Climate Action and Transition bonds Report







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Snam's Profile

Snam is one of the world's leading energy infrastructure operators and one of the largest Italian listed companies in terms of market capitalization. The company's sustainable and technologically advanced network guarantees security of supply and encourages development in the areas in which it operates, while also contributing to promote the energy transition. It's also an international operator working in the most relevant areas of the world for the development of natural gas to replace more polluting fuels and for the energy transition.

Through its international subsidiaries, it operates in Albania (AGSCo), Austria (TAG, GCA), China (Snam Gas & Energy Services Beijing), United Arab Emirates (ADNOC Gas Pipelines), France (Teréga), Greece (DESFA) and the United Kingdom (Interconnector UK).

Snam is also one of the main shareholders of TAP (Trans Adriatic Pipeline), the final section of the Southern Energy Corridor.

The company has the most extensive transmission network among European peers (over 41,000 km including international activities) and greatest natural gas storage capacity (ca. 20 billion cubic meters, including international activities). It is also one of the main regasification operators in Europe, an activity it carries out through its Panigaglia terminal and its stakes in the Rovigo plant (Adriatic LNG) in Italy and in the Revithoussa plant (DESFA) in Greece.

In recent years Snam has positioned itself to play a role as enabler of the energy transition, in line with its purpose and with European targets, thanks to infrastructures that will be crucial for the achievement of decarbonisation objectives.

The 7.4 billion euro 2020-2024 strategic plan envisages the achievement of carbon neutrality by 2040, an increase in the reduction of emissions compared to the previous plan, an acceleration of investments to make its infrastructure "hydrogen ready" and the development of energy transition businesses such as hydrogen, biomethane, sustainable mobility and energy efficiency.

The company's business model is based on sustainable growth, transparency, enhancement of talent and diversity, protection and social development of the territories, through Snam Foundation. ESG factors, which are increasingly integrated into the company's strategies and management, guide the choices to the benefit of all stakeholders.

This is testified by the recent approval by the the Shareholders' Meeting of Snam, on proposal of Snam's Board of Directors, of some amendments to the Company Bylaws aimed, amongst other things, at reflecting the Company's growing commitment towards the **energy transition** and at incorporating the recent provisions of the Budget Law in terms of gender balance.

Particularly, at the end of the legal process, it is expected the formal introduction in the Bylaws of the Company's corporate purpose, namely "**Energy to inspire the world"**, to reflect Snam's commitment to advance the energy transition towards forms of use of resources and energy resources compatible with environmental protection and gradual decarbonisation as well as the principle of the pursuit of sustainable success among the purposes to be pursued by the Company's business activities.

Introduction

Snam S.p.A ("Snam", "The Company", or "The Group") is Europe's leading gas utility, ranking first in Europe by transport network size and natural gas storage capacity. The company is also one of the main operators in regasification and is **now strongly committed to the energy transition** process to achieve carbon neutrality. With approximately 15 billion euro in market capitalization, it is one of the largest Italian companies and is included in the FTSE MIB index of Borsa Italiana.

With the new 2020-2024 plan, Snam has taken on the role of enabler of the energy transition, in line with the United Nations 2030 goals that guide sustainability actions and with the Paris Agreement framework. To the business model already based on values of sustainable development, Snam has added specific commitments for the coming years. It will be one of the first energy companies to achieve carbon neutrality in 2040, contributing to the decarbonisation of the system through significant investments in innovation, R&D and digitalization, to the large national and international networks and to the development of green economy businesses, such as sustainable mobility, energy efficiency, green gas and hydrogen in particular.

With reference to this context, Snam raises to 50% by 2030 (based on year 2018) the target for reducing Scope 1 and Scope 2 equivalent CO₂ emissions (direct and indirect energy emission), compared to the previous target of -40% based on year 2016.

In addition, to demonstrate its commitment to ESG, it has developed a 13-areas "scorecard" with 22 material and quantitative targets and with the monitoring of results.

To achieve these objectives, Snam's 2020-2024 strategic plan details investments of circa 7.4 billion euro (almost 1 billion euro more than the 6.5 billion euro of the previous plan), attributable both to the core business of regulated infrastructures (6.7 billion euro) and to the new activities of energy transition (over 0.7 billion euro, almost doubled compared to the previous plan). 50% of the investments foreseen in the plan is for "hydrogen ready" infrastructure, i.e. to the substitution and development of assets with "hydrogen ready" standards, aiming at promoting the development of hydrogen to foster the decarbonisation of the energy sector, transport and manufacturing. The plan foresees about 500 million euro of investments in digitalization – from the control of activities from remote to the adoption of IoT, cloud and edge computing – to allow Snam to become the leading technologically advanced gas transmission operator in the world and to ensure ever greater safety and sustainability of operations. The 720 million euro to be invested in the new energy transition businesses will be used to strengthen a broad and diversified platform of activities dedicated to energy efficiency, biomethane production and infrastructure, sustainable mobility and hydrogen along the entire value chain, which Snam has created in recent years to be a "system integrator" able to offer green solutions and contribute to the development of renewable gases.

Sustainable finance is one of the pillars of Snam's development strategy and investments in the energy transition to actively contribute to the decarbonisation of the economy. Its weight is expected to increase from 40 to 60% of the financing available to the company over the period of the strategic plan to 2024 and Snam's commitment to sustainable finance is recognized by joining the Nasdaq Sustainable Bond Network. After being the first European company to launch a 500 million euro Climate Action Bond in 2019, the company has been one of the forerunners of the new Transition bonds with three issues, of 500 million and 600 million euro respectively in 2020 and 750 million euro in 2021.

Towards Net Zero

Snam has defined a detailed plan to become Net Zero Carbon by 2040, which includes intermediate targets for the reduction of greenhouse gas emissions by 2030. The plan identifies ambitious objectives and concrete actions to reduce direct and energetic indirect emissions, in line with the commitments defined in the Paris Agreement to contain global warming by 1.5 °C, and gradually to contain Scope 3 emissions, through an ever-increasing awareness and involvement of the value chain. Thanks to this commitment Snam gets a leading position in achieving carbon neutrality, set at 2040, ahead of both the main players in the sector and the European Union targets, set at 2050.

Specifically, Snam has defined four major objectives:

- Reduce Scope 1 and Scope 2 emissions with an intermediate target at 2030 (-50% vs. 2018) until carbon neutrality is achieved in 2040;
- Reduce methane emissions by 45% by 2025 compared to 2015, in line with targets of UNEP (UN Environment Programme), with which a specific protocol has been signed to reinforce the commitment already made to reduce methane emissions by 40% by 2025;
- Work with suppliers, customers and all participants in the value chain in order to reduce Scope 3 emissions;
- Strengthen Snam's role as an enabler of the decarbonisation of the entire Country System;
- The emissions that cannot be eliminated will be offset through selected offsetting projects.



To achieve the objectives set out in the Net Zero Carbon plan, Snam has planned various actions to reduce its Scope 1 and 2 emissions, which can be grouped into 2 macro-areas:

Reduction of emissions from Snam's operations:

- Interventions and application of best practices for minimizing the methane emissions (LDAR, in line recompression during maintenance);
- Reduction of Snam's CO₂ emissions and of energy needs, also thanks to the installation of new, more efficient elettrocompressor installed in the transport and storage stations;
- Use of renewable electricity.

Reduction of emissions from Snam's buildings and company fleet:

- Planning of the transfer to a new LEED GOLD certified office;
- Utilization of green electricity from photovoltaic plants;
- Conversion of the company vehicle fleet into methane vehicles.

Green gas development:

Development and insertion into the network of new green gases, such as biomethane and hydrogen.

Corporate Responsibility in Snam's Operational Practices

Across all its activities, in Italy and abroad, Snam pursues a sustainable and socially responsible growth model, in order to **create value for the company and for the communities in which it operates.**

Sustainability is fundamentally integrated into Snam's business strategy and its investment decision process, as well as being deeply ingrained in the Group's daily practices. The focus on Sustainability drives the development of Snam's business and ensures the growth of the Group in the long-term. This approach has had numerous advantages, including highlighting the opportunities in the green gas business, and through continuous dialogue has elevated Snam's profile and standing in local communities.

In line with its commitment to corporate transparency, Snam reports on its sustainability progress annually in its Sustainability report, which has been published since 2006. The report is edited in compliance with the Global Reporting Initiative (GRI) guidelines and since 2017 with Comprehensive option of the GRI reporting standards and an independent auditor provides a "limited" type of assurance about the information reported according to the International Standard on Assurance Engagements 3000 (ISAE 3000).

