METHANE GUIDING PRINCIPLES

Methane Guiding Principles Signatory Reporting

SNAM

May 10th 2021

COMPANY: **SNAM**

DATE: **May 10th 2021**

YEAR OF JOINING METHANE GUIDING PRINCIPLES: **2018**

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WORKING LEVEL REPRESENTATIVE: **Davide Scrocchi, Technical Division**

Principle One:
Continually reduce methane emissions

2020 completed activity	2021 intended activity
Snam has a multi-year programme (2018-2024) to reduce methane emissions for all its businesses (gas transmission, storage and regasification). Some initiatives are described below: • Leak Detection and Repair (LDAR) implemented on a regular basis from 2020; • Use of the gas in-line recompression technology, to recompress gas instead of venting it on the occasion of maintenance or construction works on the gas transportation network; • Use of hot-tapping technique for pipeline connections; • Pipeline pressure reduction at the lowest possible level on the occasion of maintenance activities or construction works; • Recovery of blowdown gas at compressor stations using permanent compressors; • Installation/replacement in pressure reducing stations of valves to reduce emissions from the condensate tank of filters (approx. 350 stations) and from the blowdown vents (more than 200 stations); • Replacement of gate valves with ball valves in compressor stations (station and compressor blowdowns); • Conversion of pneumatic controls to compressed air or to electrically controlled devices; • Replacement of high-bleed regulating valve control devices with low emission devices in pressure reducing stations. More details can be found in the MGP Best Practice Guide for Transmission, Storage, LNG Terminals and Distribution, where several Snam initiatives are presented as case studies: https://methaneguidingprinciples.org/best-practice-guides/. **In 2020 a reduction of 4.3 MScm of natural gas vs. 2019 was achieved (-10,9%), while the reduction vs. 2015 (base year) was of 14,8 MScm (-29,7%).**	Snam will continue implementing its multi-year programme, with a major focus on LDAR, which will be performed with its own personnel.

What are your organisation's total methane emissions?

2020 completed activity	2021 intended activity
In 2020 Snam total methane emissions from operated assets accounted for 34.96 MScm of natural gas (21.968 tons of methane): - 28,49 MScm from the transmission system (17.922 tons of methane); - 5,18 Mscm from storage (3.260 tons of methane); - 1,29 from LNG (786 tons of methane). The emission breakdown by source is: - Vented emissions: 7,19 MScm (4.503 tons of methane); - Fugitive emissions: 17,67 MScm (11.115 tons of methane) - Pneumatic emissions: 9,83 (6.184 tons of methane) - Unburnt: 0,26 MScm (165 tons of methane). To determine emissions, Snam has developed a methodology in co-operation with the US-Gas Research Institute and Radian, compliant with the European Marcogaz methodology, developed by the European Gas Industry. This methodology is integrated with a series of personalized emission factors determined through measures taken in field, on a representative sample of facilities, applying EN 15446 standard. Snam methodology is currently equivalent at a Tier 3 approach, according to IPCC guidelines.	Emission will be also reported through the OGMP 2.0 Reporting Framework, also including NOJVs.

Does your organisation report methane intensity? If so, please specify the intensity.

2020 completed activity	2021 intended activity
Snam has a KPI, defined as methane emissions per km of network. In 2020 the KPI was 0,55 Tons/Km, with a 23% reduction compared to 2015	The methane intensity for the transmission system will be calculated also in 2021, although we believe that this indicator is less representative for the midstream sector, rather than upstream.

Do you have a methane emission target?

2020 completed activity	2021 intended activity
Snam has an absolute target to reduce total natural gas emissions from operated assets (gas transmission system, UGS and LNG) by 45% by 2025 vs 2015, in line with the OGMP 2.0 recommended target. This commitment is also aligned with the Snam overall goal to become Net Zero Carbon by 2040. In 2020 we have achieved a 29,7% reduction vs. 2015, in line with the path towards 2025. This reduction was achieved through the ongoing implementation of the mitigation measures mentioned above. Snam also has a target to recover every year at least 40% of natural gas that can be potentially emitted from maintenance activities of the transmission system (on average over the last five years), and which is recovered with in-line recompression, hot-tapping, lowering pipeline pressure before venting and recovering blowdown gas with permanent compressors in compressor stations, instead of venting. In 2020 this target was achieved (49% of gas recovered on average over the last five years) These targets are included, among others, in our ESG scoreboard, which is monitored and reviewed annually.	Snam emissions in 2021 are expected to decrease in line with the path towards the -45% reduction target by 2025 vs 2015. At least a -25.1% reduction is expected.

