



OIL AND GAS CLIMATE INITIATIVE

Reducing Methane Emissions Across the LNG value chain

Learnings from the oil and gas sector

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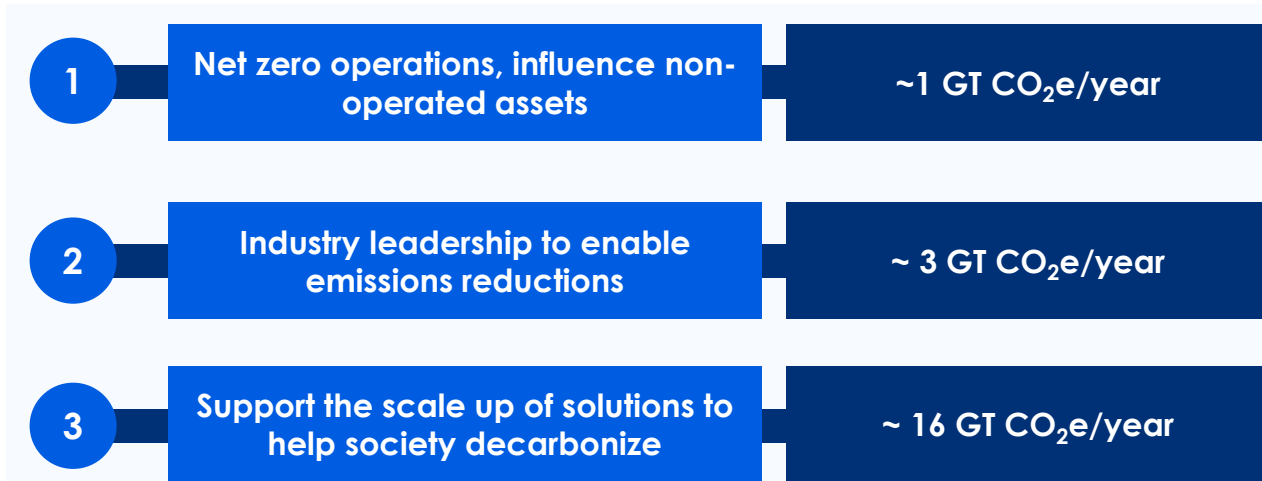
ExxonMobil



A CEO-led initiative leading industry efforts to reduce emissions since 2014



12 leading energy companies producing around 25% of global oil and gas output working to enable and accelerate action across the oil and gas sector to reduce GHG emissions



Our focus areas



Over a decade of work reducing emissions, including methane

62%

reduction of upstream methane intensity since 2017

24%

reduction of upstream CO₂ intensity since 2017

72%

reduction of routine flared gas since 2018

100 MtCO₂e/y

reduction of Scope 1&2 operated GHG emissions since 2017

\$125 billion

invested in low-carbon solutions since 2017

56

signatories to the Oil & Gas Decarbonization Charter.
OGCI is the secretariat



50+

CCUS hubs under development by OGCI members, potential of 500 Mt CO₂e stored by 2030

100+

companies signed up to OGCI's Aiming for Zero Methane Emissions Initiative

15+

partnerships with leading think tanks, NGOs and universities

25%

of global oil and gas output

0.5%

of global greenhouse gas emissions

OGCI Secretariat also supports the Oil & Gas Decarbonization Charter to speed up climate action



OGDC THE OIL & GAS DECARBONIZATION CHARTER



ACTION

Born out of COP28 in 2024, under the leadership of Dr. Sultan Al Jaber, OGDC is an initiative to accelerate voluntary actions towards individual companies' decarbonization in the oil and gas industry.