Snam also publishes the Non-Financial Statement (NFS) according to the Dgls. 254/2016 in a specific chapter of the Directors' report inside the Annual Report. The NFS is edited in compliance with GRI reporting standards with the Core option and it is assured by the same independent auditor and according to the same criteria and type of assurance of the Sustainability Report.

In order to show the link between strategy, governance, financial performance and the social, environmental and economic context in which the company operates, Snam publishes also its Directors' report as an integrated report since 2015, following the International Integrated Reporting Council (IIRC) framework.

Besides, since the growing importance of the climate change issue, Snam decided to adhere in 2018 to the Task Force on Climate-related Financial Disclosure which issued recommendations aimed to disclose climate change impacts on companies with a transparent approach towards financial stakeholders. Snam since then published a Financial disclosure on climate change showing 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.

Underscoring its commitment to environmental, social and governance ("ESG") issues, also in 2020 Snam has been included in many sustainability indexes that assess companies on their ESG performance and select just the most active and engaged on these issues. The main ones are ISS ESG, FTSE4good, MSCI, Vigeo and Sustainalytics. Besides them, Snam has been included in the top world A list of the CDP climate change that includes only eight Italian companies. The questionnaire focused only on environment strategy and targets, confirming Snam's global leadership in the decarbonisation movement.

Since 2009 Snam has been a Global Compact member, committing to follow its 10 principles whilst also actively collaborating with the Global Compact Network Italia Foundation.

In 2020, Snam joined a particular initiative proposed by Global Compact: the CFO Task force, which prepared the first integrated principles for finance and investment related to the UN Sustainable Development Goals (SDGs). These principles, presented at the UN Private Sector Forum on 21 September 2020, aim to guide companies to match their sustainability commitments and credible financial strategies in order to create real impact on SDGs, and the work is keeping on during 2021 to develop relevant KPI's on the matter.

Snam's activities impact all 17 of the United Nation's Sustainable Development Goals ("SDG") and Snam is committed to work on the Agenda 2030 from a holistic point of view: with its new **ESG Scorecard**, Snam has decided to define specific annual KPIs and targets belonging to the environmental, social and governance areas and linking them to relevant SDGs.

NEW ESG SCORECARD

ENVIRONMENT

- Natural gas and CO₂ emissions
- Energy Savings of Operational Management
- New Business Green Innovation
- Land protection & Biodiversity



However, due to the nature of its business model, Snam's investments have a deeper impact on the following goals:



SDG 7 Affordable and Clean Energy

increasing the production of energy from renewable sources, including green gases, and improving the energy efficiency of Snam's

operations whilst avoiding or reducing the impact on the environment, landscape and cultural heritage. Snam achieves this objective through its subsidiaries Snam4Environment and Snam4Efficiency: The former is specialized in infrastructure for biomethane production (from organic waste, agricultural and agro-industrial waste, and zootechnical effluents) and in the promotion of green activities, while the latter is one of the main Italian operators in energy efficiency services for residential, industry and public administration.

Snam4Environment aims to encourage market development thanks to a low-risk business model, leveraging on the skills of the Renerwaste and Iniziative Biometano platforms, which manage plants that produce biomethane from urban and agricultural waste in Italy. Investments of approximately 220 million euro are planned untill 2024 to build plants with an installed capacity of 64 MW, 22 more than the previous plan.

Snam4Efficiency is going to continue its growth path with a solid plan of investments, 200 million euro untill 2024, and through acquisitions, for example Mieci and Evolve acquired in the last months of 2020.



SDG 9

Industry, Innovation and Infrastructure

building more resilient and sustainable infrastructure. In the new strategic plan, 50% of the investments is dedicated to a "hydrogen-ready" infrastructure (replacement

and development of new assets with hydrogen-ready standards). The conversion of eight compression stations into gas/electric hybrid is also planned, aiming to contribute to the carbon neutrality goal by 2040. There will be also consistent investments in digitalization to allow Snam to become the most technologically advanced gas transmission company in the world and to guarantee ever greater safety and sustainability of operating activities.



SDG 11 Sustainable Cities and Communities

Snam has established Snam4Mobility, a company dedicated to the promotion of sustainable mobility using natural gas (CNG

and LNG) and renewable gas (bio-CNG and bio-LNG). By 2024, the company expects the construction of 142 new refuelling stations and the expansion of the offer for heavy vehicles also thanks to the activation of a new small-scale liquefaction plant and the adaptation of the Panigaglia LNG terminal for truck-loading services for transport. In addition, over the course of the plan, Snam4Mobility plans to launch the first five hydrogen refuelling stations. Approximately 150 million euro of investments are planned to 2024.



SDG 13 Climate Action

with the goal of playing a key role in the energy transition and with a long-term vision consistent with its purpose and European objectives, Snam will be one of the first

energy companies to reach carbon neutrality by 2040 and provide a wide contribution to the decarbonisation of the system through the development of green gases and, in particular, hydrogen.

Snam's milestones towards carbon neutrality are to reduce its methane emissions by 50% vs 2015 level by 2030, to reduce its CO₂ eq Scope 1 and 2 emissions by 50% vs. 2018 level by 2030 and to promote alternative uses for LNG, CNG and biomethane in land and sea transports.

Furthermore, Snam is supporting the evolution of green gases keeping on investing in biomethane and hydrogen. Over the last year, Snam has launched a Business Unit focused on hydrogen, with the aim of being at the forefront in a sector with great prospects where investments of at least 150 million euro are planned untill 2024. In the next future, the conversion of the first railway lines from diesel to hydrogen will start, leveraging on partnership agreements FS Italiane and Alstom, and fuel cells will be installed for Snam's own energy consumption.

The company intends to focus on new technologies (as per the ITM and De Nora partnerships) and start new pilot projects. Snam, together with other partners, has also won three grants under the Fuel Cells and Hydrogen Joint Undertaking, which allow access to funds and pilot projects at European level and create new end-use partnerships.

Snam's initiatives and technological partnerships supporting the hydrogen strategy

Hydrogen is a clean and versatile energy source that, if generated from renewable energy and then transported, stored and used as a gas, does not generate emissions of carbon dioxide and other climatechanging gases, nor emissions harmful to humans and the environment. For this reason, it can play a key role in the national and international energy transition and contribute to achieving the goal of a climateneutral economy.

The most promising way for the development of hydrogen is represented by the production of the so-called "green hydrogen", generated through the process of electrolysis of water, in which electrical energy is used to "break down" water into hydrogen and oxygen without any emission of CO₂ at the point of release.

Using hydrogen has many advantages: (i) it does not emit CO₂ or pollutants (ii) it complements renewable sources (iii) it can be transported at low cost using the existing transport network and can be stored for a long time in a reliable, safe and convenient way (iv) it can effectively decarbonise the so-called "hard-to-abate" sectors such as steel and refining (v) it can be used in sustainable mobility and in heating systems and, moreover, (vi) it could favour the integration between the electricity and gas sectors allowing greater flexibility and therefore lower costs for the energy system as a whole. Snam, thanks also to infrastructures that will be crucial for the achievement of decarbonisation targets, is committed to building market positions along the hydrogen value chain and has set up a dedicated Business Unit.

Below the main technological partnerships and initiatives which Snam has undertaken so far to support its hydrogen strategy are listed.

Europe's first supply of hydrogen and natural gas blend into transmission network to industrial users

On 1st April 2019, Snam launched its experiment of introducing a 5% hydrogen and natural gas blend into the Italian gas transmission network. The experiment, the first of its kind in Europe, was conducted in Contursi Terme, in the province of Salerno, in Southern Italy, and involves the supply of H2NG (a blend of hydrogen and gas) to two industrial companies in the area: a pasta factory and a mineral water bottling company. The experiment marked the first step in Snam's commitment to developing hydrogen. On 16th December 2019, Snam doubled the volume of the hydrogen blend to 10%.

Snam and SOCAR sign an agreement to promote sustainable energy

On 20th February 2020, Snam and SOCAR, a State-owned energy company of the Republic of Azerbaijan, signed a cooperation agreement to study the development of renewable gases and use of sustainable energy, including opportunities for developing hydrogen production and for promoting sustainable mobility using CNG, LNG and hydrogen.

Agreement with Alstom for the development of hydrogen trains in Italy

On 4th June 2020, Snam signed a five-year agreement with Alstom, a global leader in integrated solutions for sustainable mobility, to develop hydrogen trains in Italy.

