

# Financial disclosure on climate change 2020



energy to inspire the world

## COMPANY PROFILE

Snam is one of the world's leading energy infrastructure operators and ranks among Italy's largest listed companies, by market capitalization.

Through a sustainable and technologically advanced network, Snam guarantees the security of supply and is a key enabler in the energy transition. Through its international footprint Snam operates in Albania (AGSCo), Austria (TAG, GCA), France (Terēga), Greece (DESFA), Italy, UAE (ADNOC Gas Pipelines) and UK (Interconnector UK) and has recently started activities in China and India. Snam is also one of the leading shareholders in TAP (Trans Adriatic Pipeline).

The Group has the largest natural gas transportation network (over 41,000 km including international assets) and storage capacity (approx. 20 bcm including international assets) among its European peers and is also a leading player in regasification, through the LNG terminal in Panigaglia (GNL Italia) and its stakes in the Livorno (OLT) and Rovigo (Adriatic LNG) terminals in Italy and in the Revithoussa (DESFA) terminal in Greece.

In its 2020-2024 strategic plan, Snam plans an increase in investments to 7.4 billion euros and more focus on the energy transition businesses: biomethane (Snam4Environment), energy efficiency (Renovit), sustainable mobility (Snam4Mobility) and hydrogen. The company also operates in forestation (Arbolia) and is committed to achieving carbon neutrality (Scope 1 and Scope 2) by 2040.

The Group's business model is based on sustainable growth, transparency, the promotion of talents and diversity and the social development of local areas also through the initiatives of Fondazione Snam.

[www.snam.it](http://www.snam.it)

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## Focus on

# SNAM'S REPORTS



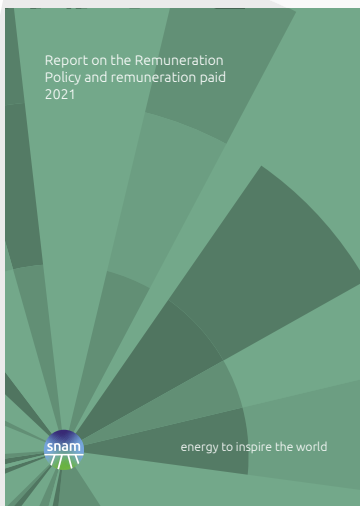
### ANNUAL REPORT

It provides a comprehensive view both on the financial and non-financial performances through the Directors' Report - Integrated Report, the Consolidated Financial Statement, the Statutory Financial Statement and the Non-Financial Statement drafted according to Legislative Decree 254/2016.



### REPORT ON CORPORATE GOVERNANCE AND OWNERSHIP STRUCTURE

It provides detailed information about the company, its governance structure, the ownership structure, the internal control and risk management system and related topics.



### REMUNERATION REPORT

It describes the company's Remuneration Policy of Directors and Executives specifying the goals, the involved bodies, the procedures for its adoption and implementation in addition to the remuneration paid.



### SUSTAINABILITY REPORT

It describes performances and future goals regarding the environmental, social, and governance topics (ESG), strengthening the relationship and collaboration with all the Company's stakeholders.

# FINANCIAL DISCLOSURE ON CLIMATE CHANGE

## "INTEGRATED REPORTING MEANS INTEGRATED THINKING"

this is the assumption at the basis of Snam's reporting, which for some time now has been pursuing the integration of its reporting processes. This approach aims at responding to the requests of all stakeholders by means of an extensive, transparent and complete, as well as responsible, corporate reporting. Thanks to the publication of several specific reports, Snam provides a timely and in-depth view of its activities, performance and annual challenges.



This report describes the Company's approach to climate change, focusing on its commitment to guiding its choices and initiatives towards a sustainable energy transition aimed at achieving national and European decarbonisation targets. In particular, this document is drawn up in compliance with the recommendations of the "Task Force on Climate-related Financial Disclosures" (TCFD) of the Financial Stability Board (FSB) and reports on: the global energy and climate scenarios taken into consideration by the Company; the strategy developed ad hoc to respond to changes in the reference context; the risks and opportunities related to climate change, with their impacts and management approaches; the roles and responsibilities of the organisation for the management of climate change issues; the performance and climate objectives set in the medium to long term.

# 2020

# LETTER TO THE SHAREHOLDERS AND STAKEHOLDERS

## **Dear Shareholders and Stakeholders:**

**2020 was a year that created upheaval in the world, redefining our idea of normality due to the pandemic which still has not been entirely left behind us. Many of us went through difficult times and, in some cases, lost loved ones. We completely changed our way of living, working, travelling and interacting with our neighbours. Some of these changes will stay forever. The economic consequences of the pandemic were very heavy and several years will be needed to overcome them.**

The events of 2020 demonstrated to the world how unavoidable it now is to deal with and overcome one of the main challenges of our generation: climate change. Despite the impact of the pandemic, the reduction in CO<sub>2</sub> emissions globally in the past year was lower than expected, with an increase in the second half coinciding with the return of many economic activities. And it was in 2020 that Snam strengthened its position as a facilitator of the energy transition and was one of the first companies in its sector to announce a goal of carbon neutrality by 2040. We plan to reach this target, for Scope 1 and Scope 2 emissions (direct and indirect) through an interim goal in 2030, at which time we will have decreased our CO<sub>2</sub> equivalent emissions by 50%, capitalising on the efforts put in over the years and making our business ever more sustainable. Snam also has the objective of contributing to lower emissions in the entire economic system by enabling its infrastructure to transport increasing amounts of renewable gases. Additionally, thanks to our energy efficiency, sustainable mobility, biomethane and hydrogen initiatives, by 2024 we will enable Italy to prevent the emission of 600,000 tonnes of CO<sub>2</sub>.

The Plan we launched in 2020, calling for a total of 7.4 billion by 2024, establishes these environmental commitments as one of its pillars and puts ESG factors at the centre of our strategies. Sustainable success is included in our purpose, “Energy to inspire the world”, which as of February 2021 became part of the Snam’ Bylaws, after approval by the Shareholders’ Meeting. At the side of these economic goals, for the first time we set out multi-year targets for environmental, social and governance aspects, benefiting all our stakeholders. Confirming our commitment, we once again renewed our adherence to the principles of the Global Compact and the sustainable development goals (SDGs) identified by the UN. To report on our contribution to Agenda 2030, we prepared an ESG Scorecard to measure the company's performance in 13 areas, with material and quantitative objectives for 2023.

We took major steps forward in initiatives for the energy transition. For hydrogen, after initial experiments, we continued to work to make our network ever more ready to host growing quantities. Thanks to our infrastructure, we can serve as a facilitator for the development of this energy vector which is destined to play a decisive role in making Europe the first continent with zero emissions by 2050, as demonstrated by the strategies adopted by the European Union and various Member States during 2020. In this sector we established a technological partnership with De Nora, an Italian leader in water treatment and alkaline electrolysis technologies. The goal is to be on the cutting edge of innovation, as is also demonstrated with our agreement with the British ITM Power, which produces membrane electrolyzers. As for energy efficiency, we integrated Snam's expertise with new acquisitions (Mieci and Evolve) and laid the foundations for the start-up of



*the Renovit platform, in which CDP Equity has a stake since January 2021 and is a candidate to become the leading Italian company in the sector.*

*Our commitment to sustainable mobility continued, with 29 new refueling stations contractualised in 2020, for a cumulative total of 132 stations, and growth of Cubogas in the compressor sector. We also entered into the agriculturally produced biomethane infrastructure through the acquisition of a 50% stake in Iniziativa Biometano. As a whole, investments in energy transition business through 2024 exceed 700 million euros, almost double that in the previous Plan. Urban forestation can be added to these activities, with the creation of the benefit company Arbolia, the result of a joint project with the CDP Foundation to make Italian cities and communities greener.*

*Last but not least, 2020 was the year the Southern Corridor was completed, a fundamental tool for European energy supplies, both now and in the future. Snam quickly constructed the connection between TAP and the national network and, as a shareholder, contributed its know-how for the success of the entire project.*

*Despite the uncertainties caused by the pandemic, we look to the future with optimism, thanks to the knowledge and skills of our people and the strategic value of our assets. We are convinced that infrastructure will play a crucial role in the recovery of economic systems and in the energy transition, moving towards a zero-emission future, with Snam in an ideal position to play a leading role in facing this challenge.*

17 March 2021  
The Board of Directors



**Nicola Bedin**  
Chairman



**Marco Alverà**  
CEO

# EXECUTIVE SUMMARY

ENERGY

CHANGE

This document represents a transparent commitment to Snam's stakeholders in the discussion on climate change. It is an important opportunity to illustrate the Company's approach to directing its strategy in the context of energy transition, as well as its commitment to reaching the energy and climate goals defined at a European level.

This document has been drafted in accordance with the recommendations of the "Task Force on Climate-related Financial Disclosures" (TCFD) of the Financial Stability Board (FSB) and describes: the roles and responsibilities within the Group for managing climate change, the global energy and climate scenarios, the scenarios and the new strategy adopted by Snam, the ERM model for identifying, assessing and managing risks and opportunities related to climate change and the climate performance and objectives set for 2030 and 2040 with the new "Towards Net Zero" Strategic Plan.

## THE ROLE OF THE ENERGY SYSTEM IN DECARBONISATION

### CONTEXT AND REFERENCE SCENARIOS

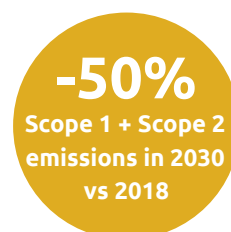
This chapter describes the main global energy and climate scenarios, with particular reference to the predominant role of natural gas as a means of promoting decarbonisation and energy transition, in line with the European strategy in this regard and the agreements defined at international level to combat global warming and limit its effects.

The different gas supply and demand scenarios developed by the Company, which are the basis of the new Strategic Plan and which consider a time horizon of 2040, will also be discussed.

### TOWARDS NET ZERO: SNAM'S NEW STRATEGY

This chapter describes the new Snam's Towards Net Zero strategy which aims to actively promote the use of gas as the best candidate to support non-programmable and difficult to store renewable electricity (such as wind and solar power) in the decarbonisation of the country.

For this reason, Snam's strategy is based on three fundamental pillars: **improvement of the core business**, **internationalisation** and **leadership in the energy transition**. Among these, the last one envisages significant investments in order to achieve the ambitious objectives set by the Plan: the opening up to new businesses, biomethane, energy efficiency, sustainable mobility and hydrogen with the involvement not only of the subsidiaries and the business units, but the entire Group.



## THE RISKS AND OPPORTUNITIES RELATED TO CLIMATE CHANGE

### INTEGRATED RISK ASSURANCE & COMPLIANCE

This chapter describes the risks and opportunities related to climate change that could affect the Company's business and that Snam evaluates to continue to operate sustainably in the long-term as well, directing its strategies and constantly monitoring changes in the surrounding conditions.

The actual and prospective risks and opportunities associated with Snam's corporate strategy are identified, assessed and managed through the **ERM model** (Enterprise Risk Management), which integrates the risks and opportunities related to climate change.

## GOVERNANCE FOR THE MANAGEMENT OF CLIMATE CHANGE

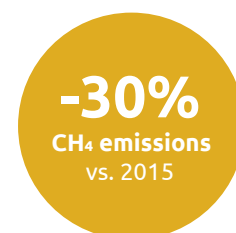
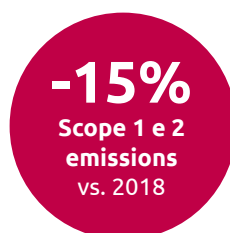
### INTEGRATED GOVERNANCE

### 20% OF THE CEO SHORT-TERM VARIABLE INCENTIVE LINKED TO ESG TARGETS

This chapter presents Snam's governance system which, among other things, has the task of overseeing ESG issues and, specifically, aspects related to climate change. The activities of the **Board of Directors (BoD)**, the **Chief Executive Officer (CEO)** and the management, aimed at ensuring the proper management and monitoring of these aspects in the conduct of the business, fall within this context. The Board of Directors is supported by various committees, including the **Environmental, Social & Governance ("ESG") Committee**, the **Audit, Risk and Related Party Transactions Committee** and the **Remuneration Committee**.

## ACTING FOR TOMORROW

This chapter reports specifically on data that describe Snam's **practical commitment to promoting decarbonisation**, implemented through the monitoring and improvement of its performance and its targets for reducing climate-altering emissions and increasing energy efficiency. This chapter will also present the emission reduction targets outlined in the new Strategic Plan.





## TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

The Task Force on Climate-related Financial Disclosure, established by the **Financial Stability Board (FSB)** at the request of the **G20 (Group of 20) Finance Ministers and Central Bank Governors**, has the objective of developing voluntary policies consistent with the financial risks related to the climate, that can be used by Companies in providing information to investors, lenders, insurers and other interested parties.

The Task Force on Climate-related Financial Disclosure has defined **four areas of Recommendations** with reference to the financial reporting related to climate change, applicable in all organisations, indiscriminately.

The four areas and the related recommendations are:

- **Governance:** describe the governance model of the organisation in relation to the risks and opportunities related to climate change;
- **Strategy:** describe the actual

or potential impacts of the risks and opportunities related to climate change on the business, strategy and financial planning of the organisation;

- **Risk Management:** describe how the organisation identifies, assesses and manages the risks related to climate change.

- **Metrics and Targets:** describe the metrics and targets used by the organisation to assess and manage the significant risks and opportunities related to climate change.

# CONTEXT AND REFERENCE SCENARIOS

The world of energy is facing a moment of epochal transformation, which will profoundly affect the life of the planet and its inhabitants: climate change, increasingly central to international policies, requires timely solutions from a multiplicity of economic and institutional actors worldwide, in order to limit global warming well below 2°C and continuing with efforts to limit it to 1.5°C, as defined in the Paris Agreement, adopted at the 2015 Conference of the Parties (COP).



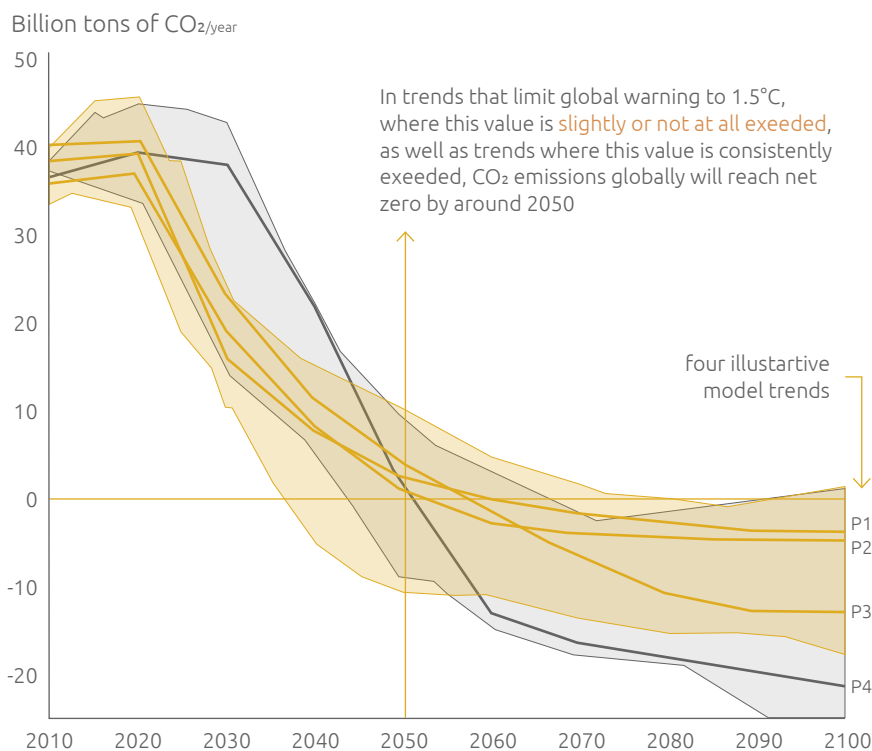
COOPERATION

In the 2018 “Special Report on the impacts of Global Warming of 1.5°C”, the Intergovernmental Panel on Climate Change (IPCC) <sup>1</sup> highlighted that the effects of global temperature increase caused by human activities are already evident in the increased frequency and intensity of extreme weather events, from heat waves to sea level rise. Global warming will also have negative effects on biodiversity, agricultural crop yields and human health

The report highlights how human activities have already caused global warming of about 1°C compared to the pre-industrial period. The data published by the World Meteorological Organisation (WMO) show that in recent years the increase in the Earth’s average temperature has not stopped, and that the most recent surveys show an increase of around +1.2°C compared to the pre-industrial period: the years between 2011 and 2020 represent the decade with the highest temperatures ever recorded. Moreover, the temperature increase exhibits with different intensity in different geographical areas, and the Arctic region is particularly affected by global warming: the melting of glaciers that may result will lead to a rise in sea levels of several meters, with effects that will continue to show themselves beyond 2100.

For years, the World Economic Forum, in its annual “Global Risk Report”, has been placing climate change among the most significant risks for the global community, also highlighting the interconnection between climate risks and social and geopolitical risks, such as mass migrations, pandemics and scarcity of water resources.

Total net CO<sub>2</sub> emissions



Source: Special Report on the impacts of Global Warming of 1.5°C, IPCC (2018)

<sup>1</sup> Thousands of scientists from 195 member countries participate in the work of the main international body for the assessment of climate changes, created in 1988 on the initiative of the World Meteorological Organisation (WMO) and the United Nations Environment Programme (UNEP).

CONTEXT

According to the IPCC, at the current production rates, greenhouse gas emissions will cause a temperature increase of +1.5°C by 2040, exceeding +2°C in later years, with catastrophic effects for the planet.

The next 10 years will be critical to limiting global warming to a level below 2°C: CO<sub>2</sub> emissions by 2030 must fall by around 25% and reach zero by 2070. Considering the most ambitious scenario of the Paris Agreement, with an increase limited to 1.5°C, global emissions are projected to decrease by about 45% compared to 2010 levels by 2030, reaching the “zero emissions” target by approximately 2050.

The mitigation processes described are characterized by reductions in energy demand, decarbonisation of electricity and other fuels, electrification of energy end-use, deep reductions in agricultural emissions, and the use of atmospheric CO<sub>2</sub> removal solutions.

This transformation is at the basis of the energy transition, the process that will guide the world towards an increasing use of renewable sources and, more generally, towards a more sustainable economic model, also thanks to new technologies and energy saving.

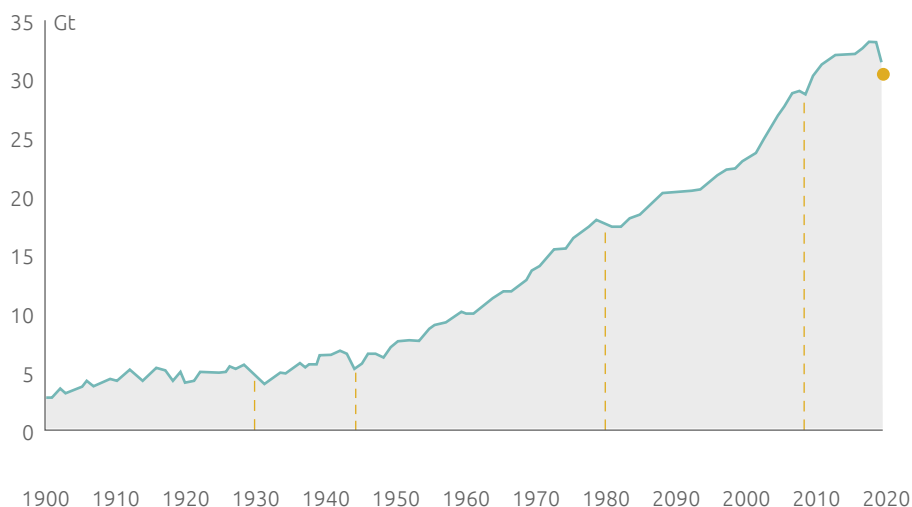
In this context, the national energy system cannot disregard the role that gas, and related infrastructures play in achieving the targets for reduced emissions, penetration of renewable energy sources and energy efficiency. As for energy transition, gas can, on the one hand, provide the services with flexibility, security and diversification of energy supply sources and, on the other hand, support a path towards a low-carbon economy at the lowest overall cost for the system, thanks to the availability of an already existing and widespread infrastructure network, such as the Italian one, and at the same time promote the decarbonisation of the same gas carrier through the development of renewable gases such as biomethane, hydrogen and synthetic gas.

Globally, public policies have boosted gas consumption in important markets such as China, where it can replace coal. Similarly, in Europe and the United States, replacing coal with gas is leading to better air quality and carbon emissions outcomes. Slowly and steadily, other countries, such as India, are following the example of those just mentioned. Climate change-focused policies that will take effect over the next 10 years may provide growth opportunities for the gas industry, a flexible resource that can complement the growing energy production from renewable sources that is emerging.

In this context, biomethane, hydrogen and gas with carbon capture could play an important role in decarbonising those sectors of the economy that are currently seen as hard-to-abate and providing long-term growth opportunities for the gas industry. In particular, hydrogen is gaining increasing acceptance in public policies and, with enough investment, could reduce energy-related greenhouse gas emissions by up to 37%, according to BloombergNEF estimates. As the energy transition continues, gas transmission and storage infrastructure can be prepared for hydrogen blending, and for the transport of pure hydrogen, at much lower costs than building new, specific hydrogen networks.



## Global energy-related CO<sub>2</sub> emissions and annual change, 1900-2020



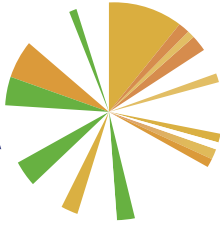
Source: Global Energy Review 2020, IEA (2020)

The International Energy Agency (IEA) has highlighted in the “World Energy Outlook 2020” how the Covid-19 pandemic has affected the energy sector more than any other event in recent history: according to the IEA, it is too early to say whether today’s crisis could represent a setback in the efforts to achieve a more secure and sustainable energy system, or a catalyst that will accelerate the pace of change. The IEA’s assessment is that global energy demand is set to fall by 5% in 2020, energy-related CO<sub>2</sub> emissions by 7% and energy investment by 18%.

