Making CCS fly

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WHO WE ARE

IPIECA

• Global oil and gas industry association for environmental and social issues
• Enable industry to improve its environmental and social performance
• Represent the consensus view of our members (43 companies and 20 associations)
• Principal communication channel to the United Nations

Our membership operates in 180 countries
Our membership employs 1.3 million people
MEETING THE UN SDGs IN THE CONTEXT OF CLIMATE CHANGE

Mapping the Oil and Gas Industry to the Sustainable Development Goals: An Atlas
The universal global challenge is to ensure access to affordable, reliable, sustainable and modern energy, including achieving a balance between anthropogenic emissions by sources and removals by sinks of GHGs in the second half of this century.

**CURRENT ENERGY SYSTEM**

- **Feedstock**: of which 18% fossil fuels
- **Transport**: of which 96% oil & gas
- **Industry**: of which 64% fossil fuels
- **Domestic**: of which 34% oil & gas

1.1 billion have no access to electricity
We believe that it is possible to address climate change risks while also meeting global energy demand and supporting economic development.

1. **Self-assess carbon resiliency**
   - Plan strategically for a net-zero emissions future

2. **Mitigate emissions within oil and gas operations**
   - Strengthen resilience and adaptive capacity to climate change impacts
   - Developing CCS
IPIECA believes that significant policy action, technology development, and business response will be needed to meet the long-term aims of the Paris Agreement. CCS offers solutions across many sectors and almost uniquely offers the opportunity for negative emissions.

CCS is key in all pathways to a low-emissions future

The oil and gas industry has the skills, capabilities, and resources to help transform energy systems

Oil and gas will continue to be part of the energy mix

Collaboration will be necessary
The Oil & Gas sector is most knowledgeable about CCS

- Captures for EOR and/or geologic storage
- Operates CCS both onshore and offshore; including ~7000 km of CO₂ pipelines, mainly in the US
- Has more than 20 years’ experience characterizing CO₂ in the sub-surface using sophisticated monitoring and modelling techniques
- Pioneered advances in subsea technology that may allow for more cost effective injection offshore
IPIECA’s history on CCS

List of workshops and reports published

- IPIECA contributions to preparation of the IPCC SR CCS (-2005)
- IPIECA CCS Workshop Remaining Gaps (2011)
- IPIECA CCS Workshop (2017)
IPIECA CCS workshop – Making CCS fly

Key topics highlighted during the discussions

• Scale-up needs to be accelerated to meet the Paris Agreement goals
• Potential for Negative Emissions
• Support, Collaboration, and Continuous Improvement to Lower Costs and More Flexible Technologies
• Information and Collaboration
• CCS in different regions
• Business Models
CCS workshop – Making CCS fly

Messages by topic heard during the session

**Information and Collaboration**

- Groups that support CCS need to be collaborative and avoid duplication.
- CCS needs to have a key position within Government Strategies.
  - How can we help governments think about CCS in their Mid-Century Strategies to the Paris Agreement?
- IPIECA and industry associations can play a positive role to engage with governments to address challenges in implementing the needed scale of CCS applications.
- Support and collaboration will be important to improve technology across the portfolio of CCS applications including heavy industry and natural gas power generation.
- CCS is proven and available but there is still scope for continuous improvement based on shared learning from projects and capital cost needs to be lower and more flexible technologies needed.
Business Models

- CCS success is achievable but business models are complex with many parts, and economics remain challenging even with current government support.

- An alternative approach to infrastructure planning could be better, such as spoke and hub models. Separation of capture and storage into different businesses may have advantages.
Thank you!

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