Principle Two:
Advance strong performance across the gas supply chain

2020 completed activity	2021 intended activity
In 2020, Snam hosted together with ENI the Italian session of the MGP Outreach Programme. Snam international affiliates and key Italian distribution companies attended the course. In 2020 Snam has also organized several meetings with its international affiliates (Terega, Desfa, TAG, GCA, TAP, IUK), to share best practices and methane reduction strategies, and provide guidance for the implementation of OGMP 2.0 Framework.	Snam will continue to engage and collaborate with its NOJVs to provide guidance on methane emissions, also in accordance to the data collection requirement of the OGMP 2.0 Framework.

Principle Three:
Improve accuracy of methane emissions data

2020 completed activity	2021 intended activity
In 2020 Snam completed an additional in-field campaign started in 2018, to update fugitive emissions measurements in its facilities. The activity was carried out by an external contractor in accordance with UNI EN 15446, using a FID equipment (Flame Ionization Detector) and, in the case of an overflow, using a Hi-Flow equipment. In these three years of activity, over 180,000 components were measured. Based on this data, emission factors for fugitive emissions have been progressively updated.	New emission factors for some fugitive emissions sources, will be applied in 2021, resulting from the measurement campaign conducted in 2020. In 2021 Snam will define and start implementing an action plan to achieve the gold standard of the OGMP Reporting Framework, i.e. a path to move to level 4 and 5 of the Framework.

Principle Four:

Advocate sound policy and regulations on methane emissions

2020 completed activity	2021 intended activity
Snam is actively participating in different Working Groups and Task Forces at EU / international level (IGU, Gas Naturally, Marcogaz, GIE, CEN, GERG, just to mention a few). In particular, within GIE and Marcogaz, several reference European gas industry documents were developed with Snam support. Snam is also participating, together with the main European TSOs, in a GERG research programme on top-down methodolgies. Snam has also actively contributed to the preparation of the two MGP best practice guides issued in 2020 (one dedicated to the mid and downstream sectors and one for the identification, detection, measurement a quantification of methane emissions).	Snam will continue its active participation to the international Working Groups and Associations.

Principle Five:
Increase transparency

2020 completed activity	2021 intended activity
Snam activities to reduce emissions, targets and achieved results are disclosed in our Sustainability Report and in our Financial disclosure on Climate Change Report, which can be downloaded from: https://www.snam.it/en/Investor_Relations/Reports/Annual_Reports/index.html Snam is amongst the companies worldwide that has been recognized by CDP (formerly the Carbon Disclosure Project) for their commitment in the fight against climate change. In 2020, the company upgraded its own score in the sustainability index, ranking in the "Climate Change A List" which groups companies with best performance globally, one step ahead compared to the inclusion in the "A-List" obtained in 2019. Snam also provides maximum disclosure on the main environmental, social and governance aspects through an ESG scoreboard, including, as already mentioned, methane reduction targets. The ESG scoreboard can be seen at: https://www.snam.it/en/Sustainability/strategy_for_future/esg_scorecard.html In 2020 Snam joined OGMP 2.0 and participated to the working group that drafted the Framework. Snam is also currently participating to the OGMP Task Forces which are in charge to update the Technical Guidance Documents and the Reporting Template.	In addition to the existing reports, emissions data will also be shared with OGMP, according to the requested Reporting Template. Participation to the OGMP Task Forces and to the CDP will continue also in 2021.

Commentary:

Through the new 2020-2024 Strategic Plan, Snam has confirmed its role in energy transition, renewing and strengthening commitments and objectives striving for an increasingly decarbonized business and world. Methane emission reduction (-45% by 2025) is part of a more ambitious strategy, with a particular commitment to achieve carbon neutrality in its activities at 2040, with an intermediate reduction targets of -50% by 2030 compared to 2018 values for all direct (Scope 1) and indirect (Scope 2) CO_2eq emissions.