Impacts vary by fuel: the estimated declines by 8% in oil demand and by 7% in coal use are offset by a slight increase in the contribution of renewable energy. Coal use in particular is expected to fall to below 20% of the global energy mix by 2040, for the first time since the industrial revolution.

The reduction in natural gas demand is about 3%, while overall electricity demand looks to be down by a relatively modest 2% for the year: overall, the sector’s performance could result in a 2.4 million ton (Gt) of CO<sub>2</sub> decline that would bring annual carbon dioxide emissions back to the level of a decade ago, a reduction six times larger than the previous record reduction of 0.4 Gt in 2009 due to the financial crisis and twice as large as the combined total of all previous reductions since the end of World War II. However, just like the global economy, CO<sub>2</sub> emissions have rebounded since the 2009 financial crisis: collective efforts are needed to prevent this from happening again when economies recover from the pandemic.

The report highlights how the challenge for the gas industry, in Europe and globally, is to retool for a different energy future. This can be done through demonstrable advances in methane abatement, through alternative gases such as biomethane and low-carbon hydrogen, and technologies such as carbon capture, utilisation and storage (CCUS).



## THE EUROPEAN AND NATIONAL STRATEGY

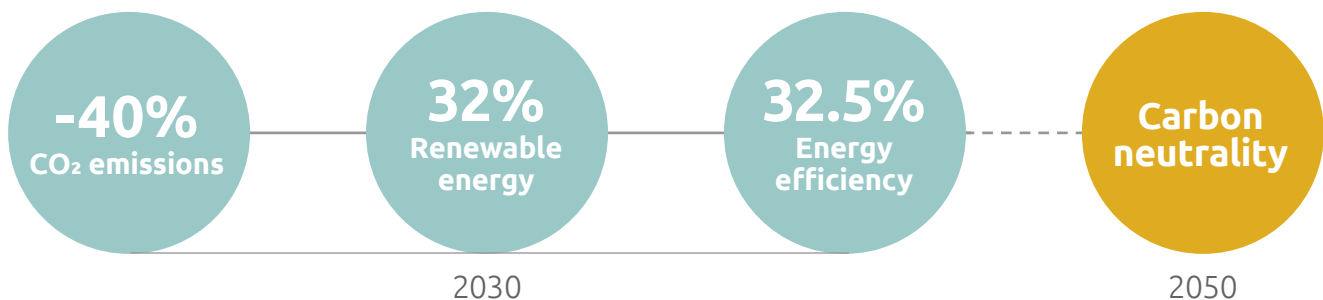
In 2018, the European Union defined its commitments to the “Clean energy for all Europeans” programme by 2030 and “EU 2050 Climate Long-Term Strategy” programme, which aim to reduce by 40% greenhouse gas emissions by the year 2030 and 100% by 2050, to increase by 32% the share of energy produced from renewable sources by 2030 and energy efficiency by 32.5% to 2030.

In 2019, the “European Green Deal”, which serves as a framework for the initiatives promoted by the EU Commission for its mandate (2019-2024), in order to begin the journey to climate neutrality by 2050. In September 2020, the EU Commission proposed to raise the CO<sub>2</sub> emission reduction target to 55% compared to the 1990 levels, demonstrating the growing institutional commitment to tackling climate problems and limiting global warming. In December 2020, the new target was accepted by the European leaders.

Following the direction taken by the European Union, the Italian government, as well as all EU countries, expressed its commitment to curb global warming. The “Integrated National Plan for Energy and Climate” (PNIEC), approved in December 2019, aims at outlining a path that would make the national energy system more competitive, secure and sustainable. The PNIEC operates in line with decarbonisation objectives defined at European level and aims to achieve by 2030 a reduction in emissions in the large industrial sector of 56% compared to 2005, a reduction in the tertiary, land transport and civil sectors of 35% and a target of 30% of energy produced from renewable sources.

In addition, in 2020, the European Commission approved the new EU Methane Strategy which places special emphasis on issues related to the measurement and reporting of methane emissions, the development of the biogas market and the implementation of Leak Detection and Repair (LDAR) measures. In addition, over the past year, the EU Commission has presented the Energy System Integration Strategy and the Hydrogen Strategy, both of which focus on efforts to achieve carbon neutrality by 2050 and have the hydrogen development as a key component.

### European objectives



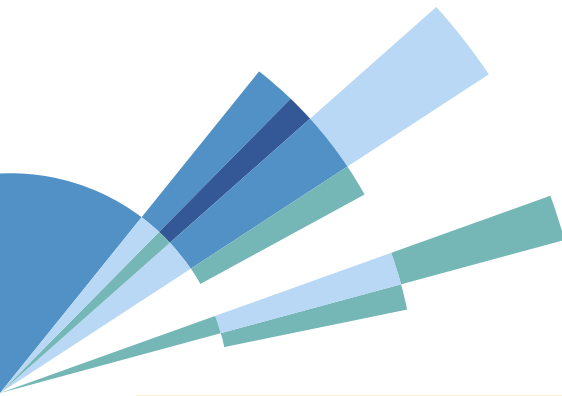
Finally, with the aim of repairing the economic and social damage caused by the Coronavirus pandemic, the European Commission, the European Parliament and the Member States have agreed on a recovery plan to help the EU out of the crisis: the EU’s long-term budget, together with the NextGeneration EU initiative, a temporary instrument to stimulate recovery, will be the largest stimulus package ever funded by the EU. A total of €1.8 trillion will be allocated to rebuild Europe after the Covid-19 pandemic: 30% of EU funds will be earmarked to fight climate change, the highest ever amount of the EU budget.

In order to access funds at the national level, in October 2020, the Italian government has approved the National Recovery and Resilience Plan (PNRR), the investment programme that Italy must submit to the European Commission, in which ecological transition is one of the three strategic lines presented.

## THE ROLE OF GAS

The gas sector as a whole, and, specifically, all companies involved in the transport of natural gas, must contribute to achieving the objectives set by the international community. The European associations of Transmission System Operators (TSOs) for electricity and gas (ENTSO-E and ENTSOG) are increasingly active in facilitating and improving the cooperation of national operators in order to align the sector's priorities with the European decarbonisation objectives.

ENTSOG (European Network of Transmission System Operators for Gas) is a European association, that Snam belongs to, established in 2009 to improve cooperation between national gas transmission operators (TSOs) throughout Europe in order to guarantee the development of a European transmission system in line with the EU energy and climate targets. Every two years ENTSOG and ENTSO-E draft the Ten-Year Network Development Plan (TYNDP), which sets out the development strategies and plans of the European electricity and gas network which is drawn up based on national development plans.



### THE POTENTIAL OF HYDROGEN IN ITALY

A study carried out in September 2020 by [The European House - Ambrosetti](#) in collaboration with Snam has analysed for the first time the Italian industrial hydrogen supply chain (considering production, transport, storage and use) and highlighted its competitive advantages at European and international levels. In particular, the geographical position and the strength of the manufacturing sector emerge as favourable conditions for Italy to become a hydrogen hub. Possible opportunities for development and employment that hydrogen can generate have emerged from the study. In particular, it is expected that the increased use of hydrogen in end-uses could lead to an increase in the cumulative production value between €890 and €1.5 trillion for the hydrogen technology industry and related supply chains in the time frame between 2020 and 2050. Moreover, this increase in production will have strong

implications for employment. Many jobs (between 320,000 and 540,000) are expected to be created across the entire value chain. In addition, exploiting the connection of the gas network with North Africa, the import of green hydrogen produced on African soil could be a further option for Italy, which would benefit from a cost reduction between 10% and 15% compared to domestic production.

Last but not least, an increased role of hydrogen in final consumption could make a significant contribution to the global fight against climate change, facilitating the achievement of decarbonisation targets. In fact, the study shows that if 23% of end-uses were represented by hydrogen, CO<sub>2</sub> emissions would be cut by 28% compared to the 2018 values.

Among the latest important developments with respect to the widespread use of hydrogen in the national territory are the Guidelines of the National Hydrogen Strategy, published for consultation

in November 2020. The strategy contained in this document provides for an acceleration in the achievement of the objectives set by the PNIEC. In particular, the first phase of the strategy sets clear targets for 2030 concerning areas where hydrogen can be produced and used locally, starting with existing plants, while encouraging new applications of green gas, for example in rail transport. Specifically, by 2030, the National Hydrogen Strategy aims to achieve a 2% penetration of hydrogen in the end-use energy demand, to record up to 8 Mton in CO<sub>2eq</sub> emissions reduction and to have an electrolysis capacity of about 5GW for hydrogen production.

The second phase of the strategy identifies a long-term goal in which renewable hydrogen will reach a maturity that will allow its more decisive use also in other sectors of industry and transport, thus achieving the complete decarbonisation of the country.

Il TYNDP è basato su scenari elaborati congiuntamente da ENTSOG ed ENTSO-E. The TYNDP is based on scenarios developed jointly by ENTSOG and ENTSO-E which, in turn, are defined on the basis of calculations of community level energy and environmental policy scenarios and objectives and the scenarios developed by the International Energy Agency, used as a reference for fuel prices and CO<sub>2</sub> emissions. There are three long-term scenarios included in the TYNDP, plus one short-term scenario:

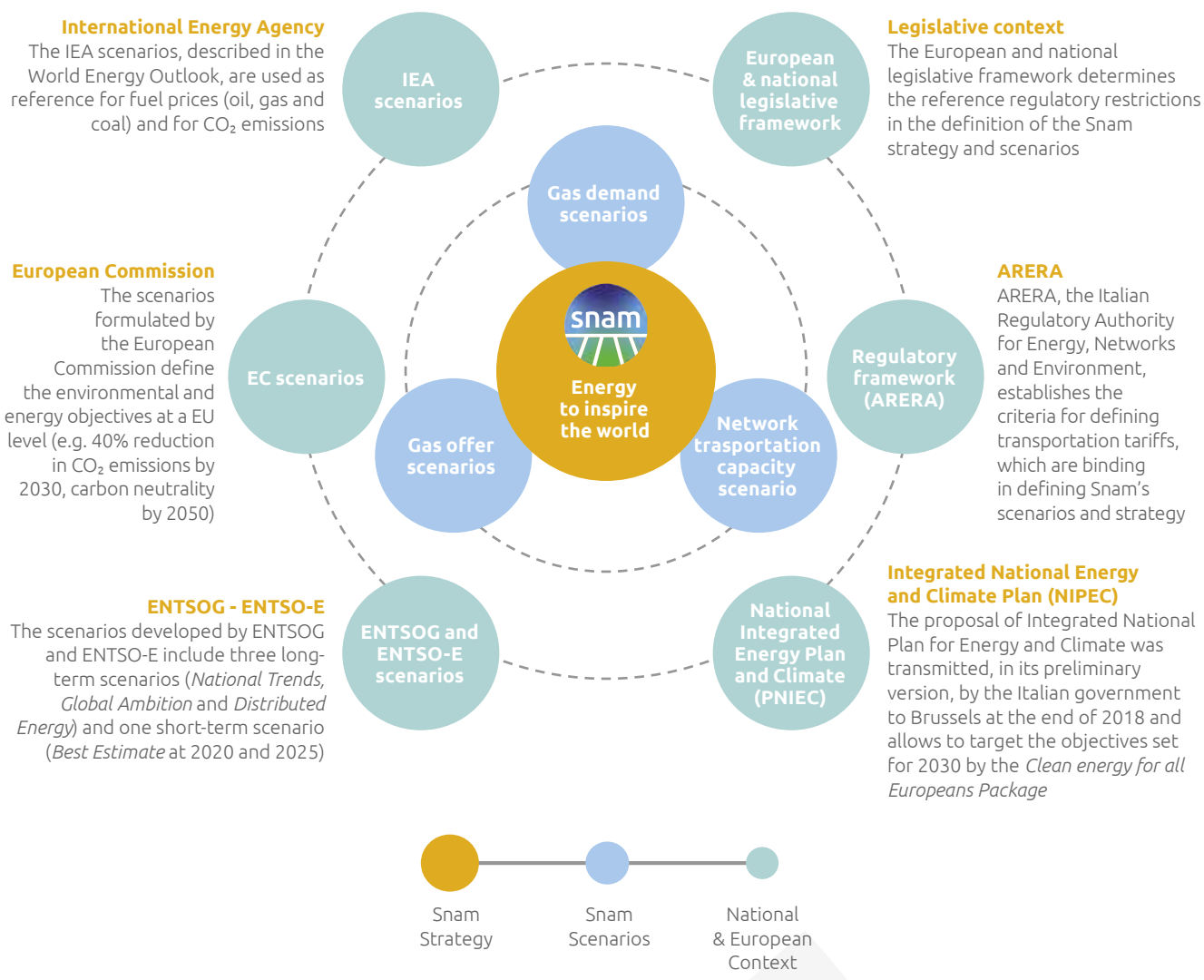
- **Best Estimate 2020 and 2025** reflects current national and European policies and considers a sensitivity analysis in relation to the role of coal and gas in the energy sector by 2025;
- **National Trends**, considers the best knowledge available in the electricity and gas sector, in line with the National Energy and Climate Plans (NECP) 2021- 2030 which all member states are required to draw up in order to comply with the energy and climate targets defined at a community level;
- **Global Ambition**, considers a centralised development of the energy system, in line with the main targets defined by the Paris Agreement at EU level, through the development of economies of scale that lead to a significant reduction in the costs of emerging technologies (e.g. offshore wind power) and the importation of energy from competitive sources;
- **Distributed Energy**, considers a decentralised development of the energy system, in line with the main targets defined by the Paris Agreement and at EU level, through the growth of the role of the end user in the energy market which guides carbonisation thanks to small scale solutions and a circular approach.

## SNAM'S SCENARIOS

Snam is at the forefront in responding to these challenges by leveraging on sustainable, safe, and technologically advanced infrastructures, capable of transporting and storing not only natural gas but also increasing shares of renewable gases such as biomethane and hydrogen, and on increasing investments in new activities such as sustainable mobility and energy efficiency.

In order to define its strategy, Snam develops its own gas supply and demand scenarios, which allow to define its short-, medium- and long-term business objectives in the context of the transformation and change of the energy transition. With the goal of being able to achieve a share vision of possible Italian energy system developments, Snam and Terna have launched a partnership to define provisional energy scenarios<sup>2</sup> that has involved the main stakeholders of the energy industry, including institutional players, industry and research institutions operators, with the aim of gaining insights and suggestions that

<sup>2</sup> Document describing the 2019 scenarios<sup>2</sup> prepared jointly by Snam and Terna in conformity with resolutions 654/2017/R/EEL and 689/2017/R/GAS.



are useful for the study. There are essentially three scenarios used by Snam to calculate the gas supply and demand projections to 2040:

- **Business-As-Usual (BAU)**, which projects current trends and features technological development based on economic merit alone;
- **Centralized (CEN)**, which achieves the 2030 decarbonisation targets, renewable energy sources and energy efficiency quota and non-binding guidelines to reduce long-term CO<sub>2</sub> emissions by curbing consumption and the development of programmable renewable energies such as green gases, using existing gas infrastructures.
- **Decentralized (DEC)**, which achieves the 2030 decarbonisation targets, renewable energy sources and energy efficiency quota and non-binding guidelines to reduce long-term CO<sub>2</sub> emissions thanks to an even more rapid development of electric power and non-programmable renewable energy sources.

In addition to the BAU, CEN and DEC scenarios, the National Trend scenario has recently been defined, based on the European National Trend scenario and incorporating the National Integrated Energy and Climate Plan (PNIEC) (see National Trend Box). In defining the objectives of the 2020-2024 Strategic Plan, Snam has also taken into consideration the legislative and regulatory frameworks defined at European and national level and by the Regulatory Authority for Energy, Networks and the Environment (ARERA), as well as a substantial amount of information derived from the IEA, ENTSOG and ENTSO-E scenarios, and from the European Commission. This information relates to prices, economic growth trends and changes in the availability of energy sources and carriers.

Considering the scenarios and information detailed above, over a time horizon from 2018 to 2040, it is evident that the role of gas, including the progressive replacement of natural gas with green gas, appears to be the best option in enabling energy transition. For the definition of its Towards Net Zero strategy, Snam has considered medium-term trends based on the above-mentioned scenarios, while it has integrated a further long-term projection – long-term scenario (LTS) - with an energy mix that forecasts a hydrogen component between 20% and 25% of national final energy consumption by 2050.

### THE NATIONAL TREND (NT) SCENARIO

In addition to the afore-mentioned scenarios, there is the “National Trend (NT) Italia” scenario published in February 2021 and developed by Snam and Terna in accordance with Resolution No. 574/2020/R/eel and Resolution No. 539/2020/R/gas of ARERA.

The scenario was developed for the 2025, 2030 and 2040 years, based on gas and electricity market analyses carried out on the entire European perimeter, consistent with the NT scenario of the ENTSOs., assuming the growth targets of renewables and energy efficiency of the Italian National Energy and Climate Plan (PNIEC - December 2019).

The assessment of the main scenario results showed that:

- In a scenario of total production from renewable electricity consistent

with the PNIEC scenario, the NT Italia scenario shows values of import/export balance higher than the PNIEC scenario, thus increasing the dependence of electricity imports from abroad up to 18%. In fact, by 2030, net electricity imports will rise from the 28 TWh forecast in the PNIEC to 58 TWh. The increase compared with the national policy scenario is due to the use of market simulations carried out for the entire European perimeter, the updating of the Italian reference grid with more recent data and the use of foreign models and commodity prices aligned with the TYNDP 2020 NT scenario;

- Gas demand remains above 60 billion cubic meters even beyond 2030. The reduction is mainly noted in gas end-uses in accordance with the progressive increase in energy efficiency and the penetration of more efficient technologies, particularly in the transport and residential sectors. Thermoelectric demand is expected to remain stable

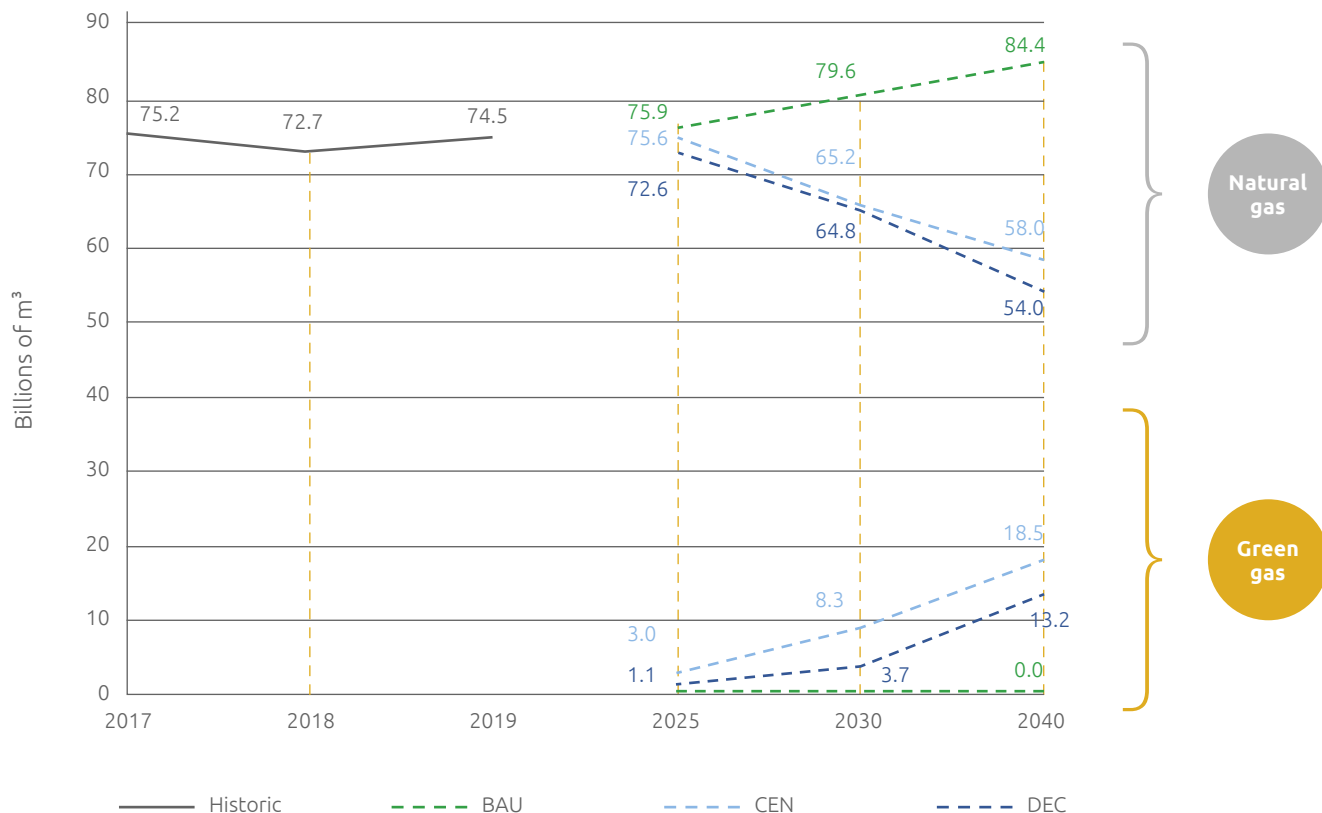
at current values until 2025, and then to remain above 20 billion cubic metres in the long term;

- Natural gas is flanked by the development of green gases, particularly biomethane, which will reach 7 billion cubic meters by 2040, and renewable hydrogen, which will reach 3.9 billion cubic meters (methane equivalent) by 2040. In particular, as regards hydrogen, these values do not yet include the developments expected in the recent “Guidelines for the National Hydrogen Strategy”, which anticipates by about a decade the development of hydrogen compared to the PNIEC scenario assumed as reference for the NT Italia scenario.

For a more comprehensive and detailed discussion of both the scenario development process and the results obtained, please refer to the “Documento di Descrizione degli Scenari (DDS 2019)” and the “National Trend Italia” document.

