creative solutions to be part of a more sustainable future.
3. **Role of natural gas and renewable gases in the energy model:** Enagás is committed to support the promotion of new uses for natural gas and the development of clean energy projects, such as biogas/biomethane and hydrogen.

In addition, sustainable growth guaranteeing role as TSO in the process of decarbonisation and energy transition is another strategic priority for Enagás where the **development of new businesses, such as renewable gases (biomethane / hydrogen)** is a key element.

Enagás implements its Sustainability Strategy through its Sustainable Management Plan, focusing on continuous improvement, as established in its Sustainable Management Model. This plan includes the **Energy Efficiency and Emission Reductio Plan**, with energy efficiency and savings initiatives.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Reporting year	January 1 2019	December 31 2019	No	<Not Applicable>

C0.3

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(C0.3) Select the countries/areas for which you will be supplying data.

Spain

C0.4

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(C0.4) Select the currency used for all financial information disclosed throughout your response.

EUR

C0.5

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(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Operational control

C-OG0.7

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(C-OG0.7) Which part of the oil and gas value chain and other areas does your organization operate in?

Row 1

Oil and gas value chain

Midstream

Other divisions

Please select

C1. Governance

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C1.1

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(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

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**(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.**

Position of individual(s)	Please explain
Board Chair	How the individual's responsibility is related to climate issues: Board Chair, together with the CEO, is responsible for outlining the company's strategic approach to sustainability (Sustainability Strategy at Enagás focuses on climate change issues) and monitoring how Enagás performs in terms of sustainability. Climate related issues is one of the company's strategic priorities as part of its Sustainability Strategy as Enagás is committed to reduce the company's carbon footprint, to promote new uses for natural gas and the development of clean energy projects, such as biogas/biomethane and hydrogen (strategic drivers of the Sustainability Strategy). In fact, part of the Board Chair's variable remuneration (short and long term) is linked to a sustainability objective (one of the four company objectives) which includes climate change related targets (emissions reduction and energy efficiency). Example of a climate-related decision made: In 2019, Board Chair and CEO publicly committed to become carbon neutral by 2050.
Chief Executive Officer (CEO)	How the individual's responsibility is related to climate issues: Board Chair, together with the CEO, is responsible for outlining the company's strategic approach to sustainability (Sustainability Strategy at Enagás focuses on climate change issues) and monitoring how Enagás performs in terms of sustainability. Climate related issues is one of the company's strategic priorities as part of its Sustainability Strategy as Enagás is committed to reduce the company's carbon footprint, to promote new uses for natural gas and the development of clean energy projects, such as biogas/biomethane and hydrogen (strategic drivers of the Sustainability Strategy). In fact, part of the Board Chair's variable remuneration (short and long term) is linked to a sustainability objective (one of the four company objectives) which includes climate change related targets (emissions reduction and energy efficiency). Example of a climate-related decision made: In 2019, Board Chair and CEO publicly committed to become carbon neutral by 2050.
Board-level committee	How the individual's responsibility is related to climate issues: The highest level of direct responsibility for climate change in Enagás is within the Appointments, Remuneration and Corporate Social Responsibility Committee (Board-level committee). Its functions were formally assigned to this Committee in 2009. This Committee, and the Sustainability Committee and the Energy Transition Committee (Committee created in 2018 arising from the Sustainability Committee which is specifically focused on climate change and energy specific issues), ensures Board's oversight on climate change issues, approves and monitors the CO2 emissions reduction targets linked to variable remuneration as well as initiatives that help achieve energy and emissions reduction that are included in the Energy Efficiency and Emissions Reduction Plan. Example of a climate-related decision made: In 2019, this Committee approved the New Emission Reduction Path. The new Emissions Reduction Path increase the level of ambition of our previous targets by: - Extending the time frame from 2040 until 2050 (to become carbon neutral). - Increasing our level of ambition from 46.2% up to 61% emission reduction compared to 2018 in 2030. The Emission Reduction Path sets the following absolute targets (scope 1 and 2) compared to 2018, to be achieved through the measures outlined in its Energy Efficiency and Emissions Reduction Plan: • Short-term frame: cutting scope 1 and 2 emissions by an average of 5% for 2019-2021. • Medium-term frame: reduce by 15% and 25% our scope 1 and 2 emissions in 2025 and 2030, respectively. • Long-term frame: reduce by 61% our scope 1 and 2 emissions in 2040 and become neutral carbon neutral by 2050. This path has been established taking into consideration international initiatives such as We Mean Business, Global Methane Alliance and Methane Guiding Principles.
Board-level committee	How the individual's responsibility is related to climate issues: Audit and Compliance Committee (Board-level committee) supervises the efficiency of risk control and management systems and assesses the possible impact of climate change through the Risk Committee to ensure that risks and opportunities are included in Enagás' Strategy. Example of a climate-related decision made: In 2019, this Committee define and implemented and Internal Control over Non- Financial Reporting System (ICNFR) which includes the monitoring of climate change KPIs to better supervise the efficiency of risk control.

**C1.1b**

**(C1.1b) Provide further details on the board's oversight of climate-related issues.**

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – all meetings	Reviewing and guiding strategy Setting performance objectives Monitoring implementation and performance of objectives	<Not Applicable>	Board's oversight climate related issues is carried in different processes which are addressed in all scheduled meetings: 1) Reviewing and guiding strategy: The Board reviews and guides the company's strategy in all meetings given that one of the company's strategic priorities is sustainability, which includes climate change as the commitment to reduce the company's carbon footprint, to promote new uses for natural gas and the development of clean energy projects, such as biogas/biomethane and hydrogen. 2) Setting performance objectives: The Board sets and approves the company targets linked to variable remuneration both in the short and in the Long Term Incentive Plan. This Plan includes climate change related targets (energy consumption and CO2 emissions reduction). 3) Monitoring implementation and performance of objectives: The Board monitors the progress made to achieve the targets set and it also evaluates the performance of the objectives set at strategic level, including climate change targets.
Scheduled – some meetings	Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding annual budgets	<Not Applicable>	Board's oversight climate related issues is carried in different processes which are addressed in some scheduled meetings: 1) Reviewing and guiding major plans of action: The Appointments, Remuneration and Corporate Social Responsibility Committee (Board-level committee), reviews and guides the Sustainable Management Plan, which includes Energy Efficiency and Emissions Reduction measures and other climate change adaptation initiatives. 2) Reviewing and guiding risk management policies: Corporate risk management model includes climate change related risks. The Board reviews and guides risk management policies, as it is responsible of approving risk control and management policy and, through the Audit and Compliance Committee (Board-level committee), reviews and oversees the efficiency of risk control and management systems and assesses company risks. 3) Reviewing and guiding annual budgets: Energy efficiency measures are included in annual budgets and business plans which are reviewed by the Appointments, Remuneration and Corporate Social Responsibility Committee (Board-level committee).
Sporadic - as important matters arise	Reviewing and guiding business plans	<Not Applicable>	Board's oversight climate related issues is carried in the following process which is addressed in an sporadic manner (as important matter arise): 1) Reviewing and guiding business plans: As the company receives feedback from investors, the Appointments, Remuneration and Corporate Social Responsibility Committee (Board-level committee) reviews Sustainable Management Plan, which includes Energy Efficiency and Emissions Reduction measures and other climate change adaptation initiatives, as well as their associated business plans.

**C1.2**

**(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.**

Name of the position(s) and/or committee(s)	Reporting line	Responsibility	Coverage of responsibility	Frequency of reporting to the board on climate-related issues
Other C-Suite Officer, please specify (Gas assets General Manager; Human & Corporate Resources General Manager and Strategy Director; Members of the Management Committee (C-Suite Officers).)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Quarterly

## C1.2a

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**(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).**

### **Where in the organization structure position lies:**

Energy assets General Manager; Human & Corporate Resources General Manager and Strategy Director (C-Suite Officers members of the Management Committee) are members of the Energy Transition Committee. This Committee was created in 2018 arising from the need identified to further focus on climate issues which were previously covered by the Sustainability Committee (currently in charge of sustainability issues including also climate change). The Energy Transition Committee is specifically focused on climate change, low carbon strategy, energy transition and decarbonisation.

The Energy Transition Committee reports and lies under:

1. Appointments, Remuneration and Corporate Social Responsibility Committee (ARCSRC): The ARCSRC is the highest body with responsibility for sustainability issues (including climate change). The ARCSRC is a Board Level Committee, the highest company level.
2. Chairman and CEO: strategy issues identified by the Energy Transition Committee are directly reported to the Chairman and CEO.

### **Why responsibility lies with the position:**

Energy Transition Committee was created in 2018 with the sole purpose of focusing its efforts on identifying and managing climate change and energy transition (for a low carbon economy) issues across the company. The interdisciplinary group of the Committee helps us to ensure that all climate change aspects are considered and addressed by this Committee. Energy assets General Manager; Human & Corporate Resources General Manager and Strategy Director (C-Suite Officers members of the Management Committee) were appointed as members of the Energy Transition Committee as they are also members of the Management Committee (C-Suite Officers) with a high level of responsibility in the business decision making process ensuring directly report to the ARCSRC (Board-level committee) as well as to the Chairman and CEO. This is why the highest management-level position for climate issues lies on the Energy Transition Committee (with C-Suite officers).

This structure in climate change governance is also reinforced by the Sustainability Committee which also reports to the ARCSRC.

### **Responsibilities of the position (assessment and monitoring of climate related issues):**

C-suite officers (which are also members of the Management Committee) form part of the Energy Transition Committee and have the following responsibilities:

- Energy Assets General Manager: evaluation and monitoring of climate change potential impact in our facilities.
- Human & Corporate Resources General Manager: assessment and monitoring of climate change potential impact on the Company Sustainability Strategy.
- Strategy Director: assessment and monitoring of climate change potential impact on the Company Business Strategy.

Other members of the Energy Transition Committee include:

- General Secretary: analysis of climate change good governance.
- Organization and Sustainability Director: analysis of sustainability issues.
- Communication and Public Affairs General Manager: relation with public affairs government including climate action
- Sustainability and Risk Director: assessment and monitoring of climate related risks and opportunities.
- Regulatory affairs: evaluation and monitoring of current and upcoming national and international climate regulation.
- Financial Department: analysis of potential financial impact of climate change and energy transition.

The Energy Transition Committee analyses the climate / energy transition aspects and how these could impact our business and reports about any significant issue that could negatively affect our Business or Sustainability Strategy in order to adapt and approve initiatives to foster our resilience against climate change.

In addition, Enagás has also established the following committees and position to ensure that climate issues are assessed and monitored periodically:

- Audit and Compliance Committee supervises the efficiency of risk control and assesses impacts of climate change through the Risk Committee.
- The QHSE Committee assesses and manages climate change issues associated with business processes and environmental aspects.
- Internal Audit Department supervises the efficiency of risk controls.
- The Risks Committee establishes the overall strategy for risks and reports to the Audit and Compliance Committee defined at Board level.
- Procurement Area performs a climate action related assessment of our suppliers.

Furthermore, there are several working groups which help Enagás to monitor and manage climate change issues. An example, the Energy Efficiency and Emissions Reduction working group monthly monitors natural gas consumption and GHG emissions.

### C1.3

#### (C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	As part of its Climate Change Strategy, Enagás includes emissions reduction targets both in the Long-Term Incentive Plan (2019-2021) and in the annual targets linked to the variable remuneration paid to professionals. Both targets apply to all employees, including Chairman, CEO, and Corporate Executive team. It is worth highlighting that during 2019, we have defined an ambitious emissions reduction path, setting the following targets which will be linked in 2020 to remuneration of all employees: reduction of 5% in 2019-2021; 15% in 2025; 25% in 2030; 61% in 2040 compared to 2018 and carbon neutrality in 2050.

### C1.3a

#### (C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive	Type of incentive	Activity incentivized	Comment
Board Chair	Monetary reward	Emissions reduction target	As part of its Sustainability Strategy, Enagás set a Long-Term Incentive Plan 2019-2021 which includes a target aimed to reduce emissions by an average of 5% for 2019-2021 compared to 2018. This target is linked to employee's long-term variable remuneration (100% of employees have a long-term variable payment, including Chairman, CEO, Corporate Executive team). The company also sets annual targets which are linked to the short-term variable remuneration. In 2019, annual targets related to energy efficiency and emissions reduction objectives included: 1) Scope 1 emissions intensity target: scope 1 emissions (tCO2e)/natural gas demand (GWh). Scope 1 emissions relate to natural gas consumption and hence, energy reduction target is also considered within the scope of this target. 2) Scope 2 emissions intensity target: scope 2 emissions (tCO2e)/natural gas demand (GWh). Scope 2 emissions relate to electricity consumption and hence, energy reduction target is also considered within the scope of this target. 3) Absolute target regarding "electricity self-generation from renewable, clean and efficient sources". 4) Certification of the energy management system (ISO 50001): In 2019, Enagás has certified its Energy Management System according to ISO 50001 Standard. Annual targets have been 100% achieved. These targets are linked to the sustainability strategy (as they directly affect GHG emission reductions). In addition, it is worth highlighting that during 2019, we have defined an ambitious emissions reduction path, setting the following targets which will be linked in 2020 to remuneration of all employees: reduction of 5% in 2019-2021; 15% in 2025; 25% in 2030; and 61% in 2040 compared to 2018. We are also committed to become carbon neutral by 2050.
Board Chair	Monetary reward	Energy reduction target	As part of its Sustainability Strategy, Enagás set a Long-Term Incentive Plan 2019-2021 which includes a target aimed to reduce emissions by an average of 5% for 2019-2021 compared to 2018. This target is linked to employee's long-term variable remuneration (100% of employees have a long-term variable payment, including Chairman, CEO, Corporate Executive team). The company also sets annual targets which are linked to the short-term variable remuneration. In 2019, annual targets related to energy efficiency and emissions reduction objectives included: 1) Scope 1 emissions intensity target: scope 1 emissions (tCO2e)/natural gas demand (GWh). Scope 1 emissions relate to natural gas consumption and hence, energy reduction target is also considered within the scope of this target. 2) Scope 2 emissions intensity target: scope 2 emissions (tCO2e)/natural gas demand (GWh). Scope 2 emissions relate to electricity consumption and hence, energy reduction target is also considered within the scope of this target. 3) Absolute target regarding "electricity self-generation from renewable, clean and efficient sources". 4) Certification of the energy management system (ISO 50001): In 2019, Enagás has certified its Energy Management System according to ISO 50001 Standard. Annual targets have been 100% achieved. These targets are linked to the sustainability strategy (as they directly affect GHG emission reductions). In addition, it is worth highlighting that during 2019, we have defined an ambitious emissions reduction path, setting the following targets which will be linked in 2020 to remuneration of all employees: reduction of 5% in 2019-2021; 15% in 2025; 25% in 2030; and 61% in 2040 compared to 2018. We are also committed to become carbon neutral by 2050.
Corporate executive team	Monetary reward	Emissions reduction target	As part of its Sustainability Strategy, Enagás set a Long-Term Incentive Plan 2019-2021 which includes a target aimed to reduce emissions by an average of 5% for 2019-2021 compared to 2018. This target is linked to employee's long-term variable remuneration (100% of employees have a long-term variable payment, including Chairman, CEO, Corporate Executive team). The company also sets annual targets which are linked to the short-term variable remuneration. In 2019, annual targets related to energy efficiency and emissions reduction objectives included: 1) Scope 1 emissions intensity target: scope 1 emissions (tCO2e)/natural gas demand (GWh). Scope 1 emissions relate to natural gas consumption and hence, energy reduction target is also considered within the scope of this target. 2) Scope 2 emissions intensity target: scope 2 emissions (tCO2e)/natural gas demand (GWh). Scope 2 emissions relate to electricity consumption and hence, energy reduction target is also considered within the scope of this target. 3) Absolute target regarding "electricity self-generation from renewable, clean and efficient sources". 4) Certification of the energy management system (ISO 50001): In 2019, Enagás has certified its Energy Management System according to ISO 50001 Standard. Annual targets have been 100% achieved. These targets are linked to the sustainability strategy (as they directly affect GHG emission reductions). In addition, it is worth highlighting that during 2019, we have defined an ambitious emissions reduction path, setting the following targets which will be linked in 2020 to remuneration of all employees: reduction of 5% in 2019-2021; 15% in 2025; 25% in 2030; and 61% in 2040 compared to 2018. We are also committed to become carbon neutral by 2050.
Corporate executive team	Monetary reward	Energy reduction target	As part of its Sustainability Strategy, Enagás set a Long-Term Incentive Plan 2019-2021 which includes a target aimed to reduce emissions by an average of 5% for 2019-2021 compared to 2018. This target is linked to employee's long-term variable remuneration (100% of employees have a long-term variable payment, including Chairman, CEO, Corporate Executive team). The company also sets annual targets which are linked to the short-term variable remuneration. In 2019, annual targets related to energy efficiency and emissions reduction objectives included: 1) Scope 1 emissions intensity target: scope 1 emissions (tCO2e)/natural gas demand (GWh). Scope 1 emissions relate to natural gas consumption and hence, energy reduction target is also considered within the scope of this target. 2) Scope 2 emissions intensity target: scope 2 emissions (tCO2e)/natural gas demand (GWh). Scope 2 emissions relate to electricity consumption and hence, energy reduction target is also considered within the scope of this target. 3) Absolute target regarding "electricity self-generation from renewable, clean and efficient sources". 4) Certification of the energy management system (ISO 50001): In 2019, Enagás has certified its Energy Management System according to ISO 50001 Standard. Annual targets have been 100% achieved. These targets are linked to the sustainability strategy (as they directly affect GHG emission reductions). In addition, it is worth highlighting that during 2019, we have defined an ambitious emissions reduction path, setting the following targets which will be linked in 2020 to remuneration of all employees: reduction of 5% in 2019-2021; 15% in 2025; 25% in 2030; and 61% in 2040 compared to 2018. We are also committed to become carbon neutral by 2050.













Entitled to incentive	Type of incentive	Activity incentivized	Comment
All employees	Monetary reward	Emissions reduction target	As part of its Sustainability Strategy, Enagás set a Long-Term Incentive Plan 2019-2021 which includes a target aimed to reduce emissions by an average of 5% for 2019-2021 compared to 2018. This target is linked to employee's long-term variable remuneration (100% of employees have a long-term variable payment, including Chairman, CEO, Corporate Executive team). The company also sets annual targets which are linked to the short-term variable remuneration. In 2019, annual targets related to energy efficiency and emissions reduction objectives included: 1) Scope 1 emissions intensity target: scope 1 emissions (tCO2e)/natural gas demand (GWh). Scope 1 emissions relate to natural gas consumption and hence, energy reduction target is also considered within the scope of this target. 2) Scope 2 emissions intensity target: scope 2 emissions (tCO2e)/natural gas demand (GWh). Scope 2 emissions relate to electricity consumption and hence, energy reduction target is also considered within the scope of this target. 3) Absolute target regarding "electricity self-generation from renewable, clean and efficient sources". 4) Certification of the energy management system (ISO 50001): In 2019, Enagás has certified its Energy Management System according to ISO 50001 Standard. Annual targets have been 100% achieved. These targets are linked to the sustainability strategy (as they directly affect GHG emission reductions). In addition, it is worth highlighting that during 2019, we have defined an ambitious emissions reduction path, setting the following targets which will be linked in 2020 to remuneration of all employees: reduction of 5% in 2019-2021; 15% in 2025; 25% in 2030; and 61% in 2040 compared to 2018. We are also committed to become carbon neutral by 2050.
All employees	Monetary reward	Energy reduction project	As part of its Sustainability Strategy, Enagás set a Long-Term Incentive Plan 2019-2021 which includes a target aimed to reduce emissions by an average of 5% for 2019-2021 compared to 2018. This target is linked to employee's long-term variable remuneration (100% of employees have a long-term variable payment, including Chairman, CEO, Corporate Executive team). The company also sets annual targets which are linked to the short-term variable remuneration. In 2019, annual targets related to energy efficiency and emissions reduction objectives included: 1) Scope 1 emissions intensity target: scope 1 emissions (tCO2e)/natural gas demand (GWh). Scope 1 emissions relate to natural gas consumption and hence, energy reduction target is also considered within the scope of this target. 2) Scope 2 emissions intensity target: scope 2 emissions (tCO2e)/natural gas demand (GWh). Scope 2 emissions relate to electricity consumption and hence, energy reduction target is also considered within the scope of this target. 3) Absolute target regarding "electricity self-generation from renewable, clean and efficient sources". 4) Certification of the energy management system (ISO 50001): In 2019, Enagás has certified its Energy Management System according to ISO 50001 Standard. Annual targets have been 100% achieved. These targets are linked to the sustainability strategy (as they directly affect GHG emission reductions). In addition, it is worth highlighting that during 2019, we have defined an ambitious emissions reduction path, setting the following targets which will be linked in 2020 to remuneration of all employees: reduction of 5% in 2019-2021; 15% in 2025; 25% in 2030; and 61% in 2040 compared to 2018. We are also committed to become carbon neutral by 2050.

## C2. Risks and opportunities

### C2.1

**(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?**

Yes

#### C2.1a

**(C2.1a) How does your organization define short-, medium- and long-term time horizons?**

	From (years)	To (years)	Comment
Short-term	0	1	Short term horizon aligned with annual emissions reduction targets (reporting year compared with budget for that year). Therefore, this time frame covers current reporting year (2019).
Medium-term	1	3	Medium term horizon aligned with the Long Term incentive Plan of the company. Therefore, this time frame covers the period 2019-2021
Long-term	3	11	Long term horizon aligned with the period to comply with timeframe (2030) established by the Spanish Energy and Climate Integrated National Plan. Therefore, this time frame covers the period 2021-2030.

#### C2.1b

**(C2.1b) How does your organization define substantive financial or strategic impact on your business?**

**(i) Definition of substantive financial or strategic impact:**

Risks considered with substantive impact are those with:

- a) Impact on Profit & Loss (P&L) (revenues, operating costs, EBITDA)
- b) Impact on Balance (deterioration, over costs in investments).
- c) Reputational effect including notorious and prolonged diffusion in international media, very negative stakeholders' opinion of the company.

In addition, risks considered with substantive impact are those that may affect Enagas Sustainability Strategy.

**(ii) Description of quantifiable indicator(s) of substantive financial or strategic impact:**

Enagas substantive financial or strategic risks are classified in the following rating scales:

a) Impact:

- Low substantive impact: <25M€/year in one or several fiscal years.
- Medium substantive impact: 25-50M€/year in one or several fiscal years.
- Moderate substantive impact: 51-75M€/year in one or several fiscal years.
- High substantive impact >75M€/year in one or several fiscal years.

b) Probability of occurrence:

- Low likelihood: <25%.
- Medium likelihood: 25-50%.
- Moderate likelihood: 51-75%.
- High likelihood: >75%.

**C2.2**

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## (C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

### Value chain stage(s) covered

Direct operations  
Upstream  
Downstream

### Risk management process

Integrated into multi-disciplinary company-wide risk management process

### Frequency of assessment

More than once a year

### Time horizon(s) covered

Short-term  
Medium-term  
Long-term

### Description of process

Climate related risks and opportunities are integrated into our multi-disciplinary company-wide risk identification, assessment and management processes covering all part of our value chain (i.e. direct operations, upstream and downstream) Process used to determine which risks/opportunities could have a substantive financial/strategic impact: Enagas uses the following process for identifying, assessing and responding to climate-related risks/opportunities: 1. Identification: Business units are responsible for identifying risks when conducting their ordinary business activities. To this end, the heads of each Department or Unit identifies events or risks that may occur in their area of business (including climate related risks). Risks are identified with a regulatory framework and methodology provided by the corporate risk management area. Once the risks are identified, these are classified and included in the risk map: 1. Strategic and business risks 2. Operational and technological risks (mainly industrial risk,) 3. Financial and Tax-related 4. Credit and Counterparty 5. Reputational 6. Criminal Liability 7. Compliance and Model The risk map includes the main risks to which the Enagas Group is exposed to, including risks associated with climate change. One of the significant strategic and business risks identified is the "Role of natural gas in the future energy mix". This is an emerging risk which relates to the policies and regulatory measures for decarbonizing the energy models of the countries where Enagas Group operates. 2. Assessment: After identification and classification, risks are assessed and the level of risk determined, where the sustainability risks and more specifically the climate change-related risks are considered. Enagas has a Risk Committee, which is responsible for monitoring the risks level and the Audit and Compliance Committee (Board-Level Committee), responsible for supervising the risks control and management process. Risks are assessed to determine if they have substantive impact on a) Impact on Profit & Loss; b) Over costs in investments; c) Reputational effect including notorious and prolonged diffusion in international media, very negative stakeholders' opinion of the company. In addition, risks considered with substantive impact are those that may affect Enagas Sustainability Strategy. Risk with the highest substantive impact are those with a negative impact >75M€/year in one or several fiscal years and a likelihood >75%. 3. Response: To ensure an appropriate response to risks (including climate-related risks) Enagas has a segregation and independence of the functions of risk management, and the process is divided on three different levels: a) On the one hand, business units that are responsible for the risks they take on when conducting their ordinary business activities, and are therefore responsible for measuring and responding to risks b) Moreover, the risk control and management area is responsible for: - Ensuring that the risk control and management system functions properly - Active participation in the development of the risk strategy and definitions of impacts on their management - Ensuring that the control and management systems adequately mitigate risks c) Lastly, the Internal Audit Unit is in charge of supervising the efficiency of the risk controls in place Governing Bodies have responsibilities in the process of risk control and management in the company. The Board of Directors is responsible for approving the Risk Control and Management Policy. Other responsibilities are delegated in the Audit and Compliance Committee. The Risks Committee establishes the overall strategy for risks, the limits of global risk for the company, and reviews the level of exposure to risk and the corrective actions. Management and mitigating controls and actions are defined for each risk and those related to risks with higher exposure and probability of occurrence are included in Enagas' management by objectives model, which affects the variable remuneration of employees. It is worth highlighting that at Enagas, the process for managing climate-related opportunities is included in the risk management process and hence it follows the same process as managing climate-related risks. Enagas considers opportunity management as an integral part of daily management processes. In addition to systematically identifying opportunities as part of our risk management practices, opportunities are considered in strategy development. As an example, during the management process, Enagas has identified as an opportunity the promotion of the development of gas from renewable sources and hydrogen and their integration in gas infrastructures. To manage this opportunity, the company has specific department "New energies" Frequency: a) Risks driven by changes in regulation (transition risks) regarding climate change issues are identified and analysed constantly (based on the time of legislation approval and more frequently than once a year); b) Physical risks related to climate change are identified and assessed on annual basis given that the evolution of these kind of risks is considered stable throughout a year. Example: The following describes two examples of how the above mentioned process has been applied: •Physical risk: All our assets have been analysed considering a 6°C increase scenario to evaluate whether extreme weather conditions or natural disasters derived from climate change may damage our facilities (identification). Results of the analysis yielded that Transportadora de Gas del Peru, due to its location in the jungle, is at risk of being impacted by natural disasters (assessment). This assessment is complemented by detailed environmental risk assessments for accidental scenarios (as per Spanish Law 26/2007). In Spain, Serrablo and Yela Underground storage facilities were identified to have a risk related to fire (assessment). Assessment of operational overcosts due to natural disasters resulted in a low economic impact (<25M€) with a "About as likely as not" likelihood (25-50%). Nevertheless, Enagas has put in place specific measures to mitigate and overcome the impact such as the provision of a financial guarantee (response). (Economic impact only refers to Peru) •Transition risk: Increased pricing of GHG emissions. The Sustainability and Environmental business unit monthly monitors and reports (identification) to business areas the emissions in the infrastructures, including a focus on emissions included in the EU-ETS (assessment). This area updates the Strategy for purchasing emission rights associated with the EU ETS. Risk management control area validates with the Sustainability and Environment area the estimation of prices for CO2 and impacts (response). The risk of operating cost overruns due to CO2 emissions (volume and price of CO2) has a "more likely than not" likelihood of occurrence (50-75%) with a low impact (<25M€)

## C2.2a

**(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?**

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Inclusion in climate related risk assessment: Current climate change related regulation is always included in our risk assessment processes, as development of energy policies to mitigate climate change and fostering, for instance, the use of renewable energies are extremely relevant to Enagas. Some examples include: European Union has made a commitment for: - 2020: 20% cut in GHG (vs 1990 levels); 20% of EU energy from renewables; 20% improvement in energy efficiency. - 2030: 40% cut in GHG (vs 1990 levels); 32% share for renewable energy; 32.5% improvement in energy efficiency. - 2050: EU to become climate neutral by 2050 at the heart of the European Green Deal (presented in December 2019). Spain: - Law on Climate Change and Energy Transition (approved in 2020) establishes a goal of reducing GHG emissions by 20% in 2030 (vs 1990) - Spanish Integrated National Energy and Climate Plan (pending to be approved) establishing a 23% cut in GHG (vs 1990 levels); 42% of energy from renewables; 39.5% improvement in energy efficiency; and 74% electricity renewable energy. In this context, growth of natural gas demand could be slower than expected. In addition, all Enagas' facilities with a total rated thermal input exceeding 20 MW are under the EU Emissions Trading System and an increase in CO2 pricing is expected in the coming years. As a result of a lower income together with an increase in the costs to buy CO2 credits, Enagas EBITDA could decrease by 2030. Example of risk: Worst case scenario evaluated predicts for 2030 a decrease in natural gas demand in Spain and other countries where Enagas has a participation share such as North America (-11%) and Peru (-15%) compared to the base line scenario. This evolution of the demand can be affected by regulatory changes promoting zero emission energy sources. Financial implication of this risk (considering current and emerging legislation) is reflected in the drop in EBITDA (year 2030) as a result of lower income and costs to buy CO2 credits and is estimated to amount 31.2 M€ approx. (not affecting our Spanish Assets given the current stable remuneration scheme).
Emerging regulation	Relevant, always included	Inclusion in climate related risk assessment: As well as current legislation, emerging climate change related regulation is extremely relevant for our business as it could imply a decrease in the natural gas demand in case zero emission energies are fostered (e.g. emerging trend in banning fossil fuel is a material risk for our business). In addition, although most of our revenues come from regulated business, emerging regulation could have an impact in our business. The risk type is always included in the risk identification process done in climate-related risk assessments. Some examples of upcoming legislation related to climate change issues that have been included within the scope of our risk assessment, include: - Spanish Law on Climate Change and Energy Transition (approved in 2020) establishes a goal of reducing GHG emissions by 20% in 2030 (vs 1990) - Spanish Integrated National Energy and Climate Plan (pending to be approved) establishing a 23% cut in GHG (vs 1990 levels); 42% of energy from renewables; 39.5% improvement in energy efficiency; and 74% electricity renewable energy. Example of risk: Worst case scenario evaluated predicts for 2030 a decrease in natural gas demand in Spain and other countries where Enagas has a participation share such as North America (-11%) and Peru (-15%) compared to the base line scenario. This evolution of the demand can be affected by regulatory changes promoting zero emission energy sources. Financial implication of this risk (considering current and emerging legislation) is reflected in the drop in EBITDA (year 2030) as a result of lower income and costs to buy CO2 credits and is estimated to amount 31.2 M€ approx (not affecting our Spanish Assets given the current stable remuneration scheme).
Technology	Relevant, sometimes included	Inclusion in climate related risk assessment: Risks associated with technological improvements or innovations that support the transition to a lower-carbon, energy-efficient economic system are considered relevant and sometimes included in the risk assessment process. Transition to lower emissions technology needs to be planned carefully so as to avoid adverse impacts on our business results, financial position and cash flows to continue being attractive to investors. Within the context of climate change transition to lower emissions technology is inherent to our activities and is therefore taken into consideration and included in Enagas' risk assessment process. Example of risk: A specific example of this type of risks is our exposure to additional costs related to the transition to lower emissions technology (more energy efficient equipment in our infrastructures, such as electric compressors vs natural gas compressors). Within our Energy Efficiency and Emissions Reduction Plan, Enagas has set an ambitious plan to replace turbo-compressors (operated with gas) with electric engine-driven compressors in its critical Compression Stations with an estimated cost of 58 M€ until 2030 (economic approval is still under analysis). In addition, it is worth highlighting that in 2019, our investment in technological innovation has grown to 3.2 M€, more than 26% of which corresponds to projects related to renewable energy.
Legal	Relevant, always included	Inclusion in climate related risk assessment: Legal risk is always included in the company's risk assessment, as it stems from the uncertainty on application of legal actions undertaken by the Public Administration on their fulfilment and interpretation of contracts, laws or other regulations. Although our facilities implement the necessary action plan to comply with applicable legal environmental requirements, we cannot ensure that they can comply 100% of the time with all requirements, nor that it can avoid fines or other administrative sanctions. Example of risk: As an example, in case Enagas were accused of non-compliance with climate change related requirements such as the EU-ETS Regulation, it could result in adverse impacts on business results, financial position and cash flow. So, we monitor continuously compliance against applicable requirements in order to ensure that potential deviations are corrected as soon as possible and exposure to legal risks is reduced. In this sense, Enagas assesses damage caused to the environment risk, which would result in fines and penalties from public administrations for a bad management. Also claims for environmental damage caused to third parties arising from pollution or contamination of air, water, land or other tangible property as well as Environmental Offences that are considered under the Spanish Criminal Code are considered as a risk. In addition, to make sure full coverage is provided for this type of risks, Enagas has an insurance policy to cover any potential environmental liability (including climate change related issues).
Market	Relevant, always included	Inclusion in climate related risk assessment: Shifts in supply and demand of our commodities, products and services are seen as relevant risks to our business, and are always included in our risk assessment process. Market risks derived from carbon taxes, CO2 markets, etc. may affect the demand of natural gas transported by Enagas and therefore are always included in the risk assessment processes. Within the specific context of climate change, customer behavior is changing towards low carbon and more energy efficient products/services in all spheres of society: businesses, households and public administrations. Thus, changes in market trends which could result in preference of customers for other energy sources (such as renewable energies) is a relevant risk for us and needs to be managed proactively if we want to maintain our leadership position in the market. Example of risk: The evolution of natural gas demand and the use of our services (natural gas transportation, regasification and underground storage in Spain) has a direct impact over the regulated remuneration received for these activities. In addition, in some international markets in which Enagas operates, revenues are affected by the performance our services. Enagas plans to invest 300M€ in renewable gas projects (2020-2026) to boost the share of renewable gases in the energy mix: - Projects on an industrial scale, such as the 'Power to Green Hydrogen' project, which involves building a green hydrogen plant. - Projects to decarbonise different sectors and Power-to-Gas projects. Potential emission reduction from H2 and Biomethane projects could reach 340,000-476,000 tCO2e/year and 148,000 tCO2e/year, respectively.
Reputation	Relevant, always included	Inclusion in climate related risk assessment: Since energy sector is perceived by society as carbon intensive, climate change initiatives and policies can affect our reputation according to the attachment, admiration, trust and impressions generated by the company in society. Reputational impacts can have financial consequences, reducing the market valuation or investor value. In this context, all risks tied to changing society perceptions of Enagas' contribution to or detractor from the transition to a lower-carbon economy area always included in the climate-related risk assessment process. Example of risk: Being a fossil fuel, natural gas sector may be stigmatized resulting in difficulties of access to capital (increase in financing costs). To manage this risk, Enagas has an active communication with its stakeholders and participates in sustainability indexes such as CDP, DJSI, Vigeo, FTSE4Good, etc.
Acute physical	Relevant, always included	Inclusion in climate related risk assessment: Risks that are event-driven, including increased severity of extreme weather events floods and fires are always considered in our climate-risk assessment process. We are aware that extreme weather events could potentially cause severe damage to our assets, leading to business disruption. Physical damages could lead to adverse impact on the business performance, results and reputational damage and loss of client's confidence. Example of risk: All our assets have been analysed considering a 6°C increase scenario to evaluate whether extreme weather conditions or natural disasters derived from climate change may damage our facilities. Results of the analysis yielded that Transportadora de Gas del Peru, due to its location in the jungle, is at risk of being impacted by natural disasters. This assessment is complemented by detailed environmental risk assessments for accidental scenarios (as per Spanish Law 26/2007). In Spain, Serrablo and Yela Underground storage facilities were identified to have a risk related to fire. Assessment of operational over costs due to natural disasters resulted in a low economic impact (<25M€) (Economic impact only refers to Peru) with a "about as likely" likelihood of occurrence (25-50%). Nevertheless, Enagas has put in place specific measures to mitigate and overcome the impact such as the provision of a financial guarantee. Financial implications of this kind of risks have been estimated at 4.3€. Financial impact is reflected in the drop in EBITDA (year 2030) as a result of repairation costs (insurance premium and franchise) to ensure our facilities can still operate under unpredictable weather patterns. Estimated costs of management actions amount up to 2.1M€ (insurance premium and franchise in case our facilities are damaged by severe extreme weather conditions).
Chronic physical	Not relevant, included	Inclusion in climate related risk assessment: Longer-term shifts in climate patterns (e.g., sustained higher temperatures) that may cause for instance chronic heat waves are included in our climate change-related assessment process as this could affect the natural gas demand and the peak times and period of underutilization of our infrastructures. This risk is not relevant as infrastructures are considered to be prepared for meeting demand and guaranteeing natural gas supply, however it is included in the risk management process to ensure a close and detailed monitoring. Example of risk: An example of risk assessed is extreme variability in weather patterns, which may affect the demand of natural gas, requiring more capacity in our infrastructures in peak times and periods of underutilization of infrastructures.