The agreement, after the conclusion of the first phase dedicated to feasibility studies planned in Autumn 2020, aims to develop railway mobility projects in 2021 including both hydrogen-powered trains and the related technological infrastructure, as well as management and maintenance services.

Tested with Baker Hughes world's first hydrogen blend turbine for gas networks

On 20th July 2020, Baker Hughes and Snam successfully completed testing of the world's first "hybrid" hydrogen turbine designed for a gas network. The test has paved the way to implement adoption of hydrogen blended with natural gas in Snam's current transmission network infrastructure.

Signed a Memorandum of Understanding with Saipem on new energy transition technologies

On 10th September 2020, Snam and Saipem signed a Memorandum of Understanding to start working together on new energy transition technologies. This agreement also involved a collaborative effort to develop feasibility studies in order to find new solutions to transport hydrogen in both liquid and gaseous form and to capture, transport, store or enhance CO₂

Signed a Memorandum of Understanding with FS Italiane to promote study in hydrogen rail transport

On 21th October 2020, FS Italiane and Snam have signed a Memorandum of Understanding to evaluate the technical and economic feasibility and consider new business models relating to the development of a hydrogen rail transport in Italy. The agreement is aimed at implementing analyses and feasibility studies and developing joint projects on railway lines that can be converted to hydrogen on the national territory.

Partnership launched with ITM power

On 22th October 2020, Snam signed a partnership agreement with ITM Power Plc, one of the largest global producers of electrolysers. The agreement envisages the start of a commercial and technological collaboration for the development of future joint initiatives and the concurrent entry of Snam into the shareholder structure of ITM with a minority stake.

Partnership with De Nora to strengthen Snam's position in hydrogen technologies

On 19th November 19th, Snam has purchased a strategic stake of ca. 33% in De Nora, a global innovator in sustainable clean energy and water treatment technologies. Snam will leverage technologies and know-how of which De Nora is one of the world leaders, enhancing its competitive edge in hydrogen projects.

CDP, ENI and Snam sign an agreement for the decarbonisation of the energy system

On 23rd December 2020, CDP, Eni and Snam have signed a Letter of Intent to start a strategic collaboration for the energy transition. The Letter of Intent is part of a broader commitment of CDP, Eni and Snam to supporting the achievement of the target of 55% reduction in CO₂ emissions by 2030 established by the EU and implementing the European and national hydrogen and circular economy strategies.

Signed a Memorandum of Understanding on the development of green hydrogen mobility in Lombardy.

On 29th December 2020, FNM, A2A and Snam have signed a Memorandum of Understanding to provide a further boost to the development of green hydrogen mobility in Lombardy. The plan, called H2iseO, will make it possible to create the first Italian "Hydrogen Valley" in Lombardy, particularly in Sebino and Valcamonica, equipping it with a fleet of hydrogen trains and related infrastructure, starting from 2023.

Together with Tenaris and Edison to trial steelmaking with green hydrogen

On 11th January 2021, Tenaris, Edison and Snam have signed a Letter of Intent to launch a project aimed at decarbonizing Tenaris's seamless pipe mill in Dalmine through the introduction of green hydrogen in some production processes. This initiative represents the first application of green hydrogen on an industrial scale in Italy's steel sector.

Technological partnership with Hera for hydrogen development

On 22nd February 2021, Snam and Hera have signed a Memorandum of Understanding to start a technological collaboration for hydrogen testing and subsequent implementation in Emilia-Romagna. The agreement envisages several areas of action, including the collaboration on power-togas technology and the implementation of hydrogen for thermal uses in the most energy-intensive industries and with hardly electrifiable processes.



Sustainable Finance aligned with Corporate Strategy

Snam is committed to achieving carbon neutrality by 2040 and expect to provide a broad contribution to the decarbonisation of the system through the development of green gases and, in particular, hydrogen.

Climate change is a crucial topic to consider in order to achieve long term business success and our business plan is clear evidence of Snam's growing attention to environmental issues, with a substantial amount of green-like investments.

The choice of tapping the "sustainable funding market" is a natural consequence of our desire to align the company's financial structure with our sustainable growth path in the medium-long term.

Snam commitment towards ESG investments and initiatives is integrated within the financial strategy and it was reaffirmed in early 2020 when Snam joined the **UN Global Compact and the CFO Taskforce**, an initiative which aims to bring together investors, issuers, banks and credit agencies to create an efficient market for SDG investments and capital flows, and consistency in how to measure ESG KPIs. At the EU level, Snam is also member of the **Corporate Forum for Sustainable Finance**, an initiative of European companies set up with the aim of creating a permanent network for exchanging views and useful ideas for developing sustainable finance, linked to projects that have a positive impact on the environment.

In 2020, Snam also joined the **ICMA's Climate Transition Working group** made up of representatives from more than 80 entities participating in the capital markets. The Working Group published in Decembre 2020 the Climate Transtion Finance Handbook1 which provides clear guidelines2 on the information that should be made publicly available to investors when raising funds in debt markets for climate transition-related purposes through the issuance of 'Use of Proceeds' bonds aligned with the Green and Social Bond Principles or Sustainability Bond Guidelines, or general corporate purpose bonds issued in line with the Sustainability-Linked Bond Principles.

On the capital market side, Snam issued its inaugural Climate Action bond in February 2019 and, successively, three Transition bonds, the first two in June and November 2020 and the most recent one in February 2021. By moving from a Climate Action to a Transition bond, Snam has intended to **consolidate its role in the energy transition** and to **increase investors awareness** of Snam's ESG initiatives and investments, by making its sustainable finance strategy consistent with long-term environmental objectives.

1 Available at: Climate-Transition-Finance-Handbook-December-2020-091220.pdf (icmagroup.org)

2 The guidelines laverage on i) an issuer's clear climate transition strategy and governance, ii) a relavant climate transition trajectory of the business model, iii) an issuer's climate transition strategy based on science based targets and transition pathways, and iv) a transparent communication.

In June 2020, Snam launched its new Transition Bond Framework which emphasizes the key role of green gas in achieving the long-term decarbonization targets and the role of existing infrastructure in facilitating the energy transition. The Framework has been reviewed by the independent third party DNV GL which affirmed that Snam's strategy is in the trajectory to pursue Paris de-carbonisation goals.

In addition to the eligible categories identified in the Climate Action Bond Framework, **a new eligible category (i.e. the "Retrofit of gas transmission network") has been included** to capture activities carried out with the aim to adapt Snam's gas network to be ready to transport a certain increasing percentage of hydrogen and/or other low-carbon gases, in line with what stated in the EU Taxonomy. In particular, as reported in the draft delegated acts published in November 2020, art. 4.14, the following investments are eligible:

- Repurposing of gas networks for the distribution of gaseous fuels through a system of mains;
- Repurposing³ of gas networks for long-distance transport of renewable and low-carbon gases by pipelines;
- Construction or operation of transmission and distribution pipelines dedicated to the transport of hydrogen or other low-carbon gases.

The clarity that Snam has been able to provide through its new Framework on what it aims to achieve has been well received and investors have shown a deep interest in the new Transition component. On the back of the new framework, on 10th June 2020, Snam successfully launched the first Transition bond for 500 million euro and maturing on 17th June 2030. The issuance reached more than three times oversubscription by high quality and geographically diversified institutional investors. Moreover, ESG investors participation was significant with ca. ³/₄ of the final book represented by ESG accounts.

On 30th November 2020, Snam issued a second Transition Bond for a total amount of 600 million euro and 8-year maturity. The issuance reached a demand at peak of more than 2.6 billion euro, with high quality and geographically

The activity includes leak detection and repair of existing gas pipelines and other network elements to reduce methane leakage.

diversified investors, which made it the longest 0% coupon bond issued by an Italian issuer. In line with the previous Tranasition bond issuance, ESG investors have continued to represent ca. ³/₄ of the order book. Starting from December 2020, the second Transition Bond has been successfully listed also in the Milan stock exchange in the ExtraMOT PRO segment.

Finally, on 8th February 2021, Snam launched a third Transition bond for 500 million euro maturing on 15th August 2025 and a reopening (bond tap) for 250 milion euro of the existing Transition bond with maturity June 2030, confirming Snam's commitment to sustainable finance as a key pillar of its strategy. By reaching -4.4 bps yield on the new Transition bond, Snam set new records achieving the lowest negative yielding print by an Italian corporate. In line with the previous issuances, the third Transition Bond has been successfully listed also in the Milan stock exchange in the ExtraMOT PRO segment.