For the establishment of short- and medium-term forecasts, Snam has analysed the evolution of gas demand in the period 2020-2024 in order to evaluate the impacts that the crisis caused by the Covid-19 pandemic may have on gas demand in the coming years. In particular, reference was made to the final gas and electricity demand until August 2020, also considering the GDP trend in line with the forecasts of the 2020 Economic and Financial Document which predicts a contraction of 8% in 2020 and a rebound to around 5% for 2021. Based on these assumptions, the gas demand scenario was constructed considering that the impacts of the Covid-19 crisis could be overcome starting in 2022 thus matching the gas demand forecast already established for 2025. Two demand forecasts have been established starting from the same 2020 values, they differ based on the evolution of gas demand in transport and different biomethane availability. The higher growth forecast also follows the development path of the CEN scenario by 2025 for the period 2020-2024, while the lower growth forecast is in line with the development path of the DEC scenario by 2025.

The sector most impacted by the Covid-19 crisis is the industrial sector for which consumption is expected to fall by about 1 billion cubic meters between 2019 and 2020, with a rebound in 2021 to recover about 60% of the loss. From 2022,



the growth rate of consumption in the sector is more than offset by efficiency gains resulting in an average annual reduction of around 2% in gas demand over the period until 2024.

The thermoelectric sector is influenced, on the one hand, by the trend in electricity demand, which is expected to fall by 7% in 2020 with a rebound to +5% in 2021, and, on the other hand, by the reduction in electricity imports which favour the use of domestic resources. Demand for thermoelectric gas is also supported by the gradual phase-out of coal between 2021 and 2024 (with the planned closure of about 3000 MW) to reach full *phase-out* by 2025.

The residential sector appears to have been least affected by the pandemic and the lock-down, heating demand being the largest portion of the sector's gas demand. Demand in the sector was therefore processed starting from the latest historical data and considering a consumption efficiency rate of about 2%, in line with the energy saving rates inferable from the available ENEA reports (RAEE).

The evolution of the gas demand by 2030 and 2040 remains around 75 billion cubic metres in all the scenarios analysed demonstrating a growing trend in the BAU scenario (+6.8% by 2030 e +13.3% by 2040 compared with 2019) inconsistent with the CEN scenario (-1.3% by 2030 and +2.7% by 2040) and slightly decreased in the DEC scenario (-7.9% by 2030 and -9.8% by 2040). This trend will be guaranteed by the increasing significance of gas consumption in the transportation sector due to greater penetration of vehicles running on natural gas and green gases and an increase in consumption in the thermoelectric sector mainly due to the phasing out of thermoelectric plants running on coal, where the lost production will be partly offset by renewable sources and imported energy, and partly by gas thermoelectric power plants (CCGT and OCGT).

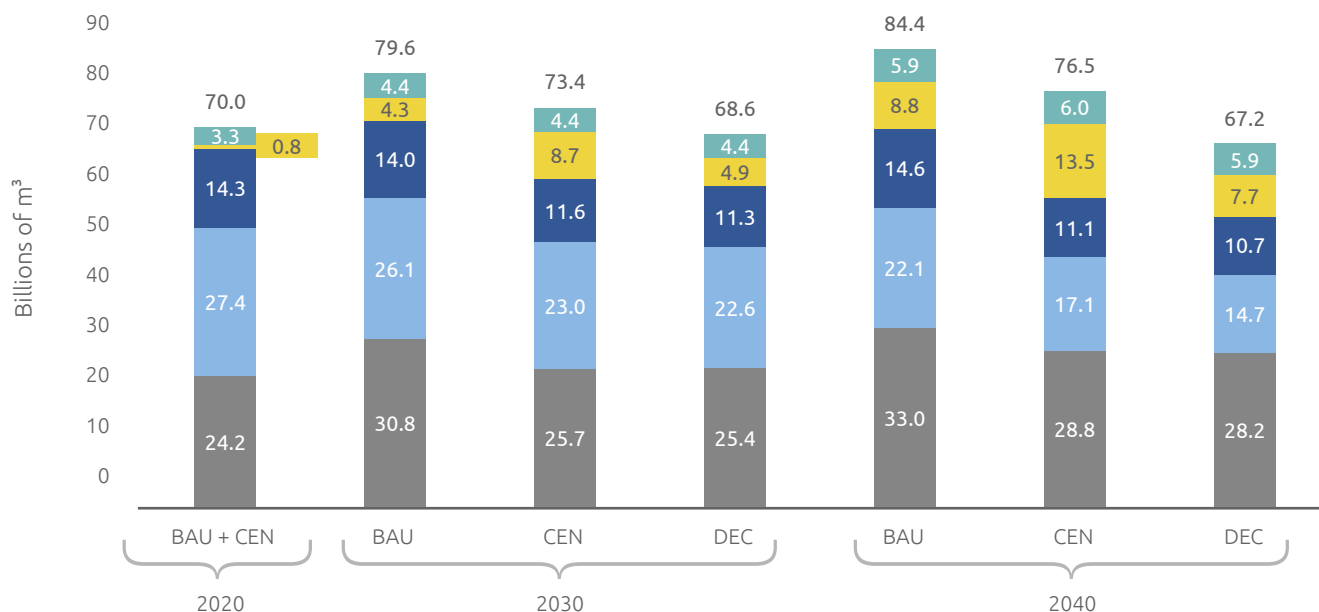
Civil and industrial sectors will be the ones, on the other hand, that suffer the greatest reduction in gas consumption, on account of the increase in the energy efficiency of buildings, the improved efficiency of heating systems and the greater penetration of renewable sources.

Within these scenarios and, specifically in the development scenarios, Snam expects a significant contribution to be made by green and decarbonised gases (biomethane, synthetic methane and hydrogen) in order to offset the gradual reduction in the demand for natural gas.

In particular, it is estimated that by 2030 (CEN and DEC scenarios) an important portion of gas demand (5-11% depending on the scenario) will be met by green gases thanks to the gradual replacement of natural gas used in thermoelectric plants. By 2040, green gas demand is expected to grow further to between 17% and 24% of total gas demand in DEC and CEN respectively. Green gases will have different penetrations in different sectors and will be used to replace natural gas not only in thermoelectric plants, but also in the civil, industrial and transport sectors.

Although in the Snam-Terna scenarios, the share of demand covered by hydrogen by 2040 remains limited, in line with Ambrosetti study and other industry estimates, Snam estimates that, by 2050, hydrogen could play a crucial role in the Italian energy scenario covering up to 25% of total energy





- Other sectors/ uses
- Transport
- Industrial
- Civil
- Thermoelectric

consumption, especially thanks to its progressive development in the civil, industrial and transport sectors.

Snam is also working on a scenario for the development of the network's transportation capacity by 2040 that stresses how the projects funded by Snam to strengthen the network guarantee meeting the demand for natural gas in Italy. In an energy sector that is undergoing great changes, gas infrastructures will continue to play a central role, thanks to the growth trends for natural gas imports in Europe and the new use of natural gas and green gases in various sectors.

### EUROPEAN NEW GREEN DEAL

On a longer-term horizon, the European Union, through the "European New Green Deal", aims to achieve climate neutrality by 2050.

The European "New Green Deal" includes an action plan to promote an efficient use of resources by moving to a clean and circular economy, and to restore biodiversity and reduce pollution. Achieving this goal will require participation by all sectors of the economy in order to: invest in environmentally friendly technologies; support industry in innovation; introduce

cleaner, cheaper and healthier forms of private and public transport; decarbonise the energy sector; and make buildings more energy efficient.

Of particular relevance here is the European Hydrogen Strategy, which explores how clean hydrogen can help reduce the CO<sub>2</sub> emissions of the European economy in a cost-effective manner and in line with the 2050 climate neutrality target that the EU has set as part of the European Green Deal. The strategy will explore ways to strengthen the production and use of clean hydrogen, focusing particularly

on the deployment of renewable hydrogen. These developments should also help the EU to recover from the economic impact of the Covid-19 emergency.

Also at the national level, special attention has been paid both to the complete decarbonisation of the economy by 2050 through a "Long-term Strategy" soon to be defined, and to the development of hydrogen through the "Guidelines for the National Hydrogen Strategy" proposed at the end of 2020 and in which an important contribution of hydrogen in end uses is expected as early as 2030.

# TOWARDS NET ZERO: SNAM'S STRATEGY

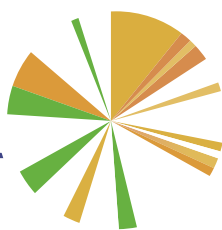


Carbon  
neutrality  
by 2040

€7.4 Bn  
2020-2024  
capex plan

70%  
hydrogen-  
ready  
infrastructure





## THE NEW 2020-2024 STRATEGIC PLAN

In November 2020, Snam made public its new strategy, *Towards Net Zero*, which will cover the 2020-2024 time horizon

## THE SIX PILLARS OF TOWARDS NET ZERO

### Net-Zero Carbon by 2040 and ESG leader



- Plan for the reduction GHG emissions - Scope 1 and 2
- Collaboration with suppliers and subsidiaries to achieve a progressive and significant reduction of their emissions
- New ESG Scorecard

### Long-term core business growth



- Upgrade of the network in view of Hydrogen ready and introduction of increasing percentages of hydrogen
- Conversion of compressor stations to dual fuel to promote grid balancing

### Execution capacity and technological innovation



- Construction of the most technologically advanced gas transmission company in the world
- Acquisition of technological advantage regarding H<sub>2</sub> and H<sub>2</sub>O
- Enhancement of core competencies in similar sectors

### Energy transition



- Internalization of skills and expertise
- Leading role in growth markets
- Strengthening of core business assets

### International profile



- Increasingly geographically diversified asset portfolio
- Asset-light approach to enter high potential countries
- Monetisation of own skills through Snam Global Solutions

### Sound financial structure and diversified investments



- Maintaining current credit standards
- Stable revenue growth
- Consistency with ESG strategy

With the new Strategic Plan, the Group further consolidates its position in the fight against climate change, through ambitious objectives and concrete actions in the short-, medium- and long-term to become **Net Zero Carbon by 2040**.

The Towards Net Zero comprises two core components: **climate strategy and evolution of the business**, summarized in **six main pillars** illustrated in the following paragraphs. On the one hand, Snam plans to reduce its Scope 1<sup>3</sup> and Scope 2<sup>4</sup> greenhouse gas emissions, as well as to strengthen its collaboration with suppliers and subsidiaries to reduce Scope 3<sup>5</sup> emissions; on the other hand, it plans to position itself as an enabler for a low-carbon economy at national and international level thanks to its consolidated core businesses and new energy transition businesses.

The new Plan provides for investments of **€7.4 billion** until 2024, approximately €1 billion more than the previous Plan, which will be allocated to the various projects included, in particular those related to ensuring that the infrastructure is hydrogen ready (50% of investments) and to new businesses for energy transition, whose investments have been doubled. In addition to contributing to decarbonisation and energy transition objectives, about **40% of investments** are aligned with the criteria of the European Commission's Taxonomy, which is currently being finalised.

3 Scope 1 emissions correspond to direct GHG emissions and include those of carbon dioxide (CO<sub>2</sub>) and methane (CH<sub>4</sub>) and refer to emissions caused by operations controlled or under the owned by the Company.

4 Scope 2 emissions are indirect GHG emissions from electricity, heat and steam imported and consumed by the Company

5 All indirect emissions (not included in Scope 2) that occur in the Company's value chain, including both upstream and downstream emissions.

## LEAK DETECTION AND REPAIR (LDAR)

The LDAR (acronym for Leak Detection and Repair) campaign, developed internally by Snam, allows the Group to have centralised control over methane emissions and over the interventions to be carried out on the network, in order to achieve the decarbonisation targets set by the 2020-2024 Strategic Plan. LDAR was created with the objective of measuring and minimizing fugitive emissions, i.e. all those gas leaks attributable to flanges, valve stems and all components that do not have a perfect seal. The application of this technique involves hundreds of thousands of components present in the compression and storage plants, in the Panigaglia regasification terminal and in more than a thousand network plants (nodes, reduction cabins and pig launching and receiving plants), spread across Italy. To do this, Snam has equipped its operating personnel with Flame Ionisation Detection (FID) instruments which, when brought close to potential leakage points, are able to detect and measure the amount of gas leaking. Above a certain threshold it is necessary to intervene to eliminate the leak, an operation that, when possible, is carried out immediately in the field or the repair is scheduled by the operating personnel through a dedicated Work Order. At the end of the procedure, a new measurement is taken to ensure that the leak is no longer present. All the results of these activities are promptly recorded in the company's information systems, allowing for an increasingly accurate calculation of emissions. In 2020, approximately 120 grid plants were subjected to LDAR, and repair activities were completed at booster and storage plants, resulting in an overall reduction of over 1 million cubic meters of methane emissions

## NET ZERO CARBON BY 2040 AND ESG LEADERS

The ultimate goal of the climate strategy integrated into the new 2020-2024 Strategic Plan is to achieve carbon neutrality by 2040, acting first of all on reducing Scope 1 and Scope 2 emissions. Secondly, the strategy is to initiate collaborative programs with subsidiaries and suppliers to also act on Scope 3 emissions. In addition, the new Plan also integrates a series of environmental, social and governance targets, included in the new [ESG scorecard](#), to provide stakeholders with a holistic view of ESG engagement and growing awareness, enabling them to monitor results. For more details, see the dedicated section, "Net Zero Carbon", of this chapter.

## LONG-TERM CORE BUSINESS GROWTH

upgrade the network to make it [hydrogen ready](#), which is already 70% ready, an activity to which 50% of investments will be allocated. In 2020, specific standards have also been defined for the purchase of only H-ready components for the network. In 2021, in order to integrate hydrogen into the existing infrastructure, the first [hybrid turbine capable of operating with a 10% hydrogen volume](#) will be installed at the Istrana (TV) power plant.

Snam also intends to start [converting compressor stations to dual fuel](#)<sup>6</sup>, which will also contribute to facilitating sector coupling<sup>7</sup>. Among the other initiatives aimed at ensuring sustainable growth in its core businesses, Snam plans to bring [methane to Sardinia](#), with the construction of the virtual pipeline and the first sections of the network, the [maintenance and development of assets of regulated businesses](#) (transport, storage and regasification), such as increased capacity, and other [investments in favour of carbon neutrality](#), such as the construction of 245 new CNG plants, 50 LNG plants and another 100 connections to the network.

## EXECUTION CAPACITY AND TECHNOLOGICAL INNOVATION

Snam intends to become the [most technologically advanced gas transmission company in the world](#) and, to this end, will invest €500 million in digitalisation and innovation initiatives. Also, thanks to a collaboration with Microsoft and other partners, the Group will equip itself with IoT (Internet of Things) systems<sup>8</sup>, cloud and edge computing<sup>9</sup> that will increase the ability to transmit, analyse and store data in real time. Of particular importance is the start-up, in 2021, of the

<sup>6</sup> The conversion of power plants to dual fuel consists of adding electric compressors to the gas turbochargers with which they are already equipped.

<sup>7</sup> The European Commission identifies sector coupling as a strategy that provides more flexibility to the Energy System in order for decarbonisation to be achieved in the most cost-effective way (DG ENER (2018) Request for services no. ENER/B2/2018-260 - Potentials of sector coupling for the EU natural gas sector - Assessing regulatory barriers).

<sup>8</sup> "Internet of Things" (IoT) refers to the extension of the Internet to the world of concrete objects and places by allowing them to send and receive data

<sup>9</sup> Cloud and edge computing are decentralized and distributed IT infrastructures consisting of micro-data centres, placed in close proximity to the user that deliver Internet services at shorter distances than those covered by cloud computing

first district of the future, the Bologna “Flagship” District, which will be equipped with the most advanced technologies to measure results in terms of operational effectiveness, safety, integrity and reliability of assets, including **Leak Detection and Repair (LDAR)**, a tool that ensures predictive maintenance of the network and a centralized control of methane emissions and that will be fundamental in achieving the decarbonisation objectives of the Strategic Plan, as it allows to manage and reduce methane leaks, while reducing, consequently, emissions into the atmosphere.

In addition, through the acquisition of a stake in **De Nora** (specialized in sustainable energy and water treatment technologies) and the partnership with **ITM** (specialized in membrane electrolysers), the Group aims at **presiding over new technologies and starting new experiments in the field of hydrogen**.

### SNAM AND DE NORA: A COLLABORATION FOR THE DEVELOPMENT OF HYDROGEN

In November 2020, Snam signed an agreement with Blackstone to purchase a strategic stake amounting to approximately 33% of De Nora. This company is considered a global leader in alkaline electrodes, essential components to produce alkaline electrolysers and works together with numerous fuel cell operators. In addition, De Nora also plays a leading role on a global scale in sustainable energy and water treatment technologies (disinfection and filtration) for which it has a distinctive expertise in electrochemistry.

The Company is also a 34%

shareholder in **ThyssenKrupp Uhde Chlorine Engineers (TKUCE)**, a joint venture with ThyssenKrupp, one of the world leaders in water electrolysis and involved in several large green hydrogen projects.

All these aspects contribute to the decarbonisation and growth in hydrogen production through water electrolysis, the market for which it will consequently become more competitive.

The acquisition of De Nora is an opportunity for Snam to increase its exposure to the mega-trends of the energy transition and, in particular, its technological positioning for the production of green hydrogen and water treatment. Snam will leverage

on the technologies and know-how of which De Nora is one of the world leaders, increasing its competitive position in projects on hydrogen and alkaline electrolysers (complementary skills to those related to membrane electrolysers in which ITM, another company with which Snam has signed a partnership, is specialised). De Nora, at the same time, will leverage Snam’s position along the hydrogen value chain to support its business development.

Finally, De Nora is a potential first asset for a new energy transition investment platform, with a focus on hydrogen, to be launched in 2021 with the aim of responding to the growing interest in energy transition and decarbonisation.

## ENERGY TRANSITION

The energy transition businesses (biomethane, hydrogen, sustainable mobility and energy efficiency) have seen their share of investments double year on year, from €200 million in 2018 to €720 million in the new 2020-2024 Strategic Plan. Confirming the importance that these businesses have acquired over the years, Snam proposed in December 2020 and officially amended in February 2021, the Company’s Bylaws, which make **clear reference to the purpose, “Energy to inspire the world”, and to the new businesses**.

The objective was to promote the energy transition towards different ways of using resources and energy sources compatible with environmental protection

and progressive decarbonisation, as well as the principle of pursuing sustainable success as one of the objectives to which the Company's business activities must conform.

For all businesses, Snam plans to make acquisitions and start partnerships with leading companies in the sectors of interest in order to develop in-house expertise and strengthen its position in the value chain of each sector. It will also act on the core business assets in order to also integrate, as much possible, the new ones

### CDP, ENI AND SNAM FOR THE DECARBONISATION OF THE ENERGY SYSTEM

In December 2020, Cassa Depositi e Prestiti (CDP), Eni and Snam signed an agreement confirming the commitment of all companies towards decarbonisation. The letter of intent provides for strategic collaboration aimed at promoting energy transition in several areas.

The aim is to launch integrated projects in key sectors, such as hydrogen's supply chain, circular economy and sustainable mobility. These are areas to which Snam and Eni will contribute their complementary technical and

industrial skills, developed over the years, while CDP will contribute its expertise in the economic and financial sectors and in the management of relations with the institutions involved in the initiatives.

For these three companies, the agreement is part of the broader objective of reaching the target of -55% of CO<sub>2</sub> emissions by 2030 set by the European Union and implementing European and national strategies on hydrogen and on the circular economy.

This cooperation will promote joint initiatives for the development of production, transport and

marketing of green hydrogen, but also for the production and use of hydrogen for rail transport. In addition, multi-purpose refuelling stations for compressed natural gas (CNG), liquefied natural gas (LNG) and hydrogen will be built, and the necessary infrastructure will also be developed to ensure the supply of LNG throughout the country for land and sea transport.

Finally, CDP, Eni and Snam will work together to help industrial sectors where it is more difficult to cut CO<sub>2</sub> emissions both by developing Carbon Capture and Storage (CCS) for promoting the production of blue hydrogen in the transition phase and through green hydrogen.

### Biomethane

Since 2017, Snam has been investing in biomethane as an alternative energy solution through [Snam4Environment](#), which specializes in biomethane production infrastructure (from organic waste, agricultural and agro-industrial waste and livestock effluents) and the promotion of green activities, playing a key role in the development of biomethane in Italy.

For biomethane, Snam has planned investments of approximately €220 million by 2024, which include the construction of infrastructure and plants with an installed capacity of 64 MW, 22 more than the previous plan, as well as the development of a platform for growth in the circular economy and the industrialisation of agricultural production.

In addition, part of the investments shall be allocated to Companies active in the production of biomethane, [to internalise expertise and seize additional growth opportunities](#).

### SNAM ENTERS THE AGRICULTURAL BIOMETHANE MARKET WITH “INIZIATIVE BIOMETANO”

In October 2020, Snam, through its subsidiary Snam4Environment, completed the acquisition, from Femogas S.r.l, of 50% of Iniziativa Biometano S.p.A, a holding company

including 6 infrastructures for the production of electricity from biogas deriving from anaerobic digestion of livestock waste and other agricultural biomasses.

The development plan of Iniziativa Biometano provides for the conversion over time of biogas production infrastructures to biomethane as well as the

development of an additional 9 biomethane production infrastructures, for a total capacity of about 39MW equivalent and a biomethane production of over 80 million cubic meters per year. The agreements between the parties include the possibility for Snam4Environment to increase to 51% by the end of 2022.

## Hydrogen

Hydrogen represents for Snam the winning opportunity for decarbonisation, which is why a large part of the investments included in the new Plan are allocated to the H-readiness of the infrastructure and approximately €150 million to the activities developed by the **Hydrogen** business unit. In 2018, Snam joined the **Hydrogen Initiative**, a declaration signed by companies and governments to support hydrogen and its great potential as a sustainable technology for the decarbonisation and long-term energy security of the European Union. Snam is also part of the **HYREADY network**, which includes important European players committed to cooperate to make the existing transport network compatible with the introduction of increasing percentages of hydrogen.