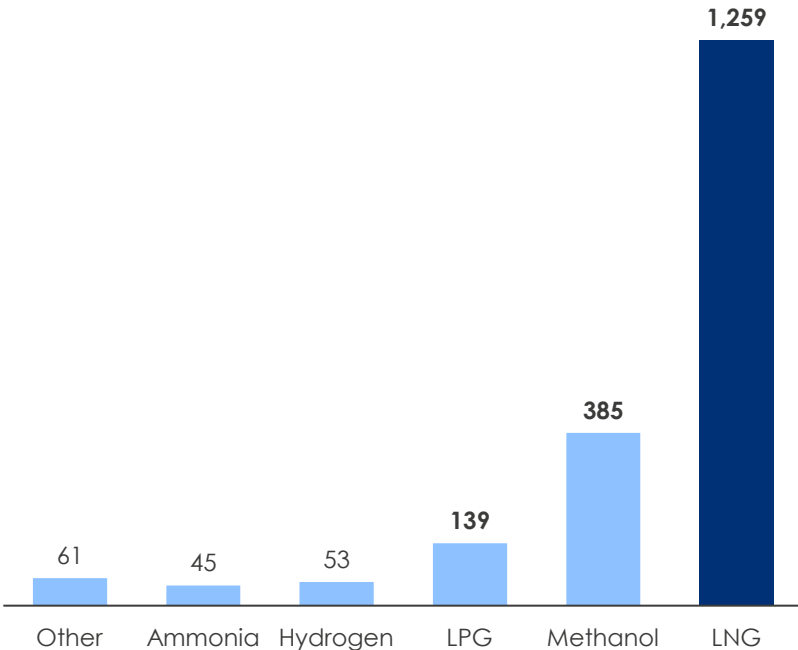
COLLABORATION

OGDC supports NOCs and IOCs with operations in 100+ countries. Two-thirds of signatories are NOCs – the largest NOC participation in any decarbonization initiative to date.



Fossil LNG is one of the most competitive and scalable lower-carbon shipping fuel in the short-term