At the end of 2020, Snam accounted for **40% of** sustainable finance on total available funding. Moreover, as part of the Strategic Plan 2020-2024, **Snam announced** its ambition to increase the percentage of sustainable finance from 40% to 60% of the available funding. Among ESG instruments, sustainable loan represents a key part of ESG funding. For this facility, there has been the reduction of the margin of Snam's sustainable loan of 3.2 billion euro in May 2020, already obtained in April 2019 following the achievement of the objectives linked to social and environmental sustainability parameters. In this context, Snam has renewed its Euro Commercial Paper program increased from 2 to 2 5 billion euro linking

Paper program, increased from 2 to 2.5 billion euro, linking it to environmental and social sustainability objectives in line with the sustainable loan and obtaining for the program an ESG rating equal to EE assigned by the ESG rating company, Standard Ethics.

On 19th January 2021, Snam joined the Nasdaq Sustainable Bond Network, the sustainable finance network run by Nasdaq which brings together investors, issuers, investment banks and specialist organisations. By joining this network, celebrated through the projection of the Snam logo on Nasdaq Tower in Times Square, New York City, Snam aims at further expanding its potential audience of international investors more sensitive towards sustainabilityrelated issues.

According to the draft of Delegated Acts, the activity consists in the conversion or repurposing of existing natural gas networks to transport hydrogen and retrofit of gas transmission and distribution networks, where the main purpose is the integration of hydrogen and other low-carbon gases, including any gas transmission or distribution network activity, which enables the network to increase the blend of hydrogen or other low carbon gasses in the gas system.



New Labelling of our Framework from Climate Action to Transition

On 9th June 2020, in coherence with the growing commitment of the company to supporting the energy transition, Snam published the new Transition Bond Framework⁴ which expanded the scope of the first Climate Action Bond Framework (dated November 2018) to emphasize (i) the key role of green gas in achieving the long-term decarbonisation targets and (ii) the role of existing infrastructure in facilitating the energy transition.

In addition to the eligible categories identified in the Climate Action Bond Framework, a new eligible category (i.e. the "Retrofit of gas transmission network") has been included to capture activities carried out with the aim to adapt Snam's gas network to be ready to transport a certain increasing percentage of hydrogen and/or other low-carbon gases, in line with what stated in the EU Taxonomy.

Use of proceeds

The proceeds of the Climate Action and Transition bonds will be used to finance or refinance, in whole or in part, existing and/or future Eligible Projects.

For the purposes of this section, "Eligible Projects" mean Carbon & Emission Reduction, Renewable Energy, Energy Efficiency, Green Construction Projects and Retrofit of Gas Transmission Network which meet a set of environmental criteria, approved by Snam's Climate Action and Transition Bond Committee ("Committee") and, where applicable, a reputed Second Party Opinion provider.

4 Available at: <u>https://www.snam.it/export/sites/snam-rp/it/investor-relations/debito_credit_rating/</u> file/Transition-bond-framework-2020.pdf

Carbon & Emission Reduction Projects	 Infrastructure, equipment, technology, systems and processes that demonstrate a reduction in energy use/losses and reduction in emissions in industrial facilities. Examples of investments include, inter alia: a. replacement of old generation boilers ("heaters") with more efficient boilers ("Skids") with an expected nominal energy saving of at least 15% and a reduction of methane emissions of around 5,400 standard cubic meters for each plant; b. revamping of the network connection nodes, with the replacement of gaspowered pneumatic instrumentation with electrically driven instrumentation; c. replacement of turbo-compressors with latest-generation machines yielding an expected reduction in NOx emissions of at least 75¹%; d. electrification of compressor units²: replacement of turbo-compressors powered by gas with electric machines resulting in the elimination of natural gas use and leading to an expected lower consumption of gas at least of 4 million standard cubic meters and to expected savings in terms of NOx emissions of at least 35 tons per year; and e. installation of Leak Detection System which allows a real time monitoring of the network and a timely intervention in case of significant gas leaks. The system locates the CH₄ leakage and can significantly reduce the time for intervention. f. replacement / renovation of valves, control and command devices, pneumatic actuators and instrumentations etc. with an expected reduction in natural gas emissions at completion of the interventions of at least 20%. 	9 MPRESE NFRASTRUITURE NFRASTRUITURE 11 STOTEMBRU 13 LOTTA CONTINUE LEAMBLANETO CONTINUE
Renewable Energy Projects	Acquisition and development of biomethane plants and upgrading of existing biogas plants, in Italy and abroad. Both greenfield and revamping projects will have biomass sustainability and greenhouse gas emission reduction criteria laid down in the Renewable Directive as fundamental pillars. Biomethane supply chain can deliver very high decarbonisation effects while preserving biodiversity and food security ³ .	7 ENERGIA PULITA ACCESSIBILE CONSTRUCTION OF INFORMATION INFORMATION INFORMATION INFORMATION INFORMATION

In case of replacement of gas powered turbo-compressors. In the case of Brugherio plant, the replacement of an old electric-compressor with latest-generation machine has a positive environmental impact in terms of flexibility of the system. The electrification of compressors units strongly contributes to reach the target of -40% of direct CO₂ emissions by 2030. 1

²

In particular, the energy conversion of agricultural residues such as manure can avoid CHG emission from cattle breeding allowing in some cases to reach a car-bon negative effect. Advanced agricultural practices such as "biogasdoneright" implemented in order to supply anaerobic digestors with non-food sustainable 3 secondary energy crops can both ameliorate the carbon sequestration capacity of agricultural land and mitigate the soil erosion phenomenon. In addition, the circularity concepts behind "biogasdoneright" practices considers the digestate as a biological fertilizer that can substitute chemical fertilizers obtained from fossil sources.

Energy Efficiency Projects	 Energy efficiency projects for Snam's corporate facilities or supply chain. Examples of investments include, <i>inter alia</i>: a. replacement of traditional lamps with LED lamps, with an expected nominal energy saving of at least 40%; b. acquisition of (i) up to 100% of the capital of the Energy Service Company ("Esco") TEP Energy Solution, one of the leading Italian companies in the energy efficiency sector with more than 200 customers including leading Italian companies and multinationals, and (ii) potential future acquisitions of companies in the energy efficiency sector; c. energy efficiency solutions for industrial plants; and deep renovation for real estate segment (residential and tertiary) including implementation of energy management systems.
Green Construction Projects	 Development and maintenance of conservation areas, natural capital preservation and the development and maintenance of green areas/buildings. For example: a. construction of new buildings which are expected to receive at least LEED "Gold" or at least BREEAM "Excellent" certification; and b. renovation of buildings leading to an annual energy use reduction of at least 30% of per m² basis.
Retrofit of gas transmission network	 Activities and projects carried out with the aim to adapt Snam's gas network to be ready to transport a certain increasing percentage of hydrogen and/or other low-carbon gases, coherently with what stated in the relevant EU Taxonomy. Examples of projects include: a. Research and development (studies and pilot projects) for green gases transportation and storage b. Replacement of already existing pipelines with new <i>certified hydrogenready</i>^A pipelines, in order to enable the integration of hydrogen and other low-carbon gases, while maintaining at the same time the current network operating and safety standards. For avoidance of doubt, gas network expansion is excluded.

4 For *certified hydrogen-ready* Snam means SNAM internal standards ("GASD") coming from the implementation of international standards currently available. Design and construction of all SNAM network are based on these standards including company's know-how. The SNAM's network ''hydrogen-ready" is based on the ASME B31.12' ''Hydrogen Piping and Pipeline'' standard. GASD remain unchanged for H2NG mixtures up to H2 100% in volume. These standards regulate design and construction phases of new gas network.

Projects evaluation and selection

At issuance and on an annual basis the Snam Finance Department determines the proceeds of the Climate Action and Transition bonds not yet allocated ("Unallocated Proceeds") and sends a request to the Committee asking for Eligible Projects to be funded over the next 12 months, up to an amount equal to the Unallocated Proceeds.

The Committee, based on the criteria set in the Use of Proceeds section of the Transition Bond Framework, address the requests to the Relevant Functions and provides them the guidelines for the selection of the projects. The Relevant Functions select the Eligible Projects, using the criteria set forth in the Use of Proceeds section of the Transition Bond Framework and following the guidelines provided by the Committee, and indicate the capital expenditures expected over the next 12 months.