Through collaboration with other major players in the sector, Snam has won three grants under the Fuel Cells and Hydrogen Joint Undertaking, which provide access to funds and pilot projects at European level and create new end-use partnerships.

### SNAM TOGETHER WITH ALSTOM AND FS ITALIANE FOR THE HYDROGEN RAIL NETWORK

In June 2020, Snam and Alstom, a global leader in integrated solutions for sustainable mobility, signed a 5-year agreement to develop hydrogen trains in Italy. The objective of the agreement is to execute railway mobility projects that include hydrogen-powered trains and the technological infrastructure needed to supply, manage and maintain them. In particular, Alstom will be

responsible for the supply and maintenance of hydrogen trains, while Snam will provide its know-how for the development of infrastructure for production, transport and refuelling.

In October 2020, the commitment to hydrogen-powered rail mobility was strengthened with the signing of a Memorandum of Understanding between Snam and FS Italiane. The two companies will develop analyses, feasibility studies and projects on hydrogen convertible railway lines in Italy. In particular, the objective is to test innovative

technological solutions related to the production, transport, compression, storage, supply and use of hydrogen in the context of sustainable mobility.

The agreement with Alstom and FS Italiane also provides for the **conversion of the first railway sections from diesel to hydrogen**. In fact, the conversion of about 13 sections for a total length of about 700km and the installation of the first fuel cells with a capacity of 45MW is already provided for.

### SNAM4MOBILITY AND LANDI RENZO TO BOOST SUSTAINABLE NATURAL GAS MOBILITY IN ITALY

Snam4Mobility and Landi Renzo Group, world leader in the design and manufacturing of systems and components for gas mobility (CNG, LNG, H<sub>2</sub> and LPG) for cars and heavy vehicles, have signed a collaboration agreement to boost sustainable CNG mobility in Italy.

The initiative aims to raise awareness among users about the environmental and economic benefits of CNG and biomethane mobility. Under the agreement, Landi Renzo will be responsible for the conversion to CNG of the identified car models, in cooperation with the Snam business unit as most suitable for the spread of natural gas mobility in Italy, which represents an immediate and cost-competitive solution for reducing carbon dioxide and particulate emissions.

In addition, Snam4Mobility shall undertake to support the spread by increasing the number of methane filling stations, ensuring a balanced distribution throughout the country.

### Sustainable mobility

The growing use of natural gas and biomethane in the transport sector, at the expense of traditional fuels such as diesel and petrol, highlights the importance of the gas in terms of sustainable mobility. Snam4Mobility is the subsidiary that offers integrated services in the “smart green” natural gas mobility sector.

The Plan provides for investments of approximately €150 million for the period 2020-2024, which will allow the **construction of more than 150 new refuelling stations by 2024** and the expansion of the offer addressed to heavy vehicles thanks to the start-up of a new liquefaction plant and the upgrading of the Panigaglia terminal, in Liguria, for the loading of road tankers for transport use. Snam4Mobility will also deal with the development of hydrogen in land transport: **five hydrogen refuelling stations will be built in Italy in the next few years**. Another important task of Snam4Mobility will be to promote the conversion of an increasing number of vehicles to CNG and LNG.

### Energy efficiency

Energy efficiency measures represent another important element in the strategy towards decarbonisation. Snam has dedicated investments of approximately €200 million to promote energy efficiency in the residential, industrial, tertiary and public administration sectors, through Snam4Efficiency, also taking advantage of national tax incentives “ecobonus” and “sismabonus”. Snam4Efficiency also operates thanks to the technical support of TEP Energy Solution, 100% acquired in 2020 and specialised in **energy efficiency solutions and carbon footprint assessments for condominiums, businesses and public administrations**.

### NEW ACQUISITIONS FOR ENERGY EFFICIENCY

The acquisition of 70% of Miecì S.p.A. and Evolve S.r.l. gives Snam the opportunity to improve its competitive positioning in the energy efficiency business, by integrating and enriching its expertise in this business towards both the public and residential sectors.

In particular, with regard to the residential sector, the skills brought by Evolve S.r.l. are complementary to those of TEP

Energy Solution and will allow Snam to play a key role in the spread of energy efficiency in Italian condominiums, also in the context of the new ecobonus offered by the government.

Miecì S.p.A., on the other hand, will focus on the public sector, given that its core business concerns the management of integrated energy and technological services for hospitals and public administration buildings, for the tertiary sector and for public lighting.



## INTERNATIONAL PROFILE

The strategic agreements signed with major operators in the sector along the main continental energy corridors and the investments and changes made to redesign its role within the European infrastructure system have characterised Snam's **international operations** since 2012, which have contributed to transforming the Company from a local asset operator into a strategic partner on both the European and non-European gas markets.

Under the new Plan, initiatives are continuing to **further increase and diversify its geographic portfolio**, as well as to **increase efficiency and flexibility for the subsidiaries operating in mature markets**. Snam also plans to **seize additional opportunities for the energy transition** and to **benefit from the growth in gas demand in some key geographic areas** through an asset-light approach. An example of this are the initiatives beyond European borders in **China** and **India**, where Snam will not only play a role as an enabler of energy transition, but also as an proponent and guide towards decarbonisation by exploiting its know-how, through the support of Snam Global Solution.

The Plan also includes activities aimed at **developing services in areas that offer interesting growth opportunities**, such as the Middle East markets, where Snam has concluded agreements with important companies in the **United Arab Emirates**.



## International activities: Snam & Climate Change

**Snam has been involved, for many years, in various very important international initiatives on the issue of climate changes. Below is a brief summary of the activities carried out in 2020**

### UNEP OGMP 2.0 FRAMEWORK

In 2020, Snam joined the Oil & Gas Methane Partnership, a voluntary initiative launched by the United Nations Environment Programme to support Oil & Gas companies in reducing methane emissions. This initiative is also included in the Methane Strategy, recently published by the European Commission, which provides for an MRV (Monitoring, Reporting and Verification) system based on this framework.

OGMP was established in 2015 for upstream production and, since 2020, has been expanded to mid-downstream involving major gas companies, becoming OGMP 2.0. Adherence to the framework represents an important opportunity for gas companies to demonstrate their credibility and commitment to GHG reduction and will require a series of systematic, long-lasting and particularly challenging actions over the next few years, involving not only operated businesses, but also non-operated ones, already starting from an equity of over 5% (more details in the Focus on page 61)

### GAS NATURALLY

Partnership between 8 associations in the EU gas chain: Eurogas, GERG, GIE, IOGP, IGU, Liquid Gas Europe, Marcogaz and NGVA where Snam holds the chairmanship. During 2020

some relevant documents have been published such as “Reducing the GHG footprint of the gas value chain: progress in methane emissions management and reduction” in collaboration with Euractiv; the feedback on the EU Methane Emissions Strategy Roadmap; “Gas industry Declaration on the EU strategy to reduce methane emissions” as co-signatory between several European associations

### METHANE GUIDING PRINCIPLES (MGP)

An initiative that gathers together Oil & Gas companies with the aim of reducing methane emissions along the sector chain, through the involvement of the main stakeholders. Snam has signed, for some time now, to the guiding principles that commit the company to reducing its methane emissions from its activities.

In 2020, Snam participated in the work of a dedicated working group that was responsible for drafting best practices on methane emissions applied to mid-downstream, references that were missing until now because the existing guides were dedicated to the upstream sector. The work was coordinated by Prof. D. Allen, director of the Centre for Energy and Environmental Resources, University of Texas, Austin USA. Snam has provided both general and technical support; 6 different case studies, related to “Reducing methane emissions, have been proposed and accepted by MGP (the only international company) and have been included in official documents: Identification, detection, measurement and quantification” and “Reducing methane emissions: Transmission, storage, LNG terminals and distribution”.

Also, in 2020, Snam, in collaboration with Eni, has organised a course held by Imperial College London to raise awareness among operators on the issue of methane emissions into the atmosphere (Global Outreach Program). The study days, structured in an Executive Course and a Masterclass, also referred to various best practices applied by Snam.

### CLIMATE-RELATED FINANCIAL DISCLOSURES

A Task Force launched by the Financial Stability Board with the goal of establishing recommendations and guidelines to improve the disclosure of companies on financial aspects related to climate change. In 2020, Snam has published its second report which generated a good amount of interest.

### GERG

European Association for research in the gas industry in which there is international cooperation on methane emissions. The research programme, in which the main European TSOs, including Snam, took part, was concluded in 2020. The project was carried out in several phases: a state of the art assessment was performed, the most promising instruments were selected, the test program was defined with field measurements, key variables such as ease of use, speed, detection distance and repeatability of the tests.

A new research activity on top-down and bottom-up reconciliation methods is being defined. The research proposal includes two different phases: in the first phase the state of the art of top down methods that are used for the detection and measurement of

methane emissions will be surveyed. The second phase will test the methodologies identified in the first phase with real measurement campaigns, assessing their accuracy, uncertainty and further defining a methodology for the reconciliation of top-down and bottom-up methodologies.

### MARCOGAZ - GIE

The European technical association of the gas industry (Marcogaz) and Gas Infrastructure Europe are two associations that are particularly active on issues related to climate change and methane emissions. Over the last few years, several documents have been developed that have become points of reference for the sector at an international level. In 2020, Snam actively participated in the definition of these documents, including:

- “Methane emissions action plan”: this includes an action plan, developed in collaboration with representatives of the entire gas chain, showing the actions and projects defined by the gas industry to address the challenges related to Climate Change and methane emissions;

- “Guidelines for methane emissions target setting”: it provides some insights on the key elements to be considered in the definition of a climate change emissions reduction target, including the programmatic lines that must be followed by gas companies, along the value chain, in order to achieve such targets

### CEN

Snam follows the implementation of the sector legislation on methane emissions at CEN, the European

standardisation body, which is based on the “pre-standardisation document” relating to the assessment of methane emissions carried out at Marcogaz. The document is not limited to fugitive emissions, but exhaustively traces all other types of emissions, such as unburnt emissions and point-emissions, including pneumatic emissions from technical devices.

### IGU

Snam has been following for years the Group of Experts on Methane Emissions (GEME) set up by the International Gas Union, which is responsible for updating the various players in the gas chain on the latest developments at global level. A dissemination activity towards some specific IGU Committees is also carried out.

### GAS FOR CLIMATE

Consortium created to analyze and create awareness about the role of renewable and low-carbon gas in the future energy system in full compliance with the Paris Agreement goal of limiting the global temperature increase to well below 2 degrees Celsius. ‘Gas for Climate: a path to 2050’ is a group of ten major European gas transmission companies (DESFA, Enagás, Energinet, Fluxys, Gasunie, GRTgaz, ONTRAS, Open Grid Europe, Snam, Swedegas and Terēga) and two renewable gas trade associations (Consorzio Italiano Biogas and European Biogas Association).

### HYDROGEN INITIATIVE

A declaration signed in September 2018 by Snam, together with other European energy sector companies, aimed at supporting hydrogen and wide-ranging potential as a sustainable technology for decarbonisation and the long-term energy security of the European Union.

### HYREADY

Network involving important players in the sector committed to cooperating to make existing gas transport networks compatible with the injection of increasing percentages of hydrogen.

### THE HYDROGEN COUNCIL

Global coalition of leading energy, industrial and transport companies to promote the use of hydrogen in the energy transition process



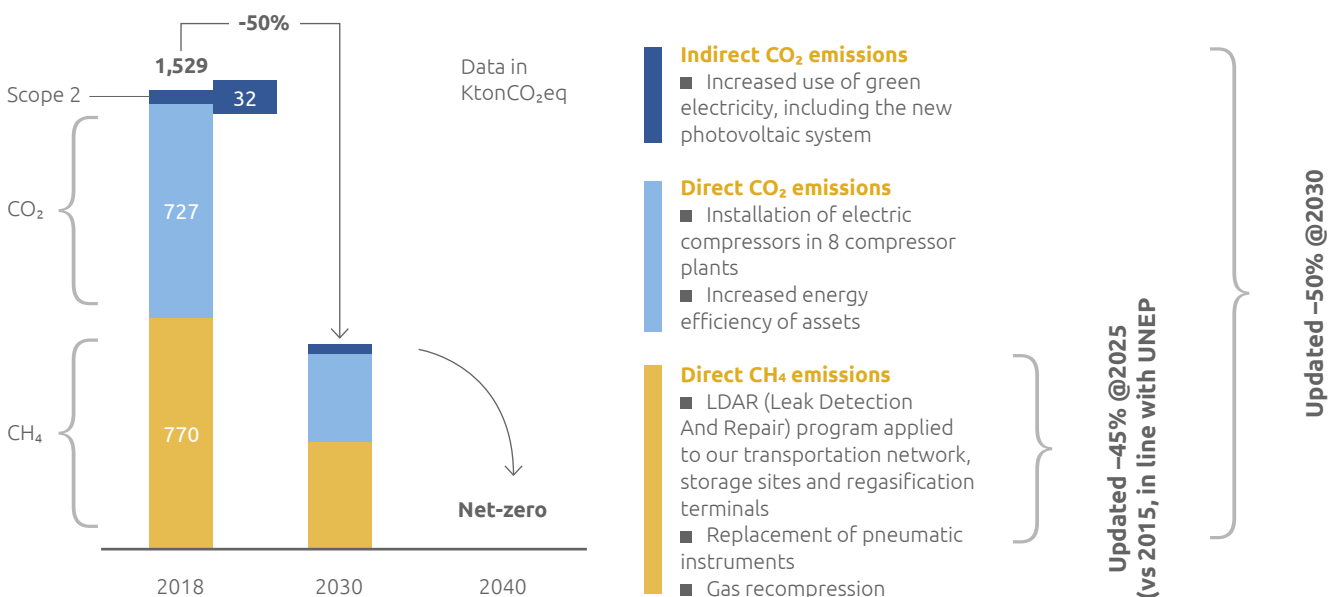
## FINANCIAL STRUCTURE

Il The Plan sets out three objectives, relating to the financial structure, which the Group is committed to achieving by 2024: (i) maintenance of current credit parameters; (ii) stable revenue growth; (iii) consistency with the ESG strategy. Snam plans to strengthen its **efficiency plan**, adopt a **disciplined approach to the use of capital** and continue its **efforts to optimise its financial structure**.

With regard to activities related to **sustainable finance**, Snam intends to increase its share from 40% to 60% of the funding available over the Plan period, in addition to continuing to issue bonds, the proceeds of which are invested in projects ranging from reducing emissions to increasing the use of renewable energy and making a **concrete contribution to achieving the Sustainable Development Goals**. In addition, the Group has undertaken a virtuous path aimed at mapping and enhancing the alignment between the SDGs and the investments contained in the 2020-2024 Plan, considering pro tempore available criteria regarding the classification of economic activities according to the **European Commission's Taxonomy of Sustainable Activities**.

## SNAM'S NET ZERO CARBON STRATEGY

With the **Towards Net Zero** strategy, Snam has placed its **commitment to decarbonisation at the heart of the 2020-2024 Plan** and has **integrated sustainability and ESG issues** even more significantly into its strategic choices. Snam has defined ambitious and challenging targets, which will put the Group in a leadership position in achieving carbon neutrality by 2040, ahead of European and national targets, and in line with the targets of containing global warming within 1.5°C, as provided for by the Paris Agreement.



Snam has made its **Scope 1 and Scope 2 emissions reduction** target even more challenging, moving from -40% up to **-50% by 2030** (compared to 2018), to achieve **carbon neutrality by 2040**.

More than half of this reduction will be achieved through the project to convert stations to dual-fuel: by 2040, **Snam will convert 8 of its stations**, in particular those of Malborghetto, Messina, Poggio Renatico, Fiume Trieste, Minerbio, Settala and Sergnano by 2030, and also the Ripalta station by 2040. The remainder of the Plan reductions are instead linked to the Group's commitment to a **45% reduction in methane emissions by 2025 compared to 2015 levels**, a target aligned with the requirements of the Oil and Gas Methane Partnership <sup>10</sup> (OGMP) 2.0, which it joined in November 2020.

The Group's long-term objective is to **achieve carbon neutrality by 2040**: to reach this challenging goal, once the necessary initiatives to reduce greenhouse gas emissions have been implemented, the Group will offset residual atmospheric emissions through the support of **offsetting** projects.

With respect to **Scope 1 emissions**, the 2019-2023 Strategic Plan had already identified several measures to increase energy efficiency and reduce methane emissions, including: the **LDAR** (Leak Detection and Repair) monitoring program, replacement of approximately 3,000 pneumatic actuators and instrumentation, and investments in 6 dual-fuel compressor stations. A technical study was conducted in 2020 to refine the measures already planned and identify new opportunities for CO<sub>2</sub> reduction. In addition, Snam, as a signatory party of the United Nations Environmental Program (UNEP) protocol, decided to commit to achieving the new targets set in the summer of 2020 by the competent authority, incorporating them into its 2020-2024 Strategic Plan.

**Scope 2 emissions** represent indirect emissions deriving from electricity and hot and cold carriers purchased and used by Snam. The abatement strategy for this category will be implemented through efficiency initiatives and the purchase of renewable energy certificates.

With regard to other indirect **Scope 3 emissions**, i.e. all emissions related to the Company's activities from sources that the Company does not control or own along the entire value chain, the Group will focus its reduction initiatives on suppliers and subsidiaries, the parties with the greatest impact on Snam's greenhouse gas emissions.

<sup>10</sup> The OGMP is an initiative created by the UN Environment Programme (UNEP), which encourages companies to reduce their methane emissions from their operations.

# THE ERM MODEL AND THE RISKS AND OPPORTUNITIES RELATED TO CLIMATE CHANGE

The energy and climate scenarios that form the backdrop to Snam's activities involve a series of risks and opportunities that must be carefully analysed and studied in order to be seized and managed effectively and promptly. An assessment of the factors that may affect the business is in fact essential to continue to operate in the long term in a sustainable manner. This activity has the dual purpose of directing strategies and monitoring changes in the boundary conditions of the same.

The risks and opportunities identified by Snam are considered in the definition of corporate strategy, with particular reference to objectives in the area of energy transition and decarbonisation and the reduction of greenhouse gas and methane emissions.



## THE ERM MODEL FOR CENTRALISED RISK MANAGEMENT

Current and prospective risks and opportunities associated with Snam's corporate strategy are **identified, assessed and monitored** through the Enterprise Risk Management (ERM) model, which follows the recommendations of the main frameworks and standards on the subject (e.g. CoSO <sup>11</sup> Framework). Risk is defined as the effect of uncertainty on the objectives of the Strategic Plan and can be negative or positive (opportunities). The process of identifying, assessing and managing climate change risks and opportunities is fully integrated into the ERM model.

### The ERM model and the risks and opportunities related to climate change

**Periodic reporting** on the results of risk identification, assessment and monitoring activities. The purpose of periodic reporting is to provide **top management, the control bodies and any other relevant stakeholders** with the information gathered in the previous phases, such as: the **main risks** to which the Company is exposed, **treatment actions** identified, monitoring **indicators**, indications of change that may impact the business in the future, and main opportunities

**Monitoring** activities on the evolution of individual risks and opportunities (and/or of the overall risk portfolio) based on the **progress of the management interventions/actions** associated with the risks/opportunities and on the **trend of the risk indicators**

Towards Net Zero Strategy

Industrial plan



**Identification** of risky events related to corporate process and of external risk factors that may affect the achievement of corporate objectives by the **Staff and Business Managers**, responsible for the implementation of the plans aimed at an effective risk monitoring, and **specific analyses of the operating processes of each Company and of the corporate Strategic Plan**.

The mapped events are periodically reviewed also in the light of the growing importance of the **new business development areas**, in order to ensure a proper monitoring of risks and related opportunities

**Evaluation and prioritisation** of each event in terms of probability of occurrence and negative impact (risks) or positive impact (opportunities). The **probability** is determined on a scale of 1 (remote) to 4 (highly probable); the **impact**, also measured on a scale of 1 (low) to 4 (significant), is assessed according to

**qualitative** (industrial/business asset, reputational, legal, market, health and safety and environment) or **quantitative** (economic, financial) dimensions. The **prioritisation** of risks, a combination of the probability and impact assessment expressed by risk owners (reporting directly to the CEO) and risk specialists, is

represented on 4 levels (low, medium, high and critical, for risks; low, fair, good and excellent, for opportunities). This is followed by the definition of the event management strategy (monitoring and management, mitigation, transfer) and the identification of specific actions or interventions.

The ERM process is repeated on a regular basis (quarterly for critical risks) and is designed, among other things, to foster a corporate culture of risk and to make informed decisions. The assessment cycles require the involvement of risk owners and risk specialists.

<sup>11</sup> Committee of Sponsoring Organisations of the Treadway Commission

In addition to fostering the development of a corporate risk culture, the ERM Department promotes discussion and consistency in the assessments made by the various risk owners and risk specialists, also with regard to the consideration of a medium/long-term time horizon, which is particularly relevant for the assessment of risks related to climate change.

Following the assessment cycles, Snam's ERM department applies a risk prioritisation and clustering process to identify the risks that have emerged and the related impacts on the business. At the end of each assessment cycle, the results are presented to the Leadership Team, the Audit and Risk and Related Party Transactions Committee, the Board of Statutory Auditors and the Supervisory Board. On an annual basis, the Board of Directors is also updated on these issues. The ERM Function also promotes the sharing of the results of the assessment process with the Sustainability Function, in order to incorporate these considerations into the planning and definition of strategies for the management of ESG issues that are relevant to the Group.

Maintenance of the ERM model is carried out continuously and independently of the process phases, with the aim of continuously having an effective model that is consistent with the technological and methodological process of risk management.

During 2020, risk/opportunity mapping was updated through RACI's IT platform as part of an Integrated Risk Assurance and Compliance model aimed at integrating the information flows of second level controls with a synergistic approach aimed at maximum rationalisation and overall efficiency.