Alternative fuel-capable shipping orderbook in # of vessels

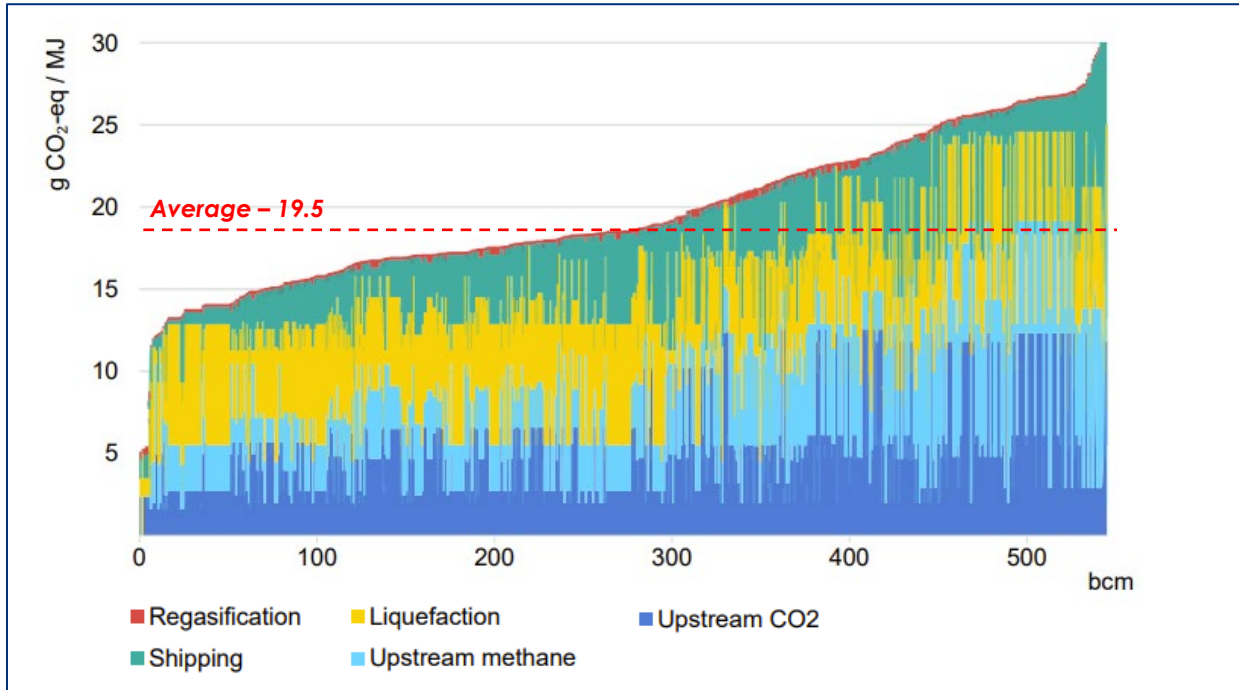


Fuel	Emissions reductions ⁽¹⁾	Cost (\$/MWh output)	Availability
Fossil LNG	5-20%	\$50-150	High
Bio-LNG	30-100% ⁽²⁾	\$150-300	Limited
E-LNG	50-90%	\$250-350	Very limited

- (1) Against Very Low Sulfur Fuel Oil, on a well-to-wake basis;
 (2) Depending on input feedstock (e.g., manure) and resulting avoided emissions, as recognized by some regulatory frameworks (e.g., EU RED II and California LCFS).

Not all LNG is created equal – there is significant potential to lower the emissions intensity of LNG as a shipping fuel

Spectrum of GHG emissions intensity from LNG supply chain, 2024



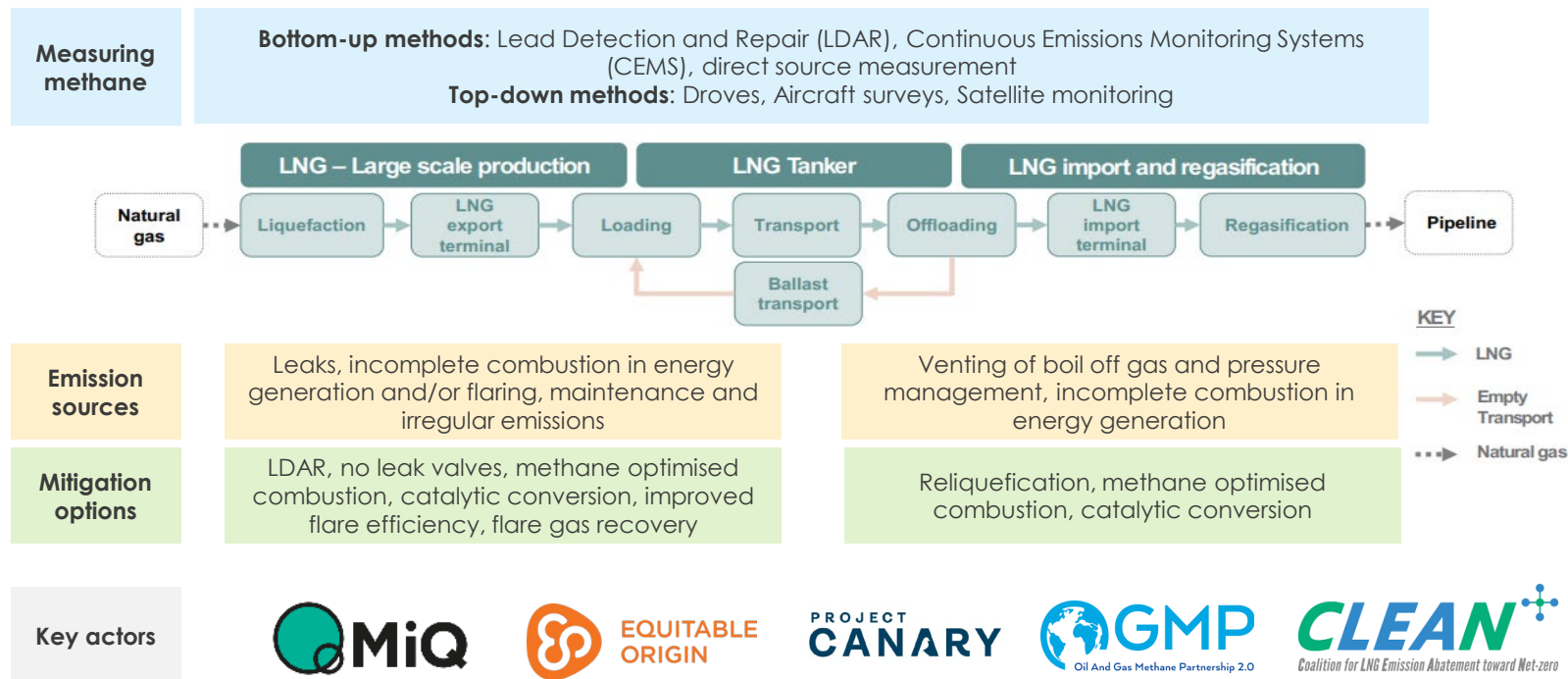
6x variability between the best and the worst performers