**C2.3**

**(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?**

Yes

**C2.3a**

**(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.**

Identifier

Risk 1

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type & Primary climate-related risk driver**

Emerging regulation	Mandates on and regulation of existing products and services
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**Primary potential financial impact**

Other, please specify (Reductions of natural gas demand due to changes in regulations produces decreasing in revenues and hence a drop in EBITDA)

**Climate risk type mapped to traditional financial services industry risk classification**

<Not Applicable>

**Company-specific description**

Emerging regulation: Enagas operates in a global scenario of environmental transition, in which renewable energies and natural gas are leading the transition towards a low-carbon economy. Natural gas demand is expected to increase until 2030 (based on GTS forecast) as gas infrastructures are a core element in the decarbonisation. However, in case of slower growth of natural gas demand, our revenues and EBITDA could decrease. This evolution of the demand can be affected by the development of new emerging energy policies, regulatory changes and international initiatives promoting zero emission energy sources. Examples in Spain (where most of our facilities are placed) of emerging regulatory frameworks include: -Law on Climate Change and Energy Transition (approved in 2020) establishes a goal of reducing GHG emissions by 20% in 2030 (vs 1990) -Spanish Integrated National Energy and Climate Plan (pending to be approved) establishes a 23% cut in GHG (vs 1990 levels); 42% of energy from renewables; 39.5% improvement in energy efficiency; and 74% electricity renewable energy compared to 2017. At EU level at the end of 2019 the New Green Deal committed the EU to become carbon neutral by 2050. The Green Deal is expected to contribute in the development of more stringent regulatory frameworks that will complement the existing ones: cutting GHG by 20% and 40% as well as 20% and 32% energy from renewables in 2020 and 2030 respectively (vs 1900). At international level, the International Energy Agency (IEA) also foreseen a decrease in natural gas demand in favor of renewable energies from 2030 onwards. In this context, growth of natural gas demand could be slower. Specific Description: Our revenues can be affected by a decrease in the natural gas demand as a result of regulatory measures encouraging the use of renewable energies and thus a potential decrease in the use of our infrastructures. Specifically: -In Spain (where most of our facilities are placed), although worst case scenario evaluated predicts for 2030 a decrease in natural gas demand given the current stable remuneration scheme Enagas will not be affected by this risk. -Internationally, the latest World Energy Outlook (2019) issued by the IEA foreseen a decrease in natural gas demand by -11% in North America and by -15% in Peru, where our affiliates Tallgrass (12.62% share) and Transportadora de Gas del Peru (28.94% share) operate respectively (forecasts refer to the ones available at the end of 2019).

**Time horizon**

Long-term

**Likelihood**

Likely

**Magnitude of impact**

Medium

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

27600000

**Potential financial impact figure – minimum (currency)**

<Not Applicable>

**Potential financial impact figure – maximum (currency)**

<Not Applicable>

**Explanation of financial impact figure**

Description of financial impact: In case of slower growth of natural gas demand, financial impacts could result in a lower revenues and hence in a drop in EBITDA (around 4,5% of profit in year 2030). Impact would vary depending on the locations: - National Business (Spain): 91.9% of our total revenues come from regulated business which is based on remuneration for financial investment and O&M expenses. Although worst case scenario evaluated predicts a decrease in 2030 of natural gas demand in Spain, regulated remuneration received from transport, regasification and underground storage activities (RCS) will not be affected given that, for the period 2021-2026, remuneration will solely depend on 2020 natural gas demand and not on its evolution until 2030. - International Business: as per the latest World Energy Outlook (2019) issued by the International Energy Agency, worst case scenario foreseen a decrease in natural gas demand by -11% (and -18% of crude oil) in North America and by -15% in Peru, where our affiliates Tallgrass (12.62% share) and Transportadora de Gas del Peru (28.94% share) operate respective (forecasts refer to the ones available at the end of 2019). In addition our affiliate TLA Altamira regasification Plant in Mexico could be also affected by this risk. The decrease in natural gas demand could result in the termination of commercial contracts by 2030, decreasing our revenues and hence affecting our EBITDA. According to the assessment, financial implication of this risk is estimated to amount 27.6 M€ approx. (around 4.5% of profit in year 2030). Effects of this risk would have a medium economic impact (25–50M€) on the company in 2030 with a "Likely" probability of occurrence (>75%). Calculation: Approach employed: Financial impact has been calculated considering: a) Base line scenario with an increase in natural gas demand until 2030 (413.2 TWh). b) Risk scenario with a slow growth of natural gas until 2030 (311.5 TWh). The following parameters have been included in each scenario analysis: • Operating incomes • Operating expenses • Equity share method for our affiliates Figures used: a) EBITDA at base line scenario = 621 M€ ("A") b) EBITDA at base line scenario = 593.4 M€ ("B") Formula= (A-B) = 621-593.4=27.6 M€ in 2030. Assumptions used: Evolution of parameters used is based on the natural gas demand forecast foreseen by the latest World Energy Outlook (2019) issued by the International Energy Agency.

**Cost of response to risk**

300000000

**Description of response and explanation of cost calculation**

Actions implemented: Management methods are mainly focused on : a) New services and uses of natural gas in transportation (by road, rail and sea) and in the industrial and household sectors. The use of CNG/LNG allow to reduce approx. 25% CO2 compared to other fuels. b) Gas from renewable sources (such as biomethane and hydrogen) and their integration in gas infrastructures avoiding the use of other fuels and hence GHG emissions. c) New technologies for the capture, transmission and storage or use of CO2. Examples/Case study We work in the development of technology that will help to a low carbon transition: • Enagas and Repsol's joint project, 'SUN2HY', for the development of photoelectrochemical technology for hydrogen production. • Design, construction and operation of biomethane upgrading plants for injection into gas network or for vehicular us (collaboration with Biogastur, Sacyr, Ferrovial, etc.). • The 'Power to Green Hydrogen Mallorca' project to develop a green hydrogen production plant to supply clean energy to vehicle fleets (collaboration with the Government of the Balearic Islands, Acciona, CEMEX and Redexis) • Demonstration of a hydrogen injection process in the gas network in Spain (Cartagena plant). In 2019, we invested 3.2 M€ in technological innovation, of which more than 26% corresponds to projects related to renewable energy. It also created a new subsidiary, 'EnaGasRenovable', to continue developing green hydrogen and biomethane projects. Calculation: Approach: Cost of management has been estimated considering the investment foreseen (2020-2026) in hydrogen and biogas projects, specifically. •

Demo projects on an industrial scale, such as the 'Power to Green Hydrogen' project in Mallorca. • Projects to decarbonise and Power-to-Gas projects for connecting the gas and electricity sectors such as: o Green Crane Project for the production of green hydrogen from renewable generation. o local hydrogen economies that can be extrapolated to other regions of Spain. o sustainable and scalable business models. o clean technologies for the production of green hydrogen in Spain. • Direct hydrogen generation using solar energy. Figures used: a) Investment (CAPEX) foreseen to boost biogas projects (11% of total investment)= 33M€ ("A") b) Investment (CAPEX) foreseen to boost hydrogen projects (89% of total investment)= 267M€ ("B") Formula: (A+B) = 33+267=300M€ for the period 2020-2026. Assumptions: Figures do not include dividends.

**Comment**

Enagas has put in place a programme of corporate entrepreneurship and open innovation for the purpose of supporting and fostering new ideas and innovative business projects which, in accordance with our strategy, will enable us to create value and diversify the business as well as the improvement of efficiency and sustainability in the energy sector in the current context of energy transition line with our commitment to ecological transition. In this sense, some of the start-ups in which Enagas has invested in include: • Bioengas: Start-up that aims to develop, operate and maintain biomethane plants. • Gas2Move: a start-up dedicated to environmentally sustainable last-mile logistics in which the entire vehicle fleet is powered by alternative energy sources (natural gas, electricity, hydrogen, etc.) • VIRA Gas Imaging: a start-up offering consultancy services for gas detection and quantification, assisting their customers to comply with environmental laws and regulations. • E4Efficiency: a start-up with innovative, technically validated technology for environmentally friendly cold energy transport, encouraging large companies requiring cold energy to set up in the vicinity of LNG plants • Scale Gas: start-up that invests in small/medium-scale NG/LNG infrastructure (bunkering, service stations, vehicular natural gas, etc.) and design, execution, operation and maintenance for third parties, commercialising its experience and providing logistics services. In addition to the internal projects mentioned, Enagas Emprende has also invested in four external start-ups: • SEaB: English circular economy start-up that designs small-scale plants installed in buildings to transform organic waste generated on site into green energy, water and fertiliser. • DualMethane: French start-up with proprietary technology for modular biogas plants that manage multiple types of waste, mainly agricultural; the objective of which is to generate biomethane to inject into the gas network. • HYGEN: Latvian start-up that has developed a CNG (Compressed Natural Gas) fuelling system that allows the rapid refuelling of vehicles in situ, in homes or workplaces. Hygen's compressors are based on a patented technology that provides greater durability and reliability. • HELIOPROD: Start-up originating from the first Dual Metha modular plant pilot project; the project, named a prizewinner by the French state agency Ademe, featured 8 solid digestion tanks with a capacity of 250m3 each

**Identifier**

Risk 2

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type & Primary climate-related risk driver**

Emerging regulation	Carbon pricing mechanisms
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**Primary potential financial impact**

Increased indirect (operating) costs

**Climate risk type mapped to traditional financial services industry risk classification**

<Not Applicable>

**Company-specific description**

Emerging regulation: All Enagas' facilities with a total rated thermal input exceeding 20 MW are affected by the Directive 2009/29/EC of April 23rd 2009 related to greenhouse gas emission allowance trading scheme of the Community. Facilities under the EU Emissions Trading System (EU ETS) must surrender yearly allowances, equivalent to its yearly verified emissions. Enagas Specific Description: In 2019, Enagas received 55,852 tCO2 (from which 5,835 EUAs are still pending to be received) of free allocation for the 24 owned and operated facilities included under the EU ETS. For 2019 compliance, 162,869 EUAs and 604 CERs (exchanged into EUAs) were surrendered corresponding to our 2018 CO2 emissions under the EU ETS Scheme. The EUAs surrendered came from a carbon credit reserve from previous years (221,254 EUAs at the beginning of 2019). As the reserve is decreasing and until allocation will be yearly reduced until 2030, Enagas identified the need to purchase 70,000 credits in 2019. For 2030, Enagas has identified the need to purchase around 90,000 credits. Increasing costs associated with compliance with laws governing CO2 emissions is considered a risk for our business.

**Time horizon**

Long-term

**Likelihood**

More likely than not

**Magnitude of impact**

Low

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

3500000

**Potential financial impact figure – minimum (currency)**

<Not Applicable>

**Potential financial impact figure – maximum (currency)**

<Not Applicable>

**Explanation of financial impact figure**

Financial impact description: As some of our infrastructures are included in the ETS, an increase in the volume of CO2 emissions as well as an increase in the price of CO2, may directly impact our operational costs (indirect costs) and hence we will have to buy CO2 credits in order to comply with the legislation. According to the assessment, financial implication of this risk, derived from operating cost overruns due CO2 emissions, is estimated to amount 3.5 M€ approx. (< 1% of profit in year 2030). Effects of this risk would have a low economic impact (<25M€) on the company in 2030 with a "more likely than not" probability of occurrence (50-75%). Calculation: The potential financial impact figure has been calculated considering the following approach, figures and assumptions, for a 2030 risk scenarios: A) Emission Scenario: Operating cost overruns due to the volume of CO2 emissions= (172,520 tCO2e-90,000tCOe)\*(39.1€/tCOe) = 3,226,532 € ("A") The following assumptions have been used: -EUA Price= 39.1 €/tCO2 (according Carbon Pulse projections) -Estimated EUAs needed by 2030 to comply with EU ETS legislation (90,000 tCO2 approx.) considering that Enagás implements energy efficiency and emissions reduction measures. -EUAs needed by 2030 to comply with EU ETS legislation in case emissions remain constant, this is equal to 2019 emissions = 172,520 EUA -Operating cost overruns due to CO2 emissions= (172,520 tCO2e-90,000tCOe)\*(39.1€/tCOe) = 3,226,532 € ("A") B) Price scenario: Operating cost overruns due to the price of CO2 emissions = (55 €/tCOe-39.1 €/tCOe)\*90,000 tCO2e = 1,431,000 € ("B") The following assumptions have been used: -EUA Price (worst case) = 55 €/tCO2 (as per Factor CO2 Report based on Clear Blue Market projections) -EUA Price (average) = 39.1 €/tCO2 (as per Carbon Pulse projections) -Estimated EUAs needed by 2030 to comply with EU ETS (90,000 tCO2 approx.) considering that Enagás implements energy efficiency and

emissions reduction measures. Final figure of financial impact (increase in operational costs) has been calculated with the hypothesis of no correlation between risk events, price vs. volumes; then the formula used is as follows:  $\sqrt{[(A^2)+(B^2)]} = \sqrt{[(3,226,532^2) + (1,43,000^2)]} = 3,529,627\text{€}$  To calculate the total EUAs we have considered: -Carbon Credit reserve from previous years -Pending regularizations -Carbon credit purchase -Carbon credit free allocation -Estimated CO2 emissions under the ETS for 2030

**Cost of response to risk**

58000000

**Description of response and explanation of cost calculation**

Actions implemented: - Short and long-term emissions reduction targets linked to variable remuneration: Enagas has defined an ambitious Emissions Reduction Path, setting the following absolute targets compared to 2018: • Short-term frame: cutting scope 1 and 2 emissions by an average of 5% for 2019-2021 • Medium-term frame: reduce by 15% and 25% our scope 1 and 2 emissions in 2025 and 2030, respectively. • Long-term frame: reduce by 61% our scope 1 and 2 emissions in 2040. Become neutral carbon neutral by 2050. Additionally, we have annual targets also linked to employees' variable remuneration. - Energy Efficiency and Emissions Reduction Plan: Initiatives implemented between 2015 -2019 resulted in the following accumulated savings: • GHG emissions savings: 588,194 tCO2e. • Natural gas energy savings: 2,555 GWh • Natural gas energy savings: 34 GWh - Setting internal carbon prices: Enagas' Internal Carbon Price (which is annually updated) is used to monetize GHG emissions and include them in business plans in order to optimize the decision making. Examples: Examples of initiatives put in place in 2019 to reduce CO2 emissions and hence reduce the number of carbon credits to buy include among others: - Modification in the Organic Rankine Cycle installed in Huelva for operation with the high pressure cycle--> reduction of 4,602 tCO2e - LDAR campaigns to reduce natural gas leaks and hence CH4 emissions --> reduction of 3,896 tCO2e We also have set a plan to replace turbo-compressors (operated with gas) with electric engine-driven compressors in its critical Compression Stations which is expected to reduce 94,448 tCO2/year. Calculation: Approach: This figure has been calculated considering the aggregated sum of estimated CAPEX and OPEX to replace turbo-compressors (operated with gas) with electric engine-driven compressors in its critical Compression Stations until 2032. Figures: a) CAPEX: total capital expenditure= 61.6M€ b) OPEX: total operational expenditure = -3.6M€ (replacement of new compressor will lead to a reduction on OPEX) Formula= (A+B)=61.6+(-3.6)=58M€ for the period (2031-2032) Assumptions: Scenario considers the substitution of the critical turbo-compressors (gas driven) by electrical compressor in 7 facilities. Facilities considered in the scenario are those which are better cost-effective considering their operational conditions (based on historical data) and end-of life of its equipment. Economic approval is still under analysis.

**Comment**

**Identifier**

Risk 3

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type & Primary climate-related risk driver**

Acute physical	Increased severity and frequency of extreme weather events such as cyclones and floods
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**Primary potential financial impact**

Increased indirect (operating) costs

**Climate risk type mapped to traditional financial services industry risk classification**

<Not Applicable>

**Company-specific description**

Acute physical: Increase of planet's temperature due to climate change could lead to natural disasters or adverse meteorological conditions (floods, landslides, etc.) under unpredictable weather patterns (acute physical driver). Latest IPCC special report "Global Warming of 1.5°C" foresees that unpredictable weather events will increase its frequency in a global warming context. In addition these events, such floods, landslides, hurricanes, fires, etc. could be not only more frequent but also stronger damaging facilities and assets located in climate-risk areas. Enagás Specific Description: Unpredictable weather patterns, with fluctuations in temperature extremes may cause catastrophic disasters like floods damaging the infrastructures in Spain and in countries like EEUU, México and Peru, where Enagas has participation in affiliates. Specifically in Peru where Enagas operates through its affiliate "Transportadora de Gas del Peru" (28.94% share), landslides as well as floods could have special negative effect in the gas pipeline located in tropical areas (jungle) given that frequency of these events are expected to increase its frequency and magnitude.

**Time horizon**

Long-term

**Likelihood**

About as likely as not

**Magnitude of impact**

Low

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

4300000

**Potential financial impact figure – minimum (currency)**

<Not Applicable>

**Potential financial impact figure – maximum (currency)**

<Not Applicable>

**Explanation of financial impact figure**

Description of financial impact: Financial impact could result in an increase in operational costs (year 2030) as a result of reparation costs (insurance premium and franchise) to ensure our facilities affected by this risk (Transportadora de Gas del Peru, 28.94% share) can still operate under unpredictable weather patterns. The financial impact is not relevant in 2020-2029. According to the assessment, financial implication of this risk is estimated to amount 4.3 M€ approx. (<1% of profit in year 2030). Effects of this risk would have a low economic impact (<25M€) on the company in 2030 with a "About as likely as not" probability of occurrence (25-50%). Calculation: Approach employed: To analyze natural disasters or adverse meteorological conditions due to climate change Enagas has conducted a scenario analysis based on historical data registered in our facilities such as temperature, rainfall patterns, landslides events, etc. Enagas has developed a risk scenario analysis (6°C increase in temperature) to determine which of our facilities are at risk to be affected by unpredictable natural disasters / adverse meteorological conditions. The scope of this climate-change risk scenario analysis covers all assets including those over which Enagas has operational control (i.e. Spanish facilities) as well as those affiliates over which Enagas has a participation share (eg. Tallgrass -16.62% - ; TLA Altamira Plant – 50%-; SLM Compressor station – 50% -, Transportadora de Gas del Perú – 28.94% -, etc.). Results of the analysis yielded that Transportadora de Gas del Perú, due to its location in the jungle, is at risk of being impacted by natural disasters that could damage our facilities with a high probability (likelihood >75%). Figures used: Figures used include: • Estimated amount of insurance premium and franchise in 2030 in case

our facilities are damaged by severe extreme = 4.3M€. Formula used=  $A = 4.3 \text{ M€}$  (only one figure in 2030). Assumptions used: Hypothesis used in scenario analysis include (a) baseline scenario with one natural disaster event every two years and, (b) risk scenario with one event every year.

**Cost of response to risk**

2150000

**Description of response and explanation of cost calculation**

Actions being implemented: Enagas has put in place the following management actions: • Environmental certifications (ISO 14001 and EMAS) • Emergency response action plans • Procedures for the investigation and monitoring of incidents • Development of demand scenarios that determine the infrastructure to develop in order to guarantee secure supply • Material damage policy in which catastrophic damage that could take place are considered (include extraordinary flooding, earthquakes, tidal waves, volcanic eruptions, cyclones and falling space debris) • Insurance policy covering catastrophic damage • Review of plans for adaptation to climate change in infrastructures Examples and case study: All our assets have been analysed considering a 6°C increase scenario to evaluate whether extreme weather conditions derived from climate change may cause floods and fires damaging infrastructures. This assessment is complemented by detailed environmental risk assessments for accidental scenarios (as per Spanish Law 26/2007). As a result of these assessments, Serrablo and Yela Underground storage facilities were identified to have a risk related to fire. Assessment of operational overcosts due to natural disasters resulted in a low impact with a medium likelihood of occurrence. Nevertheless, Enagas has put in place specific measures to mitigate and overcome the impact such as the provision of a financial guarantee. Calculation: Approach employed: Cost of management has been calculated taking into consideration the amount of the insurance premium and franchise (considered within our operational costs) in case our facilities are damaged by severe extreme weather conditions. Figures used: a) Mexico and Peru= 1.75M€/year ("A") b) Spain = 0.4M€/year ("B") Formula used:  $(A+B) = 1.75 + 0.4 = 2.15 \text{ M€/year}$  Assumptions used: Figure refers to a yearly cost. All our affiliates have insurance, here are only included the costs of those exposed to the risk.

**Comment**

It is worth highlighting that, additionally, Enagas analyzed the potential investment overcosts for adaptation of infrastructure located on the coast to overcome sea level rise. The analysis was based on the 2019 IPCC "Special Report on the Ocean and Cryosphere in a Changing Climate". As per the report, sea rise level is expected to increase up to 84 cm in 2100 (1 cm per year). If this is the case, in 2030 sea rise level would increase 11 cm approx. taking into consideration the location of our facilities, an increase in sea level rise of 11 cm will not imply significant CAPEX investment (timeframe 2030) and hence, it is not considered as a risk.

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C2.4

**(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?**

Yes

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C2.4a

**(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.**

**Identifier**

Opp1

**Where in the value chain does the opportunity occur?**

Direct operations

**Opportunity type**

Products and services

**Primary climate-related opportunity driver**

Development and/or expansion of low emission goods and services

**Primary potential financial impact**

Increased revenues resulting from increased demand for products and services

**Company-specific description**

Development and/or expansion of low emission goods and services: Europe is working hard to cut its GHG emissions substantially. Specifically, at the end of 2019 the European New Green Deal committed the EU to become carbon neutral by 2050. The Green Deal is expected to contribute in the development of more stringent regulatory frameworks that will complement the existing ones: cutting GHG by 20% and 40% in 2020 and 2030 respectively (vs 1900). As per the New Green Deal, Transport accounts for a quarter of the EU's GHG, and still growing. To achieve climate neutrality, a 90% reduction in transport emissions is needed by 2050. The EC will consider legislative options to boost the production and uptake of sustainable alternative fuels for the different transport modes. EC will also review the Alternative Fuels Infrastructure Directive to accelerate the deployment of zero- and low-emission vehicles and vessels. In Spain, transport sector is responsible for almost 30% of GHG emissions (25% correspond to road transport). The Law on Climate Change and Energy Transition (approved early 2020) requires to substitute polluting vehicles by 2050. In this context, there is an increasing demand in the use of alternative and low-carbon fuels in the transport sector to meet the current and emerging requirements set by national/international bodies to decarbonize the transport sector. Enagas Specific Description: Natural gas contributes in the transport sector, where it is positioning itself as one of the most sustainable fuels; key in reducing emissions and improving air quality. The use of natural gas as a fuel for transport would allow to reduced NOx by 80-90%, CO2 by 20-30% and SOx and particles by practically 100% compared to traditional fuels. This makes natural gas a sustainable alternative for mobility and heavy, maritime and rail transport. In this context, Enagas is promoting new services and uses of natural gas (CNG or LNG) in transportation by road, rail and sea boosting the use of natural gas above other more polluting and carbon intensive fossil fuels. The promotion of alternative uses for the natural gas may impact on an increase in natural gas demand and thus more incomes for Enagás due to the increase in the operation of infrastructures and the development of new infrastructures. One example is that our LNG Terminals (Barcelona, Huelva and Cartagena) are now ready to offer new services such as bunkering (supplying fuel for ships).

**Time horizon**

Long-term

**Likelihood**

More likely than not

**Magnitude of impact**

Low

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

6060000

**Potential financial impact figure – minimum (currency)**

&lt;Not Applicable&gt;

**Potential financial impact figure – maximum (currency)**

&lt;Not Applicable&gt;

**Explanation of financial impact figure**

Description of financial impact: The increase in natural gas demand for the transport sector to promote the use of alternative fuels with less carbon content would imply, among others, an increase in the use of our installations as well as the potential development and construction of new infrastructures. Given that Enagas's revenues depend on the infrastructures operated as well as the total amount of natural gas processed, an increase in the natural gas demand would result in an increase in our revenues. Specifically, our revenues would increase through the development of new services such as bunkering (refuelling LNG, between tanks or from a satellite plant to a tank), small scale (refuelling small LNG tanks), bulk breaking (refuelling medium LNG tanks and loading LNG onto trucks) and parking gas (long term storage of gas in tanks). Effects of this opportunity would have a low magnitude impact (<25M€) on the company in 2025 with a "More likely than not" probability of occurrence (50-75%). Calculation: Approach employed: Enagas foreseen a sharp increase (2025 vs 2019) by 700% approx. in of the total volume of demand from small scale and bunkering services. Assumptions used: Potential financial impact has been calculated considering: a) the foreseen increase in the demand of small scale and bunkering services (+700%) for the period 2025 vs 2019 b) historical demand of new logistic services c) Projection year-by-year of the foreseen increase in demand as well as its impact in incomes from 2020 until 2025. Figures used: As a result of the scenario, accumulated revenues for the period 2020-2025 derived from new logistic services are estimated to amount approximately 6M€ = 0.37 M€ (2020)+0.69 M€ (2021)+0.91 M€ (2022)+1.21 M€ (2023)+1.36 M€ (2024)+1.52 M€ (2025).

**Cost to realize opportunity**

4848000

**Strategy to realize opportunity and explanation of cost calculation**

Actions implemented: Enagas' strategy to realize this opportunity is the promotion of new uses for natural gas, particularly in the transport sector by road, rail and maritime transport. To this end, Enagas is developing new services such as Bunkering (reloading LNG between vessels or from a satellite plant to a vessel), Small Scale (small LNG vessels reloading), Bulk Breaking (reloading LNG onto medium-sized vessels and trucks), Parking gas (long-term storage of gas in tanks). Examples/case study: Maritime transport: We participate in two projects (CORE LNGas Hive and LNGHIVE 2) to promote the supply of LNG as a fuel in the maritime transport (also rail), in the Iberian Peninsula. The total investment in LNGHIVE2 project will be around 14 million euros (3M€ will be financed by European funds). All of this helps to bring compliance with the environmental standards in the maritime sector and to advance in the process of decarbonisation of the Mediterranean and Atlantic corridors, in line with the EU strategy on alternative fuel infrastructures (Clean Power for Transport). Rail transport: Enagas is participating in the first LNG rail traction pilot project in Europe. This project seeks to analyze the feasibility of LNG railway traction allowing to reduce GHG emissions The project forms part of the Strategy for the promotion of Alternative Fuel Vehicles (AFV) in Spain 2014-2020, in line with the purpose and scope of Directive 2014/94/EU on the deployment of alternative fuels infrastructure. It should also be noted that with the implementation of the Road Map, we will work with all segments of rail traction to retrofit diesel vehicles for natural gas in business areas where electrification would be unprofitable. Road transport: We participate in the ECO-GATE project whose aim is to construct 23 gas stations and the ECO-NET Project (16 gas and 1 hydrogen station). In 2019, the 'ECO-G' label was launched to standardise the different names for technology fuelled by natural gas. Specifically, Enagas is participating in the first project to generate biomethane for land mobility to supply light vehicles using waste water. Calculation: Approach: Costs of developing these opportunities is related to the foreseen increase in revenue from new services. Assumptions: Costs of developing this opportunity are estimated at approximately 80% of accumulated financial impact (2020-2025). Figures: Formula used: 80% of accumulated revenues (2020-2025)= 6.06M€\*0.8=4,8M€.

**Comment**

Enagas also supports start-ups that have emerged from its 'Enagas Emprende' programme that are focused on promoting mobility with natural gas such as: • Gas2Move: a start-up dedicated to environmentally sustainable last-mile logistics in which the entire vehicle fleet is powered by alternative energy sources (natural gas, electricity, hydrogen, etc. "Gas2Move"). • Scale Gas: start-up that invests in small/medium-scale NG/LNG infrastructure (bunkering, service stations, vehicular natural gas, etc.) and design, execution, operation and maintenance for third parties, commercialising its experience and providing logistics services. Additionally, 'Enagas Emprende' programme has also invested in start-ups to boost small scale services and natural gas mobility, some examples include: • SEaB: English circular economy start-up that designs small-scale plants installed in buildings to transform organic waste generated on site into green energy, water and fertiliser. • HYGEM: Latvian start-up that has developed a CNG (Compressed Natural Gas) fuelling system that allows the rapid refuelling of vehicles in situ, in homes or workplaces. Hygen's compressors are based on a patented technology that provides greater durability and reliability.