### A MODEL THAT INTEGRATES THE IMPACTS OF CLIMATE CHANGE

The risks identified through the ERM process are classified as **financial risks, operational risks, legal and non-compliance risks and strategic risks**, which, in turn include the risks related to climate change.

All risks and opportunities are assessed and prioritised based on probability and impact, applied according to different types. The health, safety and environment (HSE) impact also considers the effects related to climate change. The **HSE dimension actually makes it possible to intercept the environmental impacts and those related to climate change** associated with the risks

and opportunities identified and thereby determine their importance based on the significance of the contribution, positive or negative, on the management of climate change and environmental aspects related to the area in which Snam operates.

The time horizons for the analysis of risks and opportunities related to climate change are defined as follows:

- **Short-term:** in the short-term, Snam creates value by pursuing its business in the manner established by the rules and procedures, with a particular focus on risk management and operational efficiency. The main point of reference is the **annual budget**.

- **Medium-term:** in the medium term, the ability to carry out investment programmes, thereby ensuring a flow of resources and that favourable economic conditions are maintained, is also important. The main point of reference is the **Strategic Plan**, which covers a period of up to five years

- **Long-term:** in the long-term, it is vital that the investment decisions and strategic choices made have interpreted trends in the best way possible. The main point of reference is the **Ten-year transportation network development plan** submitted to the Authority, which covers a period of 10 years.



## RISKS RELATED TO CLIMATE CHANGE

Through the use of the ERM model, after identifying the risky events that could affect the Company's targets, the importance of each event is determined through a prioritisation matrix that shows the probability of occurrence of the event and its impact (negative or positive). Each risk is assessed according to different types of qualitative and quantitative impact, some operational (industrial/business, economic, asset) and others specialist (financial, legal, HSE, reputational and market). Risk prioritisation is defined by combining measurements of impacts and probability related to them.

### Time horizon


● Short term


● Medium term

● Long term


Risk	Description	Impacted stage in the value chain	Potential financial impacts	Management actions
<b>Risk class</b> <b>Transition risks</b>  <b>Legal and political risks</b>				
		Revision of EU regulations on CO <sub>2</sub> emissions from the European Emission Trading Scheme (ETS)	Operation	Any penalties due to incorrect/non-return of fees <ul style="list-style-type: none"> <li>• Periodic monitoring of energy consumption and updating of consumption forecasts relating to systems subject to the ETS in order to monitor quota requirements and purchase them before a price increase</li> <li>• Transfer of shares between Snam companies to optimise costs across the entire fleet of plants</li> <li>• Conversion of 8 compressor stations to dual fuel by replacing gas turbochargers with electric compressors</li> </ul>
	● Tightening of the emerging regulatory framework	Penalizing revision of EU regulations concerning the natural gas business and strengthening those concerning GHG emissions (e.g., disincentives for the use of fossil fuels, incentives for intermittent renewable sources), with a resulting reduction in demand for natural gas	Products and services	Less investments  Lower revenues <sup>12</sup> related to lower demand for products and services
	New frameworks/guidelines that could affect Snam's reporting or behaviour in both the natural gas and the new businesses	Products and services	Increased costs	<ul style="list-style-type: none"> <li>• Continuous monitoring of regulatory developments and best practices related to reporting, also through participation in international working groups</li> </ul>


12 With reference to the relation between Snam's revenues and the volumes of gas transported, it should, however, be pointed out that the current regulatory and tariff framework defined by ARERA includes a guarantee mechanism in relation to the share of revenues related to volumes transported. This mechanism provides for the reconciliation of major or minor revenues, exceeding ± 4% of the reference revenues related to the volumes transported. Under this mechanism, approximately 99.5% of total revenues from transportation activities are guaranteed.


	Risk	Description	Impacted stage in the value chain	Potential financial impacts	Management actions
<b>Risk class</b>	<b>Transition risks</b>				
	<b>Technological risks</b>				
	 <p>Spread of new technologies fostering the use of intermittent energy sources and failure to align with new technological standards</p>	<p>Reduction in natural gas demand from consumers and customers</p>	<p>Products and services</p>	<p>Lower revenues due to lower demand for products and services</p>	<ul style="list-style-type: none"> <li>• Development of new businesses related to energy transition (biomethane and hydrogen, sustainable mobility and energy efficiency)</li> <li>• Commitments to expand the sustainable mobility business also through the expansion of the network of natural gas refuelling stations and through hydrogen solutions</li> </ul>
		<p>Lack of expertise in technologies alternative to gas</p>	<p>Operation</p>	<p>Lower revenues due to lack of production capacity</p>	<ul style="list-style-type: none"> <li>• Development of in-house expertise</li> <li>• Internalisation of expertise through acquisitions</li> </ul>
		<p>Lack of development of the green hydrogen value chain and consequent reduced production capacity and/or demand</p>	<p>Products and services</p>	<p>Lower revenues due to lack of production capacity or lower demand for products and services</p>	<ul style="list-style-type: none"> <li>• Development of partnerships to foster the development of operators along the hydrogen value chain</li> <li>• Participation in round tables in order to take a leading role in advocacy- and awareness-raising activities for the use of hydrogen as an energy source for decarbonisation, both in Italy and abroad</li> </ul>

Risk	Description	Impacted stage in the value chain	Potential financial impacts	Management actions
Risk class	<b>Transition risks</b>			
	<b>Market risks</b>			
 Reduction in gas demand	Greater penetration of intermittent renewables to the detriment of natural gas, alternative uses of gas and the development of new businesses (biomethane, etc.) and/or the CNG market	Products and services	Lower revenues <sup>13</sup> due to lower demand for products and services	<ul style="list-style-type: none"> <li>• Development of new businesses related to renewable gases (biomethane and hydrogen), the implementation of the use of gas to support energy transition (Small Scale LNG, CNG) and the efficient use of energy (energy efficiency)</li> <li>• Support to the spread of more efficient gas technologies (gas and high- efficiency cogeneration heating pumps)</li> <li>• Participation in Italian and European round table discussions, including association ones, as part of energy transition and climate neutrality</li> <li>• Awareness-raising activities of public opinion on natural gas as a key source to guarantee energy security and allow the phasing out of coal in electricity generation</li> <li>• Monitoring the European and national legislative initiatives on natural gas and representing corporate interests regarding various institutional stakeholders</li> <li>• Positioning activities and taking part in industry studies</li> <li>• Monitoring international, European and national public funding programmes for infrastructure, energy, sustainable transport</li> </ul>

<sup>13</sup> With reference to the relation between Snam's revenues and the volumes of gas transported, it should, however, be pointed out that the current regulatory and tariff framework defined by ARERA includes a guarantee mechanism in relation to the share of revenues related to volumes transported. This mechanism provides for the reconciliation of major or minor revenues, exceeding  $\pm 4\%$  of the reference revenues related to the volumes transported. Under this mechanism, approximately 99.5% of total revenues from transportation activities are guaranteed.

	Risk	Description	Impacted stage in the value chain	Potential financial impacts	Management actions
<b>Risk class</b>	<b>Transition risks</b>				
	<p><b>Reputational risks</b></p> <p> Negative perception of the companies that operate in the fossil fuel sector by public opinion</p>	<p>Establishment of organised groups that disagree with the new projects that could cause a delay or the non-acceptance, by the Institutions, of the construction of the projects by the Institutions.</p> <p>Stakeholders' increased concern or negative feedback</p>	<p>Operation</p>	<p>Lower revenues due to the lack of production capacity</p> <p>Higher costs in communication activities</p>	<ul style="list-style-type: none"> <li>• Representative actions with institutional stakeholders to promote the centralisation of the gas infrastructure as a means for the development of renewable gases (e.g., biomethane and green hydrogen) supporting the fight against climate change</li> <li>• Dialogue and promotion/advocacy with reference stakeholders and the institutional world and the financial world also in conjunction with associations and other gas chain operators</li> <li>• Participation in Italian and European round table discussions, including association ones, as part of energy transition and climate neutrality</li> <li>• Adherence to Italian, European and international initiatives aimed at strengthening the commitment to reducing methane emissions</li> <li>• Identification of ambitious emission reduction targets (-50% by 2030 vs 2018 for CO<sub>2</sub> and -45% by 2025 vs 2015 for CH<sub>4</sub>) culminating in the achievement of carbon neutrality by 2040</li> <li>• Adherence to the TCFD and publication of an ad hoc document</li> <li>• Performance disclosure to combat climate change through sustainability-related documentation</li> </ul>

	Risk	Description	Impacted stage in the value chain	Potential financial impacts	Management actions
Risk class	<b>Physical risks</b>				
	<b>Acute risks</b>				
	 <p>Increase in the severity of extreme atmospheric phenomena, with impacts on continuity and quality of service</p>	<p>Damage to pipes and plants, which could cause malfunctions or unexpected interruptions to the service with the possibility of being unable to adequately meet gas demand as a result</p>	<p>Operation</p>	<p>Increased costs for insurance premiums</p> <p>Increased operating costs</p> <p>Increased costs for communication with the community</p>	<ul style="list-style-type: none"> <li>• Adaptation of the recovery plan and business continuity management systems to international best practices</li> <li>• Technologically advanced tools for monitoring/controlling the status of infrastructure/plants and the areas affected</li> <li>• Ongoing, systematic maintenance and monitoring measures</li> <li>• Prompt implementation of the Rapid Response Procedures</li> <li>• Design and construction of infrastructures based on the latest technical and safety regulations, carrying out dedicated studies (geomorphological, hydraulic, environmental risks, etc.) during the design phase</li> </ul>

	Risk	Description	Impacted stage in the value chain	Potential financial impacts	Management actions
Risk class	<b>Physical risks</b>				
	<b>Chronic risks</b>				
	 <p>Temperature increase resulting in lower gas demand</p>	<p>Lower demand for gas for heating buildings in winter periods and consequent need for storage or identification of alternative uses</p>	<p>Products and services</p>	<p>Less investments</p> <p>Lower revenues</p> <p>Increased operating costs</p>	<ul style="list-style-type: none"> <li>• Development of new businesses related to renewable gases (biomethane and hydrogen), the implementation of the use of gas to support energy transition (Small Scale LNG, CNG) and the efficient use of energy (energy efficiency) through the use of a gas technologies such as heat pumps and micro-CHP</li> </ul>

## OPPORTUNITIES RELATED TO CLIMATE CHANGE


The opportunities related to climate change are identified through a similar methodology to the one described for the risks. Also, in this case there is an assessment of the impacts (industrial/business, economic, financial, environmental, reputational and market) related to each opportunity and specific actions are identified to seize the advantages that these opportunities may present.


### Time horizon

- Short term
- Medium term
- Long term

	Opportunities	Description	Impacted stage in the value chain	Potential financial impacts	Actions and strategies to seize the opportunity
<b>Opportunity class</b>	<b>Resource efficiency</b>				
	<span style="color: green;">●</span> Reduction of internal energy consumption	Reduction of energy consumption thanks to more efficient operating processes, with consequent reduction of the GHG emissions and of the cost related to the purchase of the relative CO <sub>2</sub> quotas	R&D investments  Operation	Lower indirect operating costs	<ul style="list-style-type: none"> <li>Identification of ambitious emission reduction targets (-50% by 2030 vs 2018 for CO<sub>2</sub> and -45% by 2025 vs 2015 for CH<sub>4</sub>) culminating in the achievement of carbon neutrality by 2040</li> <li>Increased activities and investments to meet decarbonisation targets</li> <li>Conversion of 8 compressor stations to dual fuel by replacing gas turbochargers with electric compressors</li> </ul>

	Opportunities	Description	Impacted stage in the value chain	Potential financial impacts	Actions and strategies to seize the opportunity
<b>Opportunity class</b>	<b>Energy sources</b>				
	<span style="color: green;">●</span> Use of energy sources and/or technologies with low GHG emissions	Reduction of GHG emissions due to the use of green energy sources and consequent reduction of costs related to the purchase of CO <sub>2</sub> quotas	Operation	Lower operating costs	<ul style="list-style-type: none"> <li>Identification of objectives for increasing the production of energy from renewable sources (e.g., installation of photovoltaic systems), for the purchase of green electricity and for the installation of low-emission technologies (e.g., new high-efficiency heat generators, trigeneration plants, etc.)</li> <li>Identification of a new target for the use of at least 55% green electricity by 2030</li> </ul>

	Opportunities	Description	Impacted stage in the value chain	Potential financial impacts	Actions and strategies to seize the opportunity
<b>Opportunity class</b>	<b>Products and services</b>				
 <p>Development or expansion of businesses serving the energy transition</p>		<p><b>Biomethane</b> development of the installed capacity</p> <p><b>Energy efficiency</b> development of project pipeline for public administration, residential sector and industrial customers</p> <p><b>Sustainable mobility</b> consolidation of the CNG presence, focus on LNG and H<sub>2</sub> supply infrastructure, SSLNG</p> <p><b>Hydrogen</b> H<sub>2</sub> for trains, H<sub>2</sub>-ready fuel cells on Snam's network</p>	<p>Products and services</p> <p>Operation</p>	<p>Higher revenues from new business</p> <p>Greater investments</p>	<ul style="list-style-type: none"> <li>• Planning of investments for €720 million in businesses promoting energy transition: <ul style="list-style-type: none"> <li>■ € 220 million in biomethane infrastructure to reach a capacity of at least 64 MW (with particular reference to production from waste or agricultural/ agro-industrial waste)</li> <li>■ € 200 million in energy efficiency to consolidate the position as national player</li> <li>■ € 150 million in mobility to increase the distribution infrastructure with LNG focus, and to start up the first hydrogen distributors</li> <li>■ € 150 million in mobility to increase the distribution infrastructure with LNG focus, and to start up the first hydrogen distributors</li> </ul> </li> <li>• Acquisition of new companies in the field of energy transition (energy efficiency, biomethane) and development of existing businesses (sustainable mobility)</li> <li>• Partnership with technological companies supporting the hydrogen business (e.g., De Nora, ITM Power)</li> </ul>
		Improvement of the reputation of the business and a better perception of it by stakeholders	<p>Products and services</p> <p>Operation</p>	<p>Greater revenues</p> <p>Greater investments</p>	<ul style="list-style-type: none"> <li>• Promotion of Snam's businesses related to energy transition</li> </ul>
		Increased demand for natural gas caused by the progressive reduction in the consumption of coal and oil and extreme climatic phenomena	Operation	<p>Greater revenues</p> <p>Greater investments</p>	<ul style="list-style-type: none"> <li>• Support for the phasing out coal and promoting the use of gas as an alternative fuel to more pollutant fossil fuels</li> <li>• Increased investment plan for the methanisation of new regions where the investee companies operate, linked to the coal/oil phase-out (e.g., DESFA, Terêga)</li> <li>• Development of the natural gas conversion project for Sardinia, aimed at replacing the fuels with the greatest impact in terms of the climat</li> <li>• Project "LNG Offshore OLT terminal" located between Livorno and Pisa, in Tuscany, through an acquisition agreement with Iren Group</li> </ul>


	Opportunities	Description	Impacted stage in the value chain	Potential financial impacts	Actions and strategies to seize the opportunity
<b>Opportunity class</b>	<b>Markets</b>				
	 <p>Access to new foreign markets</p>	<p>Increase in the supply of natural gas against an increase in demand due to the progressive reduction in the consumption of coal and oil with possible developments abroad</p>	<p>Products and services</p>	<p>Greater revenues</p>	<ul style="list-style-type: none"> <li>• Analysis and possible pursuit of extraordinary operations of investments in companies operating in the Snam's core business (transportation, storage and regasification) in emerging markets where the demand for natural gas is supported by the need to replace the use of coal and other more polluting fossil sources (e.g., China, India)</li> <li>• Pursuit of service sales activities through Snam Global Solution, leveraging on the expertise gained in the various Group companies, also about energy transition (India, China, Middle East, North Africa, Balkans, Central and North America)</li> </ul>
		<p>Development of new businesses and services for energy transition in countries that can benefit from it</p>	<p>Products and services</p> <p>Operation</p>	<p>Greater investments</p>	<ul style="list-style-type: none"> <li>• Signing of strategic agreements with major operators in the sector in the main continental energy corridors</li> <li>• Requalification of Snam's role within the European infrastructure system (acquisition of DESFA in Greece)</li> </ul>
		<p>Implementation of international agreements to meet new demands for flexibility and diversification</p>	<p>Products and services</p>	<p>Greater revenues</p>	<ul style="list-style-type: none"> <li>• Project in the United Arab Emirates in collaboration with some of the most important international investment funds launched in agreement with ADNOC (Abu Dhabi National Oil Company) to invest in the energy infrastructure of the United Arab Emirates</li> <li>• Participation in working groups in order to take a leading role in advocacy and awareness raising activities for decarbonisation in Italy and abroad, using the acquired know-how</li> </ul>



	Opportunities	Description	Impacted stage in the value chain	Potential financial impacts	Actions and strategies to seize the opportunity
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Opportunity class


**Markets**

 Attraction of new investors	Expansion of shareholder base due to growing interest of SRI investors in the Company's share capital	Capital Operation	Greater access to capital	<ul style="list-style-type: none"> <li>Participation in the assessment of the main international sustainability rating agencies (CDP, Sustainalytics and ISS ESG) and in the assessment of the main ESG indices (DJSI, MSCI, FTSE4Good), increasing the Company's visibility among SRI investors and, more generally, among the entire financial community</li> <li>Issuance of bonds related to emissions reduction and climate resilience projects (Transition bonds)</li> <li>Snam's periodic participation in Road Show activities to meet institutional investors around the world, including SRI investors</li> <li>Activities related to sustainable finance: development of market standards/regulations (e.g. alignment with Taxonomy); constant interaction with investors through participation in seminars/roadshows; preparation of a framework to distribute Transition bonds.</li> </ul>
	Access to capital on favourable terms thanks to funding linked to sustainable development objectives			

	Opportunities	Description	Impacted stage in the value chain	Potential financial impacts	Actions and strategies to seize the opportunity
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Opportunity class

**Resilience**

 Business diversifications	Market development of energy transition businesses	Products and services Operation	Diversification of revenues from growing demand for energy transition-related products and services Greater investment	<ul style="list-style-type: none"> <li>Development of new businesses related to renewable gases (biomethane and hydrogen), the implementation of the use of gas to support energy transition (Small Scale LNG, CNG) and the efficient use of energy (energy efficiency), in Italy and abroad</li> <li>Participation in round tables in order to take a leading role in advocacy and awareness raising activities to promote the use of hydrogen at national and international level</li> <li>Actions and investments aimed at developing hydrogen as a further source to support energy transition (e.g., creation of a dedicated business unit, inclusion of a 10% hydrogen blend in a section of the national grid, position papers, dedicated studies and strategic positioning)</li> <li>Modernisation of the infrastructure in a H-ready perspective, 70% ready, and definition of standards for the purchase of only H-ready components for the network</li> </ul>

# GOVERNANCE FOR THE CLIMATE CHANGE MANAGEMENT



RESPONSIBILITY

PURPOSE

In accordance with corporate governance best practices, Snam is committed to maintaining and strengthening its corporate governance system in support of the Company's strategy to combat climate change.

Following the amendment approved by the Extraordinary Shareholders' Meeting of 2 February 2021, Snam's corporate purpose, "Energy to inspire the world", has been expressly included in the Company's Bylaws, aimed at reinforcing the Company's commitment to "foster energy transition towards the use of resources and energy sources that are compatible with environmental protection and progressive decarbonisation", as well as the Group's objective, in carrying out its business activities, of pursuing sustainable success through the creation of long-term value to the benefit of shareholders, taking into account the interests of the Company's other relevant stakeholders.

This context includes the activities aimed at guaranteeing the full supervision by the Board of Directors of the risks and opportunities related to climate change, as well as those aimed at ensuring the correct management of these aspects by management in the running of the business.

In recognition of this commitment, as in 2019, in 2020 Snam was ranked among the best Italian companies for corporate governance and integration of ESG factors (environmental, social and governance) in corporate strategies according to the annual Integrated Governance Index survey carried out by ETicaNews and TopLegal.

The Board of Directors met 12 times in 2020, with an average attendance of 100% of its members. The average length of the Board meetings was 158 minutes. Demonstrating again the utmost importance given to sustainability issues in the Board discussions, the time dedicated to ESG issues by the Board of Directors amounted to approximately 41% of the meetings held in 2020, including during the board induction sessions held during the year.

The Chairman of the Board of Directors, who does not have an executive role, is attributed, among others, the task of coordinating the work and ensuring that adequate information on the items on the agenda is provided to all directors.

The Board of Directors, which was appointed by the Shareholders' Meeting on April 2, 2019, has established four committees from among its members, including the Environmental, Social & Governance (ESG) Committee, which has, among other things, the role of integrating ESG issues into the strategies of the business. The Control and Risk Committee and Related Party Transactions and the Compensation Committee also work to support certain sustainability issues, particularly regarding the identification of the main corporate risks and the adequacy of the Company's Compensation Policy, which also includes ESG targets and objectives. In addition to considering sustainability issues closely related to the energy sector, the Company has also tasked the ESG Committee with overseeing issues of particular importance, such as the Company's policies on human rights, business ethics, integrity, diversity and

## THE GOVERNANCE FOR THE MANAGEMENT OF CLIMATE CHANGE

inclusion, and sustainable finance initiatives. In 2020, the ESG Committee met 18 times, with 98% of its members present. The average duration of the Committee meetings was 104 minutes.

More information on the composition of the Board of Directors and Board Committees, as well as further information on the ownership structure and the structure of the corporate governance system adopted by Snam can be found in the Report on Corporate Governance and Ownership Structure 2020. Communication between managers, the Board of Directors and Board Committees is the key element that allows Snam's senior management to be constantly informed about the risks and opportunities associated with climate change.