The Committee is responsible for approving (or rejecting) the Eligible Projects contained in the list provided by the Relevant Functions.

Internal Reporting

On a quarterly basis, the finance department collects, aggregates and shares information related to all Eligible Projects funded with the Committee and in particular, the current funded amounts and a relevant focus on relevant changes quarter by quarter. In case a change raises, the committee is promptly informed.

On a yearly basis, this information collected about the eligible projects is reported in the annual reporting process.

Verification – External review

An external and independent certification entity analyses the information included in the Climate Action and Transition Bond Report, in coherence with the previous Climate Action Bond Report published in February 2020⁵, and releases the Annual Climate Action and Transition Bond Report Assurance (in accordance with ISAE 3000), until all the bonds proceeds are allocated in full.

5 Details on the Climate Action Bond Report 2020 available at: https://www.snam.it/export/sites/snam-rp/it/investor-relations/debito_cred-it_rating/file/07_20_snm_climate_action_final.pdf

Use of proceeds and Environmental Benefits

At the date of this report Snam has an overall 2.35 billion euro of Climate Action and Transition bonds outstanding of which 750 million euro raised after 2020 year-end. In the next months, the amounts raised on the capital market not yet allocated will be used to finance or refinance, in whole or in part, existing and/or future Eligible Projects identified under the five eligible categories of the Transition Bond Framework updated in June 2020 while the amount unallocated is expected to be invested in the next few years and, until the full allocation, the company will hold funds in cash and cash equivalent or repay the outstanding debt. However, the company is committed to allocate to eligible projects an amount equal to the CAB's proceed.

Following the update of the Framework the **eligible projects identified and financeable at 31 December 2020 amount to ca. 3.7 billion euro** thus leaving a considerable buffer for over the bonds already issued. The amount of projects to be financed has increased for ca. 3 billion euro compared to the amount reported in the 2020 Report of which, in coherence with the figures reported in the Business plan 2020-24 presented in November 2020, ca. 2.3 billion euro is related to the fifth category added to the framework (namely "Retrofit of gas transmission network").

As of the end of 2020, out of 1.6 billion raised ca. 60% (vs. 48% in 2019) have been allocated to eligible projects equal to ca. 965 million euro (vs. 235 million euro in 2019) of which ca. 47% related to the fifth category. As figures below show the "Retrofit of gas transmission network" represents the largest category with a consistent amount to be financed.



Eligible projects identified under the five categories

Amount allocated at 2020-end



Below the detail for each category of the framework at the end of 2020 both in terms of amount already allocated and the environmental impact reported or expected.

Bond issued before 12/2020	ISIN	Date of issuance	Original tenor	Size (m€)	Coupon p.a.	Allocated (m€) 12/2019	Allocated (m€) 12/2020	Allocated (%) 12/2020	Category of the framework
Climate Action bond	XS1957442541	21/02/19	6.5 years	500	1.25%	235	410	82%	Carbon & Emission Reduction; Reneawable Energy; Energy Efficiency; Green Construction.
Transition bond	XS2190256706	10/06/20	10 years	500	0.75%	-	475	95%	Carbon & Emission Reduction; Reneawable Energy; Energy Efficiency; Green Construction; Retrofit of gas Transmission network
Transition bond	XS2268340010	30/11/20	8 years	600	0%	-	80	13%	Carbon & Emission Reduction; Reneawable Energy; Energy Efficiency; Green Construction; Retrofit of gas Transmission network
				1,600		235	965	60%	

1. Carbon & emission reduction projects

The category includes those identified investments which aim at reducing the greenhouse gasses emissions, energy consumption and the CH₄ and CO₂ emissions related to the company's industrial assets.

Investment category/ description	Description of the investments	Funded amount at the end of 2020 (€000)	Environmental Performance indicator (A or N) ¹	Environmental benefit
Replacement of old generation boilers ("heaters") with more	Within 2022, 84 heaters will be replaced, with a total thermal capacity of 99 MW	26,578	N - Energy saving expected at the end of the activity	15% ²
efficient boiler units ("Skids").			N - Methane leakages avoided	1.5 MSmc³/year
Revamping of the equipment at the network's main connection nodes	Replacement of gas powered pneumatic instrumentation with electrically driven instrumentation - Expected within 2021	2,610	A - Methane leakages avoided	742,000 Smc/year
Replacement of turbo-compressors	The activity consists in the replacement of turbo-compressors with latest-generation machines powered by gas	69.420	N - NOx lower emissions	80%
with latest-generation machines		06,430	N - Methane usage avoided	124,000 Smc/year
Replacement of gas-powered turbo- compressors with electric powered compressors	The replacement of turbo-compressors powered by gas with electric machines will allow lower consumption of gas	29,100	N - Lower consumption of fuel gas	101.7 MSmc expected at 2030
Installation of Leak Detection System for a real time monitoring of the network and substitution of	The pressure monitoring system allows to detect leakage of natural gas and promptly intervene	4,285	N - Avoided methane emission	1.4 MSmc/year
Replacement/ renovation of valves, control and command devices	Replacement of the valves with pneumatic actuators with valves with electric actuators and of control and command devices for globe valves with a monitor function (about 460 positioners)	18,390	A - Methane leakages avoided	10.3 MSmc

1 "A" is used when the environmental benefit has been identified on an actual basis or can be assessed with a random sample data collection, while "N" stays for those projects for which the environmental cannot be assessed on an actual basis but it can be deducted exclusively by the constructor's information.

2 The value does not factor in the level of obsolescence of the old heaters, indeed assuming a certain degree of obsolescence vs nominal efficiency of the heaters at the end of the useful life to be replaced the energy efficiency would be comfortably above 15%.

3 Smc stands for Standard cubic meter, i.e. the amount of gas stored in 1 cubic meter at standard conditions of temperature (15 °C) and pressure (1013.25 millibars, i.e., atmospheric pressure). MSmc is the equivalent of 1 million standard cubic meters.

The Carbon & emission reduction category includes the projects which determine the achievement of the Emission targets reported in the Business plan 2020-24, namely -50% compared to 2018 CO_2 emissions as of 2030 and Net Zero Carbon as of 2040.

2. Renewable energy projects (biomethane)

Until the end of 2020, Snam has invested ca. 180 million euro in eligible projects falling within this category of which ca. 50% related to the direct acquisition of plants and company holding more than one plant and the remaining 50% for the development of biomethane plants or upgrading of existing biogas plants.

Within this category, eligible investments are plants mainly producing biomethane but also those plants producing biogas and ultimately electricity can be eligible as the production of renewable energies is also achieved.

Company	Location	Feedstock	Production	Expected/ Installed Capacity
Enersi Sicilia	Caltanissetta	Organic Fraction Municipal Solid Waste (OFMSW) ¹ and agricultural biomass	Production of biomethane expected by end 2021	30 GWh - 3.0 MSmc/year
Renewaste	Albairate	Organic Fraction Municipal Solid Waste (OFMSW)²	Production of biogas with conversion into biomethane	7.8 MSmc/year of biomethane capacity
	Tortona	Organic Fraction Municipal Solid Waste (OFMSW)²	Production biogas for electricity production, conversion to produce biomethane expected within 2021	8.4 GWh current installed capacity – 3.7 MSmc/ year of Expected Capacity
Iniziative Biometano (includes 15 plants)	The coverage of the 15 plants is homogeneously dispersed through Italy	Livestock Manure and Agricultural By-products	Infrastructures for the production of electricity from biogas. Prospected conversion of the biogas production infrastructures to biomethane	39MW ³ equivalent to a biomethane production of more than 80 MSmc/year

1 Origin of the feedstock expected to be 100% from the region.

2 For both the plants the origin of the feedstock is ca. ³/₄ from north of Italy and ca. ¹/₄ from the south.

3 Cumulated production over the 15 plants.

Over the next years, Snam will invest ca. 220 million euro in operating investments for the development of Biomethane production as reported in the Business Plan 2020-24, presented in November 2020, and with a 64MW of installed capacity target (+22 vs previous plan) of which c. 20MW already authorized.

3. Energy Efficiency projects

The category includes investments for (i) the energy efficiency of the current Snam's assets and (ii) the acquisition of ESCo companies and (iii) the financing of specific projects within ESCo companies hold by Snam with the aim to support the development of the entire Italian energy efficiency sector for residential, industrial and tertiary segments.