**Identifier**

Opp2

**Where in the value chain does the opportunity occur?**

Direct operations

**Opportunity type**

Products and services

**Primary climate-related opportunity driver**

Development and/or expansion of low emission goods and services

**Primary potential financial impact**

Increased revenues resulting from increased demand for products and services

**Company-specific description**

Development and/or expansion of low emission goods and services framework: Enagas operates in a global scenario of environmental transition, in which renewable energies (with high rates of growth) is leading the transition towards a low-carbon energy mix. The European Union's view of carbon neutral emissions by 2050 requires a focus on renewable gases (such as biomethane and hydrogen), clean energies with huge potential whose production contributes to the circular economy. The integration of renewable gases into the energy system contributes to sustainability, competitiveness and stability. Final energy demand scenarios in the European Union, in line with the commitment to carbon neutrality by 2050, define a non-electric energy mix that will represent about 50% of the emission-free energy supply, reflecting the importance of renewable gases for the decarbonisation of all sectors, mainly those not suitable for electrification. Biomethane produced from waste is a source of renewable, local and storable energy, with a positive impact on employment and the rural economy. In addition, renewable hydrogen (obtained by electrolysis using renewable energy) is being positioned as a new global energy vector that allows the storage of excess electrical energy from renewable sources and can be used in all energy sectors. Enagas Specific Description: The integration of biomethane and hydrogen in Enagas' existing gas infrastructures is a current opportunity for Enagas, as these non-electric renewable energies can be transported via the existing gas infrastructure, maximizing their use and contributing to a fair energy transition. Enagas offers new energy solutions that contribute to a low-carbon economy, namely renewable gases (biomethane and hydrogen) which can be transported in our pipelines and hence increase our revenue through demand of lower emissions products and services. • In the case of hydrogen, Enagas' infrastructure portfolio has sufficient capacity and geographical structure to connect the potential production and consumption points. For this purpose, Enagas has develop a roadmap to ensure that these infrastructures will be viable by 2026 for the development of the new "Hydrogen Economy". • On the other hand, biogas, after a process of cleaning, it transforms into biomethane that can be injected into our transmission network. The Valdemingómez plant is the first example in Spain of this type with injection into the gas network of Enagas.

**Time horizon**

Long-term

**Likelihood**

More likely than not

### Magnitude of impact

Low

### Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

### Potential financial impact figure (currency)

32837000

### Potential financial impact figure – minimum (currency)

<Not Applicable>

### Potential financial impact figure – maximum (currency)

<Not Applicable>

### Explanation of financial impact figure

Description of financial impact: Revenues could increase through the growth in demand of renewable gases given that, these alternative gases (biomethane and hydrogen) can be transported with our existing facilities. This is, our existing gas infrastructures could be used to transport renewable gases increasing our revenues. Effects of this opportunity would have a low magnitude impact (<25M€) on the company in 2026 with a "More likely than not" probability of occurrence (50-75%). Calculation: Approach employed: This figure has been calculated considering the estimated amount derived from Enagas CAPEX (469.1M€) in the development of renewable gases (2021-2026). Assumptions used: Return on revenues around 7% over the CAPEX Figures used: Formula used:  $469.1M€ \times 7\% = 32.84M€$ . Accumulated revenues for the period 2020-2026 derived from renewable gases are estimated to amount approximately 32.84M€.

### Cost to realize opportunity

469100000

### Strategy to realize opportunity and explanation of cost calculation

Actions being implemented: Enagas works on the development of gas from renewable gases and their integration in gas infrastructures. Actions being implemented to realize this opportunity include: • Biomethane: o Issuance of green certificates. o Measurement of gas quality: guaranteeing the quality of renewable gas before its injection into the gas network. o Stake in biomethane infrastructures (upgrading/connection to the transmission network). • Hydrogen: o Involvement in different European groups analysing the technical conditions for the introduction of hydrogen into gas networks. o JV for technological development and the promotion of hydrogen production and transmission infrastructures. o Projects under consideration are focused on the methanisation of hydrogen. Examples and case study: • Demo projects on an industrial scale, such as the 'Power to Green Hydrogen' project in Mallorca, which involves building a green hydrogen plant that uses renewable electrical energy (photovoltaic park). • Projects to decarbonise different sectors of the economy and Power-to-Gas projects for connecting the gas and electricity sectors, especially in regions where the energy transition may have a greater impact: o Development of local hydrogen economies that can be extrapolated to other regions of Spain. o Development of sustainable and scalable business models. o Deployment of clean technologies for the production of green hydrogen in Spain. • Investment projects in proprietary technology: Direct hydrogen generation using solar energy. Green Crane Project for the production of green hydrogen from renewable generation. In addition, Enagas: • Created a new subsidiary in 2019, EnaGasRenovable, to promote renewable gas projects • Supports start-ups from its 'Enagas Emprende' programme and start-ups that focus on promoting renewable gases, such as 'BioEnGas'. • The 2019-2021 Long Term Incentive includes an objective for the investment on renewable gases (20M€) which is linked to variable compensation of employees. Calculation: Approach employed: Cost to realize this opportunity relates to the accumulated capital expenditure (CAPEX) foreseen for the next 7 years (2020-2016) in projects related with biogas and hydrogen. Assumptions used: OPEX is not considered in the calculation Figures used: Accumulated CAPEX foreseen in biogas projects: 52.4M€ (A) Accumulated CAPEX foreseen in hydrogen projects: 416.7M€ (B) Total accumulated CAPEX= A+B= 469.1 M€

### Comment

Potential emission reduction from H2 and Biomethane projects could reach 340,000-476,000 tCO2/year and 148,000 tCO2e/year, respectively. Our 2019-2023 company's strategic outlook (updated in 2019) set out three long-term pillars, being one of them the "Role of natural gas and renewable gases in the energy model". This pillar strengthens our commitment is committed to support the promotion of new uses for natural gas and the development of clean energy projects, such as biogas/biomethane and hydrogen.

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### Identifier

Opp3

### Where in the value chain does the opportunity occur?

Direct operations

### Opportunity type

Markets

### Primary climate-related opportunity driver

Other, please specify (Next Phase (2021-2030) EU ETS regulation: Decrease cost of regulatory compliance)

### Primary potential financial impact

Reduced indirect (operating) costs

### Company-specific description

EU ETS (2021-2030) framework: The European Commission launched the revision process for phase IV of the EU ETS in 2015. The final agreement on the revision package, adopted in early 2018, defines the EU ETS rules for the 2021-2030 period (Directive (EU) 2018/410). The aim of phase IV is to increase the pace of emissions cuts, to set up better-targeted carbon leakage rules, and to fund low-carbon innovation and energy sector modernization. Enagas Specific Description: In Spain, where facilities affected by the EU ETS regulation are located, the Spanish Government approved in January 2019 a Royal Decree 18/2019 regulating the system for GHG emission allowance trading system. In this regard, Royal Decree 18/2019 establishes that, for the phase of EU ETS (2021-2025), facilities that emit less than 2,500 tCO2e in each of the three years preceding (2016-2018) the beginning of each allocation period (this is 2021-2025), will be excluded from EU ETS requirements. Specifically, to Enagas this means that, from our 24 facilities affected by the EU ETS Regulation (period 2013-2021), in the next period 11 facilities might not be affected by the requirements set by the European Directive 2018/410 nor by the Spanish Royal Decree 18/2019. This is due to the fact that in the last three years CO2e emissions derived from 11 facilities do not surpass 2,500 tCO2e each year. Enagas might be positively affected as the exclusion of 11 facilities will lead to an operating cost reduction of regulatory compliance.

### Time horizon

Long-term

### Likelihood

Virtually certain

### Magnitude of impact

Low

**Are you able to provide a potential financial impact figure?**

Yes, an estimated range

**Potential financial impact figure (currency)**

<Not Applicable>

**Potential financial impact figure – minimum (currency)**

1000000

**Potential financial impact figure – maximum (currency)**

1500000

**Explanation of financial impact figure**

Description of financial impact: Financial impact derived from this opportunity relates to the reduction cost for the period 2021-2030 compared to 2013-2020 given that 11 facilities will no longer be affected by the EU ETS legislation and hence costs related to regulatory compliance of legal requirements will be avoided or reduced. Effects of this opportunity would have a low magnitude impact (<25M€) on the company with a "Virtually certain" probability of occurrence (90-100%). Calculation: The potential financial impact figure has been calculated considering the following approach, figures and assumptions; Estimated figure has been estimated in a range of 1M€ – 1.5M€ considering the reductions costs derived from the exclusion of the 11 facilities not affected by the UE ETS regulation. The following variables have been considered: □ A: Number of facilities no longer affected by the EU ETS legislation: 11 facilities □ B: Total tCO2 emissions of the 11 facilities excluded from the EU ETS regulation: 3,579 tCO2 Assumption: 2018 emissions. □ C: Average internal price of carbon for the period 2021-2030: 34,23 € Assumption: This figure is based on the market analysts' forecasts provided by Carbon Pulse (2021, 2025, and 2030). Between 2022 – 2025 and 2025-2030 a linear variation has been used in the calculation. □ D: Number of years: 10 years (2021-2030). □ E: Average registry account maintenance costs: 153 €/facility □ F: Average verification cost per facility: 690€ Final figure of financial impact has been calculated using the following formula  $[(C*B)+(E+F)*A]*D= 1.318.180 \text{ €}$ . A range of 1,000,000 -1,500,000 € has been selected to consider uncertainty.

**Cost to realize opportunity**

134000

**Strategy to realize opportunity and explanation of cost calculation**

Actions being implemented: Strategy to realize this opportunity relates to: To ensure that CO2 emissions remain as low as possible in the 11 facilities that will be excluded from the EU ETS requirements, the following actions have been implemented: -Short and long-term emissions reduction targets compared to 2018: •Short-term frame: cutting scope 1 and 2 emissions by an average of 5% for 2019-2021 •Medium-term frame: reduce by 15% and 25% our scope 1 and 2 emissions in 2025 and 2030, respectively •Long-term frame: reduce by 61% our scope 1 and 2 emissions in 2040. Become neutral carbon neutral by 2050 Additionally, Enagas has annual targets also linked to employees' variable remuneration -Energy Efficiency and Emissions Reduction Plan: To achieve the target set, Enagas intends to put in place measures within its Energy Efficiency and Emissions Reduction Plan. Measures to be implemented in the 11 facilities are expected to reduce 114 tCO2 approx. - Setting internal carbon prices: Enagas' Internal Carbon Price (which is annually updated) is used to monetize GHG emissions and include them in business plans in order to optimize the decision making. In addition, we perform an annual update of our Strategy for purchasing emission rights associated with the EU ETS and a monthly monitoring of emissions included in ETS. Examples: Examples of potential initiatives expect to be put in to reduce CO2 emissions and hence guarantee that emissions do not surpass 2,500 tCO2 emissions include: - Potential installation of a Solar Thermic Plant which could allow the reduction of 64,000 kWh of natural gas (reduction s1 emissions) - Decommissioning of natural gas-driven boilers which could allow the reduction of 500,000 kWh of natural gas (reduction of s1 emissions) Calculation: Approach: Cost of management is calculated considering the aggregated sum of estimated CAPEX and OPEX of all the investment foreseen in the next years in energy efficiency and reduction emission initiatives only considering the facilities that would no longer be affected by the new EU ETS Phase (2021-2030). Assumptions: Initiatives considered are those which are better cost-effective considering operational conditions (based on historical data). Economic approval is still under analysis. Figures: Investment foreseen: - Decommissioning of natural gas-driven boilers: investment foreseen 100,000€ (A) - Installation of a Solar Thermic Plant: investment foreseen 34,000€ (B) Formula used: A+B= 134,000€

**Comment**

No additional comments are considered deemed.

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### C3. Business Strategy

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#### C3.1

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**(C3.1) Have climate-related risks and opportunities influenced your organization's strategy and/or financial planning?**

Yes, and we have developed a low-carbon transition plan

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#### C3.1a

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**(C3.1a) Does your organization use climate-related scenario analysis to inform its strategy?**

Yes, qualitative and quantitative

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#### C3.1b

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**(C3.1b) Provide details of your organization's use of climate-related scenario analysis.**

Climate-related scenarios and models applied	Details
Other, please specify (Company specific climate-related scenario based on Spanish Integrated National Energy and Climate Plan (PNIEC))	<p>• How the selection scenario was identified: Enagás uses climate related scenarios for analysing transition and physical risks and opportunities in order to define the company's strategy. Three scenarios were identified and analysed: 1. Business as usual scenario, similar to a 4°C scenario and in line with already adopted measures. 2. A decarbonisation scenario, aligned with the Spanish Integrated National Energy and Climate Plan, which means an increase of 1.5°C in 2030. 3. A stressed scenario, aligned with an increase of temperature of 6°C, where physical risks (natural disasters) derived from climate change do materialize. Main reference to inputs, assumptions and analytical methods include: - Natural gas demand forecast foreseen by the latest World Energy Outlook (2019) issued by the International Energy Agency. - CO2 prices projections according to Carbon Pulse, Factor CO2 and Blue Market analysts. - Input from 2019 IPCC "Special Report on the Ocean and Cryosphere in a Changing Climate" and IPCC special report "Global Warming of 1.5°C". • Time horizon considered, and relevance: 2030 is the time horizon considered. This horizon is considered relevant to Enagás as main Spanish and European legislation (where main facilities of Enagás are located) considers 2030 as a milestone. Some examples include: - Europe: 40% cut in GHG; 32% share for renewable energy; 32.5% improvement in energy efficiency by 2030 versus 1990 levels. - Spain: Law on Climate Change and Energy Transition (approved in 2020) establishes a goal of reducing GHG emissions by 20% in 2030 versus 1990 levels. In addition the Spanish Integrated National Energy and Climate Plan establishes a 23% cut in GHG; 42% of energy from renewables; 39.5% improvement in energy efficiency; and 74% electricity renewable energy by 2030 versus 1990. • Areas considered in the analysis: Areas considered as part of the scenario analysis include all infrastructures owned and participated by Enagás (Spain, EEUU, Trans Adriatic Pipeline, Chile, Peru and Mexico). Variables included in the scenario analysis include, among others, revenues, operating and maintenance costs as well as impact on EBITDA. • Company specific description summary of the results: Main results of the scenario analysis include: - 3 main risks: (1) Loss of income due to decreased demand; (2) Operating cost overruns due to CO2 emission; and (3) Operational overcosts due to natural disasters (adaptation of infrastructures). - 2 main opportunities: development and promotion of (1) renewable gases; and (2) new logistic services. • How the results have informed our objectives and strategy: Scenario analysis have informed our business strategy and the promotion of renewable gases has been included as part of our Company Strategy. In this sense, last update of our strategy outlook 2019-2023 included the results of the scenario analysis made in 2019 and our Sustainability Strategy the role on renewables gases in the energy model is considered to be a milestone (including the development of clean energy projects, such as biogas/biomethane and hydrogen) • Examples of how the results have influenced our objectives and strategy: Specific examples of how the results have influenced our objectives and strategy include: - Long Term Inventive Plan (2019-2021) approved has included as an objective to investment of 20M€ for the promotion of renewable gases and its integration in the grid; this target is linked to the variable remuneration of Enagás' employees. - Creation in 2019 of a new subsidiary, EnaGasRenovable, to promote renewable gas projects. - Public commitment to invest 300 M€ in hydrogen, biogas and biomethane projects during the period 2020-2026.</p>

**C3.1d**

**(C3.1d) Describe where and how climate-related risks and opportunities have influenced your strategy.**

Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	<p>Yes</p> <p>i) How our strategy in this area has been influenced Opportunity related to the growing demand to promote the use of natural gas as a fuel transport with less carbon content than traditional fuels have influenced our product-related strategy and product portfolio (as reported in C2.4a Opp.1). The diversification of our portfolio to offer lower carbon fuel products/services has influenced our strategy and it is now embedded into our business growth model. Climate change risks and opportunities analysis led into the inclusion of a new strategic driver regarding sustainability in the company's strategic outlook 2015-2017, which has remained in the latest 2019-2023 update. Enagás Sustainability Strategy is a cornerstone of the Company's strategic priorities: 1) sustainable growth guaranteeing role in the process of decarbonisation; 2) sustainability (energy efficiency and emission reduction; people and culture; role of natural gas and renewable gases in the energy model); 3) creation of value for our stakeholders; and 4) natural gas key to energy transition. Last update (issued in 2019) of our Strategy emphasizes three strategic areas of growth of which one of them is the development of small scale businesses (expanded core). This is use of natural gas in the transport sector: Marine LNG (bunkering), LNG for heavy-duty road and rail transport, and CNG for light-duty road transport. ii) A case study of the most substantial strategic decision in this field, most substantial strategic decision relates to the fact that our strategy focuses on promoting new services and uses of natural gas (CNG or LNG) in transportation by road, rail and sea. Some examples on decision made in this area include: • Technical adaptations to our LNG plants to offer new services of gas as a fuel, such as bunkering (supplying fuel for ships). • Promotion of uses of natural gas through the coordination in projects such as 'CORE LNGas hive' and 'LNGHIVE2' and participation in other projects in the rail sector. • Participation in the first LNG rail traction pilot test in Europe. • Support to start-ups that have emerged from 'Enagás Emprende' programme that are focused on promoting mobility with natural gas, such as 'Gas2Move'. i) time horizon(s) Strategic priorities have been defined until 2023, including the expanded core business which includes the development of small scale business.</p>
Supply chain and/or value chain	<p>No</p> <p>i) Description of why your strategy in this area has not been influenced by climate-related risks and opportunities Enagás performs actions targeted at its suppliers based on the information collected in the homologation and approval supplier process and the results of measuring Climate Change performance using a specific survey. In 2019, 124 suppliers were requested to provide specific information about their climate change performance through a specific climate change questionnaire sent through our supply chain online platform. Our response rate was 63%. All the information gathered was analysed taking into consideration the impact of engagement in terms of: a) identification of improvement opportunities in terms on efficiency in the spends; b) chances to offer energy efficiency services; c) analyse risks and opportunities in the supply chain; d) validate the scope 3 emissions calculated. Responses were assessed, representing 69% of total procurement spend (199.9M€). In 2019 no significant climatic risks were identified in our supply chain as Enagás did not observe any significant impact (risk or opportunity) on our supply chain. As a consequence of the analysis conducted, Enagás concluded that our strategy in this area has not been influenced by climate-related risks and opportunities. This analysis is conducted on yearly basis, so in case our supply chain is affected we can be prepared to overcome the potential negative impacts.</p>
Investment in R&D	<p>Yes</p> <p>i) How our strategy has been influenced Enagás operates in a scenario in which renewable energies is leading the transition towards a low-carbon economy. R&amp;D investment for the integration of renewable gases (i.e. biomethane and hydrogen) in Enagás' existing gas infrastructures is a current opportunity (as reported in C2.4a Opp.2) and hence has influenced our R&amp;D Strategy. Non-electric renewable gases can be transported via the existing gas infrastructure and hence, Enagás is working in developing gas from renewable sources and their integration in gas infrastructures. To this end, Enagás created a R&amp;D department for the development of new energies and plan to invest 300M€ in renewable gas projects 2020-2026. Climate risks and opp. analysis led into the inclusion of a new strategic driver regarding sustainability in the strategic outlook. Our Sustainability Strategy is a cornerstone of the Company's strategic priorities: 1) sustainable growth in the process of decarbonisation; 2) sustainability (energy efficiency and emission reduction; people and culture; role of natural gas and renewable gases in the energy model); 3) creation of value for stakeholders; and 4) natural gas as key to energy transition. Last update of our Strategy 2019-2023 Outlook emphasizes three strategic areas, two of them are related to renewable gases: 1) New Business: promotion of renewable gases: biomethane (short and medium-term); and hydrogen (long-term). 2) Core business: focused on driving the injection of new renewable gases in the gas network. ii) Case study One of the most substantial business decision is the strong commitment made by Enagás for the development of renewable gases (biomethane and hydrogen) and their integration in gas infrastructures, creating a new subsidiary in 2019, "EnaGasRenovable", to promote renewable gas projects. We plan to invest 300M € in renewable gas projects (2020-2026): - Projects on an industrial scale, such as the 'Power to Green Hydrogen', which involves building a green hydrogen plant. - Projects to decarbonise different sectors and Power-to-Gas projects. In 2019, we invested 3.2 M€ in technological innovation, more than 26% corresponds to renewable energy projects. i) time horizon R&amp;D investment related to renewable gases in the short and medium-term for biomethane and in the long-term for hydrogen covering a timeframe from 2020-2026.</p>
Operations	<p>Yes</p> <p>i) How our strategy in this area has been influenced All Enagás' operations with a total rated thermal input exceeding 20 MW are affected by the Directive 2009/29/EC of April 23rd 2009 related to greenhouse gas emission allowance trading scheme of the Community. Operations under the EU Emissions Trading System (EU ETS) must surrender yearly allowances, equivalent to its yearly verified emissions. Increasing costs associated with compliance with laws (purchase of CO2 credits) governing CO2 emissions is considered as an important impact in our operations and business (as disclosed in C2.3a Risk 2). In this context, given that Enagás could incur in operating costs overruns due to an increase in the price of CO2 emissions, our operational strategy in this area has been influenced. ii) A case study of the most substantial strategic decision(s) To overcome this climate change related risk Enagás has made the following substantial strategic decisions: - Approval in 2019 an Emissions Reduction Path setting the following absolute targets compared to 2018: o Short-term frame: cutting scope 1 and 2 emissions by an average of 5% for 2019-2021 o Medium-term frame: reduce by 15% and 25% our scope 1 and 2 emissions in 2025 and 2030, respectively. o Long-term frame: reduce by 61% our scope 1 and 2 emissions in 2040. Become neutral carbon neutral by 2050. Additionally, Enagás has annual targets also linked to employees' variable remuneration - Energy efficiency and Emission Reduction Plan to implement measures to reduce GHG emissions including in 2019, the design of a plan to replace turbo-compressors (operated with gas) with electric engine-driven compressors in our critical Compression Stations (economic approval of 58 M€ is still under analysis). - Setting internal carbon process: Enagás' Internal Carbon Price (which is annually updated) is used to monetize GHG emissions and include them in business plans in order to optimize the decision making. In this regard, Enagás monthly monitors carbon prices and uses market projects to integrate future carbon prices in its operational strategy. - i) time horizon(s) Our Emissions reduction path covers the long term (2040 and 2050) with some intermediate milestones in the short (2019-2021) and medium term (2025-2030).</p>

C3.1e

(C3.1e) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Capital expenditures Capital allocation Access to capital Liabilities	<p>i) Description of influence including case study in at least one of the elements selected</p> <p>Revenues: The development of new services focused in the decarbonisation of the transport sector (e.g. Bunkering services, small scale, etc.), as well the investment in R&amp;D activities for the integration of renewables gases such as biomethane and hydrogen in Enagás' existing gas infrastructures have been taken into consideration in the financial planning process as these could positively impact in our revenues. In addition, our revenues can be negatively affected if the demand of natural gas decreases and hence have been factored into our financial planning process. Enagás' revenues can be affected by a decrease in the natural gas demand as a result of policies encouraging the use of renewable energies and thus a potential decrease in the use of our infrastructures. Specifically: - In Spain, worst case scenario predicts for 2030 a decrease by -25% in natural gas demand. - Internationally, the latest World Energy Outlook (2019) foreseen a decrease in natural gas demand by -11% in North America and by -15% in Peru, where our affiliates Tallgrass and Transportadora de Gas del Peru operate respectively. ii) Time horizon covered by the element selected - Potential increase in EBITDA (impacting our revenues) from new logistic services is estimated to amount 6M€ from 2020-2025. - Potential increase in EBITDA (impacting our revenues) from integrating renewable gases is, estimated in 32.84 M€/year considering a return around 7% over the CAPEX associated (469.1 M€) for the period 2020-2026. - In case of slower growth of natural gas demand, Enagás revenues could be negatively affected with an estimated impact of 27.6 M€ in EBITDA (impacting our revenues) in 2030. iii) Other elements: - Capital expenditures and capital allocation: the foreseen stricter legal requirements to be implemented have led to a reflection exercise to ensure that capital is allocated to mitigate these risks and factored into our financial planning process as well as capital expenditure to overcome potential climate change risk (transitional and physical). - Access to capital: Enagás has linked the achievement of emissions reduction target to the conditions of a sustainable loan signed in 2019 (Financial Capital). - Liabilities: Legal risk is factored in our financial planning process, as it stems from the uncertainty on application of legal actions and interpretation of contracts, laws or other regulations from which liabilities may arise.</p>

C3.1f

**(C3.1f) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).**

Climate change has significantly **influenced Enagás business strategy and financial planning process**. Initially, a climate change risks and opportunities analysis was carried out as changes in regulation and in physical climate parameters could impact on natural gas demand, emissions allowances shortfall, infrastructure affections caused by weather extreme conditions, etc. This analysis led into the inclusion of a new strategic driver regarding sustainability in the company's strategic outlook 2015-2017, which has remained in its 2017-2020 and 2019-2023 update. Enagás Sustainability Strategy is aligned and a cornerstone of the Company's strategic priorities. In terms of sustainability it considers three main pillar being (1) and (3) influenced by climate-related issues:

1. **Energy efficiency and reduction of emissions:** Enagás is committed to minimise the environmental impact of its operations through solutions that enable us to reduce our energy consumption, reducing our carbon footprint as much as possible.
2. **People and culture:** Enagás must be capable of attracting and retaining the best talent, creating work environments that allow us to continue transforming ourselves and provide creative solutions to be part of a more sustainable future.
3. **Role of natural gas and renewable gases in the energy model:** Enagás is committed to support the promotion of new uses for natural gas and the development of clean energy projects, such as biogas/biomethane and hydrogen.

Main non-financial factors influencing the natural gas market were identified and energy consumption and GHG emissions monitoring (enhancing EU ETS emissions for entailing costs and regulation risks) were put in place. Since 2013, we voluntarily calculate and verify according to ISO14064 our Carbon Footprint. An Energy Efficiency and Emissions Reduction (EEER) Plan was also launched in order to identify and implement different measures for which energy savings and emission reductions are annually quantified and externally verified. A cost saving analysis is also carried out including a carbon price set by the company and annually updated. A transversal working team was created to this end. Other strategic decisions are also based on the **internal carbon price** which is currently accepted and used by the whole company in order to integrate climate change issues into our business and investment decisions.

Last Strategy update (2019-2023 Outlook) is publicly available at Enagás' website:

<https://www.enagas.es/stfs/ENAGAS/Relaci%C3%B3n%20inversores/Strategy%20update%20and%202019-2023%20Outlook..pdf>

Our climate change strategy is focused in the short and long term:

-**Enagás short term strategy** includes the promotion of new services and uses of natural gas in transportation by road, rail and sea and in the industrial and household sectors, in order to reduce environmental impact in these sectors.

-**In the medium-long term**, Enagás strategy is based on the promotion of the development of gas from renewable sources such as biomethane (short/medium term) and hydrogen (long-term) and their integration in gas infrastructures, as a response of future changes in the energy mix, promoting zero emission energy sources.

As a consequence of the inclusion of sustainability driver and climate change issues in the business strategy, energy reduction, energy efficiency and emission reduction targets were set and linked to the remuneration of all employees. To this end, Enagás has defined an ambitious **Emissions Reduction Path**, setting the following absolute targets compared to 2018:

- Short-term frame: cutting scope 1 and 2 emissions by an average of 5% for 2019-2021
- Medium-term frame: reduce by 15% and 25% our scope 1 and 2 emissions in 2025 and 2030, respectively.
- Long-term frame: reduce by 61% our scope 1 and 2 emissions in 2040. Become neutral carbon neutral by 2050.

One of the **most substantial business decision** made is the strong commitment made by Enagás for the promotion of the development of gas from renewable gases (such as biomethane and hydrogen) and their integration in gas infrastructures, creating a new department of "New energies" and a new subsidiary (2019), "EnaGasRenovable", to promote renewable gas projects. In addition, Enagás is investing to foster the integration of renewable gases (such as biomethane and hydrogen) into the existing gas network. In this sense, it is worth highlighting that Enagás plans to invest 300M € in renewable gas projects (2020-2026) to boost the share of renewable gases in the energy mix.

Other opportunities have influenced the strategy such as the promotion of new services and uses of natural gas in transportation by road, rail and sea and in the industrial and household sectors. In all these sectors, replacing carbon intensive fossil fuels with natural gas will lead to a significant decrease in GHG emissions.

The **main aspect of climate change that has influenced our strategy** decision relates is the growing trend legislation promoting zero emissions energy sources and restricting fossil fuels energy sources to ensure the energy transition to a low-carbon economy.

Regarding our **financial planning process**, climate change related risks and opportunities have influenced the following elements: revenues, capital expenditures / capital allocation, access to capital and liabilities. Integrating climate change risks and opportunities within our financial planning process allow us to better understand how we will achieve and fund our objectives and strategic goals. It has also allowed us to assess future financial positions and determine how resources can be utilized in pursuit of short- and long-term objectives.

Being better prepared for new regulations, especially those related to renewable energies, carbon pricing or carbon taxes and being already working on the development of renewable energy sources; make our company to have a competitive advantage over our competitors and also be more reliable for our investors.

## C4. Targets and performance

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### C4.1

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#### (C4.1) Did you have an emissions target that was active in the reporting year?

Both absolute and intensity targets

### C4.1a

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#### (C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

**Target reference number**

Abs 1

**Year target was set**

2019

**Target coverage**

Company-wide

**Scope(s) (or Scope 3 category)**

Scope 1+2 (market-based)

**Base year**

2018

**Covered emissions in base year (metric tons CO2e)**

304757.8

**Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)**

100

**Target year**

2021

**Targeted reduction from base year (%)**

5

**Covered emissions in target year (metric tons CO2e) [auto-calculated]**

289519.91

**Covered emissions in reporting year (metric tons CO2e)**

310162.07

**% of target achieved [auto-calculated]**

-35.4659995576817

**Target status in reporting year**

New

**Is this a science-based target?**

No, but we are reporting another target that is science-based

**Please explain (including target coverage)**

In 2019, Enagás approved an ambitious Emissions Reduction Path, setting the following absolute targets (scope 1 and 2) compared to 2018, which Enagás will achieve through the specific measures outlined in its Energy Efficiency and Emissions Reduction Plan: • Short-term frame: cutting scope 1 and 2 emissions by an average of 5% for 2019-2021. (Referred as "Abs1"). • Medium-term frame: reduce by 15% and 25% our scope 1 and 2 emissions in 2025 and 2030, respectively. (Referred as "Abs2" and "Abs 3"). • Long-term frame: reduce by 61% our scope 1 and 2 emissions in 2040 and become neutral carbon neutral by 2050. Referred as "Abs4"). Targets "Abs3" and "Abs4" are new and also raise the level of ambition of the ones included in our 2019 CDP response - reference "Abs4" and "Abs5" in 2019 CDP which have, therefore, been retired. This path has been established taking into consideration international initiatives such as We Mean Business, Global Methane Alliance and Methane Guiding Principles. "Abs 1" is a new target included in the Long-term Incentive Plan, linked to the variable remuneration of all employees. Its achievement will be monitored year to year until 2021. Emissions resulting in 2019 (310,162. 07 tCO2) have remained almost constant (+1.8%) despite the sharp increase in the level of activity (+14% domestic demand) as a result of greater energy efficiency. However, its achievement will depend on GHG emissions generated in 2020 and 2021. It is important to notice that "% of target achieved" is an auto-calculated field in the ORS system, however given that target relates to an average emission reduction over a 3 year period, assessment on its achievement should be conducted at target year (2021) or, at least, after two years from target setting when average trend will show real progress toward the target. Target coverage: The target covers 100% of base year (2018) and start year (2019) scope 1 and 2 emissions, including 100% of operations in which Enagás has management control at the time target establishment. In this sense, data only covers assets in Spain, those in which Enagás maintains management control.

**Target reference number**

Abs 2

**Year target was set**

2019

**Target coverage**

Company-wide

**Scope(s) (or Scope 3 category)**

Scope 1+2 (market-based)

**Base year**

2018

**Covered emissions in base year (metric tons CO2e)**

304757.83

**Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)**

100

**Target year**

2025

**Targeted reduction from base year (%)**

15

**Covered emissions in target year (metric tons CO2e) [auto-calculated]**

259044.1555

**Covered emissions in reporting year (metric tons CO2e)**

310162.07

**% of target achieved [auto-calculated]**

-11.8219330629394

**Target status in reporting year**

New

**Is this a science-based target?**

Yes, we consider this a science-based target, but this target has not been approved as science-based by the Science-Based Targets initiative

**Please explain (including target coverage)**

In 2019, Enagás approved an ambitious Emissions Reduction Path, setting the following absolute targets (scope 1 and 2) compared to 2018, which we will achieve through the measures outlined in its Energy Efficiency and Emissions Reduction Plan: • Short-term frame: cutting scope 1 and 2 emissions by an average of 5% for 2019-2021. (Referred as "Abs1"). • Medium-term frame: reduce by 15% and 25% our scope 1 and 2 emissions in 2025 and 2030, respectively. (Referred as "Abs2" and "Abs 3"). • Long-term frame: reduce by 61% our scope 1 and 2 emissions in 2040 and become neutral carbon neutral by 2050. Referred as "Abs4"). Targets "Abs3" and "Abs4" are new and also raise the level of ambition of the ones included in our 2019 CDP response - reference "Abs4" and "Abs5" in 2019 CDP which have, therefore, been retired. This path has been established taking into consideration international initiatives such as We Mean Business, Global Methane Alliance and Methane Guiding Principles. Targets "Abs2", "Abs3" and "Abs4" are considered to be targets in line with science. Given that the SBTi do not have a specific methodology for the O&G sector (pending to be published) we have followed the methodology available. We have also used the compounded reduction rate to set the target's level of ambition following the guidelines set by CDP in its "Technical note on science-based targets" making sure that our targeted % reduction from base to target year is  $\geq 1 - (1 - 0.021)^{(target\ year - base\ year)\%}$ . Once the O&G Methodology is published by the SBTi targets may be adjusted. "Abs2" is a new target linked to sustainable loan conditions. Emissions resulting in 2019 (310,162.07 tCO2) have remained almost constant (+1.8%) despite the sharp increase in the level of activity (+14% domestic demand) as a result of greater energy efficiency. However, its achievement will depend on GHG emissions generated until 2025. Please note that "% of target achieved" is an auto-calculated field, however given that it is a new target and its completion date related to 2025 it should not yet been assessed. Target coverage: The target covers 100% of base year (2018) and start year (2019) scope 1 and 2 emissions, including 100% of operations in which Enagás has management control at the time of establishment. In this sense, data only covers assets in Spain, those in which we maintain management control.

