How oil & gas can contribute to a carbon neutral journey?

Julien Perez
Strategy & Policy Director
Oil and Gas Climate Initiative

OIL AND GAS CLIMATE INITIATIVE

Oil and Gas Climate Initiative

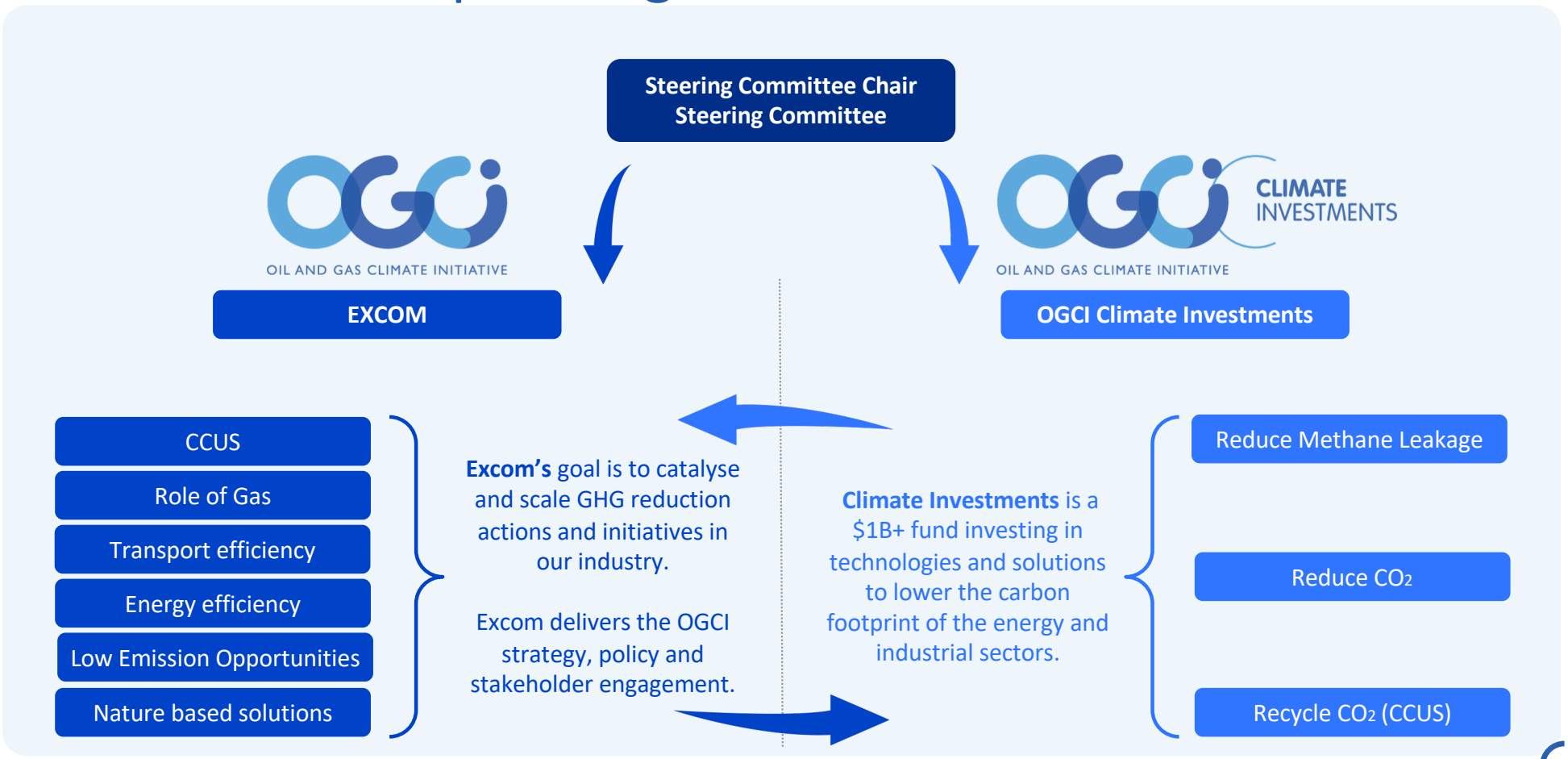
OIL AND GAS CLIMATE INITIATIVE

- OGCI is a **voluntary**, **CEO-led** oil and gas industry initiative that aims to catalyze meaningful actions on climate change through collaboration and engagement
- **13 member companies**, IOCs and NOCs, represent around **30% of the world's O&G production** & close to 20% of the global primary energy demand

bp Chevron CNPC eni equinor ExxonMobil OXY Occidental Petroleum PEMEX PETROBRAS REPSOL أرامكو السعودية saudi aramco Shell TOTAL