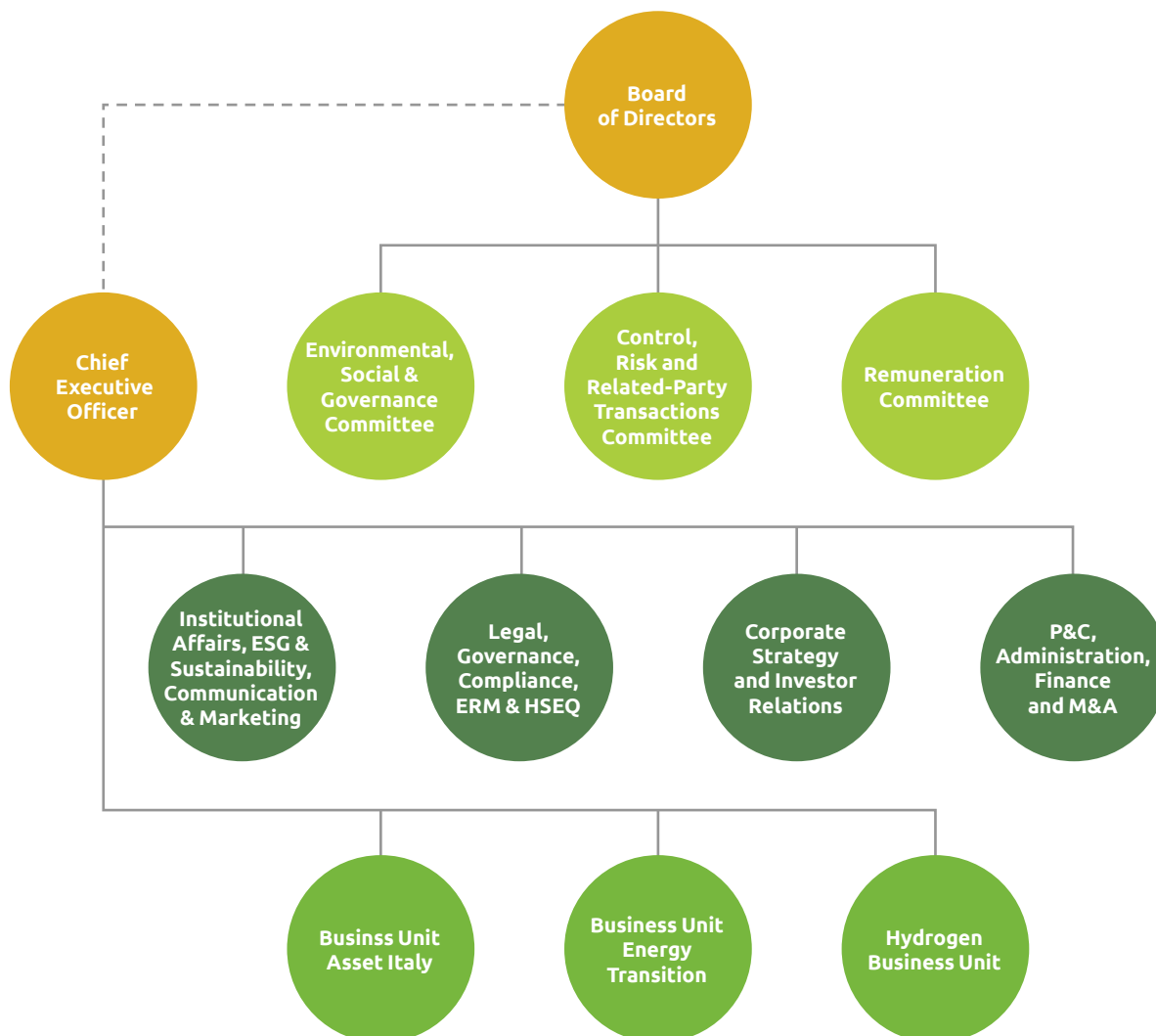
Snam is also already compliant with a large part of the recommendations contained in the Corporate Governance Code published by the Corporate Governance Committee in January 2020 and officially effective from 2021. The recommendations place the goal of sustainability at the forefront of the Board's actions, translating into the creation of long-term value for shareholders and other stakeholders who are relevant to the Company.

The Committees and managers with expertise in climate change issues work closely with Snam CEO, Mr Marco Alverà, who has demonstrated to be very committed to the fight against climate change and to the energy transition. In 2020, of great relevance was the speech of the CEO of Snam at Davos 2020, where Alverà explained how hydrogen can play an important role in zero emission transportation and other sectors. In addition, in September 2020, the CEO signed a Joint Declaration, launched by the World Economic Forum through the CEO Action Group for the European Green Deal, in which more than 30 CEOs and senior board representatives pledged to support the European Commission's Green Deal with concrete actions. In addition, in August 2020 "Hydrogen Revolution - The small molecule that can save the world", the book by Marco Alverà, on the potential of hydrogen in the fight against climate change published by Mondadori, was presented to the public.

## THE ROLE AND OVERSIGHT OF THE BOARD

In 2020, the Board of Directors:

- was informed at each subsequent meeting of the Environmental, Social & Governance Committee about the matters dealt with by the Committee, as described below (see the "Committees" section);
- as part of the reporting on non-financial information, has reviewed and approved the Non-Financial Statement pursuant to Legislative Decree no. 254 of 2016, the Sustainability Report, as well as the document "Today's change for tomorrow's climate - Financial Disclosure on climate change 2019";
- reviewed the progress of projects and initiatives launched in the area of sustainability.



At the proposal of the CEO, the Board of Directors periodically examines and approves:

- the objectives related to climate change and energy transition, an integral part of the corporate strategies included in the Strategic Plan approved annually;
- Snam’s strategic risks, which include the risks due to climate change, subject to an annual review;
- the share-based Long-Term Incentive Plan for the Chief Executive Officer and Executives with Strategic Responsibilities, with ESG objectives tied in part to the reduction of natural gas emissions consistent with the guidelines provided in the strategic plan approved each year;
- the annual sustainability results, including climate change performance;
- the institutional report that includes the Half-Year Financial Report, the Annual Report (including the Non-Financial Consolidated Declaration - DNF), the Sustainability Report and the Financial Disclosure on Climate Change;
- the information supplied by the committees, in particular the ESG Committee, pursuant to the Regulation as part of disclosure to the Board required following every committee meeting.

## The Board Induction

Snam's Directors have acquired a significant experience in the field of sustainability (55% of Directors are very knowledgeable in the ESG area), but the dynamism and relevance, for the sector, of the issues relating to climate change makes it necessary to be periodically updated on these aspects.

Board induction sessions are organised with a view to keeping Snam's Board of Directors and Board of Statutory Auditors informed about climate change aspects and initiatives. These sessions, organized after the appointment and throughout the term of office, focus, among other things, on issues related to sustainability and their integration into corporate strategy and business decisions.

Specifically, four board induction sessions were held in 2020 concerning, inter alia, issues related to the energy transition process and related strategic objectives, such as, for example, the role of hydrogen.

## The Committees

### Environmental, Social and Governance Committee

- examines the **policies for integrating** environmental, social and governance issues **into the business model**, also through the analysis of the **related KPIs**
- examines the initiatives undertaken by the Company to deal with the issues raised by **climate change** and related reporting
- examines the **guidelines, objectives** and consequent **sustainability processes** and the **sustainability report** submitted annually to the Board of Directors
- monitors the **Company's positioning with respect to the financial markets on sustainability issues**
- examines **sustainable finance initiatives**
- examines the **non-financial reporting submitted to the Board of Directors**
- assesses **sustainability risks** in the medium- to long-term

### Control, Risk and Related-Party Transactions Committee

- periodically examines the **main risks and opportunities**, including those resulting from climate change
- supports the Board of Directors in the definition of the guidelines for the internal control and management of **medium- and long-term risks**, so that the main risks are correctly identified, measured, managed and monitored (including risks that may be relevant in terms of sustainability)
- supports the Board of Directors in determining the degree of compatibility of these risks with management that is consistent with the **strategic objectives**

### Remuneration Committee

- examines the guidelines issued by the CEO and, with a view to promoting the **creation of sustainable value** in the long-term: (i) general criteria for the remuneration of executives with strategic responsibilities; (ii) general guidelines for the remuneration of other executives of Snam and its subsidiaries; (iii) annual and long-term incentive plans, including share-based plans
- defines **ESG performance targets, identified in agreement with the ESG Committee, including those related to climate change** (e.g., emissions reductions), which are included in management's short- and long-term incentives

In 2020, the ESG Committee has specifically addressed the following topics:

- review of ESG 2020 targets for long- and short-term incentives;
- review of ESG performance indicators, part of the Remuneration Policy;
- review of: (i) the Sustainability Report, (ii) the Consolidated Non-Financial Statement (DNF) and (iii) the Financial Disclosure on Climate Change;
- review on the progress of the ESG Performance Management dashboard and the “Carbon Net-Zero” project;
- review of the methodology and results of the financial risk analysis, including from an ESG perspective, included in the 2020-2024 Strategic Plan;
- review of proposed amendments to Articles 2, 13 and 14 of the Company’s Articles of Association;
- analysis of Sustainable Finance initiatives;
- analysis in view of the Company’s adherence to the UNEP Framework and consequent changes in the methodologies for calculating the emissions reduction target;
- review of Gender Diversity initiatives.

## THE ROLE OF MANAGEMENT

Given the importance that technological innovation, research and best practices have for Snam, the Company has set up managerial functions with specific skills not only in the area in which they operate, but also in climate change. These figures act as support to the CEO, to whom they report directly.

With a view to making the corporate population increasingly aware of the issues of climate change and energy transition, Snam has included a workshop focused in the Group’s new businesses in the new 2020-2024 Strategic Plan.

In addition, in support of the collaboration, dialogue and listening nature of the Company, since 2018 the various corporate areas and functions, including ERM, Health, Safety, Environment and Quality, CSR & Communications, Corporate Strategy and Business Asset Italia, have been meeting periodically to discuss and consequently harmonize their actions in pursuit of the objectives related to climate change.

Management carries out its activities through periodic meetings and the sharing of information flows to also identify any new initiative related to climate change, as well as implementing and monitoring strategies identified:

- business review, quarterly meeting between the Chairman, the CEO and senior executives for monitoring the progress of the strategic targets and lines;
- HSE review, half-yearly and annual meetings during which HSE informs the CEO of the results

achieved for the environment, health and safety;

- risk review, quarterly meetings in which the ERM function presents the updated information related to the risks and opportunities, which include those resulting from climate change.

## Management

### Legal, Governance, Compliance, ERM & HSEQ

The **Energy management & climate change** (belonging to the HSE function) has the goal of continuously improving the correct management of natural gas emissions, including through participation in the various international working parties and task forces (IGU, Marcogaz, GIE, GERG, etc.), also being involved in implementing the requirements of the energy efficiency directive in Italian legislation.

The **Enterprise Risk Management (ERM)** function, which is supervised by the General Counsel, defines a risk management model that makes it possible to identify and assess risks, using standardized policies at the Group level, in order to plan risk mitigation actions and implement a (quarterly) reporting system. Climate-related issues are integrated into the overall Enterprise Risk Management process.

### Corporate Strategy & Investor relations

The **Head of Market Analysis and Strategy Definition** reports to the Executive Vice President Corporate Strategy and Investor Relations and oversees the monitoring of the development of the reference markets and competitors for Snam globally and the development of long-term strategic scenarios and evaluations of the attractiveness of reference markets, ensuring the development of the reference scenario for Snam.

### Business Unit Energy Transition

The **Chief Energy Transition Officer** oversees the definition of the strategies, guidelines and objectives of the development activities of the mobility, biomethane, energy efficiency and LNG commercial development businesses and the new business lines and subsidiaries.

### Chief Executive Officer

The **CEO**, identified by the Board of Directors as the subject responsible for the internal control and risk management system, with the task of planning, implementing and managing this system, has set up an organisational structure that integrates climate change issues and risks into all phases of the business cycle.

### P&C, Administration, Finance and M&A

The **Chief Financial Officer**, oversees the strategic planning process, the process of economic evaluation of investments and merger & acquisition transactions, and financial planning activities. Carries out feasibility studies also through analysis of the best national and international practice, in relation to potential sustainable finance initiatives.

### Institutional Affairs, ESG & Sustainability & Communications Marketing

The **Head of Sustainability**, reporting to the Executive Vice President Institutional Affairs, Corporate Social Responsibility & Communications, contributes to identifying the processes and projects with regard to the issues relating to climate change and is responsible for internal and external reporting on these issues (half-yearly).

### Business Unit Asset Italia

The **Chief Industrial Asset** oversees the definition of the industrial strategies, guidelines and objectives of the gas transportation, storage and regasification business, in line with the strategic guidelines and protocols defined by Snam, including those relating to energy transition. It participates actively in sharing the objectives related to climate change during periodic meetings with other functions.

### Business Unit Hydrogen

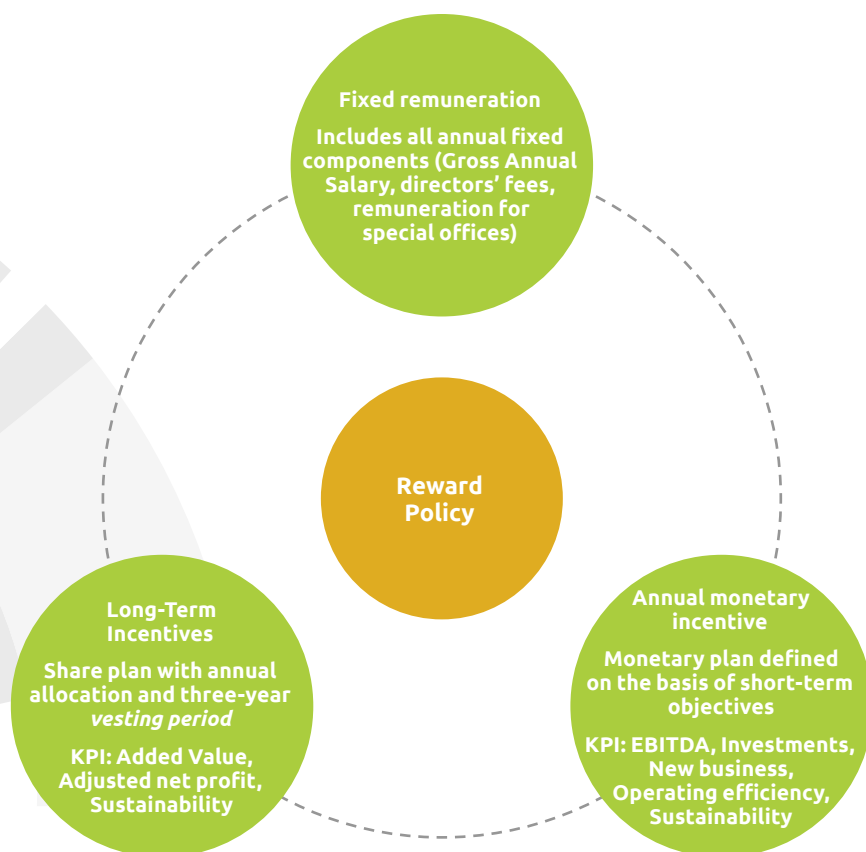
The **Executive Vice President** oversees the development of the Hydrogen Business, the definition of development strategies, guidelines and objectives, in line with the strategic guidelines and protocols defined by Snam, which place hydrogen as the long-term decarbonisation solution.



## SNAM'S REMUNERATION POLICY

Snam's Remuneration Policy for 2020<sup>14</sup> applicable to Directors, Statutory Auditors and Executives with strategic responsibilities<sup>15</sup> was definitively approved in June 2020. The new Remuneration Policy also includes a definition of the new long-term equity incentive plan 2020-2022, which provides for the assignment of ordinary shares of the Company against the achievement of performances measured over a period of three years.

From this perspective, the remuneration instruments envisaged are summarised in three types: fixed remuneration, annual monetary incentive and long-term incentive.



<sup>14</sup> Snam's Remuneration Policy for 2021 applicable to Directors, Statutory Auditors and Executives with strategic responsibilities will be approved during the Shareholders' Meeting on April 28, 2021.

<sup>15</sup> The Executives with strategic responsibilities, other than Directors and Statutory Auditors are as follows: Chief Energy Transition Officer; Chief Financial Officer & Chief International & Business Development Officer; Chief Industrial Assets Officer; General Counsel; Executive Vice President Human Resources & Organization & PFM.

Specifically, 20% of the CEO's short-term variable incentive is linked to sustainability objectives, with particular reference to three targets, described in the table below.

Target	Description	Importance
Weighted occupational accident frequency and severity index for employees and contractors	<b>This index is made up of the frequency index, measured in terms of the number of accidents per million hours worked during the year, and the severity index, measured in terms of days of absence in relation to the number of hours worked</b>	10%
Inclusion and presence of Snam in sustainability equity indices and ESG ratings	This target provides for the inclusion and maintenance of Snam in the main sustainability equity indices, such as the Dow Jones Sustainability Index and FTSE4GOOD, and in ESG ratings, such as CDP Climate Change	5%
Reforestation projects in the national territory	The milestones relate to the establishment of the specific NewCo and the signing of agreements with both local governments for plots of land and with customers for the purchase of trees	5%

In 2020, a new long-term equity incentive plan was established for the next three years for both the CEO and top management with strategic responsibilities. The performance variables considered for the first assignment relate to two ESG issues: equal representation in terms of gender diversity in the Snam management team and the reduction of natural gas emissions.

Moreover, the Performance Management, the corporate process for evaluating the performance, assigns goals related to sustainability topics (which includes KPIs related to climate change) and behavioural aspects coherent with those defined in the corporate strategy. In 2020, both the number of employees evaluated (more than 1,600 people) and the number of sustainability objectives assigned by the program are more than the previous year, respectively, +1.2% and +23.2%. The increase is mainly due to the expansion of the activities to which they are linked (activities related to the hydrogen and biomethane businesses).



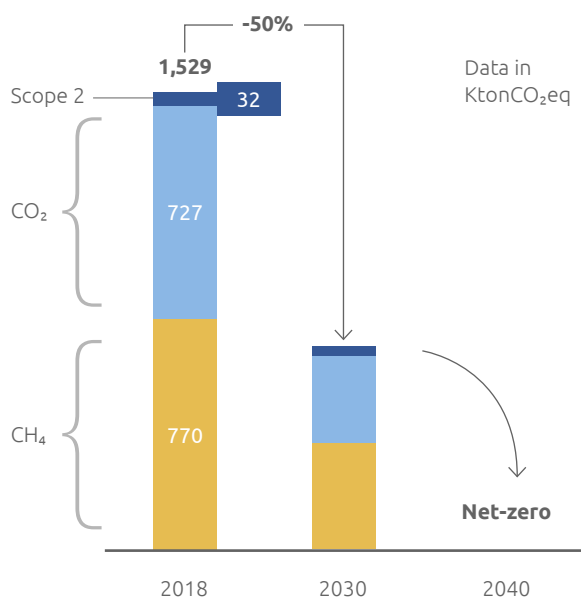
# ACTING FOR TOMORROW: SNAM AND THE COMMITMENT AGAINST CLIMATE CHANGE



Snam has defined a Plan to become **Net Zero Carbon** by 2040, ahead of both the main players in the sector and the European Union targets, set for 2050, which sets out intermediate targets for reducing greenhouse gas emissions by 2025 and 2030. The Plan includes actions to reduce Scope 1 and Scope 2 CO<sub>2</sub> emissions, in line with the Paris Agreement, and a gradual reduction of Scope 3 emissions thanks to a joint work with suppliers and affiliates, also in accordance with the UN protocol signed in 2020. In addition, Snam will play a key role in the country's energy transition.

Specifically, Snam has defined four main objective:

- **Reduce Scope 1 and Scope 2 emissions** with an intermediate target by 2030 (-50% vs. 2018) until carbon neutrality is achieved by 2040;
- **Reduce methane emissions** by 45% by 2025 compared to 2015, according to UNEP's Oil & Gas Methane Partnership initiative (OGMP), which reinforces the commitment already made to reduce methane emissions by 40% by 2025;
- Collaborate with suppliers, customers and all participants in the value chain to **reduce Scope 3 emissions**
- **Strengthen its role as an enabler** of the **decarbonisation** of the entire country system.



To achieve these ambitious goals, the Net Zero Carbon strategy includes:

- the use of natural gas as an energy source to support a decarbonisation pathway;
- the gradual replacement of gas turbines with electric compressors in compressor and storage stations;
- the reduction of natural gas emissions;
- the use of electrical energy produced from renewable sources;

- the promotion of energy efficiency through the use of photovoltaic panels in the construction of buildings;
- the reduction of emissions from company-owned buildings and fleet;
- the collaboration with suppliers and subsidiaries to contain indirect emissions (Scope 3);
- the offsetting of emissions that cannot be eliminated by purchasing certified carbon credits from quality initiatives.

In addition, gas infrastructure will be able to enable important decarbonisation options through the injection into the network of:

- renewable gases, such as biomethane, biosyngas and “green” hydrogen, obtained from anaerobic digestion and gasification of biomass or electrolysis of renewable electricity, respectively;
- low carbon gas and hydrogen from technologies that involve carbon capture and subsequent storage or reuse (CCS/CCU).

Other programmes introduced by Snam to succeed in its new decarbonisation strategy include activities aimed at improving energy efficiency and reducing its environmental impact, including through the implementation of Energy Diagnostics for all Group companies, in compliance with the provisions of the European Energy Efficiency Directive.

As evidence of its commitment to the decarbonisation of the industry, Snam has signed up to [Methane Guiding Principles](#), the guidelines that commit the company to further reducing methane emissions from its activities in natural gas infrastructures. In adhering to these principles, the Group is also committed to encouraging other players in the entire gas supply chain - from producer to end consumer - to pursue the same objective. BP, Chevron, Eni, Equinor, ExxonMobil, Gazprom, Qatar Petroleum, Repsol, Shell, Total, Wintershall and Woodside are among the other companies that have signed up to the Guiding Principles.

Finally, Snam is participating in the [CDP questionnaire \(formerly the Carbon Disclosure Project\)](#), the not-for-profit organisation among the most internationally recognised for assessing transparency in the disclosure of information by companies on climate change and greenhouse gas emissions. In 2020, the company improved its score in the sustainability index, placing in the “[Climate Change A List](#)” that groups together the best performing companies globally, another step forward compared to its previous placement in the “A- List” in 2019.