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**Target reference number**

Abs 3

**Year target was set**

2019

**Target coverage**

Company-wide

**Scope(s) (or Scope 3 category)**

Scope 1+2 (market-based)

**Base year**

2018

**Covered emissions in base year (metric tons CO2e)**

304757.83

**Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)**

100

**Target year**

2030

**Targeted reduction from base year (%)**

25

**Covered emissions in target year (metric tons CO2e) [auto-calculated]**

228568.3725

**Covered emissions in reporting year (metric tons CO2e)**

310162.07

**% of target achieved [auto-calculated]**

-7.09315983776363

**Target status in reporting year**

New

**Is this a science-based target?**

Yes, we consider this a science-based target, but this target has not been approved as science-based by the Science-Based Targets initiative

**Please explain (including target coverage)**

In 2019, Enagás approved an ambitious Emissions Reduction Path, setting the following absolute targets (scope 1 and 2) compared to 2018, which we will achieve through

the measures outlined in its Energy Efficiency and Emissions Reduction Plan: • Short-term frame: cutting scope 1 and 2 emissions by an average of 5% for 2019-2021. (Referred as "Abs1"). • Medium-term frame: reduce by 15% and 25% our scope 1 and 2 emissions in 2025 and 2030, respectively. (Referred as "Abs2" and "Abs 3"). • Long-term frame: reduce by 61% our scope 1 and 2 emissions in 2040 and become neutral carbon neutral by 2050. Referred as "Abs4"). Targets "Abs3" and "Abs4" are new and also raise the level of ambition of the ones included in our 2019 CDP response - reference "Abs4" and "Abs5" in 2019 CDP which have, therefore, been retired. This path has been established taking into consideration international initiatives such as We Mean Business, Global Methane Alliance and Methane Guiding Principles. Targets "Abs2", "Abs3" and "Abs4" are considered to be targets in line with science. Given that the SBTi do not have a specific methodology for the O&G sector (pending to be published) we have followed the methodology available. We have also used the compounded reduction rate to set the target's level of ambition following the guidelines set by CDP in its "Technical note on science-based targets" making sure that our targeted % reduction from base to target year is  $\geq 1 - (1 - 0.021)^{(target\ year - base\ year)\%}$ . Once the O&G Methodology is published by the SBTi targets may be adjusted. "Abs3" is a new medium time frame target set in 2019. Emissions resulting in 2019 (310,162.07 tCO2) have remained almost constant (+1.8%) despite the sharp increase in the level of activity (+14% domestic demand) as a result of greater energy efficiency. However, its achievement will depend on GHG emissions generated until 2030. Please note that "% of target achieved" is an auto-calculated field, however given that it is a new target and its completion date related to 2030 it should not yet been assessed. Target coverage: The target covers 100% of base year (2018) and start year (2019) scope 1 and 2 emissions, including 100% of operations in which Enagás has management control at the time of establishment. In this sense, data only covers assets in Spain, those in which we maintain management control.

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**Target reference number**

Abs 4

**Year target was set**

2019

**Target coverage**

Company-wide

**Scope(s) (or Scope 3 category)**

Scope 1+2 (market-based)

**Base year**

2018

**Covered emissions in base year (metric tons CO2e)**

304757.83

**Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)**

100

**Target year**

2040

**Targeted reduction from base year (%)**

61

**Covered emissions in target year (metric tons CO2e) [auto-calculated]**

118855.5537

**Covered emissions in reporting year (metric tons CO2e)**

310162.07

**% of target achieved [auto-calculated]**

-2.90703272039493

**Target status in reporting year**

New

**Is this a science-based target?**

Yes, we consider this a science-based target, but this target has not been approved as science-based by the Science-Based Targets initiative

**Please explain (including target coverage)**

In 2019, Enagás approved an ambitious Emissions Reduction Path, setting the following absolute targets (scope 1 and 2) compared to 2018, to be achieved through the measures outlined in its Energy Efficiency and Emissions Reduction Plan: •Short-term frame: cutting scope 1 and 2 emissions by an average of 5% for 2019-2021. (Referred as "Abs1") •Medium-term frame: reduce by 15% and 25% our scope 1 and 2 emissions in 2025 and 2030, respectively. (Referred as "Abs2" and "Abs 3") •Long-term frame: reduce by 61% our scope 1 and 2 emissions in 2040 and become neutral carbon neutral by 2050. Referred as "Abs4") Targets "Abs3" and "Abs4" are new and also raise the level of ambition of the ones included in our 2019 CDP response - reference "Abs4" and "Abs5" in 2019 CDP which have, therefore, been retired. This path has been established considering international initiatives such as We Mean Business, Global Methane Alliance, and Methane Guiding Principles. Targets "Abs2", "Abs3" and "Abs4" are considered to be targets in line with science. Given that the SBTi do not have a specific methodology for the O&G sector (pending to be published) we have followed the methodology available. We have also used the compounded reduction rate to set the target's level of ambition following the guidelines set by CDP in its "Technical note on science-based targets" making sure that our targeted % reduction from base to target year is  $\geq 1 - (1 - 0.021)^{(target\ year - base\ year)\%}$ . Once the O&G Methodology is published by the SBTi targets may be adjusted. "Abs4" is a new target aligned with the 1.5°C scenario. Emissions resulting in 2019 (310,162 tCO2) have remained almost constant (+1.8%) despite the sharp increase in the level of activity (+14% domestic demand) as a result of greater energy efficiency. Carbon neutrality in 2050 will be achieved implementing further emission reduction initiatives and offsetting. Please note that "% of target achieved" is an auto-calculated field, however given that it is a new target and its completion date related to 2040 it should not yet been assessed. Target coverage: The target covers 100% of base year (2018) and start year (2019) scope 1 and 2 emissions, including 100% of operations in which Enagás has management control at the time of establishment. In this sense, data only covers assets in Spain, those in which we maintain management control.

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**Target reference number**

Abs 5

**Year target was set**

2018

**Target coverage**

Company-wide

**Scope(s) (or Scope 3 category)**

Scope 1+2 (market-based)

**Base year**

2018

**Covered emissions in base year (metric tons CO2e)**

304757.83

**Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)**

100

**Target year**

2030

**Targeted reduction from base year (%)**

25.2

**Covered emissions in target year (metric tons CO2e) [auto-calculated]**

227958.85684

**Covered emissions in reporting year (metric tons CO2e)**

310162.07

**% of target achieved [auto-calculated]**

-7.0368649184163

**Target status in reporting year**

Retired

**Is this a science-based target?**

No, but we are reporting another target that is science-based

**Please explain (including target coverage)**

Please note that this target was reported in CDP 2019 with the reference "Abs4". This target has been retired to align our global emission reduction strategy to the new Emission Reduction Path approved in 2019, increasing our level of ambition. The new Emissions Reduction Path increase the level of ambition of our previous targets by:

- Extending the time frame from 2040 until 2050 (to become carbon neutral).
- Increasing our level of ambition from 46.2% (as stated in our previous CDP response under "Abs5") up to 61% emission reduction compared to 2018. The Emission Reduction Path sets the following absolute targets (scope 1 and 2) compared to 2018, to be achieved through the measures outlined in its Energy Efficiency and Emissions Reduction Plan:

- Short-term frame: cutting scope 1 and 2 emissions by an average of 5% for 2019-2021. (Referred as "Abs1").
- Medium-term frame: reduce by 15% and 25% our scope 1 and 2 emissions in 2025 and 2030, respectively. (Referred as "Abs2" and "Abs 3").
- Long-term frame: reduce by 61% our scope 1 and 2 emissions in 2040 and become neutral carbon neutral by 2050. Referred as "Abs4").

This path has been established taking into consideration international initiatives such as We Mean Business, Global Methane Alliance and Methane Guiding Principles. Target coverage: The target covers 100% of base year (2018) and start year (2019) scope 1 and 2 emissions, including 100% of operations in which Enagás has management control at the time of establishment.. In this sense, data only covers assets in Spain, those in which we maintain management control.

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**Target reference number**

Abs 6

**Year target was set**

2018

**Target coverage**

Company-wide

**Scope(s) (or Scope 3 category)**

Scope 1+2 (market-based)

**Base year**

2018

**Covered emissions in base year (metric tons CO2e)**

304757.83

**Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)**

100

**Target year**

2040

**Targeted reduction from base year (%)**

46.2

**Covered emissions in target year (metric tons CO2e) [auto-calculated]**

163959.71254

**Covered emissions in reporting year (metric tons CO2e)**

310162.07

**% of target achieved [auto-calculated]**

-3.8382899554998

**Target status in reporting year**

Retired

**Is this a science-based target?**

No, but we are reporting another target that is science-based

**Please explain (including target coverage)**

Please note that this target was reported in CDP 2019 with the reference "Abs5". This target has been retired to align our global emission reduction strategy to the new Emission Reduction Path approved in 2019, increasing our level of ambition. The new Emissions Reduction Path increase the level of ambition of our previous targets by:

- Extending the time frame from 2040 until 2050 (to become carbon neutral).
- Increasing our level of ambition from 46.2% (as stated in our previous CDP response under "Abs5") up to 61% emission reduction compared to 2018. The Emission Reduction Path sets the following absolute targets (scope 1 and 2) compared to 2018, to be achieved through the measures outlined in its Energy Efficiency and Emissions Reduction Plan:

- Short-term frame: cutting scope 1 and 2 emissions by an average of 5% for 2019-2021. (Referred as "Abs1").
- Medium-term frame: reduce by 15% and 25% our scope 1 and 2 emissions in 2025 and 2030, respectively. (Referred as "Abs2" and

"Abs 3"). • Long-term frame: reduce by 61% our scope 1 and 2 emissions in 2040 and become neutral carbon neutral by 2050. Referred as "Abs4"). This path has been established taking into consideration international initiatives such as We Mean Business, Global Methane Alliance and Methane Guiding Principles. Target coverage: The target covers 100% of base year (2018) and start year (2019) scope 1 and 2 emissions, including 100% of operations in which Enagás has management control at the time of establishment. In this sense, data only covers assets in Spain, those in which we maintain management control.

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## C4.1b

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### (C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).

**Target reference number**

Int 1

**Year target was set**

2019

**Target coverage**

Company-wide

**Scope(s) (or Scope 3 category)**

Scope 1

**Intensity metric**

Other, please specify (metric tonnes of CO<sub>2</sub>e per GWh of national gas demand)

**Base year**

2019

**Intensity figure in base year (metric tons CO<sub>2</sub>e per unit of activity)**

0.92

**% of total base year emissions in selected Scope(s) (or Scope 3 category) covered by this intensity figure**

100

**Target year**

2019

**Targeted reduction from base year (%)**

4.4

**Intensity figure in target year (metric tons CO<sub>2</sub>e per unit of activity) [auto-calculated]**

0.87952

**% change anticipated in absolute Scope 1+2 emissions**

-3.7

**% change anticipated in absolute Scope 3 emissions**

0

**Intensity figure in reporting year (metric tons CO<sub>2</sub>e per unit of activity)**

0.69

**% of target achieved [auto-calculated]**

568.181818181818

**Target status in reporting year**

New

**Is this a science-based target?**

No, but we are reporting another target that is science-based

**Please explain (including target coverage)**

Annual scope 1 emissions intensity target (scope 1 emissions (tCO<sub>2</sub>e)/natural gas demand (GWh)): This target is based on the expected ratio of natural gas consumption (directly impacting on scope 1 emissions) by natural gas demand according to market conditions. 2019 baseline was set at 0.92 tCO<sub>2</sub>e/GWh and the target was to reduce it by 4.4% (0.88 tCO<sub>2</sub>e/GWh). As a result of the efforts made in energy efficiency at the facilities, the company has achieved an improvement regarding the target set: 2019 ratio of scope 1 emissions/natural gas demand accounted 0.69 tCO<sub>2</sub>e/GWh, having met and even surpassed by -20.9% the target (= -24.4% vs baseline). Please note that although in the "Target status in reporting year" field indicates "New" target year was set for 2019 and hence target status in reporting year should be considered as "achieved". Scope 1 emissions at Enagás are mainly due to CO<sub>2</sub> emissions produced by the consumption of natural gas by stationary combustion sources, such as turbo-compressors installed in compressor stations and underground storage facilities; process boilers installed in plants, underground storages, compressor stations and regulation and metering stations. It also includes emissions caused by natural gas venting and fugitive emissions, among others less significant sources as vehicle fleet or HVAC. Regarding "% change anticipated in absolute Scope 1+2 emissions", the intensity ratio reported "Int1" is only related to scope 1 emissions. This target reflects an anticipated 3.7% decrease in absolute scope 1+2 emissions (from 394,460tCO<sub>2</sub>e to 379,885 tCO<sub>2</sub>e). Target coverage: The target covers 100% of base year (2019) and start year (2019) scope 1 emissions, including 100% of operations in which Enagás has management control at the time of establishment. In this sense, data only covers assets in Spain, those in which we maintain management control.

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**Target reference number**

Int 2

**Year target was set**

2019

**Target coverage**

Company-wide

**Scope(s) (or Scope 3 category)**

Scope 2 (market-based)

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**Intensity metric**

Other, please specify (metric tonnes of CO2e per GWh of national gas demand)

**Base year**

2019

**Intensity figure in base year (metric tons CO2e per unit of activity)**

0.18

**% of total base year emissions in selected Scope(s) (or Scope 3 category) covered by this intensity figure**

100

**Target year**

2019

**Targeted reduction from base year (%)**

3.1

**Intensity figure in target year (metric tons CO2e per unit of activity) [auto-calculated]**

0.17442

**% change anticipated in absolute Scope 1+2 emissions**

-0.5

**% change anticipated in absolute Scope 3 emissions**

0

**Intensity figure in reporting year (metric tons CO2e per unit of activity)**

0.09

**% of target achieved [auto-calculated]**

1612.90322580645

**Target status in reporting year**

New

**Is this a science-based target?**

No, but we are reporting another target that is science-based

**Please explain (including target coverage)**

Annual scope 2 emissions intensity target (scope 2 emissions (tCO2e)/natural gas demand (GWh)): This target is mainly based on expected ratio of electricity consumption (directly impacting on scope 2 emissions) by natural gas demand according to market conditions. A target of 0.18 tCO2e/GWh was set, corresponding to a reduction of 3.1% below baseline. In 2019, ratio of scope 2 emissions/natural gas demand accounted 0.09 tCO2e/GWh, having met and even surpassed by -51.0% the target (= -53.5% vs baseline). Please note that although in the "Target status in reporting year" field indicates "New" target year was set for 2019 and hence target status in reporting year should be considered as "achieved". Scope 2 emissions at Enagás are mainly due to electricity consumed for operation of bombs, compressors, among others, as well as lightening and HVAC. Regarding "% change anticipated in absolute Scope 1+2 emissions", the intensity ratio reported "Int2" is only related to scope 2 emissions. This target reflects an anticipated -0.5 % decrease in absolute scope 1+2 emissions (from 394,460tCO2e to 392,464 tCO2e). Target coverage: The target covers 100% of base year (2019) and start year (2019) scope 1 emissions, including 100% of operations in which Enagás has management control at the time of establishment. In this sense, data only covers assets in Spain, those in which we maintain management control.

**C4.2****(C4.2) Did you have any other climate-related targets that were active in the reporting year?**

Target(s) to increase low-carbon energy consumption or production

Target(s) to reduce methane emissions

Other climate-related target(s)

**C4.2a****(C4.2a) Provide details of your target(s) to increase low-carbon energy consumption or production.****Target reference number**

Low 1

**Year target was set**

2019

**Target coverage**

Company-wide

**Target type: absolute or intensity**

Absolute

**Target type: energy carrier**

Electricity

**Target type: activity**

Production

**Target type: energy source**

Low-carbon energy source(s)

**Metric (target numerator if reporting an intensity target)**

MWh

**Target denominator (intensity targets only)**

<Not Applicable>

**Base year**

2019

**Figure or percentage in base year**

11979.76

**Target year**

2019

**Figure or percentage in target year**

13160.79047272

**Figure or percentage in reporting year**

32510.88

**% of target achieved [auto-calculated]**

1738.40730398051

**Target status in reporting year**

New

**Is this target part of an emissions target?**

It is not part of another emissions target, but it contributes to all targets related to scope 2 emissions.

**Is this target part of an overarching initiative?**

Science-based targets initiative

**Please explain (including target coverage)**

This target was set in order to reach in 2019 a 13.2 GWh of the total electricity consumption from self-generation from renewable, clean and efficient sources, from an estimated baseline of 12.0 GWh. The target was set based on the expected operation of facilities and electricity generation plants. Eventually, 32.5 GWh was achieved in 2019, meeting and even surpassing the target (>100%). Please note that although in the "Target status in reporting year" field indicates "New" target year was set for 2019 and hence target status in reporting year should be considered as "achieved". Although no new generation plants have been installed during 2019, the operation of existing ones has been optimized. The generation equipment included within the scope of the target include: photovoltaic panels, wind turbines, a generation system installed in Huelva LNG plant using ocean-thermal energy to produce electricity, a turboexpander using the potential energy from the expansion of natural gas at the Barcelona LNG plant, a micro-cogeneration system in Agreda positions, and a trigeneration plant installed at Zaragoza Lab. Target coverage: The target covers 100% of operations in which Enagás has management control at the time of establishment. In this sense, data only covers assets in Spain, those in which we maintain management control.

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**Target reference number**

Low 2

**Year target was set**

2019

**Target coverage**

Company-wide

**Target type: absolute or intensity**

Intensity

**Target type: energy carrier**

Electricity

**Target type: activity**

Consumption

**Target type: energy source**

Renewable energy source(s) only

**Metric (target numerator if reporting an intensity target)**

Percentage

**Target denominator (intensity targets only)**

Other, please specify (Total electricity consumed)

**Base year**

2018

**Figure or percentage in base year**

34.6

**Target year**

2020

**Figure or percentage in target year**

90

**Figure or percentage in reporting year**

35.3

**% of target achieved [auto-calculated]**

1.26353790613718

**Target status in reporting year**

New

**Is this target part of an emissions target?**

It is not part of another emissions target, but it contributes to all targets related to scope 2 emissions.

**Is this target part of an overarching initiative?**

Science-based targets initiative

**Please explain (including target coverage)**

This target was set in 2019 in order to reach in 2020 more than 90% all our electricity consumption from electricity supply contracts with 100% with Guarantees of Origin. In 2018 and 2019, Enagás maintained its electricity supply contracts with Guarantees of Origin (GdO) of 40% at the facilities with the highest consumption. This target foresees for 2020: □ Increase from 40% to 100% GdO at the facilities with the highest consumption (6x): this is expected to reduce around 30,600 tCO<sub>2</sub> □ Increase from 0% to 100% GdO at the facilities with medium consumption (3x): this is expected to reduce around 700 tCO<sub>2</sub> □ Increase from 0% to 100% GdO at the facilities with low consumption (376 points): this is expected to reduce around 800 tCO<sub>2</sub> Target coverage: The target covers 100% of operations in which Enagás has management control at the time of establishment. In this sense, data only covers assets in Spain, those in which we maintain management control.

C4.2b

**(C4.2b) Provide details of any other climate-related targets, including methane reduction targets.**

**Target reference number**

Oth 1

**Year target was set**

2019

**Target coverage**

Company-wide

**Target type: absolute or intensity**

Absolute

**Target type: category & Metric (target numerator if reporting an intensity target)**

Methane reduction target	Other, please specify (Total methane emissions in tons of CH4)
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**Target denominator (intensity targets only)**

<Not Applicable>

**Base year**

2019

**Figure or percentage in base year**

2719.27

**Target year**

2019

**Figure or percentage in target year**

2673.41

**Figure or percentage in reporting year**

2461.18

**% of target achieved [auto-calculated]**

562.778020061054

**Target status in reporting year**

New

**Is this target part of an emissions target?**

This target is included under the scope of our Emission Reduction Path within the targets Abs1, Abs2, Abs3, Abs 4, all of them aimed at reducing our s1+2 emissions: • Short-term frame: cutting scope 1 and 2 emissions by an average of 5% for 2019-2021. (Referred as "Abs1"). • Medium-term frame: reduce by 15% and 25% our scope 1 and 2 emissions in 2025 and 2030, respectively. (Referred as "Abs2" and "Abs 3"). • Long-term frame: reduce by 61% our scope 1 and 2 emissions in 2040 and become neutral carbon neutral by 2050. Referred as "Abs4"). In addition is also included under the annual scope 1 emissions target (reported as "Int1").

**Is this target part of an overarching initiative?**

Science Based Targets initiative

**Please explain (including target coverage)**

Methane emissions are relevant to our operations as well as for the whole natural gas value chain. At Enagás, in 2019 methane emissions account for 22.2 % of the overall carbon footprint emissions (scope 1 and 2) and are mainly due to fugitive emissions (15.3%) and natural gas venting (6.9%). Fugitive emissions are produced in connectors, valves and other components of Enagás' facilities. Venting may occur for operational, maintenance or safety reasons. In 2019, Enagás set a specific methane annual target to reach 2,673 tCH<sub>4</sub>, from a baseline of 2,719 tCH<sub>4</sub>. This target has been achieved as real methane emissions accounted for 2,461 tCH<sub>4</sub>, having met and even surpassed by -8% the target (= -9% vs baseline). Please note that although in the "Target status in reporting year" field indicates "New" target year was set for 2019 and hence target status in reporting year should be considered as "achieved". Target covers CH<sub>4</sub> emissions from vents and fugitive emissions. Regarding fugitive emissions or leaks, a LDAR campaign is being carried out since 2013 in our facilities. Our LDAR campaign is carried out according to European standard UNE-EN-15446 and US EPA's Method 21. The leaking components repaired during 2019 allowed a reduction of 139 tCH<sub>4</sub>. In 2019, new facilities were measured and repaired, specifically 2 LNG plants, 1 underground storage, 10 compressor stations, 130 regulation and measurement stations and 265 valves positions over pipelines. It is worth highlighting that all facilities have been measured at least once since the first LDAR Campaigns and from 2020 onwards Enagás will carry out annual measurements at all its facilities, thus increasing the frequency of LDAR campaigns. Natural gas vents are more difficult to prevent as they are part of the operation and maintenance of the national gas system. Nevertheless, venting emissions have been reduced by 32% in 2019 compared to 2018. The great awareness of the important climate change impact of methane among all Enagás employees has enabled to prioritize best practices to minimize venting as much as possible. Please note that target units a tons of CH<sub>4</sub>. Target coverage: The target covers 100% of operations in which Enagás has management control at the time of establishment. In this sense, data only covers assets in Spain, those in which we maintain management control.

**Target reference number**

Oth 2

**Year target was set**

2019

**Target coverage**

Company-wide

**Target type: absolute or intensity**

Absolute

**Target type: category & Metric (target numerator if reporting an intensity target)**

Methane reduction target	Other, please specify (Total methane emissions in CH4)
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**Target denominator (intensity targets only)**

&lt;Not Applicable&gt;

**Base year**

2015

**Figure or percentage in base year**

3443

**Target year**

2025

**Figure or percentage in target year**

1893.74

**Figure or percentage in reporting year**

2461.1765042062

**% of target achieved [auto-calculated]**

63.3737071759291

**Target status in reporting year**

New

**Is this target part of an emissions target?**

This target is included under the scope of our Emission Reduction Path within the targets Abs1, Abs2: • Short-term frame: cutting scope 1 and 2 emissions by an average of 5% for 2019-2021. (Referred as "Abs1"). • Medium-term frame: reduce by 15% and 25% our scope 1 and 2 emissions in 2025 and 2030, respectively. (Referred as "Abs2" and "Abs 3"). • Long-term frame: reduce by 61% our scope 1 and 2 emissions in 2040 and become neutral carbon neutral by 2050. Referred as "Abs4"). In addition is also included under the annual scope 1 emissions target (reported as "Int1").

**Is this target part of an overarching initiative?**

Other, please specify (Global Methane Alliance)

**Please explain (including target coverage)**

Methane emissions are relevant to our operations as well as for the whole natural gas value chain. At Enagás, in 2019 methane emissions account for 22.2 % of the overall carbon footprint emissions (scope 1 and 2) and are mainly due to fugitive emissions (15.3%) and natural gas venting (6.9%). Fugitive emissions are produced in connectors, valves and other components of Enagás' facilities. Venting may occur for operational, maintenance or safety reasons. In 2019, Enagás joined the United Nations Global Methane Alliance initiative and committed to reduce methane emissions from its activity by 45% (referred as "oth 2") in 2025 and 60% (referred as "oth 3") in 2030 with respect to 2015 figures. These targets are included within our Emission Reduction Path. Target covers methane emissions from vents and fugitive emissions. Regarding fugitive emissions or leaks, a Leak Detection and Repair (LDAR) campaign is being carried out since 2013 in our facilities. Our LDAR campaign is carried out according to European standard UNE-EN-15446 and US EPA's Method 21. The leaking components repaired during 2019 allowed a reduction of 139 tCH4. In 2019, new facilities were measured and repaired, specifically 2 LNG plants, 1 underground storage, 10 compressor stations, 130 regulation and measurement stations and 265 valves positions over pipelines. It is worth highlighting that all facilities have been measured at least once since the first LDAR Campaigns and from 2020 onwards Enagás will carry out annual measurements at all its facilities, thus increasing the frequency of LDAR campaigns. Natural gas vents are more difficult to prevent as they are part of the operation and maintenance of the national gas system. Nevertheless, venting emissions have been reduced by 32% in 2019 compared to 2018. The great awareness of the important climate change impact of methane among all Enagás employees has enabled to prioritize best practices to minimize venting as much as possible. Target coverage: The target covers 100% of operations in which Enagás has management control at the time of establishment. In this sense, data only covers assets in Spain, those in which we maintain management control.

**Target reference number**

Oth 3

**Year target was set**

2019

**Target coverage**

Company-wide

**Target type: absolute or intensity**

Absolute

**Target type: category & Metric (target numerator if reporting an intensity target)**

Methane reduction target	Other, please specify (Total methane emissions in tons of CH4)
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**Target denominator (intensity targets only)**

&lt;Not Applicable&gt;

**Base year**

2015

**Figure or percentage in base year**

3443

**Target year**

2030

**Figure or percentage in target year**

1377.27

**Figure or percentage in reporting year**

2461.1765042062

**% of target achieved [auto-calculated]**

47.5291299343961

**Target status in reporting year**

New

**Is this target part of an emissions target?**

This target is included under the scope of our Emission Reduction Path within the targets Abs1, Abs2: • Short-term frame: cutting scope 1 and 2 emissions by an average of 5% for 2019-2021. (Referred as "Abs1"). • Medium-term frame: reduce by 15% and 25% our scope 1 and 2 emissions in 2025 and 2030, respectively. (Referred as "Abs2" and "Abs 3"). • Long-term frame: reduce by 61% our scope 1 and 2 emissions in 2040 and become neutral carbon neutral by 2050. Referred as "Abs4"). In addition is also included under the annual scope 1 emissions target (reported as "Int1")

**Is this target part of an overarching initiative?**

Other, please specify (Global Methane Alliance)

**Please explain (including target coverage)**

Methane emissions are relevant to our operations as well as for the whole natural gas value chain. At Enagás, in 2019 methane emissions account for 22.2 % of the overall carbon footprint emissions (scope 1 and 2) and are mainly due to fugitive emissions (15.3%) and natural gas venting (6.9%). Fugitive emissions are produced in connectors, valves and other components of Enagás' facilities. Venting may occur for operational, maintenance or safety reasons. In 2019, Enagás joined the United Nations Global Methane Alliance initiative and committed to reduce methane emissions from its activity by 45% (referred as "oth 2") in 2025 and 60% (referred as "oth 3") in 2030 with respect to 2015 figures. These targets are included within our Emission Reduction Path. Target covers methane emissions from vents and fugitive emissions. Regarding fugitive emissions or leaks, a Leak Detection and Repair (LDAR) campaign is being carried out since 2013 in our facilities. Our LDAR campaign is carried out according to European standard UNE-EN-15446 and US EPA's Method 21. The leaking components repaired during 2019 allowed a reduction of 139 tCH4. In 2019, new facilities were measured and repaired, specifically 2 LNG plants, 1 underground storage, 10 compressor stations, 130 regulation and measurement stations and 265 valves positions over pipelines. It is worth highlighting that all facilities have been measured at least once since the first LDAR Campaigns and from 2020 onwards Enagás will carry out annual measurements at all its facilities, thus increasing the frequency of LDAR campaigns. Natural gas vents are more difficult to prevent as they are part of the operation and maintenance of the national gas system. Nevertheless, venting emissions have been reduced by 32% in 2019 compared to 2018. The great awareness of the important climate change impact of methane among all Enagás employees has enabled to prioritize best practices to minimize venting as much as possible. Please note that target units are tons of CH4. Target coverage: The target covers 100% of operations in which Enagás has management control at the time of establishment. In this sense, data only covers assets in Spain, those in which we maintain management control.

C4.3

**(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.**

Yes

C4.3a

**(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.**

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	14	
To be implemented*	17	53896.02
Implementation commenced*	9	4669.74
Implemented*	11	10318.71
Not to be implemented	1	

C4.3b

**(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.**

**Initiative category & Initiative type**

Energy efficiency in production processes	Process optimization
---	----------------------

**Estimated annual CO2e savings (metric tonnes CO2e)**

45.97

**Scope(s)**

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

14214

**Investment required (unit currency – as specified in C0.4)**

173368

**Payback period**

4-10 years

**Estimated lifetime of the initiative**

11-15 years

**Comment**

Installation of frequency variator on a primary LNG pump (GA-221C) at the Cartagena Regasification Plant which leads to the reduction in electricity consumption and hence reduction in our scope 2 emissions (market-based).

---

**Initiative category & Initiative type**

Energy efficiency in production processes	Process optimization
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**Estimated annual CO2e savings (metric tonnes CO2e)**

268.78

**Scope(s)**

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

83119

**Investment required (unit currency – as specified in C0.4)**

336250

**Payback period**

4-10 years

**Estimated lifetime of the initiative**

11-15 years

**Comment**

Installation of a frequency variator on a seawater collection pump (GA-224A) at the Cartagena Regasification Plant which leads to the reduction in electricity consumption and hence reduction in our scope 2 emissions (market-based).

---

**Initiative category & Initiative type**

Energy efficiency in production processes	Process optimization
---	----------------------

**Estimated annual CO2e savings (metric tonnes CO2e)**

141.6

**Scope(s)**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

14896

**Investment required (unit currency – as specified in C0.4)**

7776

**Payback period**

<1 year

**Estimated lifetime of the initiative**

11-15 years

**Comment**

Use of nitrogen in the molecular seal of the flare in Huelva Regasification Plant with the supply and installation of a second nitrogen generation appliance which leads to the reduction of natural gas consumption and hence, reduction in our scope 1 emissions..

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**Initiative category & Initiative type**

Energy efficiency in production processes	Process optimization
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**Estimated annual CO2e savings (metric tonnes CO2e)**

4801.72

**Scope(s)**

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

1813430

**Investment required (unit currency – as specified in C0.4)**

328058

**Payback period**

<1 year

**Estimated lifetime of the initiative**

11-15 years

**Comment**

Modification in the Organic Rankine Cycle (ORC) installed in Huelva Regasification Plant for operation with the high pressure cycle which leads to a reduction in electricity consumption and hence a reduction in our scope 2 emissions (market-based).

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**Initiative category & Initiative type**

Energy efficiency in production processes	Process optimization
---	----------------------

**Estimated annual CO2e savings (metric tonnes CO2e)**

246.25

**Scope(s)**

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

76151

**Investment required (unit currency – as specified in C0.4)**

400000

**Payback period**

4-10 years

**Estimated lifetime of the initiative**

11-15 years

**Comment**

Installation of two frequency variators on seawater pumps (P-2501D and P-3501A) at the Barcelona regasification plant which leads to the reduction in electricity consumption and hence reduction in our scope 2 emissions (market-based).