Investment category/ description	Description of the investments	Funded amount at end-2020 (€000)	Environmental Performance indicator (A or N)	Environmental benefit
Replacement of traditional lamps with LED lamps	Substitution and installation of LED lamps on Snam's assets	2,707	N – Estimated energy saving on an annual basis	40% equivalent to 1107 MWh
Acquisition of ESCo companies	Acquisition of TEP Energy Solution, TEA and Mieci & Evolve	83,589	Companies operating in the energy efficient sector for residential, industrial and tertiary business solutions	
Financing of TEP/TEA's Residential Business (deep renovation for real estate sector)				2,342 ¹ ton CO ₂ avoided annually
Financing TEP/TEA's Industrial Business (Energy Performance Contracts for energy efficiency solutions)	Investing in ESCo companies hold by Snam for supporting the development of the energy efficiency market	51,761	A – Avoided CO ₂ emissions both direct and indirect (raw materials transport and extraction)	1,547² ton CO₂ avoided annually
Financing TEP/TEA's Tertiary Business (Energy Performance Contracts for energy efficiency solutions)				6,8213 ton CO ₂ avoided annually
Financing Mieci & Evolve	Investing in ESCo companies hold by Snam for supporting the development of the energy efficiency market	9,516	A – Avoided CO ₂ emissions both direct and indirect (raw materials transport and extraction)	3,700 ³ ton CO ₂ avoided annually

The calculation of the impact is based on the average energy saving applied to the total interventions within the company portfolio completed between 2019 1 and 2020.

2

The amount factor in direct and indirect emissions calculated on the back of actual energy saving reported for each plant. The calculation is based on (i) the effective energy purchased in 2020 for the plants, (ii) the back-log already made efficient, and (iii) the percentage of average 3 incremental tep/CO2 saving.

4. Green Construction projects

This category includes projects addressing the development and maintenance of conservation areas, natural capital preservation and the development and maintenance of green areas and Snam's buildings.

At the end of 2020, the proceeds allocated are ca. 21 million euro equal to ca. 20% of the total amount expected to be invested in the green construction projects. 9 out of 13 projects are related to deep renovation and energy efficiency⁶ of Snam's building which are responsible for a cumulative **reduction of the impact on the environment for ca. 184 ton/CO₂eq** per year as the result of the energy saving following the interventions. At the end of the projects, it is envisaged an improvement by at least two energy classes.

The remaining projects are related to new buildings which are in progress and the completion is planned in the next few years. For these projects LEED certificates and B/C energy classes are expected. Finally, also the redevelopment of green area of Minerbio compressor station is financed.

5. Retrofit of gas transmission network

This category includes investments in (i) Research and Development on green gas transportation and storage activities with the aim of assessing the full compliance of Snam current assets to hydrogen and ii) replacement of already existing pipelines with new certified hydrogen-ready⁷ pipelines. The hydrogen readiness of new replaced pipelines is determined by considering technical features that new pipelines have, as they are tested on several operational scenarios. The retrofit of gas transmission network accounts for ca. 60% of the total eligible projects in the updated Framework. At the end of 2020, within this category, 22 replacement projects have been identified of which only 6 are expected to be started in the coming months. The extension of pipelines that will be replaced

over the next four years is expected to be 1.170 km overall, as also reported in Snam Business Plan presented in November 2020. At year-end 2020, **ca. 460 million euro have been allocated and 53 km of hydrogen-ready pipelines have been already replaced and entered into**

operation. Out of the total amount allocated ca. 40% is related to two major projects while top-ten relevant projects account for ca. 2 billion euro of total eligible projects.

⁶ The main interventions are exterior insulation, condensing boilers and heat pumps, photovoltaic plant and LED lamps.

⁷ For hydrogen-ready pipelines Snam means SNAM internal standards ("GASD") coming from the implementation of international standards currently available. Design and construction of all SNAM network are based on these standards including company's know-how. The SNAM's network "hydrogen-ready" is based on the ASME B31.12' "Hydrogen Piping and Pipeline" standard. GASD remain unchanged for H2NG mixtures up to H2 100% in volume. These standards regulate design and construction phases of new gas network. For more details, see the case study "Retrofit of gas transmission network projects: qualification of H-ready pipelines".

Case studies of selected projects

Carbon & emission reduction projects: Revamping of Malborghetto station and in-line plants

The compression station of Malborghetto has been realized to allow the import of natural gas from Russia, and its delivery through the Italian network of gas pipelines. At present, it is equipped with:

- 2 compression units (TC1 e TC2) composed by a gas turbine, type NP-FR 3R, with centrifugal compressor, type NP-PCL802-1/30. These compression units (realized in the '70s), due to their elevate range of emissions of NOx and CO, have been restricted to operate for a maximum of 17500 hours each, starting from the 1st January 2016 to the 31st December 2023. After this date, they will have to be dismantled.
- 2 compression units (TC3 e TC4) composed by a gas turbine NP-PGT25 DLE, coupled with a centrifugal compressor NP-PCL 603-2
- 1 compression unit (TC5) made up of a gas turbine NP-PGT25 DLE, coupled with a centrifugal compressor NP-PCL 603-1

The implementation of the Project "Revamping of Malborghetto station and inline plants" will allow to completely renew the following parts of the implant of the station, those which are more in need of urgent actions considering their obsolescence, and in order to keep on respecting the Snam Rete Gas internal codes and standards related to reliability levels of the network operability:

- Replacement of the compression units (TC1 e TC2) with 2 brand-new units of ca. 11MW, composed by an electric motor and an integrated centrifugal compressor, characterized by zero NOx and CO emissions.
- The choice of these electric integrated units will allow, on one side, the installation of a brand-new technology and, on the other side, the reduction to zero of the emissions released into the atmosphere.
- These new electric compression units will require, to be powered, a new connection with the Terna electricity grid, which in turn will imply the design and realization of a new Switching Station powered at 132kV, and a Distribution Substation reducing the voltage from 132 to 20 kV, together with their relative connections in HV (high voltage) and MV (medium voltage);
- Revamping of all the aged instrumentation, of the protection and control system, of the switchboards and of the auxiliary systems with those adequate to allow the installation of these 2 electric compressors
- Upgrade of both the piping and the auxiliary implants of the station, linked to the gas transportation network, in order to adequate them to the transport regimes
- Replacement of current all the gas-powered Actuators, with Pneumo-Electric-Hydraulic ones, which will allow the reduction of pneumatic emissions in the atmosphere.

Activities planned to date, following the authorized MAP:

- 2019-2020 Engineering Main Permits
- 2021-2022 Procurement Materials and Construction
- 2022-2024 Construction (commissioning and end-over of these two new units forecasted for December 2024).

Renewable Energy project: the Enersi plant

Enersi Sicilia is an innovative project that involves the recovery of the organic fraction of solid urban waste (the Italian acronym is "FORSU") through the construction of a biomethane production plant and quality compost. The biomethane produced will be inserted in the network as a renewable energy source while the compost will be used as a natural fertilizer to replace chemical fertilizers.

Snam4Environment, a wholly-owned subsidiary of Snam, was involved in the operation. The conclusion of the first phase happened in November 2018, with the acquisition of a company vehicle holding an authorization to build and operate a biomethane-powered production plant of FORSU.

Construction works began in December of the same year and, from the last update on their state of progress, they should end with the introduction of biomethane in Snam networks by Q4 2021, despite some slowdowns due to an appeal to the TAR introduced by some local committees.

The numbers of the project

The plant will be able to recover around 36,400 tons/year of FORSU and will contribute to improve the efficiency of the waste management system of the Province and of the Region by favouring the reduction of the environmental impact through a lower use of landfills and waste transport outside of the Region, and therefore also reducing costs for the municipality and the citizens.

The key numbers of the project:

- Project investment: 19,6 M€
- Approximately 3.0 Mmc/year of biomethane (corresponding to an annual energy production of approximately 30 GWh) produced equal to:
- approximately 2.800 families served for one year with the biomethane produced, or
- approximately 570 cars a day fed with the biomethane produced, or
- over 3.500 equivalent tons of oil saved per year
- Approximately 12.000 tons/year of compost produced, intended for agronomic use and replacing chemical fertilizers

What are the advantages for the territory, thanks to the Enersi Sicilia plant?