Upstream dominates emissions differentiation

Methane is a significant opportunity: ~80% of emissions occurring upstream and weighted abatement cost of ~\$10/tCO₂e

Methane detection and mitigation in the LNG value chain

Measuring and mitigating methane emissions across the LNG value chain requires combining **accurate detection, continuous monitoring, and operational + engineering controls**. Few existing key frameworks, actors and partnerships are supporting and innovating in this space.



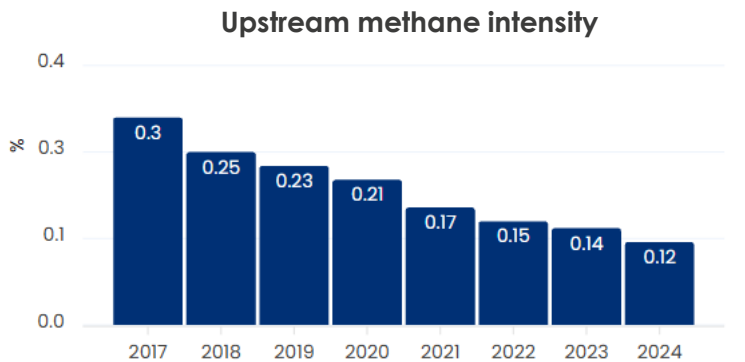
KEY

- LNG
- Empty Transport
- .-> Natural gas

Existing commitments on methane and progress to date



0.73 Mt CH₄ in 2024
-63% Since 2017
0.12% methane intensity in 2024



Well below 0.20% upstream methane intensity

Aiming for Zero Methane emissions initiative (2021)

Aiming for 0.1% by 2030 (2026)



Near-zero upstream CH₄ emissions by 2030
as part of the Charter

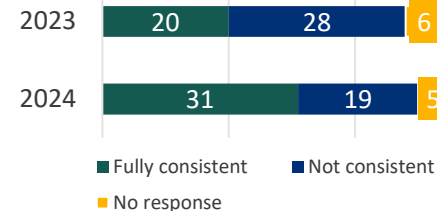


OGDC roundtable at India Energy Week



Carbon Limits training in Angola

Tracking progress on Methane Action Plans



>4 Mt CH₄ in 2024

16 webinars held since 2014

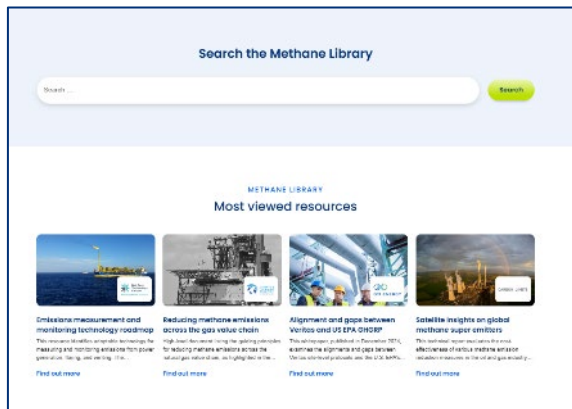
>1,200 staff trained since 2024

Examples of practical tools and knowledge shared with industry

OGCI member companies aim to support the industry through knowledge sharing and capacity building, enabling a better understanding of the methane challenge.