---

**Initiative category & Initiative type**

Energy efficiency in production processes	Process optimization
---	----------------------

**Estimated annual CO2e savings (metric tonnes CO2e)**

370.39

**Scope(s)**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

38963

**Investment required (unit currency – as specified in C0.4)**

405438

**Payback period**

4-10 years

**Estimated lifetime of the initiative**

11-15 years

**Comment**

Replacement in regulation and measurement stations of existing boilers with high performance, low emissions boilers, modulating natural gas burners and three-way valves. Installation of a boiler and pump control system, with remote access control through the Enagás network. These measures allowed the reduction of natural gas consumption and hence a reduction in our scope 1 emissions.

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**Initiative category & Initiative type**

Energy efficiency in production processes	Machine/equipment replacement
---	-------------------------------

**Estimated annual CO2e savings (metric tonnes CO2e)**

6.26

**Scope(s)**

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

1935

**Investment required (unit currency – as specified in C0.4)**

405438

**Payback period**

>25 years

**Estimated lifetime of the initiative**

6-10 years

**Comment**

Installation of recirculating pumps with electronic regulation module (frequency variator) in regulation and measurement stations which leads to the reduction in electricity consumption and hence reduction in our scope 2 emissions (market-based).

**Initiative category & Initiative type**

Fugitive emissions reductions	Oil/natural gas methane leak capture/prevention
-------------------------------	---

**Estimated annual CO2e savings (metric tonnes CO2e)**

125.02

**Scope(s)**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

3156

**Investment required (unit currency – as specified in C0.4)**

590979

**Payback period**

>25 years

**Estimated lifetime of the initiative**

1-2 years

**Comment**

2019 Fugitive Leak Detection And Repair Campaign (LDAR) in the gas pipeline network which leads to a reduction of natural gas fugitive emissions and hence a reduction in our scope 1 emissions.

**Initiative category & Initiative type**

Fugitive emissions reductions	Oil/natural gas methane leak capture/prevention
-------------------------------	---

**Estimated annual CO2e savings (metric tonnes CO2e)**

3187.28

**Scope(s)**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

80447

**Investment required (unit currency – as specified in C0.4)**

21218

**Payback period**

<1 year

**Estimated lifetime of the initiative**

1-2 years

**Comment**

2019 Fugitive Leak Detection And Repair Campaign (LDAR) in regasification plants which leads to a reduction of natural gas fugitive emissions and hence a reduction in our scope 1 emissions.

**Initiative category & Initiative type**

Fugitive emissions reductions	Oil/natural gas methane leak capture/prevention
-------------------------------	---

**Estimated annual CO2e savings (metric tonnes CO2e)**

583.42

**Scope(s)**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

14725

**Investment required (unit currency – as specified in C0.4)**

12545

**Payback period**

<1 year

**Estimated lifetime of the initiative**

1-2 years

**Comment**

2019 Fugitive Leak Detection And Repair Campaign (LDAR) in underground storage facilities which leads to a reduction of natural gas fugitive emissions and hence a reduction in our scope 1 emissions.

**Initiative category & Initiative type**

Energy efficiency in production processes	Process optimization
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**Estimated annual CO2e savings (metric tonnes CO2e)**

542.02

**Scope(s)**

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

167619

**Investment required (unit currency – as specified in C0.4)**

25000

**Payback period**

<1 year

**Estimated lifetime of the initiative**

11-15 years

**Comment**

Decrease in working pressure downstream of the turboexpander to increase power generation which leads to a reduction of electricity consumption and hence a reduction in our scope 2 emissions (market-based).

**C4.3c**

**(C4.3c) What methods do you use to drive investment in emissions reduction activities?**

Method	Comment
Dedicated budget for energy efficiency	Enagás' Energy Efficiency and Emission Reduction Plan is quarterly monitored and yearly updated in order to calculate energy and monetary savings as well as emissions reductions. Also, yearly new measures are identified and needed investments are approved in the framework of the "Non Retributed Investments Committee" or under the O&M Plan. The measures undertaken in 2019 required an investment of 2.3M€. Annual emissions reductions targets are linked to variable salary of employees. In order to meet the targets sets in our Emission Reduction Path, Enagás foresees the investment Energy Efficiency and Reduction Initiatives, including among others the Replacement of Turbocompressors (driven by gas) by electrical ones, the increase of electricity with Guarantee of Origin (from renewable energies) as well as the reduction of fugitive emissions through LDAR campaigns.
Dedicated budget for other emissions reduction activities	An emission working group was created and meets periodically, in order to monitor and analyse GHG emission evolution and fix and monitor the emission reduction activities. This working group gathers and analyses monthly data, and identifies investment actions to achieve a reduction of these emissions. Enagás annually calculates and verifies its Carbon Footprint, assigning human resources to its elaboration and financial budget to the external verification by a third accredited party. Since 2014, external carbon footprint verification (according to ISO-14064) includes verification of emissions reductions reached by implementing energy efficiency measures.
Compliance with regulatory requirements/standards	Annual compliance with the European Emission Trading System (EU ETS) requires annual budget and human resources dedication to the GHG emissions monitoring and management. In addition, compliance with the upcoming Methane Regulation (such as the EU Methane Strategy or the OGMP) requires the implementation of methane reduction activities (e.g. LDAR campaigns, replacements of gas-driven equipment by electric one, etc.) with a specific dedicated budget.
Internal price on carbon	Enagás sets an internal carbon price in order to integrate climate change risks and opportunities into its business and investment decisions. Since then, internal carbon price has been used as a planning tool regarding to: - Evaluate and forecast cost of regulatory compliance of each facility included under the EU ETS. - Identify, assess and rank emission reductions measures to be implemented as part of the Energy Efficiency and Emissions Reduction Plan. - Include climate change risks and opportunities as part of the environmental due diligence review of new investments located in areas affected by EU ETS or other emergent carbon markets. Our internal carbon price is yearly updated. In 2019, a price of 25.24 €/tCO2 was fixed for this year according to market analysts' forecasts provided by CARBON PULSE and last month's average price provided by SENDECO2. Last update, carried out in mid-2020 and based on CARBON PULSE and International Energy Agency (World Energy Outlook 2019) analysts EUA price forecasts to 2040, resulted in the following values: 20.85 €/tCO2e in 2020, 29.75 €/tCO2e in 2021, 32.80 in 2025, 40.10 €/tCO2e in 2030 and 38.00 in 2040. Between 2022 – 2025, 2025-2030 and 2030-2040 a linear variation has been made.

## C4.5

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### (C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?

Yes

## C4.5a

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### (C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.

#### Level of aggregation

Company-wide

#### Description of product/Group of products

Enagás offers to its clients Carbon Neutral Regasification Plants (in Spain) that allows them to degasify its natural gas using facilities which are carbon neutral. To offer this service, and become carbon neutral in our LNG, we (a) implement energy efficiency and emissions reduction measures and (b) offset the emissions that have not been reduced/avoided with carbon credits: a) Energy Efficiency and Emissions Reduction Measures: all the initiatives yearly implemented under the Energy Efficiency and Emissions Reduction Plan are aimed to provide a lower carbon intensive service to our clients. The measures implemented in 2019 have allowed a reduction of 9,860 tonnes CO<sub>2</sub>e. In this sense, our innovative energy-saving/efficiency technologies implemented in our facilities allow our clients to make use of energy efficient infrastructures. b) Carbon neutrality of regasification plants: when GHG emissions of our LNG Plants cannot be reduced by energy efficiency and emissions reduction activities, we offset all emissions derived from its functioning and hence, our LNG regasification plants are carbon neutral. The use of carbon neutral LNG Plants allows our clients to reduce their scope 3 GHG emissions. Specifically, emissions derived from the functioning of our LNG Plants during 2019 (32,576 tCO<sub>2</sub>) have been offset through carbon credits (purchased at the beginning of 2020) corresponding to the scope 1 and 2 emissions of our LNG regasification plants. Emissions have been offset through carbon credits created through 2 projects to collect and use gas from landfills in Chile and Mexico, for generating electricity and for another reforestation project in Peru. Carbon neutrality of regasification plants involves key infrastructures for the security and diversification of supply. Furthermore, carbon neutrality makes up one of the priorities at a strategic level, as the company aims to position itself as a worldwide specialist in LNG.

#### Are these low-carbon product(s) or do they enable avoided emissions?

Avoided emissions

#### Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify (Carbon neutral regasification plants)

#### % revenue from low carbon product(s) in the reporting year

31.6

#### % of total portfolio value

<Not Applicable>

#### Asset classes/ product types

<Not Applicable>

#### Comment

In addition, Enagás is working to: 1) Promote the development, and integration of renewable gases and hydrogen into gas infrastructure. In this sense, our infrastructure can be used by our client for the transportation of renewable gases (with a zero emission factor) avoiding the use of other fuels and hence GHG emissions. In this context, we promote new technologies and infrastructures for carbon capture, storage and utilization, as well as liquefaction on a small scale, which will allow a greater development of the gas sector in order to provide a better service through the natural gas chain value while allowing our clients to reduce GHG emissions. 2) Promote natural gas use in transport: By promoting new services and uses of natural gas in transportation by road, rail and sea and in the industrial and household sectors, Enagás aims to boost the use of natural gas above other more polluting and carbon intensive fossil fuels. The use of Compressed Natural Gas (CNG) and / or Liquefied Natural Gas (LNG) allow to reduce approximately NO<sub>x</sub> emissions by 85% and CO<sub>2</sub> emissions by 25% compared to other fuels, practically eliminating SO<sub>x</sub> and particulate emissions, and achieving economic savings between 30-50%.

## C-OG4.6

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### (C-OG4.6) Describe your organization's efforts to reduce methane emissions from your activities.

CH<sub>4</sub> emissions are relevant to our operations as well as for the whole natural gas value chain. At Enagás, in 2019, CH<sub>4</sub> emissions accounted for 22.2% of the overall carbon footprint (scope 1 and 2) and are mainly due to fugitive emissions (15.3%) and natural gas venting (6.9%).

Enagás' efforts to reduce CH<sub>4</sub> emissions from our activities are mainly focused on: A) Mitigation measures; B) Commitment; and C) Industry Leadership

#### A) Mitigation measures:

Thanks to the mitigation measures, since 2013 until 2019, Enagás reduced by -47% its fugitive emissions and by -61 its vents emissions. In 2019, methane emissions decreased by 13.4% compared to 2018. Some of the measures implemented include:

- Annual Leak detection and repair campaigns (LDAR).
- Use of Boil-off gas (BOG) compressors in LNG regasification plants.

- Optimising the operation and trying to align it with the maintenance works in order to reduce vents.
- Minimize venting through measures including mobile compressors, portable flare gas recovery units or injecting inert purge gas.
- Replacing wet seals with dry seals.
- Hot taps for in-service pipeline connections.
- Electric motor starters in compressors.
- Converting gas pneumatic controls to instrument air.

#### Case study

To meet the company's targets, Enagás is currently focused on LDAR campaigns as the most cost effective measure to reduce CH<sub>4</sub> emissions. After several campaigns for the detection, quantification and repair of natural gas leaks in its facilities, Enagás has internalized these actions in the maintenance operations in order to reduce fugitive emissions year after year. Main lessons learned from the LDAR campaigns up to date are:

- Emissions must be detected and quantified in order to be reduced.
- There is still a great uncertainty associated with quantifying equipment and conversion factors, and there is no standardized methodology.
- Nevertheless, measurement is currently the most effective and realistic technique for detecting leakage points and quantifying emissions.
- Valves, which are also the most difficult to repair, are the main leaking components in LNG terminals (46% of detected emissions). Connectors are also components that are likely to leak principally in underground storages (38%), compressor stations (40%) and regulation and metering stations and valve positions.
- The age of the installation is also an influencing variable. In general, there is an upward trend for both emissions and number of leaks as the age increases.
- The frequency of the campaigns is also a determinant factor for reducing fugitive emission. The more often measurements and repairs are made, the lower fugitive emissions will be released.

In 2019, 2 LNG plants, 1 underground storage, 10 compressor stations, 130 regulation and measurement stations and 265 valves positions were measured. Since 2013, all facilities have been measured at least once and from 2020 onwards, measurements will be carried out on yearly basis in every facility, thus increasing the frequency of LDAR campaigns. In 2019, 624,743€ were invested in LDAR campaign and 3,896 tCO<sub>2</sub>e were reduced.

In addition, in 2019 a computer application was developed to record fugitive emissions and enable increased control and management of this type of emissions. Another important measure is the development in 2019 of a procedure and specific technical instructions for the measurement and quantification of fugitive emissions.

#### **B) Commitment**

The company has set specific methane targets:

- In 2019, Enagás joined the United Nations Global Methane Alliance initiative and committed to reduce methane emissions from its activity by 45% in 2025 and 60% in 2030 with respect to 2015 figures.
- In addition, in 2019, Enagás set a specific methane annual target to reach 2,673 tCH<sub>4</sub>, from a baseline of 2,719 tCH<sub>4</sub>. This target has been achieved as real methane emissions accounted for 2,461 tCH<sub>4</sub>, having met and even surpassed by -8% the target (= -9% vs baseline).

Targets covers CH<sub>4</sub> emissions from vents and fugitive emissions.

#### **C) Industry leadership**

Enagás participates in a number of associations actively collaborating in the preparation of reports, studies and research related to methane emissions. During 2019, the following were of note:

- Publication, through the associations GIE and MARCOGAZ, of a report on how the gas industry can contribute to reducing methane emissions (Assessment of methane emissions for gas Transmission and Distribution system operators).
- Collaboration with the Methane Guiding Principles in the development of best practice guidelines for methane emissions reduction such as 'Reduction of methane emissions: Best Practices - strengthening the environmental credibility of gas'.
- Enagás holds the presidency of the UNECE Group of Gas Experts within which one of the lines of work is methane emissions. In this field, a study financed by the EPA about methane emissions in extractive industries has been launched and Enagás is a member of the Steering Committee.

**(C-OG4.7) Does your organization conduct leak detection and repair (LDAR) or use other methods to find and fix fugitive methane emissions from oil and gas production activities?**

Yes

**C-OG4.7a**

**(C-OG4.7a) Describe the protocol through which methane leak detection and repair or other leak detection methods, are conducted for oil and gas production activities, including predominant frequency of inspections, estimates of assets covered, and methodologies employed.**

**i) A company specific description of LDAR protocol**

As part of its commitment with emissions reductions, Enagás has been carrying out annual LDAR campaigns since 2013.

Methodology: Our LDAR campaign is carried out according to European standard UNE-EN-15446 and US EPA's Method 21. There, leaks are detected through infrared optimal gas imaging (OGI) cameras and quantified with a flame ionization detector (FID) – handheld "sniffer" gas detectors. When a leak is detected, the leaking components are repaired by Enagás staff according to the established maintenance programs. An immediate repair is carried out when possible, and when more serious works are needed, this repair is included in the maintenance program of the infrastructure to be fixed as soon as possible taking into account its operation. In the maintenance program, the non-immediately repaired leaks are prioritized according to their size. In order to obtain emissions data in tCH<sub>4</sub> (from the ppm obtained by FID equipment) correlation factors provided by the US EPA in method 21 are used for each type of component. Also, in order to calculate our global fugitive emissions to be reported in the carbon footprint, we conservatively estimate emissions in non-measured facilities taking into account emissions detected (before repairing) at similar sites. From 2020 onwards, real measurements will be carried out on a yearly basis in all our facilities and hence, estimations won't be longer needed.

Scope: LDAR campaigns cover 100% of Enagás' facilities over which we have management control, this is:

- 3 LNG regasification terminals (Barcelona, Cartagena and Huelva)
- 3 underground gas storages (Gaviota, Serrablo and Yela)
- 19 compressor stations
- 493 regulation & measuring stations and measurement stations
- 726 valve stations

Between 2013 and 2018, 3 LNG plants (100%), 3 underground storages (100%), 19 compressor stations (100%), 399 regulation and measurement stations (81%) and 527 valves positions over pipelines (73%) were measured. Lately, during 2019, the campaign covered 2 LNG plants (one measured for the third time and other for the second time) and 1 underground storage (measured for the third time), 10 compressor stations (6 measured for the second time and 4 for the third time), 130 regulation and measurement stations (achieving the 100% of the total stations) and 265 valves positions over pipelines (reaching 100% of valves positions measured).

Frequency: At the end of 2019, all our facilities have been measured at least once since the beginning of our LDAR campaigns in 2013 covering 100% of our assets. Frequency of inspections have varied depending, among other factors, on the size and age of our installations prioritizing those with the oldest equipment and with the biggest size. Despite of the high number of installations of regulation and measurement stations and valves position along our 11,000 km of pipeline, we have been able to cover 100% of these assets. Moreover, Enagás has already bought the necessary equipment to conduct LDAR measurements every year at every facility from 2020 onwards.

**ii) An example/case study of how your LDAR or other methane leak detection protocols are implemented:**

The implementation of our LDAR protocol has enabled us to obtain the following:

Main conclusions: At LNG plants the critical components are valves, representing 46% of the leaks detected. Connectors are also components that are likely to leak principally in underground storages (38%), compressor stations (40%) and regulation and metering stations and valve positions.

We have also seen that the age of the facility has an influence on the amount of leakages. The leaking components repaired during 2019 avoided the emission of 3,896 tCO<sub>2</sub>e distributed as follows:

- LNG regasification plants: 3,187.28 tCO<sub>2</sub>e
- Underground storages: 583.42 tCO<sub>2</sub>e
- Compressor stations, regulation and metering stations and valve positions: 125.02 tCO<sub>2</sub>e

Leaks repairs:

- Parallel repairs are those carried out during the campaign, at the same time of detection and measurement. If repair is not feasible then a planned repair is to be conducted.

- Planned repairs are those subsequent to parallel repairs and they are carried out throughout the campaign year, generally having the end of that year as the limit.

Once the repairs are done, the detector is be used again to ensure the complete repair of the component. This information is be recorded in the database.

Depending on the amount of methane emissions, Enagás has set ranges of priorities:

- Priority 4: <500 ppm

- Priority 3: 500 ppm - 10,000 ppm

- Priority 2: 10,000 ppm - 50,000 ppm

- Priority 1: >50,000 ppm

Costs: In 2019, 624,743€ were invested in LDAR campaign.

Innovation: Together with the Carlos III University and internal and external entrepreneurs, Enagás funded a start-up company called "VIRA Gas Imaging" that is providing technological solutions for the detection of gas through its own infrared cameras and specific customized solutions.

## C-OG4.8

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**(C-OG4.8) If flaring is relevant to your oil and gas production activities, describe your organization's efforts to reduce flaring, including any flaring reduction targets.**

**(i) Whether flaring is relevant or not:**

Flaring is not relevant in Enagás.

**(ii) Why flaring is not relevant to Enagás**

Flaring is not relevant to Enagás given that emissions derived from natural gas flaring operations represent less than 1% of our total scope 1 emissions (0.21%).

Flaring occurs in small quantities in (a) underground storages and (b) LNG Plants:

(a) In underground storages, flaring occurs in maintenance or emergency situations (278 tCO<sub>2</sub>e in 2019 vs 578 tCO<sub>2</sub>e in 2018). Most of those emissions are due to flaring of natural gas condensate, a low-density mixture of hydrocarbon liquids that are present as gaseous components when raw natural gas is extracted from the wells. A very high and conservative emission factor is used for emissions calculations generated by this source, being probably overestimated.

(b) In LNG plants, natural gas is flared in maintenance or emergency situations, but also when plants are working below their minimal operation conditions or during tanker loading, when high amounts of boil-off gas are generated. In 2019, total flaring emissions in LNG plants accounted for 299 tCO<sub>2</sub>e (vs 470 tCO<sub>2</sub>e in 2018).

Although flaring is not considered to be relevant, we make efforts to reduce it. In this sense, total flaring emissions have been reduced by 3% in 2019 (577 tCO<sub>2</sub>e) compared to 2018 (592 tCO<sub>2</sub>e).

Reduction was mainly due to all the measures implemented as part of the Energy Efficiency and Emissions Reduction Plan in the previous years. Specially, the installation of end-of-pipeline gas compressors at the Cartagena and Huelva LNG plants allowing the recovery and reinjection of boil-off gas generated during operating situations at low-level production stages have entailed a significant impact in flaring emissions reduction (44,642 tCO<sub>2</sub>e avoided between 2016-2019) with an investment of almost 23 M€.

In addition, even though flaring is not considered as relevant, flaring emissions reduction is included and it is part our Emission Reduction Path. Our Emissions Reduction Path sets the following absolute targets (scope 1 and 2) compared to 2018, which Enagás will achieve through the specific measures outlined in its Energy Efficiency and Emissions Reduction Plan:

- Short-term frame: cutting scope 1 and 2 emissions by an average of 5% for 2019-2021. (Referred as "Abs1").
- Medium-term frame: reduce by 15% and 25% our scope 1 and 2 emissions in 2025 and 2030, respectively. (Referred as "Abs2" and "Abs 3").
- Long-term frame: reduce by 61% our scope 1 and 2 emissions in 2040 and become neutral carbon neutral by 2050. Referred as "Abs4").

Additionally, it is also included in our annual target ("Int1"): scope 1 emissions (tCO<sub>2</sub>e)/natural gas demand (GWh). This target is based on the expected ratio of natural gas consumption (directly impacting on scope 1 emissions) by natural gas demand according to market conditions.

## C5. Emissions methodology

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### C5.1

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**(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).**

**Scope 1**

**Base year start**

January 1 2018

**Base year end**

December 31 2018

**Base year emissions (metric tons CO2e)**

276175.326

**Comment**

Our carbon footprint base year was defined as the year immediately before the reporting year. In this case, the base year will be 2018. Scope 1 base year emissions are the ones reported in CDP 2019.

**Scope 2 (location-based)**

**Base year start**

January 1 2018

**Base year end**

December 31 2018

**Base year emissions (metric tons CO2e)**

89954.7

**Comment**

Our carbon footprint base year was defined as the year immediately before the reporting year. In this case, the base year will be 2018. Scope 2 base year emissions are the ones reported in CDP 2019. Location-based data was based on an electricity mix emission factor provided by the Spanish Environment Ministry (0.00043 tCO2/kWh).

**Scope 2 (market-based)**

**Base year start**

January 1 2018

**Base year end**

December 31 2018

**Base year emissions (metric tons CO2e)**

48176.845

**Comment**

Our carbon footprint base year was defined as the year immediately before the reporting year. In this case, the base year will be 2018. Scope 2 base year emissions are the ones reported in CDP 2019. Market-based data was based on electricity suppliers' emissions factors: Iberdrola: 0.00028 tCO2/kWh. Market-based also includes Guarantees of Origin for 62.75 GWh supplied by contract requirement.

**C5.2**

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**(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.**

European Union Emission Trading System (EU ETS): The Monitoring and Reporting Regulation (MMR) – General guidance for installations

IPCC Guidelines for National Greenhouse Gas Inventories, 2006

ISO 14064-1

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

**C6. Emissions data**

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**C6.1**

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### (C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

#### Reporting year

##### Gross global Scope 1 emissions (metric tons CO2e)

275889.036

##### Start date

<Not Applicable>

##### End date

<Not Applicable>

##### Comment

Scope 1 emissions are annually calculated and verified by a third accredited party in accordance to UNE-EN ISO 14064 as part of the Enagás Carbon Footprint verification process. It includes operations over which we maintain management control (operations in Spain). Unlike in 2017 and 2018, data reported in 2019 does not include Chile regasification plant (GNL Quintero), as Enagás lost operational control of this plant in February 2019. In this sense, data only covers assets in Spain, those in which Enagás maintains management control. Scope 1 emissions are mainly due to CO2 emissions from natural gas consumption at stationary combustion sources as turbocompressors (at compressor stations and underground storages) and process boilers (installed at plants, underground storages, compressor stations and regulation and metering stations), as well as fugitive emissions and natural gas venting, among others less significant sources as vehicle fleet or HVAC. At the aggregate level (considering GNL Quintero Regasification Plant in 2018), Scope 1 emissions remained almost constant in 2019 (-0.1%) compared to 2018. However, in Spain emissions have slightly increased (+0.5%). This small increase was mainly due to the increase in the of natural gas consumption in underground storages. This increase in energy consumption is due to the increased operation in underground storages, as net injection increased by 89.84% vs 2018. Nevertheless, it was almost fully compensated, among others, by a decrease in other facilities: gas pipeline (-28.7%); compressor stations (-7.9%); regulation and metering stations (-7.3); and offices, transmission centres and fleet (-1.5%). As part of the Energy Efficiency and Emissions Reduction Plan, Enagás has been able to prevent the emission of 4,337 tCO2e (from scope 1) thanks to the initiatives implemented in 2019 (note that emissions reduction were verified by a third external party as part of the Carbon Footprint verification process). Thanks to Enagás commitment, targets and actions towards emissions reduction, the company has reduced its scope 1 emissions by almost 50% since 2014.

## C6.2

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### (C6.2) Describe your organization's approach to reporting Scope 2 emissions.

#### Row 1

##### Scope 2, location-based

We are reporting a Scope 2, location-based figure

##### Scope 2, market-based

We are reporting a Scope 2, market-based figure

##### Comment

Scope 2 emissions are annually calculated and verified by an accredited third party in accordance with standard UNE-EN ISO 14064 as part of the Enagás Carbon Footprint verification process. It includes operations over which we maintain management control (operations in Spain). Unlike in 2017 and 2018, data reported in 2019 does not include Chile regasification plant (GNL Quintero), as Enagás lost operational control of this plant in February 2019. In this sense, data only covers assets in Spain, those in which Enagás maintains management control. Location-based data is based on an electricity mix emission factor provided by the Spanish Environment Ministry (0.00041 tCO2/kWh in 2018). Market-based data is based on our main electricity supplier's emission factor, Iberdrola (0.00027 tCO2/kWh in 2018). The emissions factors are provided by the Spanish Environment Ministry Carbon Footprint most updated tool. At an aggregate level (considering GNL Quintero Regasification Plant in 2018), Scope 2 emissions have decreased (-28.9%), however, in Spain, Scope 2 emissions increased by 13.1%, mainly due to the increase in Scope 2 emissions from underground storage facilities (+66.6%); an increase due to the activity of these facilities during 2019, which increased the injection level by 89.84% compared to 2018, as a result of the higher volume of trading linked to the increase in natural gas demand (+14% vs 2018). Nevertheless, it was partially compensated, among others, by a decrease in other facilities such as regulating and metering stations (-12.5%) as well as offices, transmission centres and fleet (-11.6%). As part of the Energy Efficiency and Emissions Reduction Plan, Enagás has been able to prevent the emission of 5,523 tCO2e (from scope 2, market-based) thanks to the initiatives implemented in 2019 (note that emissions reduction were verified by a third external party as part of the Carbon Footprint verification process).

## C6.3

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**(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?**

**Reporting year**

**Scope 2, location-based**

81882.77

**Scope 2, market-based (if applicable)**

34273.033

**Start date**

<Not Applicable>

**End date**

<Not Applicable>

**Comment**

Scope 2 emissions are annually calculated and verified by an accredited third party in accordance with standard UNE-EN ISO 14064 as part of the Enagás Carbon Footprint verification process. It includes operations over which we maintain management control (operations in Spain). Unlike in 2017 and 2018, data reported in 2019 does not include Chile regasification plant (GNL Quintero), as Enagás lost operational control of this plant in February 2019. In this sense, data only covers assets in Spain, those in which Enagás maintains management control. Location-based data is based on an electricity mix emission factor provided by the Spanish Environment Ministry (0.00041 tCO2/kWh in 2018). Market-based data is based on our main electricity supplier's emission factor, Iberdrola (0.00027 tCO2/kWh in 2018). The emissions factors are provided by the Spanish Environment Ministry Carbon Footprint most updated tool. At an aggregate level (considering GNL Quintero Regasification Plant in 2018), Scope 2 emissions have decreased (-28.9%), however, in Spain, Scope 2 emissions increased by 13.1%, mainly due to the increase in Scope 2 emissions from underground storage facilities (+66.6%); an increase due to the activity of these facilities during 2019, which increased the injection level by 89.84% compared to 2018, as a result of the higher volume of trading linked to the increase in natural gas demand (+14% vs. 2018). Nevertheless, it was partially compensated, among others, by a decrease in other facilities such as regulating and metering stations (-12.5%) as well as offices, transmission centres and fleet (-11.6%). As part of the Energy Efficiency and Emissions Reduction Plan, Enagás has been able to prevent the emission of 5,523 tCO2e (from scope 2, market-based) thanks to the initiatives implemented in 2019 (note that emissions reduction were verified by a third external party as part of the Carbon Footprint verification process).

**C6.4**

**(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?**

Yes

**C6.4a**

**(C6.4a) Provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure.**

**Source**

Enagás Office USA LLC in Houston

**Relevance of Scope 1 emissions from this source**

Emissions are not relevant

**Relevance of location-based Scope 2 emissions from this source**

Emissions are not relevant

**Relevance of market-based Scope 2 emissions from this source (if applicable)**

Emissions are not relevant

**Explain why this source is excluded**

Enagás Office USA LLC in Houston has been excluded because emissions are considered negligible because there is no significant activity (one only person works in this office) and there are no associated assets that may generate emissions.

**Source**

Leaks from fire extinguishers

**Relevance of Scope 1 emissions from this source**

Emissions are not relevant

**Relevance of location-based Scope 2 emissions from this source**

No emissions from this source

**Relevance of market-based Scope 2 emissions from this source (if applicable)**

No emissions from this source

**Explain why this source is excluded**

Leaks from fire extinguishers have been excluded as they are estimated to represent less than 1% of total scope 1 and do not represent any scope 2 emission.

**C6.5**

**(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.**

## Purchased goods and services

### Evaluation status

Not relevant, calculated

### Metric tonnes CO2e

13516.726

### Emissions calculation methodology

Purchased Goods and Services category includes emissions from extraction, production, and transportation of goods (computers, office furniture, etc.) and services (engineering, security, consultancy, legal advice services, etc.) purchased or acquired by Enagás. This category includes 30 suppliers out of 78 suppliers who have replied to Enagás' questionnaire, representing 24% of Enagás annuals costs. Data have been gathered through a specific questionnaire available at our supply chain web platform. Global scope 1 and 2 emissions, as well as annual supplier revenues, are collected through this questionnaire and are used, together with annual cost for Enagás, for emissions allocation. The allocation formula used was: "supplier emissions\*cost for Enagás associated to this supplier/annual supplier revenues". Also, emissions from paper and office materials consumption are included (0.56 tCO2e). This data has been directly calculated and provided by our supplier according to its own verified methodology. In this case, 100% of the information used has been provided by suppliers.

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

### Please explain

This category accounts for 6.2% of the total scope 3 emissions reported and verified. Emissions under this category increased from 10,816 tCO2e in 2018 to 13,517 in 2019. This is due not only to the increase in the number of suppliers that provided data but also to which suppliers have worked with Enagás (not all suppliers provide goods or services to Enagás every year). Relevant categories are those which represent at least 10% of our total scope 3 emissions.

## Capital goods

### Evaluation status

Not relevant, calculated

### Metric tonnes CO2e

225.839

### Emissions calculation methodology

This category includes emissions from extraction, production, and transportation of capital goods purchased or acquired by Enagás, as infrastructure construction material and machinery (boilers, turbines, power engines, etc.), among others. As this category refers to capital goods (such as expensive equipment that is not acquired by Enagás so frequently), a lower number of suppliers exist. In this sense, 1 suppliers, representing 0.1% of Enagás annual costs have responded to our questionnaire. Data have been gathered through a specific questionnaire available at our supply chain web platform. Global scope 1 and 2 emissions, as well as annual supplier revenues, are collected through this questionnaire and are used, together with annual cost for Enagás, for emissions allocation. The allocation formula used was: "supplier emissions\*cost for Enagás associated to this supplier/annual supplier revenues". This data has been directly calculated and provided by our supplier according to its own verified methodology. In this case, 100% of the information used has been provided by suppliers.

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

### Please explain

This category accounts for less than 1% of the total scope 3 emissions reported (considered not relevant) and verified. Emissions under this category increased from 0.2 tCO2e in 2018 to 225,839 tCO2e in 2019. This is due to the fact that scope 1 and 2 emissions of the supplier included in 2019 calculation were 34 times higher than scope 1 and 2 emissions of the suppliers from previous year. Nevertheless, this category is considered as not relevant as it only represents less than 1% of our total scope 3 emissions. Relevant categories are those which represent at least 10% of our total scope 3 emissions.

## Fuel-and-energy-related activities (not included in Scope 1 or 2)

### Evaluation status

Not relevant, calculated

### Metric tonnes CO2e

197.739

### Emissions calculation methodology

Fuel- and Energy-Related Activities includes emissions from extraction, production, and transportation of fuels consumed by Enagás (mainly natural gas, as electricity is already included in scope 2). In this category emissions included are those derived from the generation of natural gas consumed by Enagás. In this context, only one supplier (natural gas supplier) is considered within this category, representing 0.1% of Enagás annual costs. Data have been gathered through a specific questionnaire available at our supply chain web platform. Global scope 1 and 2 emissions, as well as annual supplier revenues, are collected through this questionnaire and are used, together with annual cost for Enagás, for emissions allocation. The allocation formula used was: "supplier emissions\*cost for Enagás associated to this supplier/annual supplier revenues". This data has been directly calculated and provided by our supplier according to its own verified methodology. In this case, 100% of the information used has been provided by suppliers.

