



GHG emissions – role of methane



Global greenhouse gas emissions by gas

Greenhouse gas emissions are converted to carbon dioxide-equivalents (CO₂eq) by multiplying each gas by its 100-year 'global warming potential' value: the amount of warming one tonne of the gas would create relative to one tonne of CO₂ over a 100-year timescale. This breakdown is shown for 2016.



F-gases (HFCs, CFCs, SF₆)

Carbon dioxide (CO₂)

Methane (CH₄) 17.3%

> Nitrous oxide (N₂O) 6.2%

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OurWorldinData.org – Research and data to make progress against the world's largest problems. Source: Climate Watch, the World Resources Institute (2020).

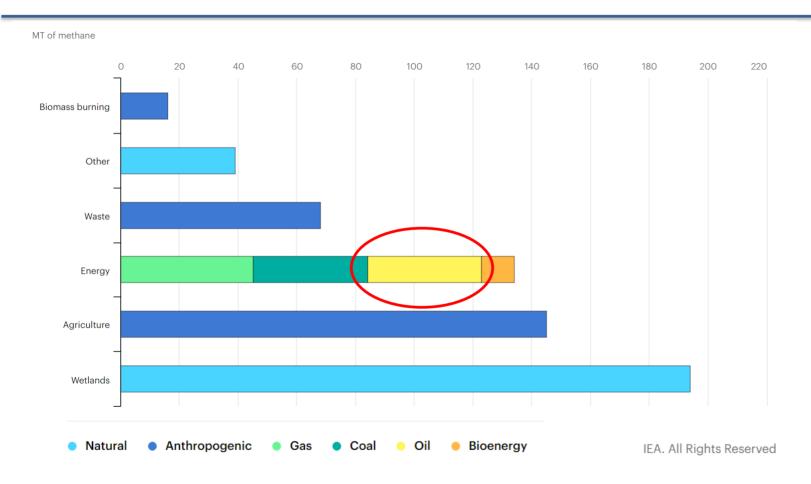
In Contracting Parties: CO_2 68-78% CH_4 13-20%

Methane:

Atmospheric life time 8-12 years GWP100 28-36 / GWP20 84-87

Methane emissions – role of oil industry (1)



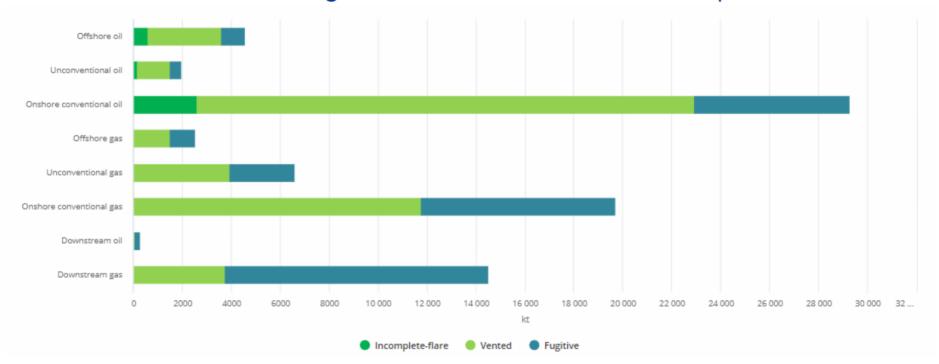


Methane emissions: 40% biogenic 60% anthropogenic

Methane emissions – role of oil industry (2)



Global oil & gas sector methane emissions: 79 Mt CH₄

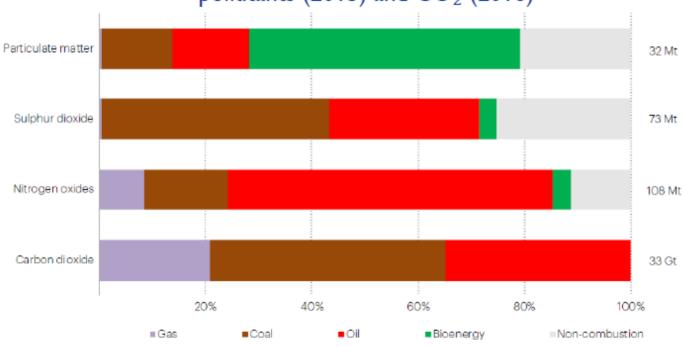


Source: IEA, Methane tracker; www.iea.org/weo/methane/database

Other emissions – role of oil industry



Share of gas in total energy-related emissions of selected air pollutants (2015) and CO₂ (2018)



Source: IEA Methane Tracker

Ongoing activities in the EU



June 2019 / **GIE& Marcogaz report** on methane emissions by EU **gas** system operators

October 2020 / EU Strategy on methane emissions

All three sectors covered: agriculture, waste, energy

Establishment of international methane emissions observatory (IMEO)

During 2021 / **Development of legislation**

For **gas** industry – mandatory **LDAR** (leak detection and repair)

For coal, oil and gas sectors – mandatory MRV (monitoring, reporting,

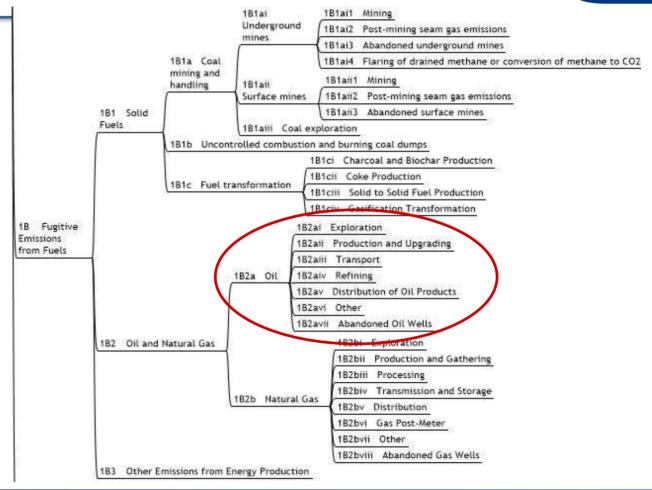
verification)