The main and immediate advantages for the territory are given by:

- Employment and skills generation: at least 8 permanent and qualified jobs;
- Investments on the territory: economic return on local companies, which will be involved in the construction, support and supply phase of the plant;
- Savings for the citizens and/or the municipality in terms of transfer tariffs to the Enersi Sicilia plant: the construction of the plant within the Caltanissetta basin will reduce the distances travelled by the vehicles that are transporting today the organic waste produced locally outside the province, minimizing the long-range vehicle traffic, and therefore the logistics costs attached to it. Consequential improvement also on the relative atmospheric emissions of the vehicles mentioned above.



Energy efficiency project: TEP Energy Solutions

TEP Energy Solution is one of the main Italian Energy Service Companies, in charge of energy efficiency operations by offering case-based solutions aimed at reducing companies' economic and environmental cost. In 2020 Snam concluded the acquisition of 100% of TEP's capital, to favour the decarbonization of the country and a better use of energy in the areas where it operates.

TEP's mission is to contribute to the energy transition helping its customers to reduce their environmental footprint both through energy efficiency solutions and tree planting in urban areas.

The main strengths of TEP Energy Solution are technological independence, investment capacity directly to customers' projects, an R&D team dedicated to scouting of technological solutions, and large operational and contractual flexibility.

Amongst TEP Energy Solution's successes, it is important to note that 2 million tons of CO₂ were avoided thanks to the totality of their projects (the equivalent of 100 million trees planted), it has been accredited in the Italian energy services manager (the English translation of "gestore dei servizi energetici GSE S.p.A.") since 2006, it has accumulated over 200 clients, and it handles over 1.5 million white certificates.

As a company operating in the energy efficiency business, the commitment for sustainability and decarbonization is at the core of the TEP's business strategy. Besides this, TEP developed a special attention for the regeneration of cities and it is committed to create with continuity urban woods which are functional both against air and noise pollution and as leisure spaces for local communities.

TEP's sustainability strategy fits into the Snam's one, which acknowledges a company's success through a combination of economical, environmental and social factors addressing all the stakeholders' requests. With the adoption of its new business strategy, Snam aims to be a reference point for the Italian and European path towards decarbonization.

TEP Energy Solution has envisioned various energy efficiency projects, either for companies, for the public administration, and for condominiums. The following meaningful projects will be explored in detail: CasaMIA, Energy Performance Contract, Nearly Zero-Energy Buildings and ambitious photovoltaic efforts.

CasaMIA

CasaMIA (Italian for "my home") is TEP's complete solution for the energy requalification of condominiums. It is an organic program of intervention project that finances itself with the energy consumption savings (up to 70%) and with a certified tax credit, while at the same time increasing the residential building's comfort and the wellness of the people. Moreover, CasaMIA project helps Italian condominiums to reduce their environmental impact, increase their value (up to 15%) and contribute to the city well-being thanks to the planting trees activity specifically supported by the project.

A successful example of the CasaMIA project was completed in August 2019

in the suburbs of Crotone. After only a couple of months, TEP Energy Solutions managed to renovate radically a condominium by providing and installing the outer vertical coat in expanded polystyrene, stapled with steam. **The sum of the energy saved by the building was 31%.**

Sustainable Energy Program

The Sustainable Energy Program assists companies to develop new strategies allowing a more sustainable use of the natural capital – an innovative and sustainable path to increase their energy and social – environmental performance.

This program is meant to offer long term solutions useful for the industrial planning of customer companies.

Tep, investing along with its customer, manages all the energy related topics and helps companies to take strategic decisions and sustainable planning (ESG).

The Sustainable Energy Program's purpose is to identify an Action Plan to be developed in the following steps:

- Operational: aiming to improve the energy and emission performance of the customer company
- Managerial: aiming to sustain the continuous improvement of the customer company's performance
- Communicational (knowledge): aiming to improve the customers company's ability to communicate the determinants of the decision-making processes.

TEP Energy Solution's first Nearly Zero-Energy Buildings

In 2020 TEP Energy Solution has initiated the deep renovation of two residential complexes in Ponte di Legno (BS), hence developing its first "Nearly Zero-Energy Buildings", i.e. buildings that, thanks to the technologies and materials employed, consume very little energy and are able to generate the amount they need directly on site, from renewable sources.

The intervention is part of TEP's commitment to support renovation of urban centres and the overall economic and social development of territories, also through the involvement of local businesses. The project concerns 80 real estate units for a value of 15 million euro and is allowing the recovery of an area with a strong tourist vocation, that was structurally compromised. The buildings, dating back to the first half of the 1970s, will be rebuilt according to the new anti-seismic legislation and will be subject to further improvement interventions: acoustic insulation, removal of architectural barriers to enhance accessibility, renovation of the surrounding areas and reduction of the landscape impact.

In the post-intervention configuration, the buildings will fall within the A4 energy class, the highest existent under current law. From the energy point of view, a thermal coat and integrated photovoltaic systems will be installed, as well as the connection to the city district heating network. The interventions will benefit from the Sismabonus and Ecobonus fiscal incentives, thus allowing a substantial saving in the investment costs.

The renovation plays a strategic role also for the tourist value of Ponte di Legno, a well-known locality in Valcamonica (Brescia) and one of the main towns in Lombardy: part of the Adamello Park, the town is a destination for quality tourism in both winter and summer. The complexes involved in the project are located near touristic and accommodation destinations, such as ski slopes, as well as next to the future headquarters of the Terme di Ponte di Legno, which is to become one of the main attractions of the whole Camonica Valley.

The project has been made possible thanks to the CasaMia (MyHouse) program developed by TEP to support residential buildings in increasing their energy efficiency and seismic sturdiness through fiscal stimuli.

TEP Energy Solution's Ambitious Photovoltaic Efforts

In 2020 TEP completed a large-capacity photovoltaic power station for a major Italian company active in the transformation of high-tech metals for the automotive sector.

The project is an important example of the potential of distributed generation and self-consumption. Namely, it has led not only to considerable economic savings for the company – thanks to the reduction of energy withdrawals from the grid and to the ability to sell energy on it – but also to an important downsizing of its carbon footprint – thanks to the reduction of polluting emissions. The company will in fact be able to sell to the grid almost 15% of the generated energy and will avoid the emission of about 1.000 ton of CO₂ into the atmosphere per year.

The power station, installed on the roofs of the Prealboino (BS) plant, enjoys a relevant size with an extension of over 20,000 square meters, almost 3 football fields, and represents a very ambitious investment for the Italian renewable energy sector, adding up to about 3% of the annual market.

TEP will also support the customer in the ordinary and extraordinary maintenance of the power station for the next 20 years in order to ensure its optimal energy performance.

The project has been developed thanks to the Sustainable Energy Program created by TEP to guide companies, through a continuous improvement approach, in increasing the energy efficiency of their operations, all the while minimizing their environmental footprint.



Retrofit of gas transmission network projects: qualification of H-ready pipelines

In the transition to a net zero-emission economy and, later on, in a fully decarbonized world, **hydrogen in combination with renewable electricity will play a major role among energy sources**. Hydrogen, the first element of the periodic table and the most abundant in the universe, is present, combined with other elements, in compounds such as water or minerals, hydrocarbons and biological molecules. Hydrogen is not present in nature in its essential form. However, it can be produced through a wide range of chemical and physical processes proving to be a "game changer" for energy transition.

In July 2020, 11 EU gas infrastructure companies, including Snam, published the *European Hydrogen Backbone*. The paper describes how a dedicated hydrogen infrastructure is required in the next decades as a rapid scale up of renewable power for direct electricity demand will provide a basis for renewable green hydrogen supply, especially from the late 2020s onwards.

By 2030, green hydrogen production capacity may reach 40 GW, as is the ambition stated in the European Hydrogen Strategy. This capacity could produce around 100 TWh of renewable hydrogen within Europe. Such scale-up will require largescale first-of-a-kind projects, e.g. around the North Sea and in Spain. In addition, 80 TWh blue hydrogen may be created by 2030, including retrofitted grey hydrogen production plants as well as newly built blue hydrogen facilities. Whereas blue hydrogen production will likely be located near hydrogen consumers, green hydrogen will be destined to consumers and off-takers located elsewhere, requiring dedicated transport routes already from the late 2020s onwards, which can be provided by the emerging backbone.

The hydrogen will need to be transported, distributed and stored before it gets to the consumer. With regards to transport, pipelines are the most convenient way to access large amounts of renewable hydrogen from distant locations.

Snam is among the first affirmed supporters on the usage of hydrogen in a low carbon economy as an energy vector, due to the foreseeable cost reduction, and also the interest of institutions and policymakers.