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

### Please explain

This category accounts for 0.1% of the total scope 3 emissions reported (considered as not relevant) and verified. Compared to 2018 emissions have decreased from 834 tCO2eq to 197,739 tCO2eq (-76%). This decrease is mainly due to the evolution of the total revenues provided by the supplier: in 2019 revenues were 5 times higher whereas scope 1 and 2 emissions from the supplier decreased by 11%. As a result, although cost for Enagás associated to this supplier increased by 29% total emissions allocated to Enagás decreased by 76%. Relevant categories are those which represent at least 10% of our total scope 3 emissions.

## Upstream transportation and distribution

### Evaluation status

Not relevant, calculated

### Metric tonnes CO<sub>2</sub>e

1845.044

### Emissions calculation methodology

Upstream Transportation and Distribution includes: - Emissions from helicopter and boat used at Gaviota Underground Storage to reach the marine platform. Activity data is in both cases the amount of fossil fuel consumed and is provided by the transportation services suppliers. Emission factors for combustion in mobile sources are provided by GHG Protocol (Calculation-tools, March 2017) as well as the European Commission Regulation (EU) No 601/2012 of 21 June 2012 on the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council. - Emission from fossil fuel consumed during land, air and maritime pipeline surveillance and maintenance. Fuel consumption was provided by our suppliers as well. Emissions factors used come from the previously mentioned sources, as well as from the Carbon Footprint Tool from the Spanish Environment Ministry. - Emissions from supplier leasing vehicles. Fuel consumption was provided by our suppliers and the emission factor used was the diesel vehicle factor provided by the Carbon Footprint Tool from the Spanish Environment Ministry Spanish. - Emissions from cranes and elevators. Fuel consumption was calculated based on the number of working days reported by the supplier and the emission factor used was the diesel vehicle factor provided by the Carbon Footprint Tool from the Spanish Environment Ministry Spanish. 100% of the information used has been provided by suppliers.

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

### Please explain

This category accounts for 0.8% of the total scope 3 emissions reported (considered as not relevant) and verified. Compared to 2018 emissions have decreased from 3,645 tCO<sub>2</sub>e to 1,845 tCO<sub>2</sub>e (-47%). The decrease is mainly due to the decrease in the total fossil fuel consumed during land, air and maritime pipeline surveillance and maintenance (- 79% in the total number of litres consumed vs previous year). Decrease in fuel consumption is related to the fact that in 2019, maritime pipeline surveillance for Balears areas was not conducted as it is scheduled for 2020-2021. Relevant categories are those which represent at least 10% of our total scope 3 emissions.

## Waste generated in operations

### Evaluation status

Not relevant, calculated

### Metric tonnes CO<sub>2</sub>e

614.132

### Emissions calculation methodology

Waste Generated in Operations emissions are calculated based on data provided by our waste managers: type and amount of wastes. Hence 100% of the information used has been provided by suppliers. Emission factors used are the ones provided by the Spanish Environment Ministry's 2016 carbon footprint report ([https://www.miteco.gob.es/es/cambio-climatico/temas/mitigacion-politicas-y-medidas/huellacarbonomapama2016\\_tcm30-481650.pdf](https://www.miteco.gob.es/es/cambio-climatico/temas/mitigacion-politicas-y-medidas/huellacarbonomapama2016_tcm30-481650.pdf)) and the Environmental Protection Service (<https://www.uco.es/servicios/dgppa/images/sepa/huellaC2014.pdf>), as well as by a report from the Spanish Development Ministry (<http://www.fomento.gob.es/NR/rdonlyres/70006D17-2E28-4A46-9C4A-2384375764FC/1541/omercado5.pdf>) for "water with methanol" waste.

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

### Please explain

This category accounts for 0.3% of the total scope 3 emissions reported (considered as not relevant) and verified. Emissions under this category were increased by 54% in 2019 compared to 2018 mainly due to an increase of the amount of talandrina (product composed of water and oils used as a lubricant); paints; triethylene glycol-monoglycol and mud generated. Relevant categories are those which represent at least 10% of our total scope 3 emissions.

## Business travel

### Evaluation status

Not relevant, calculated

### Metric tonnes CO<sub>2</sub>e

2027.505

### Emissions calculation methodology

Business travel category includes emissions from transportation of employees for business related activities in vehicles not owned or operated by Enagás, which are: flights, train trips and taxi services. Our travel agency provides us with emissions from flights and train trips calculated with recorded distances and DEFRA most updated emissions factors (2019). According to DEFRA's methodology: - Flights are classified as domestic, short-haul international, long-haul and long-haul international flights, as well as in economy, business or premium class. - An uplift factor of 1.09 is used in order to take into account takeoffs and landings. Taxi emissions are also provided by our service supplier through an annual report. Emissions are calculated based on travelled distances and fleet average emissions factor. As vehicle fleets are different from one city to another, emissions are calculated for each city where the service is provided. 100% of the information used has been provided by suppliers.

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

### Please explain

This category accounts for 0.9% of the total scope 3 emissions reported (considered as not relevant) and verified. Compared to 2018 emissions have increase from 1,192 tCO<sub>2</sub>e in 2018 to 2,028 tCO<sub>2</sub>e in 2019. Increase is mainly due to the increase in the total kilometres in air flights in 2019 compared to 2018 (+79%) and train (+86%). Relevant categories are those which represent at least 10% of our total scope 3 emissions.

## Employee commuting

### Evaluation status

Not relevant, calculated

### Metric tonnes CO2e

1315.05

### Emissions calculation methodology

Employee Commuting emissions are calculated based on generic journeys data published by the Spanish Environment Ministry in its 2016 carbon footprint (latest version available) and the Statistic National Institute surveys. These references have been adapted to Enagás employees' number and casuistry. Emissions are calculated using secondary data.

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

### Please explain

This category accounts for 0.6% of the total scope 3 emissions reported (considered as not relevant) and verified. Emissions have remained constant (+0.3% vs 2018). Relevant categories are those which represent at least 10% of our total scope 3 emissions.

## Upstream leased assets

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Please explain

This category is not applicable to Enagás because the company doesn't own or operate any upstream leased assets.

## Downstream transportation and distribution

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Please explain

This category is not applicable to Enagás because the activity of the company is limited to the natural gas transportation. Hence, Enagás gas is not the owner of the natural gas at any stages of the process and hence no products are transported, distributed or sold in any case.

## Processing of sold products

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Please explain

This category is not applicable to Enagás because the activity of the company is limited to the natural gas transportation. Hence, Enagás gas is not the owner of the natural gas at any stages of the process and no products are processed or sold in any case.

## Use of sold products

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Please explain

This category is not applicable to Enagás because the activity of the company is limited to the natural gas transportation. Hence, Enagás gas is not the owner of the natural gas at any stages of the process and no products are sold in any case, so the use of natural gas must not be reported under Enagás scope 3 emissions.

## End of life treatment of sold products

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Please explain

This category is not applicable to Enagás because the activity of the company is limited to the natural gas transportation. Hence, Enagás gas is not the owner of the natural gas at any stages of the process and no products are sold in any case, so the end of life treatment of natural gas must not be reported under Enagás scope 3 emissions.

## Downstream leased assets

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Please explain

This category is not applicable to Enagás because the company doesn't own or operate any downstream assets.

## Franchises

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Please explain

This category is not applicable to Enagás because the company doesn't own or sell franchises.

## Investments

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

198999.086

### Emissions calculation methodology

Enagás' scope 3 emissions from investments are the scope 1 and scope 2 emissions of our investees. Under the control approach chosen, this category includes emissions generated by companies in which Enagás has a financial participation but doesn't have operational control. The emissions included are 2018 scope 1 and 2 verified emissions from the following investees: - Bahía de Bizkaia Gas, S.L (Spain) (50% participated by Enagás) - Compañía Operadora de Gas del Amazonas, S.A.C. (COGA) (Perú) (51% participated by Enagás) - Planta de Regasificación de Sagunto, S.A. (Saggas) (Spain) (73% participated by Enagás) - Terminal de LNG de Altamira, S de R.L. de C.V. (Mexico) (40% participated by Enagás) - GNL Quintero (Chile) (45% participated by Enagás): in 2018 and 2017, GNL Quintero was included in our scope 1 and 2 emissions given that Enagás has operational control; however, in February 2019, Enagás lost management control and hence its emissions are included within this scope 3 category. - For the first time, in 2019, scope 1 and 2 emissions from Desfa (13% participated by Enagás), have been included as part of our scope 3 emissions. According to the GHG Protocol scope 3 calculation guidelines, emissions from investments are allocated based on Enagás proportional share of investment in the investee. Data are 100% provided by investees.

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

### Please explain

Emissions have increase by 10% from last year (181,340 tCO2e in 2019). This is due to the fact that in 2019, Desfa emissions have been included as part of our scope 3 and emissions from GNL Quintero Regasification Plant (in previous years included in Scope 2). This category is considered relevant as in 2019, investments emissions accounted for 91% of the total scope 3 emissions reported and verified. Relevant categories are those which represent at least 10% of our total scope 3 emissions.

**Other (upstream)****Evaluation status**

Please select

**Metric tonnes CO2e**

&lt;Not Applicable&gt;

**Emissions calculation methodology**

&lt;Not Applicable&gt;

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

&lt;Not Applicable&gt;

**Please explain****Other (downstream)****Evaluation status**

Please select

**Metric tonnes CO2e**

&lt;Not Applicable&gt;

**Emissions calculation methodology**

&lt;Not Applicable&gt;

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

&lt;Not Applicable&gt;

**Please explain****C6.7****(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?**

No

**C6.10****(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.****Intensity figure**

0.0007339377

**Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)**

310162.07

**Metric denominator**

unit total revenue

**Metric denominator: Unit total**

422600000

**Scope 2 figure used**

Market-based

**% change from previous year**

0.2

**Direction of change**

Increased

**Reason for change**

Scope 1 and 2 per revenue is not considered a representative intensity metric for Enagás as 94.2% of our total revenues come from regulated business which it is not linked with our CO2 emissions. Current 2021–2026 regulatory framework establishes a methodology to determine those revenues that does not include concepts related to the level of use of gas infrastructures, which is the parameter directly related to environmental impacts. The methodology established by this regulatory framework includes:

- Remuneration linked to net assets during this regulated period to compensate investment.
- Remuneration for continuity of supply linked to the long-term availability of the assets of the Gas System with adequate maintenance, whereby the income established for 2020 for this concept will progressively decrease to 20% by the end of the 2026 regulatory period.
- Incentives to extend the life of assets through remuneration at OPEX standards, with a margin for efficiency. In this sense, this intensity metric should not be used to analyse the evolution of our CO2 emissions. Taking into consideration the abovementioned, in 2019, total revenues decreased by 4.5% compared to 2018 while our combined scope 1 and 2 emissions decreased only by 4.4%. Hence, this intensity figure has slightly increased. Figures in 2018 include scope 1 and 2 emissions from Spain and Chile (GNL Quintero asset over which Enagás had management control in 2018); however, figures in 2019 only includes Spain given that in February 2019, Enagás lost management control of GNL Quintero. In this sense, in Spain scope 1 emissions have increased by 1.8% in 2019 compared to 2018. The reason in change is primary due to the increase in the National Gas Demand (+14%) which have resulted in an increase in the level of our activity hence more scope 1 and 2 emissions.

**Intensity figure**

0.7560207991

**Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)**

310162.07

**Metric denominator**

unit of service provided

**Metric denominator: Unit total**

410256

**Scope 2 figure used**

Market-based

**% change from previous year**

10.2

**Direction of change**

Decreased

**Reason for change**

In 2019, gas outputs increased by 6.8% vs 2018 mainly due to the increase in natural gas national demand (+14%). On another hand, combined scope 1 and scope 2 emissions have decreased by -4.4%. Hence, this intensity figure has decreased by -10.2%. Figures in 2018 include scope 1 and 2 emissions from Spain and Chile (GNL Quintero asset over which Enagás had management control in 2018); however, figures in 2019 only includes Spain given that in February 2019, Enagás lost management control of GNL Quintero. Nevertheless, considering only Spain, 2019 intensity figure (0.756021) has decreased by -4.4% compared to 2018 intensity figure (0.791082). Decrease is due to the energy efficiency an emission reduction measures put in place during 2019 allowing the reduction of 9,860 tCO<sub>2</sub>e emissions (scope 1 and 2), including: - Installation of frequency variator on a primary LNG pump at the Cartagena regasification plant (-40.22 tCO<sub>2</sub>e). - Installation of a frequency variator on a seawater collection pump at the Cartagena regasification plant (-235.19 tCO<sub>2</sub>e) - Installation of recirculating pumps with electronic regulation module (frequency variator) in regulation and measurement stations (-6.26 tCO<sub>2</sub>e). - Installation of a frequency variator on a seawater pump at the Barcelona regasification plant (-97.59 tCO<sub>2</sub>e). - Replacement in regulation and measurement stations of existing boilers with high performance, low emissions boilers, modulating natural gas burners and three-way valves. Installation of a boiler and pump control system, with remote access control through the Enagás network (-370.39 tCO<sub>2</sub>e). - Use of nitrogen in the molecular seal of the flare in Huelva, with the supply and installation of a second nitrogen generation appliance (70.8 tCO<sub>2</sub>e). - 2019 Fugitive LDAR Campaign in the gas pipeline network (-125.02 tCO<sub>2</sub>e); in regasification plants (-3,187.28 tCO<sub>2</sub>e); and in underground storage facilities (-583.42 tCO<sub>2</sub>e). - Modification in the Organic Rankine Cycle installed in Huelva for operation with the high pressure cycle (-4,601.65 tCO<sub>2</sub>e). - Decrease in working pressure downstream of the turboexpander to increase power generation (-542.03 tCO<sub>2</sub>e). In addition, measures put in place in previous years (that still operating) have allowed us to reduce an accumulated amount of 260,744 tCO<sub>2</sub>e since the beginning of our Energy Efficiency and Emission Reduction Plan (2015-2019).

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**Intensity figure**

0.7789102686

**Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO<sub>2</sub>e)**

310162.07

**Metric denominator**

Other, please specify (National natural gas demand (GWh))

**Metric denominator: Unit total**

398200

**Scope 2 figure used**

Market-based

**% change from previous year**

16.1

**Direction of change**

Decreased

**Reason for change**

In 2019, national natural gas demand increased by 14% vs 2018. On another hand, combined scope 1 and scope 2 emissions have decreased by -4.4%. Hence, this intensity figure has decreased by -16.1%. Figures in 2018 include scope 1 and 2 emissions from Spain and Chile (GNL Quintero asset over which Enagás had management control in 2018); however, figures in 2019 only includes Spain given that in February 2019, Enagás lost management control of GNL Quintero. Nevertheless, considering only Spain, 2019 intensity figure (0.778910) has decreased by -10.7% compared to 2018 intensity figure (0.872507). Decrease is due to the energy efficiency an emission reduction measures put in place during 2019 allowing the reduction of 9,860 tCO<sub>2</sub>e emissions (scope 1 and 2), including: - Installation of frequency variator on a primary LNG pump at the Cartagena regasification plant (-40.22 tCO<sub>2</sub>e). - Installation of a frequency variator on a seawater collection pump at the Cartagena regasification plant (-235.19 tCO<sub>2</sub>e) - Installation of recirculating pumps with electronic regulation module (frequency variator) in regulation and measurement stations (-6.26 tCO<sub>2</sub>e). - Installation of a frequency variator on a seawater pump at the Barcelona regasification plant (-97.59 tCO<sub>2</sub>e). -Replacement in regulation and measurement stations of existing boilers with high performance, low emissions boilers, modulating natural gas burners and three-way valves. Installation of a boiler and pump control system, with remote access control through the Enagás network (-370.39 tCO<sub>2</sub>e). - Use of nitrogen in the molecular seal of the flare in Huelva, with the supply and installation of a second nitrogen generation appliance (70.8 tCO<sub>2</sub>e). - 2019 Fugitive LDAR Campaign in the gas pipeline network (-125.02 tCO<sub>2</sub>e); in regasification plants (-3,187.28 tCO<sub>2</sub>e); and in underground storage facilities (-583.42 tCO<sub>2</sub>e). - Modification in the Organic Rankine Cycle installed in Huelva for operation with the high pressure cycle (-4,601.65 tCO<sub>2</sub>e). -Decrease in working pressure downstream of the turboexpander to increase power generation (-542.03 tCO<sub>2</sub>e). In addition, measures put in place in previous years (that still operating) have allowed us to reduce an accumulated amount of 260,744 tCO<sub>2</sub>e since the beginning of our Energy Efficiency and Emission Reduction Plan (2015-2019).

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C-OG6.12

**(C-OG6.12) Provide the intensity figures for Scope 1 emissions (metric tons CO2e) per unit of hydrocarbon category.**

**Unit of hydrocarbon category (denominator)**

Other, please specify (Natural gas national demand (thousand BOE))

**Metric tons CO2e from hydrocarbon category per unit specified**

1.18

**% change from previous year**

12

**Direction of change**

Decreased

**Reason for change**

In 2019, the total amount of natural gas national demand increased by 14% compared to 2018 mainly due to the needs of national gas system. On the other hand, scope 1 emissions decreased by -0.1%. Hence this intensity figure has decreased by 12.37% due to all energy efficiency measures carried under the Energy Efficiency and Emission Reduction Plan in 2019. Figures in 2018 include scope 1 emissions from Spain and Chile (GNL Quintero asset over which Enagás had management control in 2018); however, figures in 2019 only includes Spain given that in February 2019, Enagás lost management control of GNL Quintero. Nevertheless, considering only Spain, 2019 intensity figure (1.18) has decreased by -11.83% compared to 2018 intensity figure (1.34). Decrease is due to the energy efficiency and emission reduction measures put in place during 2019 allowing the reduction of 4,337 tCO2e emissions (scope 1), including: -Replacement in regulation and measurement stations of existing boilers with high performance, low emissions boilers, modulating natural gas burners and three-way valves. Installation of a boiler and pump control system, with remote access control through the Enagás network (-370.39 tCO2e). - Use of nitrogen in the molecular seal of the flare in Huelva, with the supply and installation of a second nitrogen generation appliance (-70.8 tCO2e). - 2019 Fugitive LDAR Campaign in the gas pipeline network (-125.02 tCO2e); in regasification plants (-3,187.28 tCO2e); and in underground storage facilities (-583.42 tCO2e).

**Comment**

This 2019 intensity figure has been calculated as scope 1 in 2019 (275,889 tCO2e) / natural gas national demand (234,317 thousand BOE), resulting in 1.18 tCO2e/ thousand BOE. In 2018, the figure was calculated as scope 1 in 2018 (276,175 tCO2e) / natural gas national demand (205,534 thousand BOE), resulting in 1.34 tCO2e/ thousand BOE.

**C-OG6.13**

**(C-OG6.13) Report your methane emissions as percentages of natural gas and hydrocarbon production or throughput.**

**Oil and gas business division**

Midstream

**Estimated total methane emitted expressed as % of natural gas production or throughput at given division**

0.01

**Estimated total methane emitted expressed as % of total hydrocarbon production or throughput at given division**

0.01

**Comment**

In 2019, methane emissions accounted for 2,461 tCH4. Methane emissions are converted to natural cubic meters (conversion factor of 6.44E-04 tCH4/Nm3) and then to GWh. Enagás methane emissions are equivalent to 41 GWh of natural gas. In 2019, national demand (398,200 GWh), methane emissions represent 0.01% which is within the limits established by the guidance.

**C7. Emissions breakdowns**

**C7.1**

**(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?**

Yes

**C7.1a**

**(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).**

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	206400.915	IPCC Fifth Assessment Report (AR5 – 100 year)
CH4	68912.942	IPCC Fifth Assessment Report (AR5 – 100 year)
HFCs	575.179	IPCC Fifth Assessment Report (AR5 – 100 year)

**C-OG7.1b**

**(C-OG7.1b) Break down your total gross global Scope 1 emissions from oil and gas value chain production activities by greenhouse gas type.**

**Emissions category**

Combustion (excluding flaring)

**Value chain**

Midstream

**Product**

Gas

**Gross Scope 1 CO2 emissions (metric tons CO2)**

205824.17

**Gross Scope 1 methane emissions (metric tons CH4)**

0

**Total gross Scope 1 emissions (metric tons CO2e)**

205824.17

**Comment**

This category includes: 1) Emissions from gas powered stationary combustion sources as turbo-compressors, process boilers, HVAC, LNG submerged combustion vaporizers and emergency generators, accounting for 204,375 tCO<sub>2</sub>; and 2) Emissions from mobile combustion sources consuming gasoline, diesel and natural gas, as is our vehicle fleet, accounting for 1,449 tCO<sub>2</sub>. This category represents 74.6% of our scope 1 carbon footprint. Emissions of CO<sub>2</sub> have been calculated considering an oxidation factor of 1 as required by the Spanish Government for the EU ETS.

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**Emissions category**

Flaring

**Value chain**

Midstream

**Product**

Gas

**Gross Scope 1 CO2 emissions (metric tons CO2)**

576.744

**Gross Scope 1 methane emissions (metric tons CH4)**

0

**Total gross Scope 1 emissions (metric tons CO2e)**

576.744

**Comment**

Emissions from flaring represent 0.21% of our scope 1 carbon footprint. Emissions of CO<sub>2</sub> have been calculated considering an oxidation factor of 1 as required by the Spanish Government for the EU ETS.

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**Emissions category**

Venting

**Value chain**

Midstream

**Product**

Gas

**Gross Scope 1 CO2 emissions (metric tons CO2)**

0

**Gross Scope 1 methane emissions (metric tons CH4)**

765.281

**Total gross Scope 1 emissions (metric tons CO2e)**

21427.869

**Comment**

This category includes emissions from natural gas vented as a result of operation and maintenance, safety operation measures, pneumatic valves and analysis equipment (e.g. chromatographs, etc.). Emissions from venting represent 7.77% of our scope 1 carbon footprint.

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**Emissions category**

Fugitives

**Value chain**

Midstream

**Product**

Gas

**Gross Scope 1 CO2 emissions (metric tons CO2)**

0

**Gross Scope 1 methane emissions (metric tons CH4)**

1695.895

**Total gross Scope 1 emissions (metric tons CO2e)**

47485.073

**Comment**

Provided figures include fugitive emissions at Enagás facilities (LNG plants, underground storages and transmission facilities) estimated based on LDAR campaigns on-site measurements. Fugitive emissions represent 17.21% of our scope 1 carbon footprint.

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**Emissions category**

Other (please specify) (HFCs from cooling and fire extinguishing equipment.)

**Value chain**

Midstream

**Product**

Gas

**Gross Scope 1 CO2 emissions (metric tons CO2)**

0

**Gross Scope 1 methane emissions (metric tons CH4)**

0

**Total gross Scope 1 emissions (metric tons CO2e)**

575.179

**Comment**

This figure includes HFCs from cooling. This category represents 0.21% of our scope 1 carbon footprint. Refrigerant gases used during 2019 include R-404A, R-407C, R-410A, HFC-227ea/ FM 200 and R-134A.

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## C7.2

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**(C7.2) Break down your total gross global Scope 1 emissions by country/region.**

Country/Region	Scope 1 emissions (metric tons CO2e)
Spain	275889.036

## C7.3

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**(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.**

By business division

By facility

By activity

## C7.3a

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**(C7.3a) Break down your total gross global Scope 1 emissions by business division.**

Business division	Scope 1 emissions (metric ton CO2e)
LNG Plants Department	6767.962
Underground Storage Department	54641.85
Gas Transmission Department	212126.33
Other (offices, fleet, etc.)	2352.894

## C7.3b

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**(C7.3b) Break down your total gross global Scope 1 emissions by business facility.**

Facility	Scope 1 emissions (metric tons CO2e)	Latitude	Longitude
Barcelona LNG plant	4858.108	41.340146	2.158977
Cartagena LNG plant	795.197	37.574005	-0.956712
Huelva LNG plant	1111.776	37.170105	-6.906036
Musel LNG plant	2.882	43.57049	-5.69387
PATERNA compressor station	869.206	39.533869	-0.456117
DENIA compressor station	322.948	38.867828	-0.026482
MONTESA compressor station	7508.296	38.959733	-0.616653
CREVILLENTE compressor station	442.406	38.242037	-0.774849
TIVISSA compressor station	4674.453	41.058282	0.666433
ZARAGOZA compressor station	8450.769	41.579967	-0.959587
VILLAR DE ARNEDO compressor station	9302.833	42.303988	-2.071819
HARO compressor station	21823.58	42.564694	-2.881778
BANYERES compressor station	3467.627	41.279791	1.563166
ALGETE compressor station	488.944	40.585192	-3.546492
DOS HERMANAS (SEVILLA) compressor station	1964.113	37.267127	5.996309
CÓRDOBA compressor station	5742.796	37.915613	-4.575962
ALMODÓVAR compressor station	4170.067	38.750189	-4.158467
LUMBIER (NAVARRA) compressor station	23553.273	42.623826	-1.329645
CHINCHILLA compressor station	480.346	38.893089	-1.7191939999999999
ALCÁZAR compressor station	17873.561	39.381414	-3.27986
ALMENDRALEJO compressor station	24842.758	38.712014	6.384642
CORESES (ZAMORA) compressor station	15903.435	41.559976	-5.633081
EUSKADOUR compressor station	432.878	43.332246	-1.774996
Serrablo underground storage	16461.409	41.618203	-1.038458
Gaviota underground storage	35888.458	43.442726	-2.756741
Yela underground storage	1012.966	40.807425	-2.825811
Castor underground storage	1279.017	40.548111	0.42575
Madrid headquarters building (Olmos)	98.072	40.403599	-3.710285
Zaragoza lab	653.889	41.619472	-1.038846
Other buildings (transmission centers and offices)	152.162	43.552326	-5.697909
Regulation and metering stations and positions	32097.44	40.403599	-3.710285
Other positions through pipelines	27714.602	40.403599	-3.710285
Vehicle fleet	1448.772	40.403599	-3.710285

**C7.3c**

**(C7.3c) Break down your total gross global Scope 1 emissions by business activity.**

Activity	Scope 1 emissions (metric tons CO2e)
LNG Plants Activity	6767.962
Underground Storage Activity	54641.85
Gas Transmission Activity	212126.33
Other (offices, fleet, etc.)	2352.894

C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4

**(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO2e.**

	Gross Scope 1 emissions, metric tons CO2e	Net Scope 1 emissions, metric tons CO2e	Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Electric utility activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)	0	<Not Applicable>	Enagás is Spain's leading natural gas transmission company. Transmission activity is usually classified as midstream. Nevertheless, upstream emissions are not filled out.
Oil and gas production activities (midstream)	273536.142	<Not Applicable>	Starting with our scope 1 emissions included in question C6.1 of 275,889.036 tCO2e, emissions from headquarters and other offices and vehicles fleet have been removed.
Oil and gas production activities (downstream)	0	<Not Applicable>	Enagás is Spain's leading natural gas transmission company. Transmission activity is usually classified as midstream. Nevertheless, downstream emissions are not filled out.
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

**C7.5**

**(C7.5) Break down your total gross global Scope 2 emissions by country/region.**

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
Spain	81882.77	34273.033	214294771.03	90319024.27

**C7.6**

**(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.**

- By business division
- By facility
- By activity

**C7.6a**

**(C7.6a) Break down your total gross global Scope 2 emissions by business division.**

Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
LNG Plants Department	60476.398	23902.868
Underground Storage Department	9305.272	3823.151
Gas Transmission Department	10344.553	5500.549
Other (offices, fleet, etc.)	1756.284	1046.465

**C7.6b**

**(C7.6b) Break down your total gross global Scope 2 emissions by business facility.**

Facility	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Barcelona LNG plant	21438.777	8470.932
Cartagena LNG plant	14225.839	5620.942
Huelva LNG plant	24265.563	9595.172
Musel LNG plant	546.218	215.823
PATERNA compressor station	127.45	83.93
DENIA compressor station	277.502	109.647
MONTESA compressor station	162.477	64.198
CREVILLENTE compressor station	128.856	84.856
TIVISSA compressor station	182.891	120.44
ZARAGOZA compressor station	160.798	63.535
VILLAR DE ARNEDO compressor station	298.51	117.948
HARO compressor station	183.052	120.546
BANYERES compressor station	144.219	56.984
ALGETE compressor station	89.681	59.058
DOS HERMANAS (SEVILLA) compressor station	181.407	71.678
CÓRDOBA compressor station	305.093	120.549
ALMODÓVAR compressor station	202.024	133.04
LUMBIER (NAVARRA) compressor station	413.927	163.552
CHINCHILLA compressor station	178.713	70.614
ALCÁZAR compressor station	245.556	97.025
ALMENDRALEJO compressor station	5.68	3.74
CORESES (ZAMORA) compressor station	192.425	126.719
EUSKADOUR compressor station	5012.256	1980.452
Serrablo underground storage	555.251	365.653
Gaviota underground storage	782.317	309.111
Yela underground storage	7498.466	2962.877
Castor underground storage	469.5	185.51
Madrid headquarters building (Olmos)	907.681	358.645
Zaragoza lab	151.772	61.753
Other buildings (transmission centers and offices)	696.832	626.067
Regulation and metering stations and positions	1852.037	1852.037
Other positions through pipelines	0	0
Vehicle fleet	0	0

**C7.6c**

**(C7.6c) Break down your total gross global Scope 2 emissions by business activity.**

Activity	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
LNG Plants Activity	60476.398	23902.868
Underground Storage Activity	9305.272	3823.151
Gas Transmission Activity	10344.553	5500.549
Other (offices, fleet, etc.)	1756.284	1046.465

C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7

**(C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7) Break down your organization's total gross global Scope 2 emissions by sector production activity in metric tons CO2e.**

	Scope 2, location-based, metric tons CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)	0	0	Enagás is Spain's leading natural gas transmission company. Transmission activity is usually classified as midstream. Nevertheless, upstream emissions are not filled out.
Oil and gas production activities (midstream)	80126.486	33226.568	Starting with our scope 2 emissions included in question C6.3 of 81,882.77 tCO2 according to a location-based methodology and 34,273.033 tCO2 according to a market-based methodology, emissions from headquarters and other offices have been removed.
Oil and gas production activities (downstream)	0	0	Enagás is Spain's leading natural gas transmission company. Transmission activity is usually classified as midstream. Nevertheless, downstream emissions are not filled out.
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

**C7.9**

**(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?**  
Decreased

**C7.9a**

**(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.**

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	3778.69	Decreased	1.16	In 2019, Enagás maintained its electricity supply contracts with Guarantees of Origin of 40% at the facilities with the highest consumption. Electricity with Guarantee of Origin consumed increased from 62.7 GWh in 2018 to 75.7 GWh in 2019 (+20.7%), representing a reduction in emissions of 3,507.05 tCO2e. Also, self-generation from renewable, clean and efficient sources (used for self-consumption) increased from 13.6 GWh in 2018 to 14.6 GWh in 2019 (+7.5%), representing an emissions reduction of 271.64 tCO2e. This has reduced our emissions by 3,778.69 tCO2e, and our total S1 and S2 emissions in the previous year were 324,352.17 tCO2e, therefore we arrived at -1.16% through $(-3,507.05+271.64)/324,352.17 * 100 = -1.16\%$ .
Other emissions reduction activities	20256.27	Decreased	6.25	Due to the emissions reduction activities implemented during the year as part of the Energy Efficiency and Emissions Reduction Plan 9,859.84 tCO2e were reduced. In addition, the continuous improvement of operation thanks to the best practices implemented compared to previous year have enabled us to an emissions reduction of 10,396.42, among which we have reduced emissions from our fleet, generators, air conditioning, vaporizers, cooling and fire extinguishing gases... As our total Scope 1 and Scope 2 emissions in the previous year were 324,352.17 tCO2e, we arrived at -6.25% through $(-9,859.84+10,396.42)/324,352.17 * 100 = -6.25\%$ .
Divestment		<Not Applicable >		
Acquisitions		<Not Applicable >		
Mergers		<Not Applicable >		
Change in output	20869.34	Increased	6.43	In 2019 Natural gas demand increased by 14% compared to 2018. The increase in natural gas demand has led to the increase in our Scope 1 and 2 combined emissions by 20,869.34 tCO2. This figure has been calculated considering: A) S1+S2 2018= 324,352.17 tCO2e B) S1+S2 2019=310,162.07 tCO2e C) CO2 reduction due to change in renewable energy consumption= -3,778.69 tCO2e D) CO2 reduction due to emissions reduction initiatives=-20,256.27 tCO2e E) CO2 reduction due to change in boundary= -11,024.48 tCO2e As our total Scope 1 and Scope 2 emissions in the previous year were 324,352.17 tCO2e, we arrived at -6.43% through $(20,869.34/324,352.17) * 100 = 6.43\%$ .
Change in methodology		<Not Applicable >		
Change in boundary	11024.28	Decreased	3.4	Unlike in 2017 and 2018, scope 1 and 2 emissions reported in 2019 does not include Chile regasification plant (GNL Quintero) as Enagás lost operational control of this plant in February 2019. In this sense, data only covers assets in Spain, those in which Enagás maintains management control. Emissions from GNL Quintero has been included under scope 3 emission (Investment category) and accounted for 11,024.48 tCO2. As our total Scope 1 and Scope 2 emissions in the previous year were 324,352 tCO2e, we arrived at -3.40% through $(-11,024.28/324,352.17) * 100 = -3.40\%$ .
Change in physical operating conditions		<Not Applicable >		
Unidentified		<Not Applicable >		
Other		<Not Applicable >		

## C7.9b

**(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?**

Market-based

## C8. Energy

### C8.1

**(C8.1) What percentage of your total operational spend in the reporting year was on energy?**

More than 0% but less than or equal to 5%

### C8.2

**(C8.2) Select which energy-related activities your organization has undertaken.**

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

**C8.2a****(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.**

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	0	1131761.74	1131761.74
Consumption of purchased or acquired electricity	<Not Applicable>	75738.33	138439.83	214178.16
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	116.61	<Not Applicable>	116.61
Total energy consumption	<Not Applicable>	75854.94	1270201.57	1346056.51

**C8.2b****(C8.2b) Select the applications of your organization's consumption of fuel.**

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of heat	No
Consumption of fuel for the generation of steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	Yes

**C8.2c****(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.****Fuels (excluding feedstocks)**

Natural Gas

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

1119747.72

**MWh fuel consumed for self-generation of electricity**

29.46

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

&lt;Not Applicable&gt;

**MWh fuel consumed for self-generation of cooling**

&lt;Not Applicable&gt;

**MWh fuel consumed for self-cogeneration or self-trigeneration**

3.18

**Emission factor**

0.202

**Unit**

metric tons CO2e per MWh

**Emissions factor source**Spanish Environment Ministry Carbon Footprint most updated tool (<https://www.miteco.gob.es/es/cambio-climatico/temas/mitigacion-politicas-y-medidas/calculadoras.aspx>)**Comment**

No additional comments deemed necessary.