- Member companies share a will to collaborate, support the Paris Agreement, and a commitment to work with direct engagement from the CEOs to drive the initiative and active participation in OGCI programs, by **exploring reduction on the energy value chain, acceleration of low carbon solutions and enabling a circular carbon model**

Operating Structure of OGCI



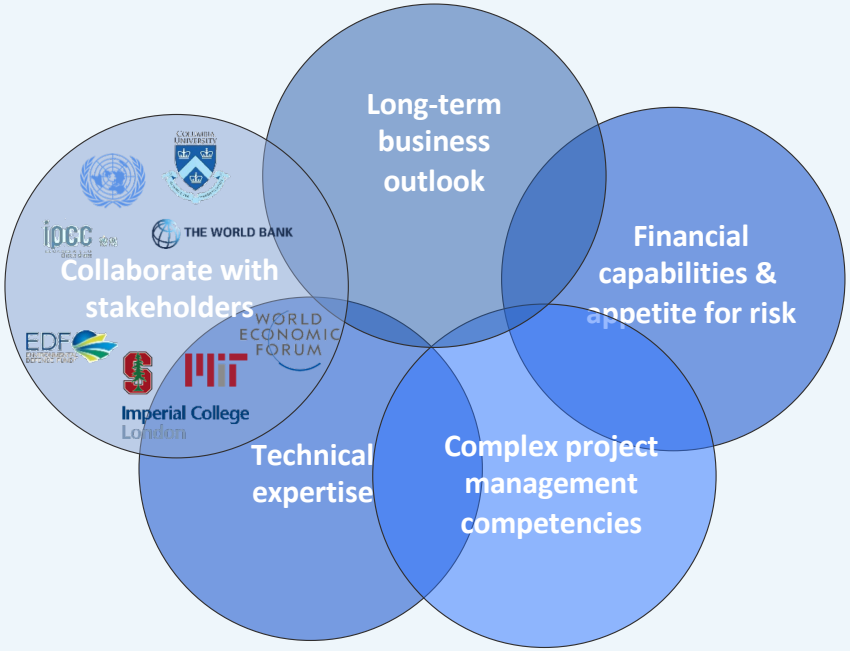
Long-term vision: a circular carbon model

- Negative carbon emissions necessary to limit global warming, while continuing to provide reliable, affordable and clean energy to all
- A circular carbon economy is needed to accelerate the reduction of net-GHG emissions
- Recognition that climate change is not the only thread to sustainable development means that a holistic approach to the UN Sustainable Development Goals is essential

OIL AND GAS CLIMATE INITIATIVE

How to contribute to the climate change solutions?

Combining strengths with stakeholders…



…across a variety of sectors tackling the key lever toward a <2°C scenario:

- Methane leakage
- Energy efficiency
- Transportation efficiency
- **CCUS**
- Nature-based solutions

The case of CCUS: what is at stake?

Carbon Capture, Use and Storage (CCUS) contribution to achieving the goals of the Paris Agreement