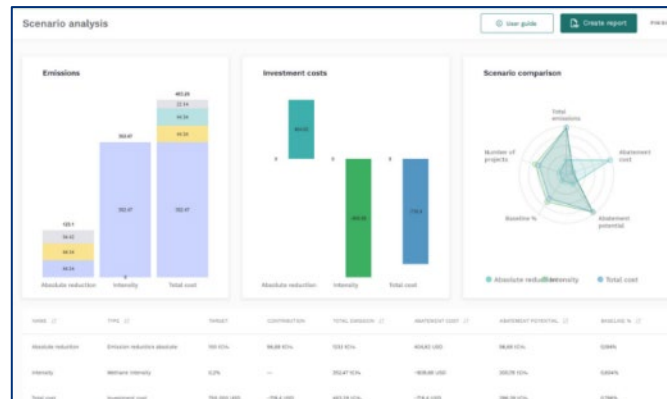
Methane Library

OGCI's methane library is a centralized repository of over 200 key resources focused on helping oil and gas companies accelerate methane emissions reductions. It is available free of cost on OGCI website.



Support to Methane Inventory Systematic Tool (MIST)

The tool is free for all oil and gas companies and allows them to easily develop their methane inventory no matter where they are in their methane journey, from the very first facility-level inventory to quantification using detailed engineering calculations and measurements.

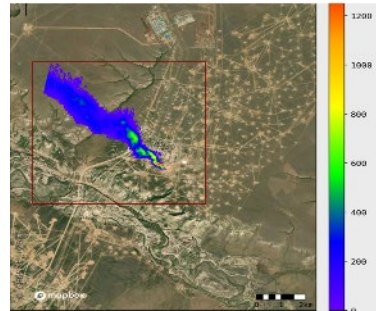


Monitoring / mitigation programs and technical support

OGCI supports operators with technology deployment, aiming at taking practical and tangible action to reduce methane emissions; and share technical knowledge.

OGCI Satellite Monitoring Campaign

The programme uses satellite technology to monitor, detect and ultimately enable mitigation of large methane emissions. The campaign has been expanded to 15+ countries, supporting 20+ operators.



In 2026, OGCI and the nonprofit Carbon Mapper announced a new collaboration aimed at accelerating practical and measurable reductions in methane emissions from the oil and gas industry.

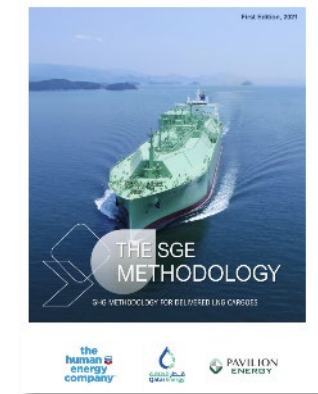
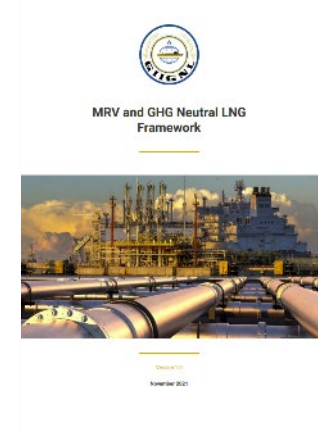
Satellite Playbook

6 steps framework to support operators following up on satellite detections. The playbook is publicly available on OGCI website.



More work is needed to improve the credibility and comparability of LNG carbon intensity estimates

System boundaries	<ul style="list-style-type: none"> • Choice of boundaries, stages and inclusions • Sources of direct and indirect emissions
Co-products	<ul style="list-style-type: none"> • Streams of co-products handled (e.g., natural gas, crude, natural gas liquids) • Definition for co-products and wastes • Allocation methods (e.g., mass, energy, economic value)
Units	<ul style="list-style-type: none"> • Carbon intensity units • Limits to unit normalization
Quality	<ul style="list-style-type: none"> • Measured VS estimated • Data availability / quality



Link to OGCI
methane library:



Link to OGDC
website:



Thank you