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**Fuels (excluding feedstocks)**

Compressed Natural Gas (CNG)

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

490.15

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self-cogeneration or self-trigeneration**

0

**Emission factor**

0.203

**Unit**

metric tons CO2e per MWh

**Emissions factor source**

Spanish Environment Ministry Carbon Footprint most updated tool (<https://www.miteco.gob.es/es/cambio-climatico/temas/mitigacion-politicas-y-medidas/calculadoras.aspx>)

**Comment**

No additional comments deemed necessary.

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**Fuels (excluding feedstocks)**

Diesel

**Heating value**

LHV (lower heating value)

**Total fuel MWh consumed by the organization**

10771.94

**MWh fuel consumed for self-generation of electricity**

6093.45

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self-cogeneration or self-trigeneration**

0

**Emission factor**

0.00286

**Unit**

metric tons CO2e per liter

**Emissions factor source**

Spanish Environment Ministry Carbon Footprint most updated tool (<https://www.miteco.gob.es/es/cambio-climatico/temas/mitigacion-politicas-y-medidas/calculadoras.aspx>)

**Comment**

Two kinds of diesel are used: Diesel A or B for vehicles with an emission factor of 0,002493 tCO2/liter and Diesel C for stationary combustion in process boilers, with an emission factor of 0,002868 tCO2/liter

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**Fuels (excluding feedstocks)**

Motor Gasoline

**Heating value**

LHV (lower heating value)

**Total fuel MWh consumed by the organization**

751.93

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

&lt;Not Applicable&gt;

**MWh fuel consumed for self-generation of cooling**

&lt;Not Applicable&gt;

**MWh fuel consumed for self-cogeneration or self-trigeneration**

0

**Emission factor**

0.00215

**Unit**

metric tons CO2e per liter

**Emissions factor source**Spanish Environment Ministry Carbon Footprint most updated tool (<https://www.miteco.gob.es/es/cambio-climatico/temas/mitigacion-politicas-y-medidas/calculadoras.aspx>)**Comment**

No additional comments deemed necessary.

**C8.2d****(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.**

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	37211.49	14580.7	116.61	116.61
Heat	0	0	0	0
Steam	0	0	0	0
Cooling	0	0	0	0

**C8.2e**

**(C8.2e) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero emission factor in the market-based Scope 2 figure reported in C6.3.**

**Sourcing method**

Power purchase agreement (PPA) with on-site/off-site generator owned by a third party with no grid transfers (direct line)

**Low-carbon technology type**

Solar

**Country/region of consumption of low-carbon electricity, heat, steam or cooling**

Spain

**MWh consumed accounted for at a zero emission factor**

114.35

**Comment**

Several photovoltaic panels are installed at Enagás facilities, generating 114.35 MWh in 2019.

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**Sourcing method**

Power purchase agreement (PPA) with on-site/off-site generator owned by a third party with no grid transfers (direct line)

**Low-carbon technology type**

Wind

**Country/region of consumption of low-carbon electricity, heat, steam or cooling**

Spain

**MWh consumed accounted for at a zero emission factor**

2.27

**Comment**

Two wind turbines are installed at Enagás facilities, generating 2.27MWh in 2019.

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**Sourcing method**

Other, please specify (Clean and efficient generation systems that do not have any fuel consumption and combustion.)

**Low-carbon technology type**

Other, please specify (Clean and efficient generation systems exist at our facilities with an emission factor of zero because the sources do not have any fuel consumption and combustion (please see "comment" box for more details))

**Country/region of consumption of low-carbon electricity, heat, steam or cooling**

Spain

**MWh consumed accounted for at a zero emission factor**

13598.09

**Comment**

Clean and efficient generation systems exist at our facilities, among which: - plant using residual heat of turbocompressor exhausts to generate electricity at Almendralejo compressor station (Badajoz), - generation system installed in Huelva LNG plant, using ocean-thermal energy (use of seawater in the hot reservoir and LNG in the cold reservoir) to generate electricity, - electricity generator (turboexpander) installed at the Barcelona LNG plant, using the potential energy from the expansion of natural gas and partially replaces electricity from the grid by a clean energy source. Consumption from those sources was 13,598.09 MWh. Emission factor is zero because the mentioned clean sources do not have any fuel consumption and combustion. We also have a micro-cogeneration plants in Agreda position and a tri-generation plant at Zaragoza Lab which are not included under "low-carbon technology" as per the guide definition but accounted for at a zero emission factor in Scope 2 market-based approach.

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**Sourcing method**

Unbundled energy attribute certificates, Guarantees of Origin

**Low-carbon technology type**

Other, please specify (Low-carbon energy mix)

**Country/region of consumption of low-carbon electricity, heat, steam or cooling**

Spain

**MWh consumed accounted for at a zero emission factor**

75738.33

**Comment**

In 2019, Enagás kept its clause referring to Guarantees of Origin in its contracts, which contains a provision to deliver 40% of the electricity consumed. Guaranteed electricity consumed increased from 62.7 GWh in 2018 to 75.7 GWh in 2019 (+20.7%).

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## C9. Additional metrics

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### C9.1

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**(C9.1) Provide any additional climate-related metrics relevant to your business.**

**Description**

Waste

**Metric value**

4916.9

**Metric numerator**

Tons of waste generated and managed

**Metric denominator (intensity metric only)**

It is not an intensity metric

**% change from previous year**

18.87

**Direction of change**

Increased

**Please explain**

In 2019, Enagás has recycled 70% of the waste generated. Total waste generated and managed has increased by 18.87%, from 4,136 tn in 2018 to 4,917 tn in 2019. Please note that data reported in 2019 does not include Chile regasification plant as in previous years, as Enagás lost control of this plant in February 2019. In this sense, data only covers assets in Spain, those in which Enagás maintains management control. Most significant hazardous waste is waters with methanol (liquid waste), representing almost 73% of hazardous waste generated by Enagás. Regarding to non hazardous waste, most significant waste is septic tank sludge (liquid waste), representing 82% of non hazardous waste. Enagás has implemented a system of segregation, management, storage and delivery to authorised managers of hazardous and non-hazardous waste. The company's objective is to recycle and recover this waste wherever possible. In this sense, the objective of treating (recycling / re-using) 90% of hazardous and non-hazardous waste has been established in the contract with the waste management company. Penalties have been established if not achieving targets and monitoring system has been defined for reporting incidences. Enagás is working on the management of used oils, generated in the infrastructures through a management system. Furthermore Enagás has an agreement with the association 'Otro Tiempo' that promotes the recycling of coffee capsules at Enagás' headquarters, while also providing work for women at risk of social exclusion. Additionally every year, Enagás donates IT equipment and mobile devices that are no longer in use.

**Description**

Other, please specify (Water)

**Metric value**

48243

**Metric numerator**

Water consumption from municipal water grid (m3)

**Metric denominator (intensity metric only)**

It is not an intensity metric

**% change from previous year**

6.02

**Direction of change**

Decreased

**Please explain**

In 2019, 48,243 m3 of water was used mainly for sanitation, irrigation and fire-fighting equipment, the latter representing only 0.02% of the water extracted. Total water consumption from the municipal network has decreased by 6.0% from 51,145 m3 in 2018 to 48,243 m3 in 2019. . Please note that data reported in 2019 does not include Chile regasification plant as in previous years, as Enagás lost control of this plant in February 2019. In this sense, data only covers assets in Spain, those in which Enagás maintains management control.. The decrease was mainly due to the implementation of various measures aimed at reducing water consumption such as better techniques for irrigation and consumption of grey water. In addition, during 2019, actions to reduce the consumption of water from the municipal network were implemented in some regasification plants.

**C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6**

**(C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?**

	Investment in low-carbon R&D	Comment
Row 1	Yes	Enagás invest in R&D of low-carbon products or services.

**C-CO9.6a/C-EU9.6a/C-OG9.6a**

(C-CO9.6a/C-EU9.6a/C-OG9.6a) Provide details of your organization's investments in low-carbon R&D for your sector activities over the last three years.

Technology area	Stage of development in the reporting year	Average % of total R&D investment over the last 3 years	R&D investment figure in the reporting year (optional)	Comment
Renewable energy	Basic academic/theoretical research	≤20%	0	Research and development study for solar photovoltaic and wind turbines applications in Enagas facilities. Although in the reporting year the investment was 0 Euro, in the last three years 16,782.79 Euros have been invested.
Renewable energy	Applied research and development	≤20%	83052.57	Research and development study for efficient renewable energy storage. Although in the reporting year the investment was 83,052.57 Euros, in the last three years 131,573.61 Euros have been invested.
Renewable energy	Pilot demonstration	≤20%	408406.76	This category includes the following actions: -Pilot demonstration project for clean self-generation at Enagas facilities. -Biomethane Laboratory - Pilot Testing of Hydrogen Cells for Application in ERM's Gas Pipelines -The RENOVAGAS Project mainly consisted in the design and construction of a 15kW pilot installation which transforms the CO2 present in biogas produced at the waste treatment plant of FCC-AQUALIA in Jerez de la Frontera into methane. The biogas is made to pass through a reactor which, via appropriate catalysers and with hydrogen input produced by hydrolysis using excess electricity energy of a renewable nature, makes the CO2 react with the hydrogen, thereby producing methane. It also includes pilot demonstrations of clean self-generation at Enagas facilities. Although in the reporting year the investment was 408,406.76 Euros, in the last three years 689,383.90 Euros have been invested.
Renewable energy	Full/commercial-scale demonstration	≤20%	16924.78	Due Diligence for biomethane upgrade and a feasibility study for the upgrade of biomethane in a Sewage treatment plant.
Smart systems	Pilot demonstration	≤20%	40711.69	Pilot test of optimisation of Regulation and measuring stations (RMS) control loops in order to reduce the outlet gas temperature and adjustments to the water recirculation pumping system in the heating circuit and achieving the corresponding savings in natural gas. Although in the reporting year the investment was 40,711.69 Euros, in the last three years 60,795.89 Euros have been invested.
Carbon capture and storage/utilisation	Basic academic/theoretical research	≤20%	0	Study for technological innovation and development applied to CO2 transportation. Although in the reporting year the investment was 0 Euros, in the last three years 7,057.07 Euros have been invested.
Hydrogen	Basic academic/theoretical research	≤20%	2352.79	Research and development study for hydrogen transportation through natural gas pipelines (HYREADY project). Although in the reporting year the investment was 2,352.79 Euros, in the last three years 107,818.94 Euros have been invested.
Hydrogen	Applied research and development	≤20%	4992.28	Europe-wide study for the measurement of H2 volumes for injection into the gas pipeline transport network.
Hydrogen	Pilot demonstration	≤20%	287025.67	Power To Green Hydrogen (Mallorca) and a pilot demonstration project related to the development of a solar panel (photoelectrolyzer) that produces hydrogen from sunlight and water (LUXHOR project carried out together with Repsol). Although in the reporting year the investment was 287,025.67 Euros, in the last three years 325,662.14 Euros have been invested.
Methane detection and reduction	Basic academic/theoretical research	≤20%	11071	LDAR campaign in new facilities in order to reduce natural gas leaks and hence fugitive emissions of methane. Although in the reporting year the investment was 11,071 Euros, in the last three years 54,283.21 Euros have been invested.
Other energy efficiency measures in the oil and gas value chain	Basic academic/theoretical research	≤20%	1553	Predictive control in Regulation and Measurement Stations project in order to increase its energy efficiency operation and hence its emissions reductions and feasibility study for the replacement of a pump by a more efficient one in Cartagena LNG plant. Although in the reporting year the investment was 1,553 Euros, in the last three years 26,663.19 Euros have been invested.
Other energy efficiency measures in the oil and gas value chain	Applied research and development	≤20%	0	Research and development project for measurement of LNG in small scale applications. Although in the reporting year the investment was 0 Euro, in the last three years 1,032.29 Euros have been invested.
Other energy efficiency measures in the oil and gas value chain	Pilot demonstration	≤20%	0	Installation of variable frequency drivers at primary, secondary or water pumps at LNG plants, achieving the corresponding savings in electricity consumption. Although in the reporting year the investment was 0 Euro, in the last three years 341,035.91 Euros have been invested.
Other energy efficiency measures in the oil and gas value chain	Small scale commercial deployment	≤20%	79476.28	Modifications in the pontoon of the regasification plant of BCN to be able to offer services of Small Scale and bunkering (supplying LNG fuel for ships).

## C10. Verification

### C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

### C10.1a

**(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.**

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Reasonable assurance

**Attach the statement**

Carbon Footprint declaration of verification 2019.pdf

Carbon Footprint verification report 2019.pdf

**Page/ section reference**

Carbon Footprint declaration of verification 2019: see page 2 for scope 1, 2 and 3 emissions verified and page 3 for type of verification assurance (reasonable). Carbon

Footprint verification report 2019: see page 9 for scope 1, 2 and 3 emissions verified and page 2 for type of verification assurance (reasonable).

**Relevant standard**

ISO14064-3

**Proportion of reported emissions verified (%)**

100

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**C10.1b**

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**(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.**

**Scope 2 approach**

Scope 2 market-based

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Reasonable assurance

**Attach the statement**

Carbon Footprint declaration of verification 2019.pdf

Carbon Footprint verification report 2019.pdf

**Page/ section reference**

Carbon Footprint declaration of verification 2019: see page 2 for scope 1, 2 and 3 emissions verified and page 3 for type of verification assurance (reasonable). Carbon

Footprint verification report 2019: see page 9 for scope 1, 2 and 3 emissions verified and page 2 for type of verification assurance (reasonable).

**Relevant standard**

ISO14064-3

**Proportion of reported emissions verified (%)**

100

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**C10.1c**

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**(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.**

**Scope 3 category**

Scope 3: Purchased goods and services

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Reasonable assurance

**Attach the statement**

Carbon Footprint declaration of verification 2019.pdf

Carbon Footprint verification report 2019.pdf

**Page/section reference**

Carbon Footprint declaration of verification 2019: see page 2 for scope 1, 2 and 3 emissions verified and page 3 for type of verification assurance (reasonable). Carbon

Footprint verification report 2019: see page 9 for scope 1, 2 and 3 emissions verified and page 2 for type of verification assurance (reasonable).

**Relevant standard**

ISO14064-3

**Proportion of reported emissions verified (%)**

100

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**Scope 3 category**

Scope 3: Capital goods

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Reasonable assurance

**Attach the statement**

Carbon Footprint declaration of verification 2019.pdf

Carbon Footprint verification report 2019.pdf

**Page/section reference**

Carbon Footprint declaration of verification 2019: see page 2 for scope 1, 2 and 3 emissions verified and page 3 for type of verification assurance (reasonable). Carbon Footprint verification report 2019: see page 9 for scope 1, 2 and 3 emissions verified and page 2 for type of verification assurance (reasonable).

**Relevant standard**

ISO14064-3

**Proportion of reported emissions verified (%)**

100

---

**Scope 3 category**

Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Reasonable assurance

**Attach the statement**

Carbon Footprint declaration of verification 2019.pdf

Carbon Footprint verification report 2019.pdf

**Page/section reference**

Carbon Footprint declaration of verification 2019: see page 2 for scope 1, 2 and 3 emissions verified and page 3 for type of verification assurance (reasonable). Carbon Footprint verification report 2019: see page 9 for scope 1, 2 and 3 emissions verified and page 2 for type of verification assurance (reasonable).

**Relevant standard**

ISO14064-3

**Proportion of reported emissions verified (%)**

100

---

**Scope 3 category**

Scope 3: Upstream transportation and distribution

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Reasonable assurance

**Attach the statement**

Carbon Footprint declaration of verification 2019.pdf

Carbon Footprint verification report 2019.pdf

**Page/section reference**

Carbon Footprint declaration of verification 2019: see page 2 for scope 1, 2 and 3 emissions verified and page 3 for type of verification assurance (reasonable). Carbon Footprint verification report 2019: see page 9 for scope 1, 2 and 3 emissions verified and page 2 for type of verification assurance (reasonable).

**Relevant standard**

ISO14064-3

**Proportion of reported emissions verified (%)**

100

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**Scope 3 category**

Scope 3: Waste generated in operations

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

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**Type of verification or assurance**

Reasonable assurance

**Attach the statement**

Carbon Footprint declaration of verification 2019.pdf

Carbon Footprint verification report 2019.pdf

**Page/section reference**

Carbon Footprint declaration of verification 2019: see page 2 for scope 1, 2 and 3 emissions verified and page 3 for type of verification assurance (reasonable). Carbon Footprint verification report 2019: see page 9 for scope 1, 2 and 3 emissions verified and page 2 for type of verification assurance (reasonable).

**Relevant standard**

ISO14064-3

**Proportion of reported emissions verified (%)**

100

---

**Scope 3 category**

Scope 3: Business travel

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Reasonable assurance

**Attach the statement**

Carbon Footprint declaration of verification 2019.pdf

Carbon Footprint verification report 2019.pdf

**Page/section reference**

Carbon Footprint declaration of verification 2019: see page 2 for scope 1, 2 and 3 emissions verified and page 3 for type of verification assurance (reasonable). Carbon Footprint verification report 2019: see page 9 for scope 1, 2 and 3 emissions verified and page 2 for type of verification assurance (reasonable).

**Relevant standard**

ISO14064-3

**Proportion of reported emissions verified (%)**

100

---

**Scope 3 category**

Scope 3: Employee commuting

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Reasonable assurance

**Attach the statement**

Carbon Footprint declaration of verification 2019.pdf

Carbon Footprint verification report 2019.pdf

**Page/section reference**

Carbon Footprint declaration of verification 2019: see page 2 for scope 1, 2 and 3 emissions verified and page 3 for type of verification assurance (reasonable). Carbon Footprint verification report 2019: see page 9 for scope 1, 2 and 3 emissions verified and page 2 for type of verification assurance (reasonable).

**Relevant standard**

ISO14064-3

**Proportion of reported emissions verified (%)**

100

---

**Scope 3 category**

Scope 3: Investments

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Reasonable assurance

**Attach the statement**

Carbon Footprint declaration of verification 2019.pdf

Carbon Footprint verification report 2019.pdf

**Page/section reference**

Carbon Footprint declaration of verification 2019: see page 2 for scope 1, 2 and 3 emissions verified and page 3 for type of verification assurance (reasonable). Carbon Footprint verification report 2019: see page 9 for scope 1, 2 and 3 emissions verified and page 2 for type of verification assurance (reasonable).

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**Relevant standard**

ISO14064-3

**Proportion of reported emissions verified (%)**

100

**C10.2**

**(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?**

Yes

**C10.2a**

**(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?**

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C0. Introduction	Other, please specify (All information included)	ISAE 3000	Verification according to the ISAE3000 standard, as part of the third accredited party verification of the Annual Report 2019. Please see our "2019 Annual Report" attached document (verification report in pages 139-140) Annual Report_2019.pdf
C1. Governance	Other, please specify (All information included)	ISAE 3000	Verification according to the ISAE3000 standard, as part of the third accredited party verification of the Annual Report 2019. Please see our "2019 Annual Report" attached document (verification report in pages 139-140) Annual Report_2019.pdf
C2. Risks and opportunities	Other, please specify (All information included)	ISAE 3000	Verification according to the ISAE3000 standard, as part of the third accredited party verification of the Annual Report 2019. Please see our "2019 Annual Report" attached document (verification report in pages 139-140) Annual Report_2019.pdf
C3. Business strategy	Other, please specify (All information included)	ISAE 3000	Verification according to the ISAE3000 standard, as part of the third accredited party verification of the Annual Report 2019. Please see our "2019 Annual Report" attached document (verification report in pages 139-140) Annual Report_2019.pdf
C4. Targets and performance	Emissions reduction activities	UNE-EN-ISO 14064	The total number of projects and CO2e savings (C4.3a) and details on the initiatives implemented in the reporting year (C4.3b) are yearly verified by a third external party according to the UNE-EN ISO 14064 as part of Enagás carbon footprint verification process. Verification is carried out in order to provide liability and transparency to Enagás carbon footprint externally reported. Enagás 2019 carbon footprint has been verified with a reasonable assurance level. Please see attached documents with level of assurance and emission reduction activities verified. Please note that C4.3a y C4.3b requires annual saving (this is, figures are annualised) whereas the attached document refers to real CO2e reductions taking into consideration the date of implementation. Carbon Footprint declaration of verification 2019.pdf Carbon Footprint verification report 2019.pdf
C5. Emissions performance	Other, please specify (See the "please explain column")	UNE-EN-ISO 14064	Base year start, base year end and base year emissions of scopes 1 and 2 emissions (C5.1 question), as well as the standards, protocols, or methodology used (C5.2 question) are yearly verified by a third external party according to the UNE-EN ISO 14064 as part of Enagás carbon footprint verification process. Verification is carried out in order to provide liability and transparency to Enagás carbon footprint externally reported. Enagás 2019 carbon footprint has been verified with a reasonable assurance level. Please see attached documents with level of assurance. Carbon Footprint declaration of verification 2019.pdf Carbon Footprint verification report 2019.pdf
C6. Emissions data	Other, please specify (See the "please explain column")	UNE-EN-ISO 14064	Scope 1, 2 and 3 emissions (C6.1, C6.2, C6.3 and C6.5) and emissions within the selected reporting boundary not included in our disclosure (C6.4) are yearly verified by a third external party according to the UNE-EN ISO 14064 as part of Enagás carbon footprint verification process. Verification is carried out in order to provide liability and transparency to Enagás carbon footprint externally reported. Enagás 2019 carbon footprint has been verified with a reasonable assurance level. Please see attached documents with level of assurance. Carbon Footprint declaration of verification 2019.pdf Carbon Footprint verification report 2019.pdf
C7. Emissions breakdown	Other, please specify (See the "please explain column")	UNE-EN-ISO 14064	Greenhouse gas emissions other than carbon dioxide (C7.1); Scope 1 and 2 emissions Break down by greenhouse gas type (C7.1a, C-OG7.1b); by country/region (C7.2 and C7.5); by business division, by facility and by activity (C7.3 a, b, c and C7.6 a, b, c); by sector production activity (C-OG7.4 and C-OG7.7); comparison of scope 1 and 2 emissions with the previous year (C7.9 and C7.9a) are yearly verified by a third external party according to the UNE-EN ISO 14064 as part of Enagás carbon footprint verification process. Verification is carried out in order to provide liability and transparency to Enagás carbon footprint externally reported. Enagás 2019 carbon footprint has been verified with a reasonable assurance level. Please see attached documents with level of assurance. Carbon Footprint declaration of verification 2019.pdf Carbon Footprint verification report 2019.pdf
C8. Energy	Other, please specify (See the "please explain column")	UNE-EN-ISO 14064	Energy-related activities your organization has undertaken (C8.2), energy consumption totals (C8.2a), applications of your organization's consumption of fuel (C8.2b), fuel consumption by fuel type and fuel emission factors (C8.2c), details on the electricity, heat, steam, and cooling your organization has generated and consumed (C8.2c), details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a low-carbon emission factor (C8.2d) are yearly verified by a third external party according to the UNE-EN ISO 14064 as part of Enagás carbon footprint verification process. Verification is carried out in order to provide liability and transparency to Enagás carbon footprint externally reported. Enagás 2019 carbon footprint has been verified with a reasonable assurance level. Please see attached documents with level of assurance. Carbon Footprint declaration of verification 2019.pdf Carbon Footprint verification report 2019.pdf
C9. Additional metrics	Other, please specify (See the "please explain column")	UNE-EN-ISO 14064	The amount and type of wastes (C9.1) are yearly verified by a third external party according to the UNE-EN ISO 14064 as part of Enagás scope 3 carbon footprint verification process. Verification is carried out in order to provide liability and transparency to Enagás carbon footprint externally reported. Enagás 2019 carbon footprint has been verified with a reasonable assurance level. Please see attached documents with level of assurance. Carbon Footprint declaration of verification 2019.pdf Carbon Footprint verification report 2019.pdf

## C11. Carbon pricing

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### C11.1

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(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

Yes

### C11.1a

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(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.

EU ETS

### C11.1b

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(C11.1b) Complete the following table for each of the emissions trading schemes you are regulated by.

#### EU ETS

**% of Scope 1 emissions covered by the ETS**

62.53

**% of Scope 2 emissions covered by the ETS**

0

**Period start date**

January 1 2019

**Period end date**

December 31 2019

**Allowances allocated**

55852

**Allowances purchased**

70000

**Verified Scope 1 emissions in metric tons CO2e**

172520

**Verified Scope 2 emissions in metric tons CO2e**

0

**Details of ownership**

Facilities we own and operate

**Comment**

No additional comments.

### C11.1d

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**(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?**

**A description of our strategy for complying with the EU ETS:**

All Enagás' facilities with a total rated thermal input exceeding 20 MW are affected by the Directive 2009/29/EC of April 23rd 2009 related to greenhouse gas emission allowance trading scheme of the Community. Facilities under the EU Emissions Trading System (EU ETS) must surrender yearly allowances, equivalent to its yearly verified emissions.

In 2019, Enagás received 55,852 tCO<sub>2</sub> of free allocation (from which 5,835 EUAs are still pending to be received) for the 24 owned and operated facilities included under the EU ETS, which emitted 172,520 tCO<sub>2</sub> (62.53% of carbon footprint scope 1 emissions). For 2019 compliance, 162,869 EUAs and 604 CERs (exchanged into EUAs) were surrendered corresponding to our 2018 CO<sub>2</sub> emissions under the EU ETS Scheme. The EUAs surrendered came from a carbon credit reserve from previous years (221,254 EUAs at the beginning of 2019).

As the reserve is decreasing and given that allocation will be yearly reduced until 2030, Enagás identified the need to purchase 70,000 credits in 2019 under its Board of Directors approved Emission Rights Trading Strategy to cover the 172,520 tCO<sub>2</sub> corresponding to our 2019 CO<sub>2</sub> emissions under the EU ETS Scheme. For 2030, Enagás has identified the need to purchase around 90,000 credits. Increasing costs associated with compliance with laws governing CO<sub>2</sub> emissions is considered a risk for our business.

Projections used in the Strategy are annually updated in order to monitor future purchasing needs and reduce economic and non-compliance risks. The strategy also takes into account the Energy Efficiency and Emissions Reduction Plan, made up of several measures implemented in order to increase energy efficiency and reduce GHG emissions at our facilities. The measures implemented between 2015 and 2019 allowed the avoidance of 588,194 tCO<sub>2</sub>e. The calculations of emissions reduction are yearly verified as part of the Carbon Footprint verification process.

Under our compliance and regulatory risk management strategy, the risk of a price and GHG increase is estimated at 3.5 M€ in a long time horizon. Also, when the new regulation for the revision of EU ETS phase 4 (2021-2030) and allowances free allocation rules is published, a revision of the risk management strategy will be done and the impact for Enagás facilities evaluated.

**An example of how you have applied your strategy:**

As an example, as explained in previous paragraphs, during 2019 projections were updated to estimate the total amount of carbon credits needed to be bought and as a result, Enagás has identified the need to purchase around 90,000 credits by 2030 under its Board of Directors approved Emission Rights Trading Strategy.

**C11.2**

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**(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?**

Yes

**C11.2a**

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**(C11.2a) Provide details of the project-based carbon credits originated or purchased by your organization in the reporting period.**

**Credit origination or credit purchase**

Credit purchase

**Project type**

Landfill gas

**Project identification**

Project ID: 1123 - Ciudad Juarez Landfill Gas to Energy Project (México) The Project's purpose is to reduce greenhouse gas (GHG) emissions by capturing and utilizing the methane (CH<sub>4</sub>) in the LFG released by the Ciudad Juarez landfill, and avoiding future GHG emissions from the decomposition of municipal solid waste residues. The captured methane is combusted to generate electricity that is fed to the national power grid and used as an alternative source of cheap, indigenous, stable and renewable energy that will reduce dependence on grid power.

**Verified to which standard**

CDM (Clean Development Mechanism)

**Number of credits (metric tonnes CO<sub>2</sub>e)**

24869

**Number of credits (metric tonnes CO<sub>2</sub>e): Risk adjusted volume**

24869

**Credits cancelled**

Yes

**Purpose, e.g. compliance**

Voluntary Offsetting

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**Credit origination or credit purchase**

Credit purchase

**Project type**

Landfill gas

**Project identification**

Project ID: 103000000009200 - Santa Marta Landfill Gas (LFG) Capture for Electricity Generation Project

**Verified to which standard**

Gold Standard

**Number of credits (metric tonnes CO2e)**

1472

**Number of credits (metric tonnes CO2e): Risk adjusted volume**

1472

**Credits cancelled**

Yes

**Purpose, e.g. compliance**

Voluntary Offsetting

---

**Credit origination or credit purchase**

Credit purchase

**Project type**

Landfill gas

**Project identification**

Project ID: 0822 - Loma Los Colorados Landfill Gas Project

**Verified to which standard**

CDM (Clean Development Mechanism)

**Number of credits (metric tonnes CO2e)**

195

**Number of credits (metric tonnes CO2e): Risk adjusted volume**

195

**Credits cancelled**

Yes

**Purpose, e.g. compliance**

Voluntary Offsetting

---

**Credit origination or credit purchase**

Credit purchase

**Project type**

Forests

**Project identification**

Project ID: 985 - Cordillera Azul National Park REDD Project

**Verified to which standard**

VCS (Verified Carbon Standard)

**Number of credits (metric tonnes CO2e)**

300

**Number of credits (metric tonnes CO2e): Risk adjusted volume**

300

**Credits cancelled**

Yes

**Purpose, e.g. compliance**

Voluntary Offsetting

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**C11.3**

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**(C11.3) Does your organization use an internal price on carbon?**

Yes

## C11.3a

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### (C11.3a) Provide details of how your organization uses an internal price on carbon.

#### Objective for implementing an internal carbon price

Navigate GHG regulations  
Stakeholder expectations  
Change internal behavior  
Drive energy efficiency  
Drive low-carbon investment  
Stress test investments

#### GHG Scope

Scope 1  
Scope 2

#### Application

Enagas' Internal Carbon Price is applied to all facilities and different business units. It is used to monetize GHG emissions and include them in business plans in order to optimize the decision making when evaluating projects with associated capital investment, to manage risks or to plan the business sustainability strategy, also when identifying and prioritizing energy efficiency measures to be implemented. It has also an impact on monetary cost of regulatory compliance (environmental risks assessment), as well as in capital expenditure.

#### Actual price(s) used (Currency /metric ton)

25.24

#### Variance of price(s) used

Enagas' Internal Carbon Price is: - Shadow price: as it is a theoretical price on carbon that helps support long-term business planning and investment strategies, prioritize low-carbon investments and prepare for future regulation. - Uniform/ company-wide pricing: as a single price is applied throughout the company independent of geography, business unit, or type of decision. - External resources price setting approach: as it is mainly based on a compliance with EU ETS Carbon Pricing Approach. - Evolutionary pricing: the price is updated annually according to the market and specialists forecasts. In 2019, a price of 25.24 €/tCO<sub>2</sub> was fixed for this year according to market analysts' forecasts provided by CARBON PULSE and last month's average price provided by SENDECO<sub>2</sub>. Also, projections were made until 2021 (20.85 €/tCO<sub>2</sub> in 2020 and 20.75 €/tCO<sub>2</sub> in 2021) based on CARBON PULSE market analysts' forecasts. Last update, carried out in mid 2020 and based on CARBON PULSE and International Energy Agency (World Energy Outlook 2019) analysts EUA price forecasts to 2040, resulted in the following values: 20.85 €/tCO<sub>2e</sub> in 2020, 29.75 €/tCO<sub>2e</sub> in 2021, 32.80 in 2025, 40.10 €/tCO<sub>2e</sub> in 2030 and 38.00 in 2040. Between 2021 – 2025, 2025-2030 and 2030-2040 a linear variation has been made.