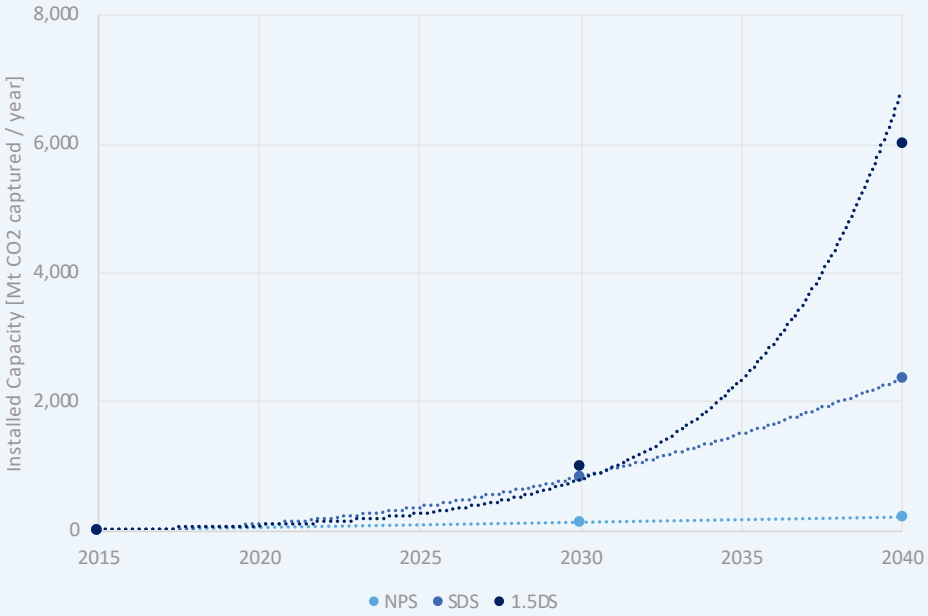
- 87% of all models run by the IPCC rely on CCS and on negative emissions – Bio Energy with CCS – to have a 50% chance of staying below 2°C
- CCUS to provide 14% of cumulative emissions, reductions needed in the period to 2060, equivalent to 120 Gt CO_2
- Failure to deploy such technology could increase costs of mitigation by +138%

CCUS also delivers additional benefits:

- Allows retrofit of existing infrastructure (no stranded assets)
- Enables clean hydrogen production (through steam reforming)
- Allows to have a CO2 free electricity baseload, easing the rate increase of intermittent solution

Source: IPCC (2014)
IEA (2017)

CO2 Captured and Stored from the Energy & Industry sectors, per year



Source: IEA (2019)

OIL AND GAS CLIMATE INITIATIVE

The case of CCUS – What is hampering its deployment?

Policy, Legal & Regulatory Barriers

Policy confidence is a prerequisite for investment in long lived capital intensive assets like CCUS infrastructure. Only 5 of 55 countries analysed by the Global CCS Institute have laws in place that incentivise and regulate aspects of CCUS.

Source: Global CCS Institute – The Global Status of CCS (2018)

Lack of Trust

Many people involved in climate action worry that oil & gas support for CCUS is an attempt to preserve business as usual.
Governments can't be seen to subsidize oil & gas companies. Emitting industries are worried that oil and gas companies want to transfer the cost of decarbonization to them.

Financial Barriers

Unclear legal and regulatory regime increases risk/reward ratio, critical to attract private investments:

- Long term storage liabilities
- Investment horizon mismatch
- CO2 supply uncertainty
- Volatile carbon credits market conditions

→ Future cash flow instability

↓

Future lack of investments to realize CCUS projects
High cost of money affecting bankability

The case of CCUS: what to look at?

Set strong ambitions around CCUS

CCUS & Nature-based solutions

Expand policy work with new government (Gulf, China, US, etc.) on CCUS and Nature-based solutions

Collaborate through private-public partnerships to accelerate the business cases at scale and bring supports to projects worldwide

CO2 Storage Data
Launching several initiatives to standardise & share CO2 storage data & methodologies

Demonstrate through project like the Clean Gas Project, bringing the first CCS project coupled with a gas fired power plant to FEED stage and **support innovative solutions** (Inventys, Solidia, Econic, etc.)

How can we better collaborate with stakeholders to accelerate the enabling environment?

- Share best practices & learnings
- Expand policy work
- Develop a public / private partnerships to regionally pool technical, financial, commercial and policy resources
- Confirm long term safe storage capabilities
- Develop new standards and protocols
- Confirm business models for CCUS
- Balance regional & international efforts
- Fund academic research and help progress on science