## SNAM AND PARTICIPATION IN OGMP

In 2020, Snam has signed up to OGMP 2.0, an initiative launched by UNEP (United Nations Environment Programme) to reduce methane emissions, in collaboration with NGO's such as EDF Environmental Defense Fund and the Oil & Gas industry. Since the beginning of the year, a round table has been set up between UNEP and the most important companies in the gas sector, including Snam, which have worked constructively on the definition of the framework; in summer, this activity was finalized and, in early October, the participation of Snam was formalized, with the CEO signature.

The main objectives of the framework are:

- provide governments and the public with assurance that emissions are being managed responsibly;
- provide companies with the means to credibly demonstrate that they are contributing to methane mitigation and therefore climate change, with progress against stated targets;

- encourage best performance in both reporting and methane emissions reduction through transparency, flexibility, collaboration and sharing of best practices.

The most significant points of the protocol are:

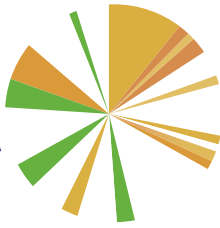
- methane emissions will be declared according to a very detailed reporting, for the UN tables;
- the accounting of emissions must be carried out according to 5 different levels of accuracy (Levels), which expand on the current 3 levels provided by the National Inventory Reports (Tiers). The quality of the data will be improved from Level 1 (approximate data) to Level 4-5, the most accurate;
- in order to qualify for the "Gold Standard" placement, the highest level, it will be necessary to achieve a Level 4-5, reaching the required measurement of emissions and reconciling the data obtained with bottom-up methods (field measurement) and a top-down approach, i.e. with measurements obtained with dispersive models using technologies based, for

example, on mobile means, drones, satellites. Two different time frames are envisaged: within 3 years for operated assets, 5 years for non-operated assets;

- member companies will have to announce reduction targets (for operated ventures) and report on progress. The framework calls for the adoption of the following targets, which are not mandatory: - 45% by 2025 and -60/75% by 2030 vs. 2015;

- the establishment of an International Methane Emissions Observatory.

Snam plays an important role within OGMP, being among the companies that participate directly both in small working groups, where it contributes to defining the guidelines of the Programme, and in the respective international mirror groups. Once again, therefore, Snam is at the forefront in reducing its emissions and fighting climate change, also through collaboration with leading international organisations.



## ENERGY EFFICIENCY

Energy efficiency is one of the main tools to foster decarbonisation and support economic and social development.

The benefits of energy efficiency are many: from a healthier environment and planet, to a better quality of life, from more liveable and resilient cities to lower costs and more competitive businesses, while leading to greater economic and technological development.

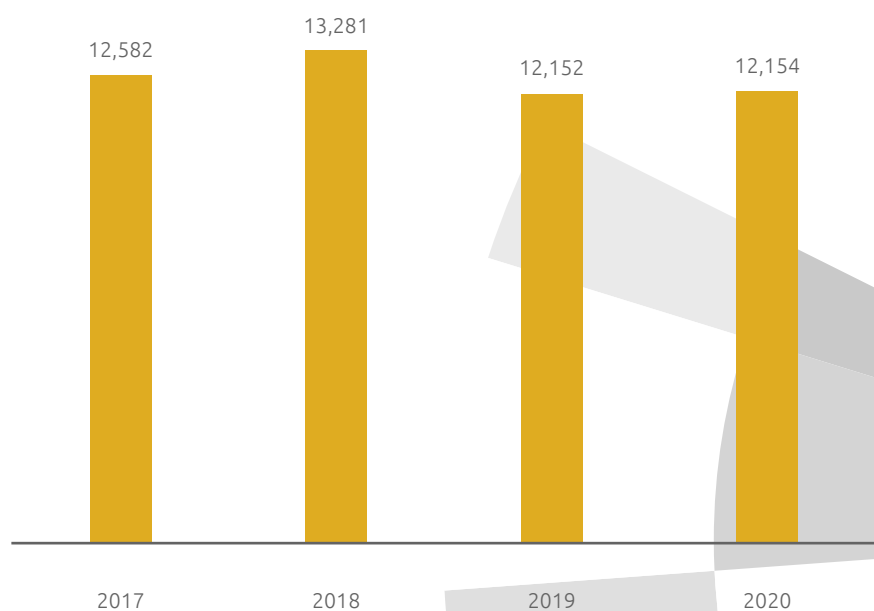
Most of Snam's energy consumption is attributed to gas turbines used in compression systems and in storage concessions that, overall, represent 82% of total consumption.

To further reduce consumption, Snam has launched energy management initiatives, including:

- the installation of photovoltaic plants at the main premises and the production of green electricity;
- the purchase of green electricity through specific supply contracts;
- the installation of high-efficiency heat generators, in particular at gas reduction and regulation plants;
- the installation of new trigeneration plants (see focus);
- the installation of turboexpanders;
- the improvement of the energy efficiency of buildings.

Moreover, in the coming years, a decisive contribution to improving energy efficiency and reducing climate-changing emissions will come from the gradual replacement of gas turbines with electric compressors in gas transmission and storage plants.

### 2017-2019 energy consumption (TJ)





## TRIGENERATION PLANTS

At the Gallese and Istrana compressor stations, two trigeneration plants for the production of thermal, electrical and cooling energy have come into operation with a single objective: to maximise energy efficiency.

These types of installations, which are widespread in airports, hospitals and industrial sites, are difficult to implement in the gas sector, which is subject to specific regulations. A compressor station for the transmission of gas, for example, is usually located in rural and non-industrial areas and therefore, for the construction of trigeneration plants, engineering

solutions have been adopted to reduce environmental impacts such as avoiding industrial discharges, minimizing any noise produced and related emissions.

Specifically, Snam has chosen to install adiabatic towers, which are more expensive, instead of evaporative towers so as not to have industrial discharges, the engines have been placed in specially soundproofed cabins, and cutting-edge technological solutions have been adopted in controlling emissions with dry catalysts to replace those normally used in the urea industry, so as to avoid the use of ammonia and limit such emissions.

The Group faced and overcame

engineering and execution problems that have allowed to learn specific notions, thus increasing expertise on new energy aspects.

To date, these power plants are essentially autonomous from the energy point of view as they produce thermal energy for heating, electrical energy for powering the plant and for cooling in the summer, all through gas-powered engines with an 88% overall average annual efficiency. These power plants will contribute to reductions on several fronts: in electricity bills, in the cost of maintaining and operating traditional boilers, which will be eliminated, and in CO<sub>2</sub> emissions.

The performance of the energy efficiency KPIs was not dependent on the Covid-19 pandemic and the performance shown was derived from efficiency initiatives implemented during the year.

In 2020, Snam has also continued its activities in the production of energy from renewable sources by installing photovoltaic plants in several of the buildings it owns (territorial headquarters and maintenance centres) and at some gas storage facilities. During the year, the total number of plants reached 2,360 units (+32% compared to 2019) and the installed capacity increased significantly compared to 2019, from 1.13 MW to 5.12 MW (+3.99 MW).

This increase is substantially due to the cogeneration plants of the Renerwaste group (+3.92 MW) and to the installation of new back-up plants on the gas transmission network (increase in monitored plants and replacement of obsolete models), as well as to the new photovoltaic plant connected to the electricity grid.

With regard to the Group's energy efficiency targets, which envisage an annual production of electricity from photovoltaic plants of at least 860 MWh, in 2020, this KPI was achieved by reaching 872 MWh.

Finally Snam, in line with the objectives set up by the European Union in the Clean Energy for all Europeans strategy, has created a subsidiary dedicated to energy efficiency, **Snam4Efficiency**, which will become **Renovit** from January 2021, offering innovative energy efficiency solutions to the residential, industrial, tertiary and public administration sectors. Snam's main objective

is to contribute to the energy transition of the entire Country system, helping customers to reduce their environmental impact and increase their competitiveness, while at the same time improving the quality of life and the resilience of territories and cities.



## Renewable energy plants

Type	2018		2019		2020	
	(n.)	Total power (kW)	Energy produced (MWh)	(n.)	Total power (kW)	Energy produced (MWh)
Wind generators	1	1.7	1	1.7	<b>1 (*)</b>	<b>1.7</b>
Photovoltaic systems	1,534	1,053	1,793	1,127	<b>2,355 (*)</b>	<b>1,198</b>
Cogeneration plants			1,128	829	<b>4 (**)</b>	<b>3,922</b>
<b>Total</b>	<b>1,535</b>	<b>1,054</b>	<b>1,794</b>	<b>1,129</b>	<b>2,360 (*)</b>	<b>5,122</b>

(\*) back-up plants (of which 2,315 photovoltaic and 1 wind powered)

(\*\*) biomass-fuelled plants producing green electricity (the number refers to electric generators)

## Key Performance Indicators (KPIs)

SDGs	Action	ESG scorecard	Target	Performance 2020
	MWh of electricity production by photovoltaic plants		>860 MWh saved by 2023	872 MWh
	Increase electricity purchased from renewable sources		55% by 2030	49%
	Trigeneration plants		5,200 MWh by 2022	1,966 MWh
	High-efficiency heat generator (*)		110 MW by 2025	81 MW
	Improvement of the energy efficiency of buildings		Renovate to achieve annual savings of 75,000 m <sup>3</sup> of gas and 210 MWh of electricity by 2022	15,000 m <sup>3</sup> of gas and 65 MWh of electricity
	Installation of LED lighting systems		Replace 534 kW with 1,860 MWh savings by 2022	450 kW installed, 1,107 MWh saved
	Percentage of retrofit & methane-fuelled cars out of total car fleet	<b>ESG scorecard</b>	61% by 2023	39%

ESG scorecard KPIs included in the ESG Scorecard

(\*) The KPI has been reprogrammed with a more challenging target.

## REDUCTION OF GHG EMISSIONS

Climate change mitigation and adaptation are key challenges in the energy world. To succeed in limiting global warming, the world urgently needs to use energy efficiently, using clean energy sources to make things move, heat and cool. By taking a leading role in the energy transition, Snam is committed to contributing to the achievement of an energy mix capable of immediately and efficiently reducing greenhouse gas emissions that cause global warming.

In 2020, the Group's total GHG emissions were approximately 1.74 million tonnes of CO<sub>2eq</sub> (-13% compared to 2019). The total decrease in emissions is mainly due to interventions, such as:

- reduction of natural gas emissions through multiple initiatives such as gas recompression, hot tapping, LDAR;
- production and/or purchase of electricity from renewable sources;
- installation of heat generators with greater efficiency;
- installation of plants with LED lighting replacing other lighting equipment with greater consumption;
- savings derived from the restructuring and energy efficiency of buildings;
- expansion of remote working by employees, partly due to the Covid-19 pandemic.

The amount of emissions not released into the atmosphere thanks to the implementation of these activities amounted to more than 200 thousand tonnes of CO<sub>2eq</sub>, a value further increased from 2019 (+12%), demonstrating that Snam continues and improves each year its commitment to reducing greenhouse gas emissions.

### DIRECT EMISSIONS (SCOPE 1)

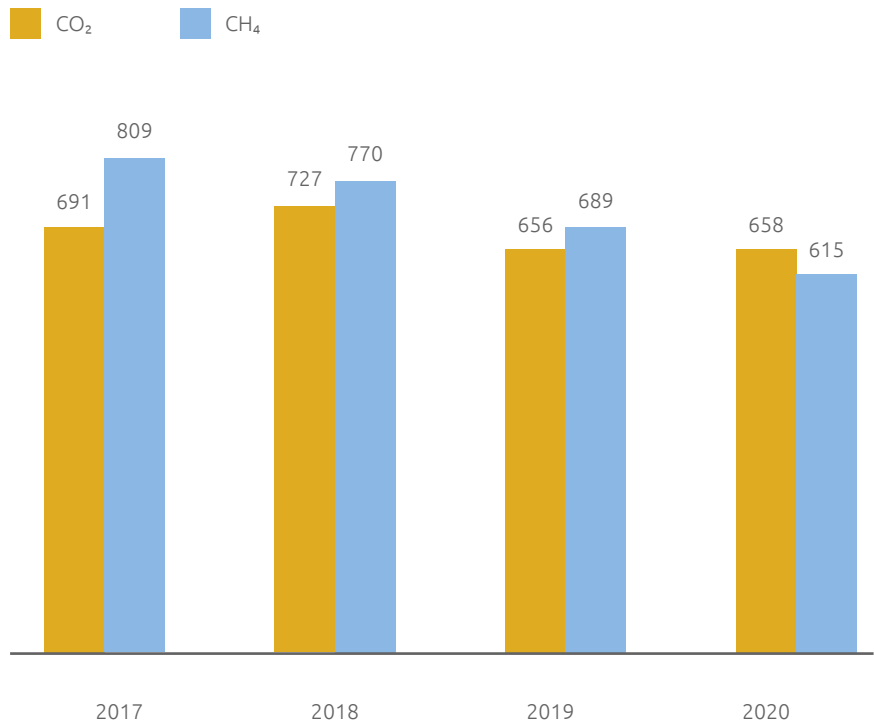
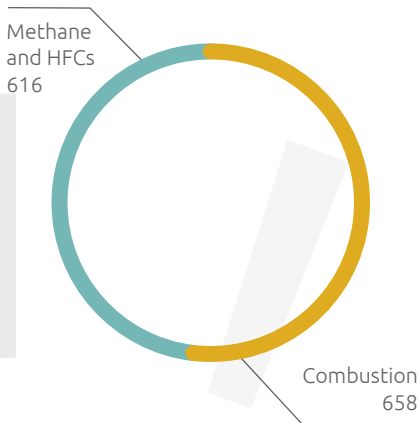
The main greenhouse gases emitted by Snam are methane (CH<sub>4</sub>), the main component of natural gas, and carbon dioxide (CO<sub>2</sub>). Methane emissions arise from the release of natural gas into the atmosphere and are generated by the normal plant operation, by operations to connect new gas pipelines and the maintenance thereof, or by accidental events occurring on infrastructure, whereas the CO<sub>2</sub> produced is directly correlated with fuel consumption.

In 2020, as in previous years, among the direct emissions (Scope 1) by Snam, the marginal contribution from the use of hydrofluorocarbons (HFC) in refrigeration systems, equal to 1.06 kt of CO<sub>2eq</sub>, was evaluated.

Snam's direct emissions in 2020 amounted to around 1.27 million tonnes of CO<sub>2eq</sub>, a reduction of 5% compared with 2019 and 15% compared with 2018, the reference year for the reduction target.

**GHG emissions - Scope 1 2017-2020 (ktCO<sub>2</sub>eq)**

**Snam's Scope 1 (ktCO<sub>2</sub>eq)**



Natural gas emissions decreased by -11% vs. 2019 and -30% vs. 2015, ahead of the projection to reduce emissions by -45% by 2025 vs. 2015, so as to comply with the guidelines of the UNEP Protocol and as set out in the 2020-2024 Strategic Plan.

**EMISSIONS FROM THE COMBUSTION PROCESS**

Snam's energy mix is composed almost entirely of natural gas (95.4% of total requirement in 2020), used to operate the gas turbines employed in the compression plants that provide the pressure needed to transport the gas (thrust consumption) and in the storage concessions (storage consumption), which, overall, represent 82% of total consumption, a stable value compared to previous years. In addition to natural gas, the other energy sources are electricity (3.8%) and other fuels (diesel fuel, gasoline, LPG and heat), which together amount to 0.8% of the total consumption. In 2020, global energy consumption remained almost stable compared to the previous year, increasing from 12,152 TJ in 2019 to 12,154 TJ in 2020 (+0.02%).

The trend of energy consumption for gas transport is strongly influenced by the use of import backbones: in 2020 there was a reduction in gas injected into the network (-7%) but, compared to 2019, gas was transported by more energy-intensive routes (North Africa backbone +4%), compared to the less energy-intensive Northern Europe (-23%) and Russia (-5%) backbones. Overall, gas

transport consumption increased by 3% vs. 2019 and represents 52% of Snam's global consumption. On the other hand, there was a reduction in consumption for storage (-6.2% vs. 2019), aligned with the reduction in stored gas; this consumption represents 37% of Snam's total consumption. With regard to the gas regasification plant, which accounts for 10% of Snam's overall consumption, there was an increase in consumption (+4% compared to 2019), in line with the increase in the quantity of regasified gas. The total energy consumption of new businesses is less than 1% of total consumption.

Already in 2019, the Group took steps to activate measures aimed at containing the energy consumption of the power plants by implementing an integrated management system for the power plant fleet based on the acquisition of real-time data and by launching a program to replace gas turbines with electric motors that will materialize in the coming years.

Direct emissions from combustion, for most of the Company's plants, fall within the scope of the European Union Emission Trading Scheme (EU ETS). Overall, carbon dioxide emissions from ETS installations were higher than the emission allowances allocated for free, which are progressively reduced each year. Against approximately 0.615 million tonnes of carbon dioxide emitted into the atmosphere by ETS sites, approximately 0.120 million allowances were allocated free of charge, while another 0.495 million tonnes were bought from the market.

## NATURAL GAS AND METHANE EMISSIONS

Snam is committed to reducing natural gas and methane emissions in all its businesses, particularly in gas transport, storage and regasification, where methane emissions make up a significant percentage.

Adherence to the UN Protocol has encouraged a series of systematic, lasting and significant actions for Snam's subsidiaries as well, since the Framework provides for the involvement of not only the operated businesses, but also the non-operated ones, starting from a stake of more than 5%.

To account for methane emissions, Snam has been using an international methodology developed in collaboration with the GRI - US EPA (Gas Research Institute - US Environmental Protection Agency) for over 20 years, integrated with a series of emission factors based on field measurements carried out by various external companies since the 1990s. Over the last few years, the method of accounting for emissions has been updated by contracting out to a leading company several on-site measurement campaigns on representative plants and portions of the network.

This activity was carried out in accordance with UNI EN 15446, through the Flame Ionisation Detector (FID) instrumentation, and, in case of overflow, through the Hi-Flow instrumentation, providing a high added value to the final report which can account for the actual global emission. This activity is part of the strategy that the company is implementing for compliance with the UN OGMP 2.0 Framework.

Snam's natural gas emissions are of four different types:

- Fugitive
- Vented
- Pneumatic (which will become a subcategory of the point-emissions, according to the OGMP 2.0 framework);
- Incomplete combustion

Except for emissions from Incomplete combustion, the percentage of which is negligible (less than 1%), for all other types of natural gas emissions, Snam has several actions planned to reduce them.



In 2020 natural gas emissions totalled 35 million of m<sup>3</sup>, a decrease of -11% compared with 2019 and -30% compared with 2015, earlier than the trajectory providing for the reduction of methane emissions by 45% by 2025 vs. 2015, as announced in the 2020-2024 Strategic Plan.

Thanks to the implementation of best practices that include interventions for in-line gas recompression, on interventions with tapping machines, a technology that makes it possible to disconnect from operating methane pipelines for new connections without interrupting service, the implementation of Leak Detection and Repair and other initiatives to replace the emission components that have made it possible to avoid atmospheric emissions of approximately 183,000 tons of CO<sub>2eq</sub> in 2020, (+11% compared to 2019).

Confirming the efficacy of the actions undertaken, the methane emissions per kilometre of network of the gas transport activity also decreased (-0.3% compared to 2019 and -12% compared to 2018).

In 2020, Snam has further increased the target for recovery of natural gas emissions during maintenance activities, raising it from achieving 33% annual recovery to 40%, the latter value intended as the average of the last 5 years. The 2020 figure was 49%, a full 9 points higher than the target set for the three-year period 2021-2023, up from the 2019 figure of 44.6%.

## Key Performance Indicators (KPIs)

SDGs	Action		Target	Performance 2020
 	Percentage reduction of total natural gas emissions (vs 2015) (*)	<b>ESG scorecard</b>	-36% by 2023 (vs. 2015)	
		<b>NET ZERO</b>	-45% by 2025 (vs.2015)	-30%
	Percentage of natural gas recovered from maintenance activities (**)	<b>ESG scorecard</b>	>40% of the average of the last 5 years until 2023	49%

**ESG scorecard** KPIs included in the ESG Scorecard

**NET ZERO** KPIs included in the Net Zero Carbon Strategy

(\*) The KPI has been aligned with the indications provided by the UN OGMP 2.0 protocol

(\*\*) The KPI has been reprogrammed with a more challenging target (value intended as the average of the last 5 years)

## SNAM'S BEST PRACTICES

Snam has for many years implemented a series of best practices to reduce natural gas emissions and consequently methane, in accordance with the decarbonisation strategy that involves the 45% reduction of greenhouse gas emissions by 2025 and with the indications provided by the Methane Guiding Principles which Snam has adopted.

The following are some of the results obtained in 2020 from the application of these technologies, despite the difficulties due to restrictions for the ongoing health emergency.

- To improve the emission **accounting system**, the campaign in the field for detecting fugitive emissions, conducted by a highly qualified outside firm has continued. The last sites for storage plants were completed and a representative sample of valve stations was analysed. During these years of activity, more than 180,000 components have been measured and the technical data and models of the manufacturers of pneumatic equipment have been surveyed and verified. Based on this data and analysis, the Emission Factors were updated as from 1 January 2021.

- In order to minimise **vented emissions**, gas recompression systems have been adopted which, during important works on the transport network, allow gas to be reinjected into the network avoiding its release into the atmosphere. A similar gas recovery system has been permanently

installed in some compressor stations. In 2020, emissions of 5.6 million m<sup>3</sup> of natural gas into the atmosphere were avoided thanks to specific projects involving the recompression of gas in the network and in the booster stations, the lowering of discharge pressure when work is carried out on the network and work using a tapping machine, a technology that makes it possible to disconnect from operating pipelines in the case of new connections without interrupting service.