#### Type of internal carbon price

Shadow price

#### Impact & implication

Enagas' Internal Carbon Price is applied to all facilities and different business units. It is used to monetize GHG emissions and include them in business plans in order to optimize the decision making when evaluating projects with associated capital investment, to manage risks or to plan the business sustainability strategy. Since, the internal carbon price has been included in the Energy Efficiency and Emissions Reduction Plan, the cost and savings analysis of every single energy efficiency measure studied or implemented includes the cost of emitting GHG to the atmosphere, together with the cost of energy, operation and maintenances works, among others. Hence, GHG emissions are taken into account when deciding if energy efficiency measure identified are to be implemented based on economic savings. Internal price has also an impact when evaluating monetary cost of regulatory compliance (environmental risks assessment), as well as making decisions when new investment business are evaluated through due diligence. Moreover, the internal carbon price is taken into account for strategic operational decision-making. An example is the LNG bunker deviation from one LNG plant to another in order to reduce natural gas self-consumption, thus GHG emissions, produced when a plant is operating under its minimal operation conditions. Also, when selecting the best practice to reduce natural gas venting when maintenance works are done across our pipelines, the monetized GHG emissions are summed up together with other costs such as the renting of a portable flare, among other solutions in order to integrated climate change in the operation decisions. In other words, Enagás uses internal price on carbon to ensure compliance with GHG regulations, to meet stakeholders expectations, to boost change on internal behaviour to reduce GHG emissions, to drive energy efficiency / low carbon investment, as well as to test investments with conducting due diligences.

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## C12. Engagement

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### C12.1

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#### (C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers  
Yes, other partners in the value chain

### C12.1a

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**(C12.1a) Provide details of your climate-related supplier engagement strategy.**

**Type of engagement**

Information collection (understanding supplier behavior)

**Details of engagement**

Collect climate change and carbon information at least annually from suppliers

**% of suppliers by number**

4

**% total procurement spend (direct and indirect)**

69

**% of supplier-related Scope 3 emissions as reported in C6.5**

8

**Rationale for the coverage of your engagement**

The rationale for the coverage of engagements has been to choose those suppliers with the following criteria: a) Suppliers with more than 100,000 euros billing. b) Energy suppliers (i.e. gas suppliers). c) Purchasing suppliers (i.e. products and equipment). d) Service suppliers (i.e. consulting/finance/legal services > 1M€; security services > 1M€; engineering and maintenance services > 1M€; IT services > 1M€; catering services > 1M€; cleaning services > 1M€; health services > 1M€; transport services > 100,000€; waste services > 100,000€; marketing services > 1M€; training services > 1M€; insurance services > 1M€). Climate change data have been requested from these suppliers using a specific climate change questionnaire annually sent through our own supply chain platform allowing us to gather accurate data.

**Impact of engagement, including measures of success**

A) Clear description of measures of success: Climate change data is requested to our suppliers using a specific climate change questionnaire annually sent through our own supply chain platform allowing us to gather accurate data. All the information gathered is analysed taking into consideration the impact of engagement in terms of: a) detect improvement opportunities in terms on efficiency in the spends; b) chances to offer energy efficiency services if possible; c) analyse risks and opportunities in the supply chain; d) validate the scope 3 emissions calculated. The measure of success is the ratio of suppliers responses (50% of our establish target). B) Company-specific description of the impact of climate-related supplier engagement according to the measure of success chosen Climate change data is requested to our suppliers using a specific climate change questionnaire annually sent through our own supply chain platform allowing us to gather accurate data. In 2019, 124 suppliers were requested to provide information. Our response rate was 63% which is above 50% of our establish target. It is worth highlighting as an example of positive outcome during 2019, Enagás increased the number of questionnaires sent to its suppliers by 28% strengthening its engagement commitment.

**Comment**

This category includes all providers contacted through our internal supply chain web platform. Some of them have also been contacted directly. This is all categories as Purchased Goods and Services, Capital Goods, Fuel- and Energy-Related Activities, Upstream Transportation and Distribution, Waste Generated in Operations and Business Travel. Code of Ethics of Enagás Group covers suppliers as it states "The Code of Ethics is a regulation emanating from Enagás' management body and therefore compliance with the Code is obligatory for all persons at Enagás. Compliance with the Code is also obligatory, in their respective spheres of relations with the company, for contractors, suppliers, those who collaborate with the company or who act in its name, and its business partners". Nevertheless, Enagás has published an extract of its Code of Ethics with the principles and conduct guidelines that apply to its suppliers. This Code of Ethics addressed to suppliers covers among other environmental issues.

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**C12.1d**

**(C12.1d) Give details of your climate-related engagement strategy with other partners in the value chain.**

**Engagement Strategy:**

In order to promote transparency and collaboration with all its stakeholders, Enagás publishes at the very beginning of the year its annual report and its verified carbon footprint. The annual report is one of our main communication reports including climate change information and it is presented in the annual shareholder meeting where we engage with our main investors. In addition, the annual report is published in our website so our stakeholders can contact us to gather more information on any sustainability issue, including climate change. In addition, there is a specific section in our website "Energy efficiency and reduced emissions" where climate change information is included ([https://www.enagas.es/enagas/es/Sostenibilidad/Compromiso\\_con\\_la\\_transicion\\_energetica/Eficiencia\\_energetica\\_y\\_reduccion\\_de\\_emisiones](https://www.enagas.es/enagas/es/Sostenibilidad/Compromiso_con_la_transicion_energetica/Eficiencia_energetica_y_reduccion_de_emisiones))

**Definition of "other partners in the value chain":**

Although the annual report is addressed to the general public, is mainly addressed to investors, as almost 35% of Enagás investors are ISR investors, and represent about 81 million of shares. Additionally, Enagás incorporates specific information on climate change in its communications to investors and has adopted the TCFD recommendations.

**Example of climate-related engagement strategy:**

During 2019, Enagás has realize its engagement strategy using different communication channels. Some examples include: a) regular meeting with our investors (face-to-face, telephone, e-mail); b) Roadshows; c) Shareholder Office; d) Free shareholder helpline; e) electronic mailbox; and f) corporate website. In 2019 almost 35% of Enagás investors are ISR investors, and represent about 81 million of shares (which represents almost double of last year).

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**C12.3**

**(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?**

Direct engagement with policy makers

Trade associations

Funding research organizations

Other

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**C12.3a**

**(C12.3a) On what issues have you been engaging directly with policy makers?**

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Other, please specify (Climate change regulation)	Support	Enagás has made its contribution to the Public consultation of the EC, Strategy for long-term EU greenhouse gas emissions reductions which emphasizes the EU needs to develop a long-term greenhouse gas emissions reduction strategy by 2020 in-line with the Paris Agreement.	Enagás agreed with the main items of the proposal emphasizing the need of renewable energies others than electric ones; energy efficiency; support for R&D Power to Gas projects and the development of a Guarantees of Origin System enabling cross-border trade in renewable gases. In addition, we emphasize the need to guarantee origin traceability of renewable hydrogen (green) as well as maintain that natural gas is an alternative fuel, and highlight its role in shipping, rail and road transport.
Other, please specify (Climate change regulation)	Support	Enagás has made its contribution to the public consultation on the Draft on a Proposal for a Law on Climate Change and Energy Transition (that will apply at a national level) that was organized by the Ministry of ecological Transition. Enagás has also made its contribution to the public consultation on the draft Proposal for a the PNIEC (Integrated National Energy and Climate Plan) and it has as well participated in different associations providing its vision from the natural gas sector point of view. Recently, Enagás has participated in a previous public consultations of hydrogen, biogas and energy store. In addition, Enagás has participated in public consultations made by the CNMC for establishing the new rules of the following regulatory period 2021-2026.	Enagás promotes natural gas as the most suited fuel for the energy transition, since gas infrastructures are already in place, and there is no need for further investments. Furthermore, gas infrastructures can continue being used, if biogas and biomethane and Hydrogen are promoted and developed in Spain. Enagás also advocates for other clean technologies such as the development carbon capture, storage and use technology.
Regulation of methane emissions	Support	Enagás is an active member of GIE (Gas Infrastructure Europe) which is a representative organization towards the European Institutions (European Commission, European Parliament, Council of the European Union) as well as the European bodies of regulators (ACER, CEER) and other stakeholders. Enagás is also an active member of MARCOGAZ (Technical Association of the European Natural Gas Industry). We are members of the Board of both organizations. In GIE we chair the system operation area (under this area the methane emissions topic is covered). Enagás has the Presidency of the Sustainability Committee of MARCOGAZ.	The regulation (EU) 2018/1999 on the Governance of the EU requires the European Commission (EC) to propose an EU strategic plan for methane, which will become an integral part of an EU long-term climate strategy aiming to achieve the 1.5°C target until 2050. Enagás, on behalf of GIE and MARCOGAZ, has been participating in bilateral meetings with the EC in order to provide sectorial information, real GHG emissions data, best practices to be carried out to reduce emissions, etc. In this context, the Directorate General for Energy of the EC invited GIE and MARCOGAZ to investigate the potential ways that the gas industry can contribute to the reduction of methane emissions. In this sense, Enagás coordinated and led the study "Potential ways the gas industry can contribute to the reduction of methane emissions" (published on the EC website and the GIE and MARCOGAZ websites in June 2019). The report provides an overview of the status of methane emissions in the EU gas sector and the actions undertaken by the gas industry until now while also containing information on ongoing initiatives and several proposed commitments for future actions of the industry. During 2019, information brochures on this study were published and a series of dissemination activities and training programmes were organised. GIE and MARCOGAZ were invited to present the report at the EC European Gas Regulatory Forum (also known as the Madrid Forum). The report was also presented at the European Parliament. Enagás together with GIE and MARCOGAZ are currently collaborating with the EC, UNEP and EDF with the aim of having a common methane emissions reporting framework. A reporting template and a technical guideline covering transmission networks, LNG regasification terminals, underground gas storages and distribution networks is currently under development based on the previous experience and knowledge of MARCOGAZ.
Other, please specify (Alternative fuels and infrastructure Directive — evaluation)	Support	Enagás has made its contribution to the Public consultation of the EC on the evaluation of the Alternative fuels and infrastructure Directive	Enagás agrees with the proposal and encourages to continue recognising the technological neutrality of the infrastructure and to maintain CNG and LNG in the definition of alternative fuels. In addition, the following was highlighted: Natural gas will have an important role in the future to contribute to the decarbonisation of the transport sector. CNG/LNG in the transport sector is already a reality as well as its high availability, flexibility and scalability. During the last years, in the Iberian Peninsula some projects and studies on the feasibility of LNG as a marine fuel have been carried out, allowing the sector to gain lot of experience in this field. Core LNGas Hive is coordinated by Enagás and funded by CEF funds 2014-2020. Enagás is also promoting the "railway route map" (a project under development since 2014 in consortium with Renfe and Naturgy for the development of practical experiences that allow the commercial application of LNG as an alternative fuel in all segments of railway traction), the development of practical experiences that allow progress towards a sufficiently competitive commercial development of the solution. Gas and its infrastructure will play an essential role in the future decarbonised energy system along with electricity infrastructure. Enagás supports the transition to a long-term energy system in which low carbon, decarbonized and renewable gases will play an important role in a smart combination with renewable electricity, while recognizing that hydrogen can accelerate decarbonisation efforts in the coming decades. In addition, the utilization of gas infrastructure will continue in the future with H2 and renewable gases, which would take advantage of the investments made for the development of the infrastructures.
Other, please specify (Regulatory Challenges for a Sustainable Gas Sector )	Support	Enagás has made its contribution to the Public consultation of the CEER "Regulatory Challenges for a Sustainable Gas Sector"	Enagás supports the development of an EU regulatory framework which allows gas infrastructure operators, including TSOs, to contribute to the decarbonisation of the gas sector by investing and operating power-to-gas plants, biomethane plants, CNG/LNG filling stations, etc., while respecting the existing EU legislation, including the unbundling rules.
Carbon tax	Support with minor exceptions	Enagás has made its contribution to the Public consultation of the EC on revising the rules for free allocation in the EU Emissions Trading System	Enagás supports this regulatory development and some modifications and proposals were shared with the EC.

**C12.3b**

**(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?**

Yes

**C12.3c**

**(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.**

**Trade association**

Spanish Gas Association (SEDIGAS)

**Is your position on climate change consistent with theirs?**

Consistent

**Please explain the trade association's position**

Enagás has the Vice-presidency of SEDIGAS and participates as an independent member in different Committees and Working Groups. SEDIGAS is the Spanish Gas Association and is meant to promote natural gas in power generation, industrial sector and transport sector, as well as to promote new uses and technologies of natural

gas. Specifically, SEDIGAS is now focused on analysing the role of renewable, decarbonised and low-carbon gases, calculating Carbon Footprint and studying how natural gas can improve air quality and guide to a decarbonized energy transition.

**How have you influenced, or are you attempting to influence their position?**

Enagás is an active member of SEDIGAS at different Committees. Regarding climate change issues, the "Health, Safety and Sustainability Committee" is of importance as it includes several working groups among which the "Sustainability WG" and the "Environmental Legislation WG". Under the "Sustainability WG" framework, we are sharing our knowhow on emissions' mitigation measures and emissions factors in order to develop an improved carbon footprint calculation methodology for the sector in order to obtain realistic data from this part of the natural gas value chain. In this framework, Enagás is committed to raise awareness to the other members about the importance of detecting, quantifying and reducing methane emissions along the natural gas value chain. Enagás is also attending to the "Environmental Legislation WG" in which comments to the different national and European regulatory developments are sent and meetings with the Spanish Environmental Ministry and the Spanish Office of Climate Change are held in order to provide the point of view of the gas sector regarding the different climate change, energy transition and low-carbon economy issues to be regulated soon.

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**Trade association**

CEOE (Spanish Confederation of Employers' Organizations)

**Is your position on climate change consistent with theirs?**

Consistent

**Please explain the trade association's position**

CEOE is the main interlocutor representing Spanish companies before the Government, the different Public Administrations, trade unions, political parties and international institutions. Enagás is member of the Business Action Council of the CEOE and is an active member of the CEOE at different committees. One of them is the "Commission for a sustainable development of the environment" which is focused in environmental sustainability.

**How have you influenced, or are you attempting to influence their position?**

Enagás is an active member of the CEOE "Commission for a sustainable development of the environment" which is an advisory body whose objective is to define the role of companies facing challenges such as climate change or changing the productive model towards a Circular and Low Carbon Economy, among others.

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**Trade association**

PTECO2 (Spanish Technological Platform of CO2)

**Is your position on climate change consistent with theirs?**

Consistent

**Please explain the trade association's position**

PTECO2 is an initiative promoted by the private sector, research centers and some Spanish universities; it is partially financed by the Ministry of Science. Its mission is to promote the development and implementation of CAUC technologies and the use of CO2 in order to let Spain to achieve its commitments to reduce emissions and to develop an economic and competitive CO2 sector. Enagás is an active member of the Steering Committee.

**How have you influenced, or are you attempting to influence their position?**

Enagás is part of the Regulation WG promoting the development of the CAUC technologies, which are going to play a key role in the decarbonization of the economy.

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**Trade association**

Iberian Association For Gas-Powered Mobility (GASNAM)

**Is your position on climate change consistent with theirs?**

Consistent

**Please explain the trade association's position**

Enagás is a member of the Board of Directors and has the Vice-presidency Maritime of the Iberian Association For Gas-Powered Mobility (GASNAM) which is meant to promote the use of natural gas in transport as a low carbon intensive and fuel.

**How have you influenced, or are you attempting to influence their position?**

Through the numerous activities of GASNAM, Enagás supports the association in order to facilitate its aim of promoting and ensuring a role for the natural gas in the European and national strategy for low-emission mobility (road, train and maritime transport).

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**Trade association**

MARCOGAZ

**Is your position on climate change consistent with theirs?**

Consistent

**Please explain the trade association's position**

Enagás is member of the Board of Directors of MARCOGAZ and has the Presidency of the Sustainability Committee. MARCOGAZ is the Technical Association of the European Natural Gas Industry and aims at monitoring and taking influence when needed on European technical regulation, standardization and certification with respect to safety and integrity of gas systems and equipment, and rational use of energy, taking into account environment, health and safety issues related to natural gas. MARCOGAZ has 25 members in 20 countries mainly national gas associations.

**How have you influenced, or are you attempting to influence their position?**

Enagás is an active member of MARCOGAZ's Air Emissions, Methane Emissions, and Environmental Reports Working Groups among others. Enagás is also chairing the Environmental Reports Working Group. Within the framework of the "Methane Emission WG", we participated in CH4 emissions estimation methodologies for the gas sector that will allow providing reliable information to governments, EU institutions, regulatory bodies and the general public. In this context, in 2019, Enagás, together with MARCOGAZ and GIE, led the study "Potential ways the gas industry can contribute to the reduction of methane emissions" (published in July 2019). The report provides an overview of the status of CH4 emissions in the EU gas sector and the actions undertaken by the gas industry until now while also containing information on ongoing initiatives and several proposed commitments for future actions of the industry. In 2019, information brochures on this study were published and a series of dissemination activities and training sessions were carried out (such as GasNaturally WS at the European Parliament, EGATEC, training session with Energy Community and the MGP). MARCOGAZ also published the document "Assessment of methane emissions for gas Transmission and Distribution system operators". It gives coherent technical guidance to gas grid operators across Europe to assess their CH4 emissions in accordance with a harmonized and transparent method. The principles of this methodology can also be applied to other parts of the gas value chain. This methodology can contribute to ensure that CH4 emissions data reported is based and verified on the same methodology all over Europe, contributing to comparability of data. This document will become a CEN Technical Report in the near future. Moreover, in 2019, a questionnaire on CH4 emission was circulated among GIE, IOGP and MARCOGAZ members. The questionnaire aimed at evaluating the establishment of methane emissions reduction targets in the gas sector. As a result, Enagás, together with MARCOGAZ, GIE and IOGP, worked on the elaboration of "Guidelines for Methane Emissions target setting" (published in April 2020). Enagás together with GIE and MARCOGAZ, have supported the consortium (Wood, Carbon Limits, The Sniffers and TNO) hired by the European Commission to perform the study "Limiting methane emissions in the energy sector".

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**Trade association**

Gas Infrastructure Europe (GIE)

**Is your position on climate change consistent with theirs?**

Consistent

**Please explain the trade association's position**

Enagás is an active member of GIE (Gas Infrastructure Europe) which is a representative organization towards the European Institutions (European Commission, European Parliament, Council of the European Union) as well as the European bodies of regulators (ACER, CEER) and other stakeholders. GIE is representing 70 member companies from 26 countries, gathering operators of gas infrastructures across Europe: transmission pipelines, storage facilities and LNG terminals. We are members of the Board and we chair the system area (under this area the methane emissions topic is covered). GIE representatives and member companies defend the gas industries interests vis-a-vis the European institutions and cooperate with European and international organizations, playing an active part in the discussion about GHG reduction, in particular methane emissions mitigation, role of renewable, decarbonised and low carbon gases and to inform critical decision makers about the on-going industry practices.

**How have you influenced, or are you attempting to influence their position?**

Enagás is chairing the GIE Methane Emissions TF and actively contributing to the development of position papers and documents, hence supporting the association goals of sharing knowledge and expertise in detecting, measuring and reducing methane emissions by carrying out LDAR campaigns and by having policies on emissions, taking into account current reports, studies and publications related to methane emissions in gas infrastructure and their impact, and providing primary data to calculate the methane emissions, the carbon footprint of gas infrastructures and/or the LCA of the natural gas sector. In this context, in December 2019, GIE published its fully support to the European Green Deal that will sustain high ambitions towards carbon neutrality by 2050. Additionally, GIE together with MARCOGAZ has collaborated in the development of methane related studies and publications as previously reported in MARCOGAZ section.

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**Trade association**

European Gas Research Group (GERG)

**Is your position on climate change consistent with theirs?**

Consistent

**Please explain the trade association's position**

Enagás is a member of the Board of the European Gas Research Group (GERG) which is meant to promote innovation in gas technology as a vital contributor to Europe's energy future, contribute to a sustainable energy system by developing technology that will reduce energy intensity, reduce GHG emissions and particulates, enable new gas applications, and reduce the cost of the energy transition, among others. GERG has influence in policy development regarding energy and gas issues, including climate change. GERG has 23 members and several "friends" and "partners". GERG is developing roadmaps in 3 important topics for the gas sector: methane emissions, biomethane and hydrogen.

**How have you influenced, or are you attempting to influence their position?**

Enagás actively participates in its board and in specific innovation projects. Specifically, GERG is currently developing a project on bottom-up technologies to measure and quantify methane emissions from the transmission systems which is supported by Enagás by allowing the test of selected devices to be taken in one of our installations, providing any data and/or information needed.

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**Trade association**

Natural & bio Gas Vehicle Association (NGVA)

**Is your position on climate change consistent with theirs?**

Consistent

**Please explain the trade association's position**

Enagás is member of NGVA Board and actively participating in its working groups. NGVA Europe, the Natural & bio Gas Vehicle Association, promotes the use of natural gas and biomethane as an automotive low carbon intensive fuel. NGVA has 124 members.

**How have you influenced, or are you attempting to influence their position?**

NGVA is supporting the European Commission members with 2 relevant studies for this sector: Well to Wheel GHG (Version 5) and Life Cycle Analysis methodology development for the mobility sector (Consortium: Ricardo, E4Tech, IFEU). In addition, NGVA has developed a Cradle to Grave GHG calculator. NGVA was actively involved in the following regulatory developments: CO2 emission standards for heavy-duty vehicles Regulation; Alternative Fuels infrastructure Directive; EU Taxation Directive; Sustainable Finance – Taxonomy

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**Trade association**

International Gas Union (IGU)

**Is your position on climate change consistent with theirs?**

Consistent

**Please explain the trade association's position**

Enagás is in the IGU Council, the IGU Executive committee and also participating in several Working Groups of the International Gas Union (IGU). The International Gas Union is a global organization covering technical and advocacy topics. Also, in early 2018, Enagás is part of entered the IGU Executive committee. The more than 160 members of IGU are associations and corporations of the gas industry representing over 95% of the global gas market.

**How have you influenced, or are you attempting to influence their position?**

Enagás is actively participating in several working groups within IGU, in particular in the "Group of Experts on Methane Emissions", provide input to the industry messaging on this issue, and regularly share developments in the measurement and mitigation of methane emissions. Across its members, it also acts as a peer review group on papers or articles appearing on this issue. In 2019 Enagás collaborated with IGU in the development of the publication "Understanding Methane Emissions".

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**Trade association**

ENTSOG (European Network of Transmission System Operators for Gas)

**Is your position on climate change consistent with theirs?**

Consistent

**Please explain the trade association's position**

Enagás is member of the Board and also participating in several Working Groups of ENTSOG. ENTSOG's mission is to facilitate and enhance cooperation between national gas transmission system operators (TSOs) across Europe in order to ensure the development of a pan-European transmission system in line with European Union energy goals. It was established to promote the completion of the internal market for gas and stimulate cross-border trade, to ensure the efficient management and coordinated operation of the European gas network and to facilitate the network's sound technical evolution. ENTSOG has 44 TSO Members, 3 Associated Partners and 9 Observers.

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**How have you influenced, or are you attempting to influence their position?**

Enagás is actively participating in several working groups, some of them covering GHG reduction, role of renewable, decarbonised and low carbon gases.

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**C12.3d**

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**(C12.3d) Do you publicly disclose a list of all research organizations that you fund?**

Yes

**C12.3e**

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**(C12.3e) Provide details of the other engagement activities that you undertake.**

Besides our participation with different policy makers and associations such as the above mentioned, Enagás has been collaborating with:

**- The United Nations Economic Commission for Europe (UNECE)**

Enagás has the Presidency of UNECE Group of Experts on Gas and is part of the Bureau of the Sustainable Energy Committee. UNECE is an intergovernmental body (institution), active in the UNECE region and with global impact.

The Group of Experts on Gas (GEG) is a subsidiary body of the UNECE Committee on Sustainable Energy that examines the critical role of gas in achieving the United Nations Sustainable Development Goals and provides a forum for multi-stakeholder dialogue on sustainable and clean production, distribution and consumption of natural gas in the UNECE region.

Enagás is leading and coordinating the activities within the Group of Experts on Gas (GEG). Enagás is also part of the UNECE Task Force on Methane Management in Extractive Industries.

**- GAS FOR CLIMATE (partnership)**

Initiated mid-2017, the Gas for Climate group consists of seven leading European gas transport companies (Enagás, Energinet, Fluxys, Gasunie, GRTgaz, ONTRAS, Open Grid Europe, Snam, Swedegas and Teréga) and two renewable gas industry associations (European Biogas Association and Consorzio Italiano Biogas).

Gas for Climate is committed to achieve net zero greenhouse gas emissions in the EU by 2050 and is united in its conviction that renewable and low carbon gas will help to deliver this at lowest possible costs and maximum benefits for the European economy.

The following studies were published in 2019:

- "The optimal role for gas in a net-zero emissions energy system".
- "Job creation by scaling up renewable gas in Europe".
- "Action Plan 2030" (update 2019) which describes what Gas for Climate member organisations are already doing to facilitate the scaling up of renewable and decarbonised gases, what their ambitions related to renewable gas are out to 2030 and what is needed to enable action.

**- LNG Protocol (partnership)**

The LNG Protocol is the informal communication platform of 9 organizations (Eurogas, GIE, GIIGNL, IGU, MARCOGAZ, NGVA, SEA\LNG, SGMF and SIGTTO). LNG Protocol's vision is of an efficient and competitive global LNG chain for a sustainable future

During 2019, Enagás, on behalf of GIE, collaborated with the LNG Protocol. The LNG Protocol work in a workshop preparation and a study on the role of LNG in the decarbonization of the transport sector. Publication in 2019 a LNG Protocol Declaration for the Use of LNG as the Go-To Fuel of the Future, welcoming the support of the President-elect of the European Commission Ursula von der Leyen for the potential of affordable liquified natural gas (LNG) in her mission letter to Kadri Simson, Commissioner-designate for Energy. Signatories of this declaration endorse LNG as a fundamental asset that helps meeting EU's long-term decarbonisation targets and the 'just' energy transition and believe in its valuable contribution to the EU Green Deal

Moreover, Enagás collaborates with the Sustainable Gas Institute to examine the suitability of different climate metrics, analyzing the uncertainty associated with methane emissions from natural gas supply chains, and produce a review of the sustainability LNG for shipping fuel. This project is finished. The work package related to the suitability of different climate metrics is already published and the publication of the other 2 is still pending. Enagás has also taken part in international climate change related conferences such as the FUNSEAM (Barcelona, February 2019), VIth Gasnam Congress (April 2019), Gastech conference in Houston (September 2019), LNG & Shipping Forum (May 2019), Methane Emissions Industry Meeting (September 2019), Flame (Amsterdam, May 2019), EAGC (Paris, November 2019), among others.

In addition, in Enagás signed the 'Guiding principles on reducing methane emissions in the natural gas value chain', 22 companies have already signed the Methane Guiding Principles and 16 supporting organisations. Enagás is part of the Steering Committee. These Guiding Principles focus on five key areas: improving accuracy of methane emissions data; increasing transparency; continually reducing methane emissions; advocating sound policies and regulations on methane emissions; and advancing strong performance across gas value chains. In 2019, Enagás has collaborated with the Methane Guiding Principles in the development of best practice guidelines for methane emissions reduction.

Furthermore, the company actively collaborates with different associations on related studies and researches, such as the collaboration in 2019 with the consultants hired by the EC to perform the Report "Limiting methane emissions in the energy sector".

It is worth highlighting that in 2019 Enagás committed to the Global Methane Alliance (GMA) and committed to methane emission reductions of 45 percent by 2025 and 60 percent by 2030 compared to 2014.

## C12.3f

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### **(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?**

Enagás ensures a common approach through the Energy Transition Committee. This Committee was created in 2018 arising from the need identified to further focus on climate issues which were previously covered by the Sustainability Committee (currently in charge of sustainability issues including also climate change). The Energy Transition Committee is specifically focused on climate change, low carbon strategy, energy transition and decarbonisation. Together with the Energy Transition Committee there are two Working Groups related to internal and external information and reporting. At both levels, the main business areas in which climate change, as a transversal issue, can generate impacts are represented (e.g. Infrastructures Department, International Organizations Department, Strategy Department, Sustainability and Environmental Department, Communication and Public Affairs Department, Investor Relations Department, Affiliates & Business Development Department, Risks Department, Regulatory Department and Financial Department). People involved are also those who participate in the different associations' working groups. In this sense, the Committee and WGs meet periodically in order to share information and opinions regarding the relevant topics discussed in the different association meetings (at national, European and global level) and in the main internal activities related to climate change and energy transition. Also, GWs are in charge of preparing papers, comments, amendments, positioning and other information to be provided internally and externally. As a quality control, all the activities are supervised and acknowledged by the Energy Transition Committee, formed by the Directors of the main relevant areas to these issues, and responsible for guiding the internal and external company's strategy. In this sense, all Enagás' engagement activities are perfectly aligned with its business objectives which are basically focused on promoting the benefits of natural gas and showing the important role of natural gas in the forthcoming transformation of the energy sector to mitigate climate change.

## C12.4

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**(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).**

**Publication**

In mainstream reports, incorporating the TCFD recommendations

**Status**

Complete

**Attach the document**

Annual Report\_2019.pdf  
Annual Report\_2019.pdf

**Page/Section reference**

Annual Report 2019, section "Climate Change and Energy Efficiency" from page 82-91

**Content elements**

Governance  
Strategy  
Risks & opportunities  
Emissions figures  
Emission targets  
Other metrics  
Other, please specify (Emissions reduction; Emissions reduction Plan; Reduction of fugitive emissions; Carbon offsetting.)

**Comment**

Our Annual Report is available at our website: [https://www.enagas.es/stfls/ENAGAS/Documentos/Annual%20Report\\_2019.pdf](https://www.enagas.es/stfls/ENAGAS/Documentos/Annual%20Report_2019.pdf)

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**Publication**

Other, please specify (Website)

**Status**

Complete

**Attach the document**

Enagás Website\_Climate Change and Energy Efficiency.pdf

**Page/Section reference**

All

**Content elements**

Emissions figures  
Emission targets  
Other, please specify (Emissions reduction, compensation measures and methane emissions)

**Comment**

Climate change and energy efficiency information is available in a specific section at Enagás' website which is annually updated:  
[https://www.enagas.es/enagas/en/Sostenibilidad/Compromiso\\_con\\_la\\_transicion\\_energetica/Eficiencia\\_energetica\\_y\\_reduccion\\_de\\_emisiones](https://www.enagas.es/enagas/en/Sostenibilidad/Compromiso_con_la_transicion_energetica/Eficiencia_energetica_y_reduccion_de_emisiones)

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**Publication**

Other, please specify (Declaration of verification of GHG emissions 2019 - Enagás Group)

**Status**

Complete

**Attach the document**

Carbon Footprint declaration of verification 2019.pdf

**Page/Section reference**

All

**Content elements**

Other, please specify (Declaration of verification of GHG emissions 2019)

**Comment**

Enagás has verified by a third independent party its Carbon footprint. Declaration of verification is publicly available at our website:  
<https://www.enagas.es/stfls/ENAGAS/Documentos/Declaration%20of%20verification%20of%20GHG%20emissions%202019%20-%20Enagás%20Group.pdf>

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**Publication**

Other, please specify (Voluntary Carbon Emissions Offsetting Certificate (2019))

**Status**

Complete

**Attach the document**

Enagás\_2019 Carbon offsetting certificate\_VERTIS.pdf  
Enagás\_2019 Carbon offsetting certificate\_FACTOR CO2.pdf

**Page/Section reference**

All

**Content elements**

Other, please specify (Volume of offsets retired)

**Comment**

In early 2020 the volume of offsets retired by Enagás was 32,576 tCO<sub>2</sub>e corresponding for the period 1/1/2019 - 31/12/2019.

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## C15. Signoff

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### C-FI

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**(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.**

No additional information deemed necessary.

### C15.1

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**(C15.1) Provide details for the person that has signed off (approved) your CDP climate change response.**

	Job title	Corresponding job category
Row 1	Chairman	Board chair

### Submit your response

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**In which language are you submitting your response?**

English

**Please confirm how your response should be handled by CDP**

	I am submitting to	Public or Non-Public Submission
I am submitting my response	Investors	Public

**Please confirm below**

I have read and accept the applicable Terms