OIL AND GAS CLIMATE INITIATIVE

Thank you

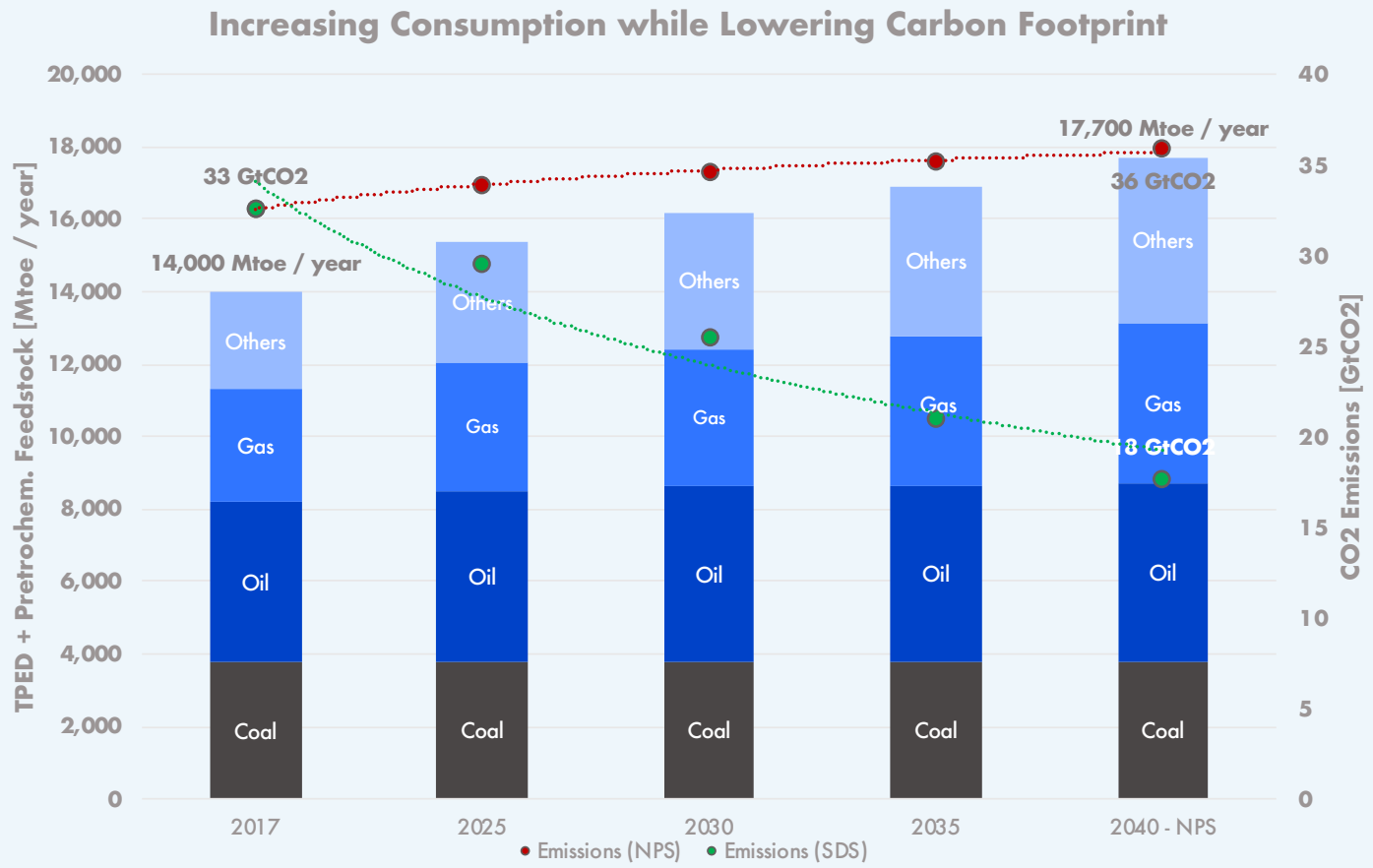
Find out more online:
oilandgasclimateinitiative.com