- **Pneumatic emissions** have been reduced by replacing existing models with new low or zero emission equipment and, in some plants, with air-powered instead of gas-powered actuation systems. In particular, the following results were achieved in 2020:

- reduction in pneumatic network emissions (-1.3 mln m<sup>3</sup>) thanks to the replacement or decommissioning of 156 control and command devices for globe control valves with monitor function in the pressure reduction plants carried out in 2019 (with benefit therefore obtained in 2020). During 2020, a further 83 devices were replaced/decommissioned, with benefits to be achieved in 2021. Also, in 2020, the initiative to install new high-efficiency central heating units to replace existing heaters continued, with the elimination of the related pneumatic equipment (14 heaters replaced in 2020);
- launch of a new campaign to replace/remove high-emission control and command devices on control valves acting as regulators

in network pressure reduction systems, to be completed over a period of 5 years. During 2020, the first 14 devices, of the approximately 500 devices, object of the intervention, were replaced.

- replacement of pneumatic actuators with air models in the Settala and Fiume Treste storage plants.

- Several strategies have been implemented to reduce **fugitive emissions** including the Leak Detection Repair (LDAR) approach. LDAR programs consist of campaigns to monitor plant components for methane leaks and schedule maintenance work. In particular, the following results were achieved in 2020:

- launch of LDAR activities with its own personnel, with a reduction in fugitive emissions of about -1 mln m<sup>3</sup>;
- reduction in fugitive emissions from the network (-1.2 mln m<sup>3</sup>), due to the replacement of ball valves on the filter tank vent circuit in 102 pressure reduction plants carried out at the end of 2019 (with benefit therefore obtained in 2020). An additional 147 facilities were retrofitted during 2020, with benefit to be achieved in 2021. These activities have almost completed the upgrading plan of about 350 plants over three years;
- reduction of emissions resulting from depressurisation of storage facilities, thanks to special operating conditions.

## ENERGY INDIRECT EMISSIONS (SCOPE 2)

Indirect emissions (Scope 2) are determined through two approaches:

- Market based (MB), which attributes a zero CO<sub>2eq</sub> emission factor to energy consumption deriving from certified renewable sources. The MB approach highlights the commitment to reducing Scope 2 emissions from the use of energy produced from renewable sources;
- Location based (LB), which instead considers an average emission factor of the national electricity grid.

2020 electricity consumption of 128,750 MWh increased by 10% compared to 2019. The higher consumption can be attributed to the Renerwaste sites (not accounted for in 2019), which require energy for the waste treatment process and biogas production and, to a lesser extent, to the LNG regasification plant, which during 2020 increased the amount of gas regasified and therefore electricity consumption.

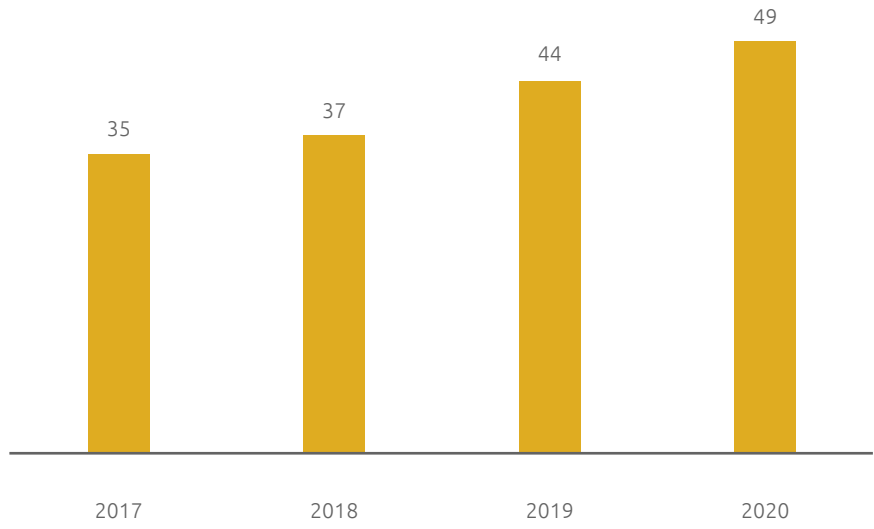
The increased consumption of LNG has been completely neutralised, in terms of emissions, by the supply of green electricity. This reduction has also occurred at Renerwaste sites where almost 60% of the electricity consumed is green. Generally speaking, emissions due to higher electricity consumption have been mitigated by the switch to green electricity at the Poggio Renatico gas transport plant. The plant joins those in Messina, Terranuova Bracciolini and Enna (SRG), Brugherio (STG), the Panigaglia LNG plant and the Snam4Mobility sites.

The CO<sub>2eq</sub> emissions calculated according to the MB method were 31.3 thousand tonnes (-3.4% compared to 2019), despite the 10% increase in electricity consumption. The ratio between the use of electricity produced from renewable sources and the total electricity consumption has further increased from 37% in 2018 to 44% in 2019 to 49% in 2020, thus avoiding the emission into the atmosphere of about 18,600 tons of CO<sub>2eq</sub>, a marked increase compared to the 12,500 tons avoided in 2018.

According to the Plan, Snam plans to reduce cumulatively Scope 1 and 2 emissions by 50% by 2030, as well as to use at least 55% green electricity by 2030, in line with what was established in the previous plan.

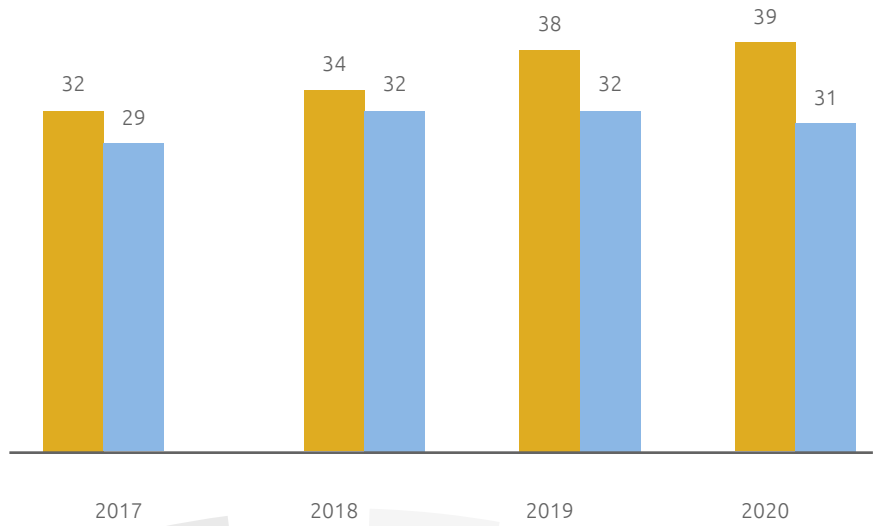


**Green electricity/ Electricity consumed (%)**



**GHG emissions - Scope 2  
2017-2020 (ktCO<sub>2</sub>eq)**

Location-based  
Market-based



## OTHER INDIRECT EMISSIONS (SCOPE 3)

In 2020, the categories relating to indirect emissions (Scope 3) were implemented, accounting for 8 different emission categories, thus recalculating the emissions of previous years.

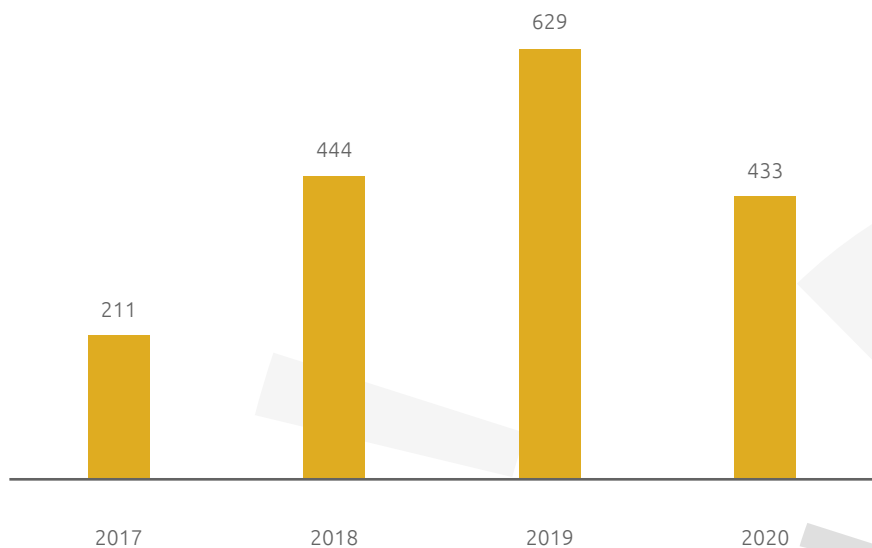
2020 emissions were approximately **433 thousand tonnes**, a 31% reduction compared to the recalculated 2019 figure, following a different nature of procurement and a reduction in business travel emissions due to the health emergency.

Snam has been calculating for years its Scope 3 emissions according to the **GHG Protocol** and reports them in the **CDP Questionnaire** (formerly the Carbon Disclosure Project). This year, this reporting has also been included in this document, except for the category related to investments, due to the timing of data validation by the investees, which historically represents about 50% of the total Scope 3 emissions.

Snam also implements a series of initiatives aimed at promoting a culture of energy saving and minimising the indirect emissions associated with Snam's activities. These include:

- the adoption of green procurement criteria for the purchase of goods and services;
- sustainable mobility activities;
- implementation of energy-saving activities for employees (company shuttles, public transport concessions, remote working and use of videoconferencing systems for meetings);
- launch of the CDP programme (formerly the Carbon Disclosure Project) - Supply Chain.

### GHG Scope 3(\*) emissions 2017-2020 (ktCO<sub>2</sub>eq)



(\*) Scope 3 emissions do not include those deriving from the investments category

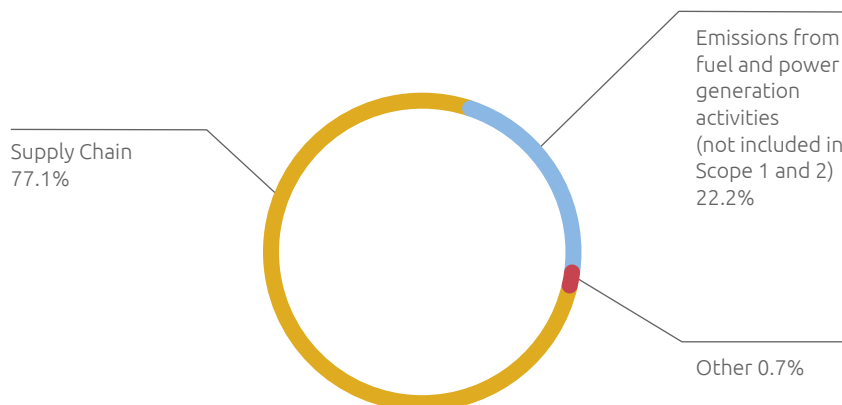
## Indirect emissions Scope 3 (%) 2020

The categories of Scope 3 emissions are derived from those of the GHG Protocol and are grouped into three macro-classes:

I) Supply chain, i.e. emissions from Purchased goods and services, Capital goods, Upstream transportation and distribution, Waste generated in operations and Upstream leased assets

II) Emissions from Fuel-and-energy-related activities (not included in Scope 1 or 2);

III) Other, which includes business travel and employee commuting.



## EMISSIONS' REDUCTION AND INDICATORS TREND

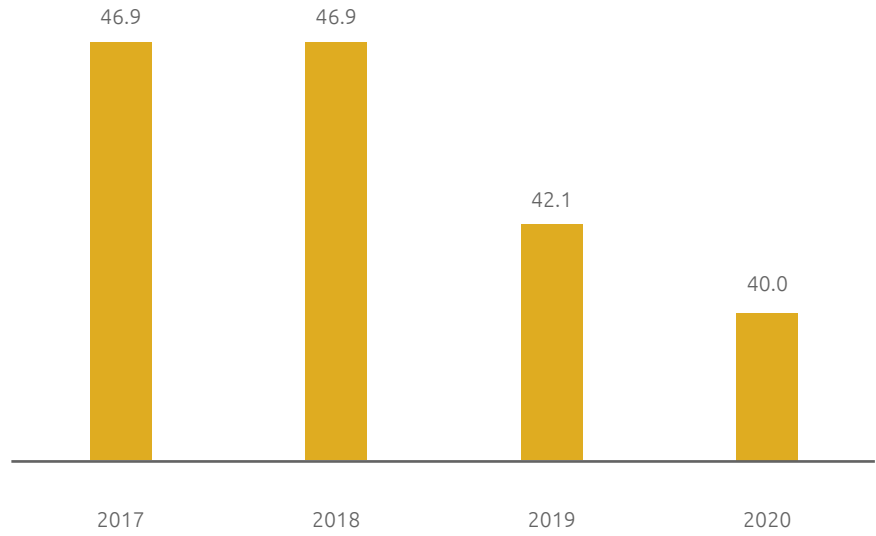
Snam plans to reduce Scope 1 and Scope 2 emissions by 50% by 2030 compared to 2018 to achieve carbon neutrality by 2040.

With respect to the overall CO<sub>2eq</sub> emissions - Scope 1 and 2, a reduction of -5% was achieved in 2020 compared to 2019 and -15% compared to 2018, ahead of the expected reduction trend. Three different emission intensity indices have been defined in 2020, referring to Scope 1 and 2 total emissions and total methane emissions, reparameterised to the quantity of gas transmitted and the length of the network targeted respectively versus 2018 (reference year for Scope 1 and 2 emissions) and 2015 (reference year for methane emissions).

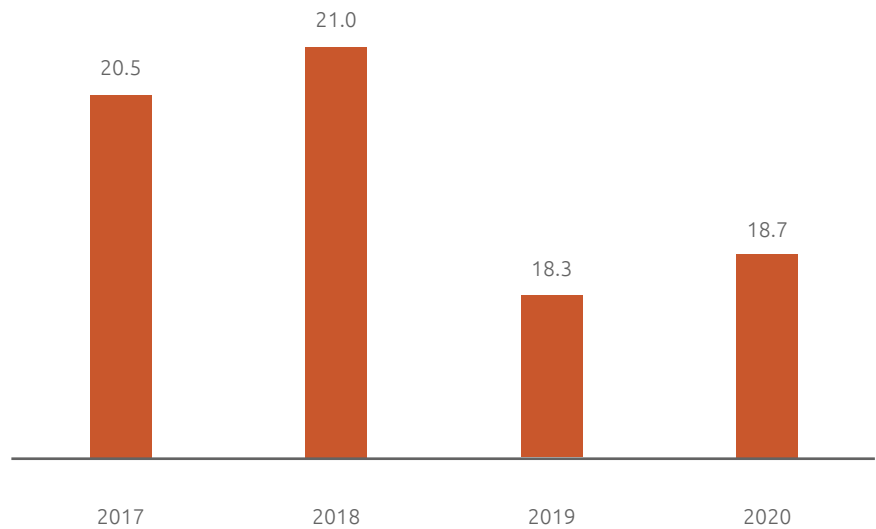
The CO<sub>2eq</sub> emissions (Scope 1 and 2) indicator on network km decreased by -5% compared to 2019 and -15% compared to 2018 while the same indicator referred to gas injected into the network increased slightly compared to 2019 (2%) but was still down compared to 2018 (-11%). The slight increase in 2019 is due to a decrease in gas injected into the grid but in general, the indicators are clearly trending downward from the Company's defined base year (2018).

The latter indicator, relating to global methane emissions referred to the length of the network, is in sharp reduction both compared to 2019 (-10%) and compared to 2015 (-30%) thanks to the natural gas emission reduction initiatives implemented, demonstrating the effectiveness of the decarbonisation strategy adopted by Snam.

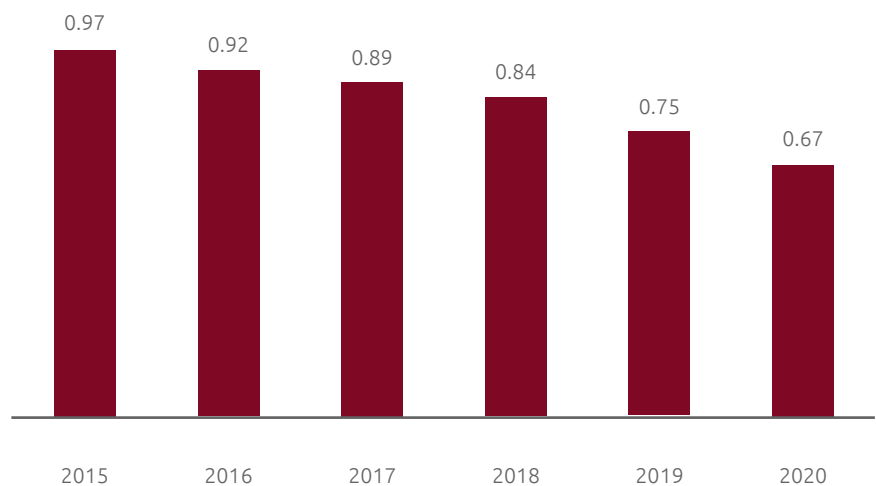
**GHG Intensity Index - Scope 1 + 2  
vs. network length (tCO<sub>2eq</sub>/km)**



**GHG Intensity Index - Scope 1 + 2  
vs. transported gas (tCO<sub>2eq</sub>/billion m<sup>3</sup>)**



**Total Methane Intensity Index  
vs. network length (tCH<sub>4</sub>/km)**



## PERFORMANCE INDICATORS

Snam's main target metrics related to the decarbonisation strategy are shown below.

	2017	2018	2019	2020	
Energy consumption (TJ)	12,582	13,238	12,152	12,154	
Electricity consumption (MWh)	93,810	104,694	117,378	128,752	
Use of green electricity (MWh)	33,254	38,709	51,791	62,916	
% share of green electricity on total (%)	35%	37%	44%	49%	KPI 2030: to reach 55%
GHG emissions Scope 1+2+3 (Mt- CO <sub>2</sub> eq)(*)	1.74	1.97	2.01	1.74	
GHG emissions - Scope 1 and 2 (Mt CO <sub>2</sub> eq)	1.53	1.53	1.38	1.31	
Mix reduction - Scope 1 + 2 on 2018 (%)			-10%	-15%	KPI 2030: -50% vs. 2018 (new KPI)
GHG emissions - Scope 1 (Mt CO <sub>2</sub> eq)	1.50	1.50	1.35	1.27	
- of which: CO <sub>2</sub> from combustion	0.69	0.73	0.66	0.66	
- of which: CO <sub>2</sub> eq from methane	0.81	0.77	0.69	0.62	
- of which: CO <sub>2</sub> eq from point-methane	0.18	0.16	0.13	0.13	
- of which: CO <sub>2</sub> eq from fugitive methane	0.40	0.39	0.37	0.31	
- of which: CO <sub>2</sub> eq from pneumatic methane	0.22	0.21	0.18	0.17	
- of which: CO <sub>2</sub> eq from unburned methane	0.006	0.006	0.005	0.005	
- of which: CO <sub>2</sub> eq from HFC		0.0001	0.0015	0.0011	
GHG emissions - Scope 2 MB (Mt CO <sub>2</sub> eq)	0.029	0.032	0.032	0.031	
GHG emissions - Scope 3 (Mt CO <sub>2</sub> eq)	0.21	0.44	0.63	0.43	
Total emissions Natural gas (mln m <sup>3</sup> )	46.8	44.4	39.2	35.0	
% reduction on 2015	-6%	-11%	-21%	-30%	KPI 2025: -45% vs. 2015 (KPI reprogrammed with more challenging target, aligned with UNEP OGMP 2.0 indications)
Natural gas recovered from maintenance (recovered emissions/potential point-emissions)	-	40%	44%	49%	KPI: recovering at least 40% as an average over the last 5 years (KPI rescheduled with more challenging target)
Gas injected into the network (billions m <sup>3</sup> )	74.59	72.82	75.37	69.97	
GHG Intensity Index - Scope 1 + 2 vs. network length (t CO <sub>2</sub> eq /km)	46.9	46.9	42.1	40.0	
GHG Intensity Index - Scope 1 + 2 vs. transported gas (t CO <sub>2</sub> eq /billion m <sup>3</sup> )	20.5	21	18.3	18.7	
Total Methane Intensity Index vs. network length (t CH <sub>4</sub> / km)	0,89	0.84	0.75	0.67	

(\*) 2018 and 2019 figures have been recalculated

## APPENDIX

## TCFD CORRESPONDENCE TABLE

TCFD recommendations	Disclosure
<b>Governance</b>	
Disclose the company's governance around climate-related risks and opportunities	
a) Describe the board's oversight of climate-related risks and opportunities	"The role and oversight of the Board"
b) Describe management's role in assessing and managing climate-related risks and opportunities	"The role of management"
<b>Strategy</b>	
Disclose the actual and potential impacts of climate-related risks and opportunities on the company's businesses, strategy, and financial planning where such information is material	
a) Describe the climate-related risks and opportunities the company has identified over the short, medium, and long term	"Risks related to climate change" "Opportunities related to climate change"
b) Describe the impact of climate-related risks and opportunities on the company's businesses, strategy, and financial planning	"Risks related to climate change" "Opportunities related to climate change"
c) Describe the resilience of the company's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario	"The context and reference scenarios" "Towards Net Zero: Snam's strategy" "The risks related to climate change" "Opportunities related to climate change" "Acting for tomorrow"
<b>Risk management</b>	
Disclose how the company identifies, assesses, and manages climate-related risks	
a) Describe the company's processes for identifying and assessing climate-related risks	"The ERM model for centralised risk management"
b) Describe the company's processes for managing risks related to climate-related risks	"The ERM model for centralised risk management"
c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the company's overall risk management	"A model that integrates the impacts of climate change"
<b>Metrics and targets</b>	
Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material	
a) Disclose the metrics used by the company to assess climate-related risks and opportunities in line with its strategy and risk management process	"Acting for tomorrow" "Performance Indicators"
b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks	"Acting for tomorrow" "Performance Indicators"
c) Describe the targets used by the company to manage climate-related risks and opportunities and performance against targets	"Acting for tomorrow" "Performance Indicators"

BySnam

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For information  
Snam S.p.A.  
Piazza Santa Barbara, 7  
I - 20097 San Donato Milanese (MI)

[www.snam.it](http://www.snam.it)

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