On the back of the long term strategy, Snam is focused on three key areas which are managed by a dedicated Business

Unit, recently set up:

- a. Ensuring that Snam's asset is «hydrogen ready», and can accommodate growing blends⁸;
- b. Understanding how the transition to hydrogen will work – the overall potential, where supply and demand might be localized, what infrastructure will be required for the hydrogen market to take off, and where, and also what sort of coordination is necessary;
- c. Developing hydrogen projects as pilot projects, potential partnerships and also opportunities to invest in leading technologies.

On the gas transmission network, a assessment of the H₂ readiness for existing pipelines has demonstrated that 70% of the piping is already 100% hydrogen-ready. As for the remaining portion of the network, in the context of the replacement activities to be carried out in the next years, procurement standards for mechanical components and pipes have already been defined. During 2020, Snam has also tested the world's first hybrid hydrogen turbine for blends up to 10% of hydrogen with natural gas and the first hybrid turbine will be installed at Snam's gas compressor station in Istrana by 2021. On storage activities, 2% blending is technically acceptable within storage sites, without requiring any interventions. The key question mark on storage sites is geological features on which studies are being conducted also in coordination with primary Italian Universities.

8 To date, studies suggest pipelines can accommodate high percentages of hydrogen with limited adjustments. Recently, Snam has tested the impact of a 10% blend on existing turbo-compressors, and scouting the market for machines which can reach higher percentages. Membranes to separate different gasses before the final delivery are also interesting because of the flexibility they provide to the network.

European Hydrogen Backbone

HOW A DEDICATED HYDROGEN INFRASTRUCTURE CAN BE CREATED

JULY 2020

Enagás, Energinet, Fluxys Belgium, Gasunie, GRTgaz, NET4GAS, OGE, ONTRAS, Snam, Swedegas, Teréga Over the next years, Snam will be involved in the replacement of 1.170 km of gas pipelines which will contribute to increase the portion of network already hydrogen ready. On the right side, a map of Italy represents where Snam is investing in terms of pipeline replacements. A complete overhaul of the eastern backbone plus more connections to the central backbone. As just mentioned, every pipeline is being built in respect of the newly approved standards (GASD) based on ASME B13.12 "Hydrogen Piping and Pipeline". Every new pipeline will be built in accordance to these standards to be able to accept hydrogen up to 100% of the H₃NG mixture.

Hydrogen is expected to play an even bigger and earlier than expected role in the future for the national and European energy system decarbonization. Hydrogen could provide almost one quarter of all energy in Italy by 2050, biggest potential is in transport, residential and industrial applications.

Italy is particularly well-suited for hydrogen thanks to its excellent natural resources to generate renewable power, and its existing gas infrastructure network – including the connections to North Africa, with low-cost hydrogen to break-even before 2030 – earlier than other European markets.

The perspective on hydrogen outlook has changed significantly in the last months at European level. The European Commission is committed to define enhanced objectives and regulatory framework for hydrogen and support its value chain development, while several European countries (e.g. Portugal, Germany, Netherlands) already released their national plans to structure the hydrogen deployment. In such context, Snam is actively contributing in the national and European debate and decision-making process, with its expertise as energy infrastructure owner and system operator.

This report is approved by the Climate Action and Transition Bond Committee on behalf of Snam.



Assurance letter (Third Party Opinion)



SNAM – Climate Action and Transition Bonds Report 2021 Independent Assurance Statement

Introduction

DNV GL Business Assurance Italia Srl ("DNV GL"), was requested by SNAM SpA ("SNAM") to carry out an annual assurance on the Climate Action and Transition Bonds Report 2021 ("Report 2021"), covering the management of proceeds, projects and assets that were financed through the proceeds of the bonds eligible according to the Climate Action and Transition Bond Framework ("Framework"). In particular, the application by SNAM of the "environmental criteria" and of the "use of proceed criteria" in the financing of the investments of the year 2021 (and previous 36 months) was the main subject of this independent evaluation.

Our responsibility in performing the work commissioned, in accordance with the terms of reference agreed on with SNAM, is solely towards SNAM's Management. This independent assurance statement is intended solely for the information and use of SNAM's stakeholders, and is notintended to be and should not be used by anyone other than these specified parties.

Scope of Assurance

We have carried out our work to provide a limited independent assurance on the information related to financed projectsof the 2019 Climate Action Bond and three Transition Bonds issued by SNAM, the first two in June and November 2020 and the most recent one in February 2021 contained in the Report 2021 of SNAM and prepared in accordance with the document named "SNAM Transition Bond Framework" dated on June 2020. This engagement considers alignment of the SNAM Transition Bond Framework with the ICMA Climate Transition Finance Handbook 2020.

The aspects of the information subject to our review are the following:

- net proceeds of the Transition Bond finance or refinance eligible projects in categories as per the Framework;
- the process for projects evaluation and selection;
- the rules for the management of proceeds;
- reporting on the allocation processes of the net proceeds of Transition Bond and the KPIs defined to monitor the . eligible projects performance.
- the issuer's climate transition strategy and governance;
- the business model environmental materiality;
- that the transition is science-based including targets and pathways;
- the implementation transparency of the proposed transition.

Responsibility of Management

SNAM's Management is responsible for the preparation, content and presentation of the Report 2021, in accordancewith the requirements of the Framework in which the allocation of funds, the categories of eligible projects and the KPIs described. Management's responsibility includes establishing, implementing and maintaining the internal control required to ensure that the information included in the Report 2021 is free from any material misstatement due to fraud or error. SNAM's Management is also responsible for defining, implementing, adapting and maintaining the management systems form which the information required to prepare the Report 2021, is obtained.

Our Responsibility

Our responsibility is to issue a limited independent assurance evaluation based on the procedures that we have carriedout and the evidence obtained. Our limited independent assurance was done in accordance with the ISAE 3000 "Assurance Engagements other than audits or reviews of historical financial information", issued by the International Auditing and Assurance Standards Board ("IAASB") of the International Federation of Accountants ("IFAC").

The procedures that we have carried out are based on our professional judgment and have included consultations, observation of processes, document inspection, analytical procedures and random sampling test. The general procedures employed are descried below:

- meetings with SNAM and SNAM Foundation personnel involved in the preparation of the Report 2021 in order to understand the characteristics of the projects financed by the bonds, the internal management procedures and systems the data collection process and the KPIs control;
- analysis of procedures used by SNAM to gather & validate the information and data presented in the 2021 Report;
- verification of the traceability of the funds obtained through the bonds to finance projects and verification that the investments undertaken by SNAM in the projects financed have been made in accordance with the criteria defined within the Framework:
- verification through random sampling tests revisions and substantive tests of the information related to qualitative and quantitative KPIs. We have also verified whether they have been appropriately compiled from the data provided by SNAM's sources of information.

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Conclusions

As a result of the procedures carried out, no matters or evidences have come to our attention which may lead us to believe that:

- the funds obtained through the bonds have not been assigned to the projects financed by them and that the capitalinvested in the financed projects is not attributable to the bonds;
- the selected projects disclosed in the Report 2021 have not been selected in accordance with what is indicated in the Framework;
- the KPIs contain significant errors or have not been prepared, in all their significant aspects, in accordance with what is indicated in the Framework and as indicated in the Report 2021 in relation to their calculation;
- the SNAM Transition Bond Framework is not aligned with the ICMA Climate Transition Finance Handbook 2020.

DNV GL's Competence and Independence

DNV GL is a leading provider of sustainability services, including the verification of green bond frameworks and reports. Our environmental and social assurance specialists operate in over 100 countries.

We have fulfilled our work in accordance with the independence requirements and other ethical requirements of the Code of Ethics for Professional Accountants of the International Ethics Standard Board for Accountants ("IESBA"), which are based on basic principles of integrity, objectivity, professional competence and diligence, confidentiality and professional conduct.

DNV GL was not involved in the preparation of any statements or data included in the Transition Bond Report 2021 except for this independent assurance statement. DNV GL maintains complete impartiality toward stakeholders interviewed during theverification process.

DNV GL expressly disclaims any liability or co-responsibility for any decision a person or an entity may make based on this independent assurance statement.

For and on behalf of DNV GL Business Assurance Italia S.r.l.

26th February 2021

Luigi Bottos Senior Consultant and Project Manager DNV GL Business Assurance Italia S.r.I.

Chiara Murano Senior Consultant DNV GL Business Assurance Italia S.r.l.

Mark Robinson Sustainability Manager and Reviewer DNV GL Business Assurance Pty Ltd.

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