OIL AND GAS CLIMATE INITIATIVE

Supporting Slides

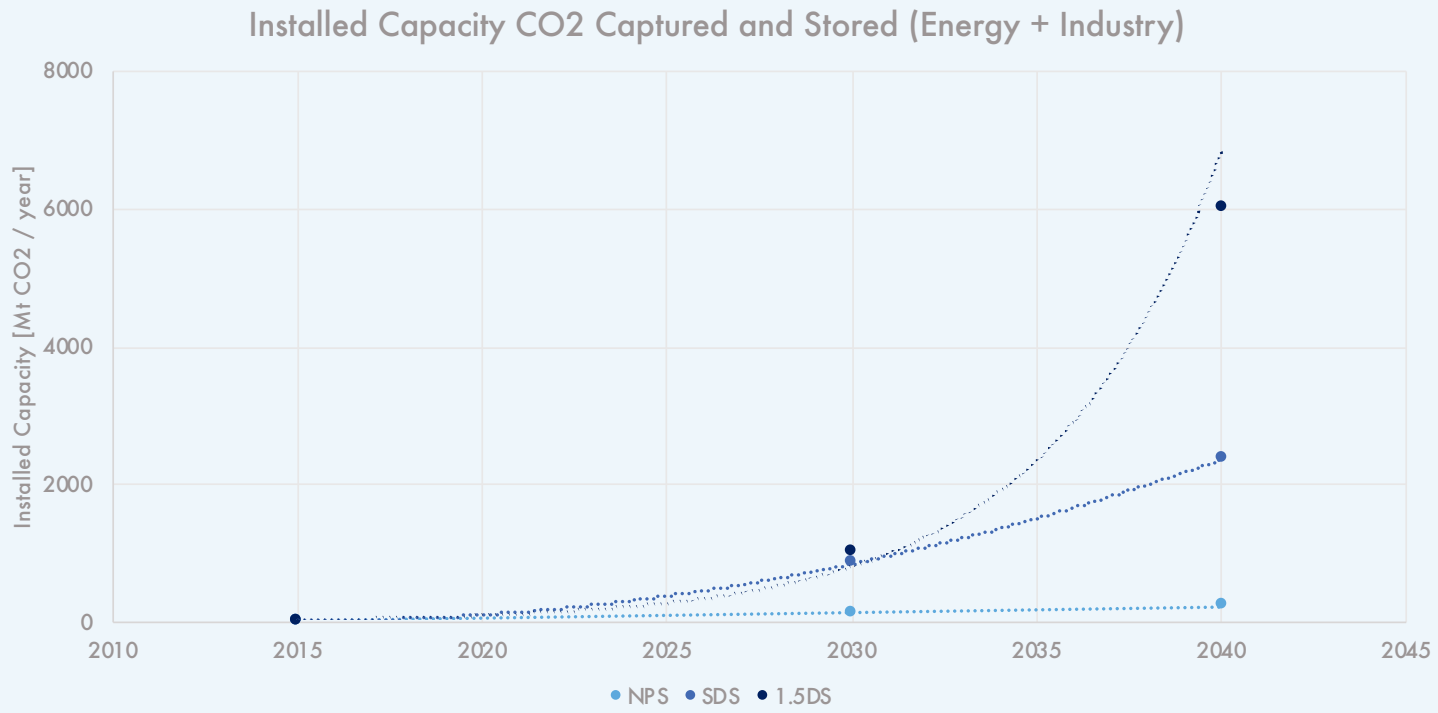
OIL AND GAS CLIMATE INITIATIVE

The Climate Challenge



Source: IEA WEO (2018)

CCUS Ramp up



Source: IEA Website (2019)

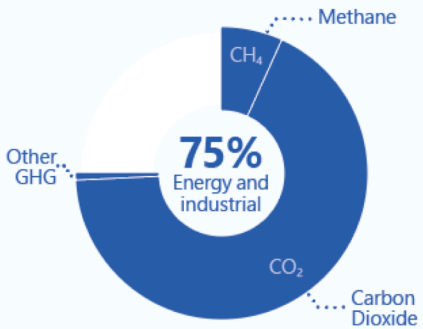
OGCI Climate Investments

Our mission

Climate Investments is a $1B+ fund investing in technologies and solutions to lower the carbon footprint of the energy and industrial sectors. The fund was created the Oil and Gas Climate Initiative.

Why? *The global challenge*

The energy and industrial sectors account for 75% of the global greenhouse gases.



Data from IEA WEO 2017

What? *Our focus*

Reduce methane leakage
during production, delivery and usage of oil and gas.

Reduce CO_2
produced by increasing industrial energy efficiency and transport efficiency.

Recycle CO_2
into useful products or put into long-term storage (CCUS).

How? *We work with you*

Invest
in innovative low-carbon technologies & solutions.

Support
our portfolio companies with access to customers and deployment.

Collaborate
with OGCI members and other stakeholders to gain speed and global reach.

Apply for investment:
contact@climateinvestments.energy

Find out more online:
oilandgasclimateinitiative.com/climate-investments

OIL AND GAS CLIMATE INITIATIVE