in line with OGMP 2.0

UNFCC reporting framework



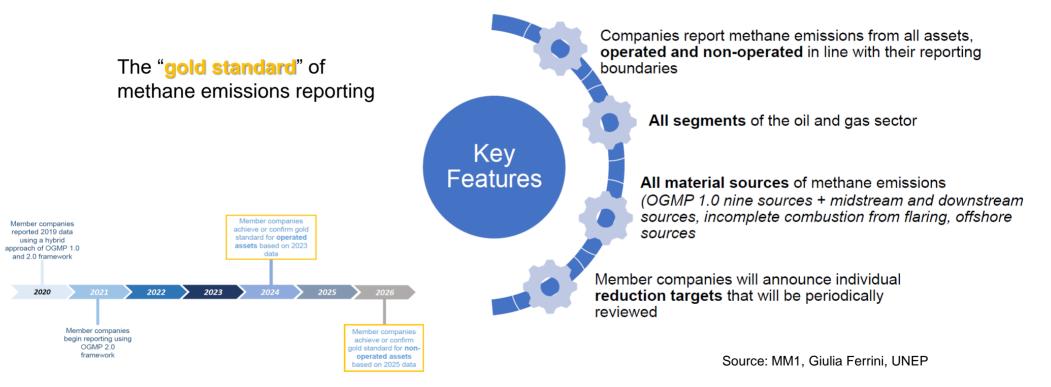
All but one CPs signatories to the Paris Agreement, With obligation to report



OGMP 2.0 Framework (1)



- the Oil and Gas Methane Partnership (OGMP) methodology was created by the Climate and Clean Air Coalition under UNEP in 2014 as a voluntary initiative to help companies reduce methane emissions in the oil and gas sector
- Version 2.0 signed in 2020 with more elements of measurement, reduction targets, deadlines for activities



OGMP 2.0 Framework (2)



evel '

Venture/Asset Reporting

- Single, consolidated emissions number
- Only applicable where company has very limited information sharing

Level 2

Emissions Category

- Report emissions based on 5 IOGP and 3 Marcogaz emissions categories
- · Estimates based on emissions factors

Level 3

Generic Emission Source Level

- Emissions reported by detailed source type
- Estimates based on generic emissions factors

Level 4

Specific Emission Source Level

- Emissions reported by detailed source type using specific emissions and activity factors
- Based on direct measurement or other methodologies (e.g. OGMP TGDs, Marcogaz assessment)

Level 5

Site Level

- Emissions allocated to individual source types
- Reporting based on site-level measurements to reconcile source and site level emission estimates

Source: MM1, Giulia Ferrini, UNEP

Energy Community Contracting Parties / gas sector



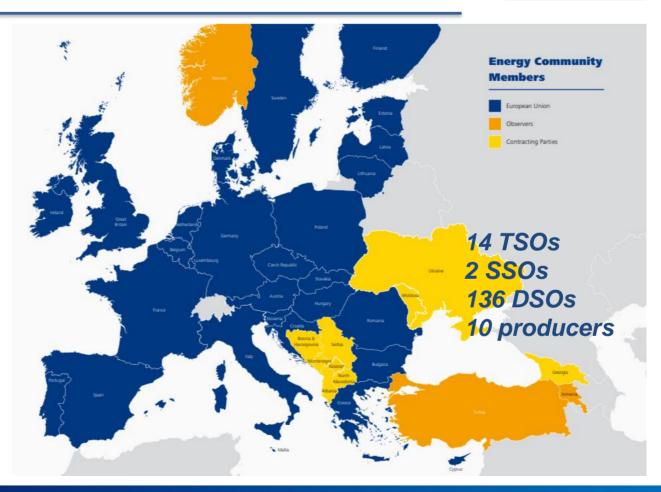
- Total natural gas consumption ~ 38 Bcm/y
- Total natural gas production ~ 20 Bcm/y
- UGS capacity ~ 31,5 Bcm
- No LNG terminals

Transmission network

~ 45.000 km

Distribution network

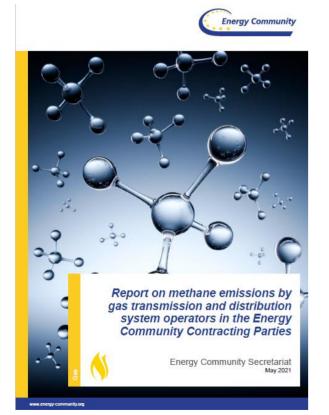
~ 370.000 km



Ongoing activities in the Energy Community (1)



Report on methane emissions by gas system operators (2019)



Gas sector	no of TSOs	no of DSOs	no of SSOs
Albania	2	1	0
Bosnia and Herzegovina	3	4	0
Georgia	1	30	0
Moldova	3	24	0
North Macedonia	1	3	0
Serbia	3	32	1
Ukraine	1	42	1
Total	14	136	2

38.000 km of transmission network = 92% of total in EnC CPs

262.000 km of distribution network = 71% of total in EnC CPs



Collection of 2020 data

More gas system operators Responded

Oil industry approached



Planed activities in the Energy Community



- Monthly Methane Mondays ongoing....to be continued
- Raising knowledge bilaterally, via webinars
- Continuation of cooperation with GIE, Marcogaz, MGP, IOGP, OGCI....
- Opening horizontal discussions regulators, ministries responsible for energy, environment
- Inclusion of oil industry
- Inclusion of coal industry.....

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THANK YOU FOR YOUR ATTENTION

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