



Accelerating Carbon Capture Together: Clean Energy Ministerial CCUS Initiative

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Baltic Carbon Forum | 14 October 2020

The Clean Energy Ministerial (CEM) is a global process



27 CEM
Members

■ Clean Energy Ministerial participant

90%

Clean energy
investments

75%

Global CO₂
emissions

The CEM CCUS Initiative



Lead countries: Norway, Saudi Arabia, the United States and United Kingdom

Participating CEM members: Canada, China, Japan, Mexico, Netherlands, South Africa and United Arab Emirates; in addition, the European Commission is an observer

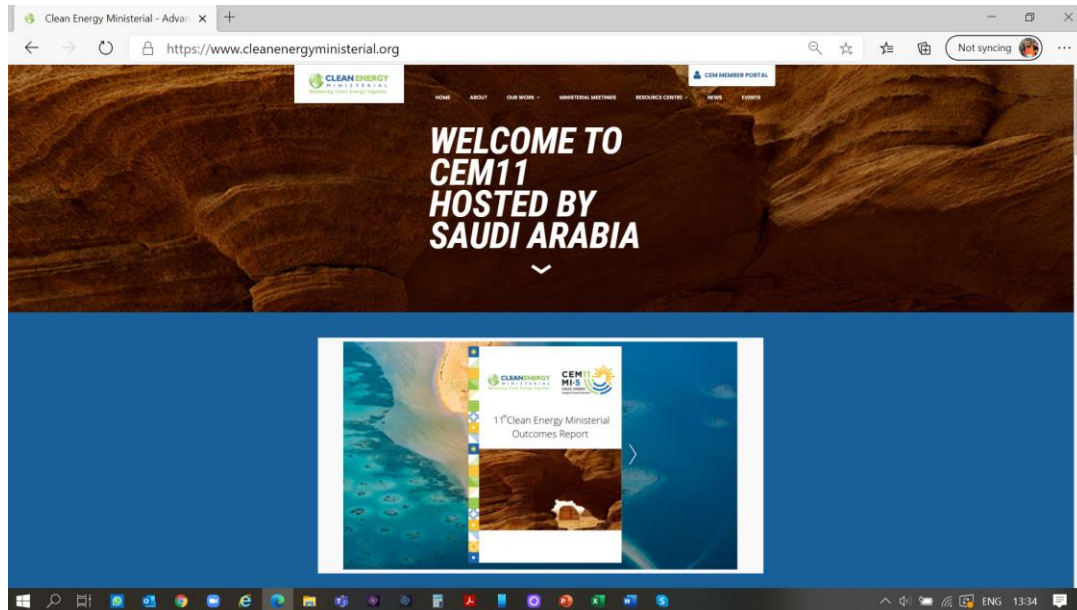
Industry: oil and gas, cement, steel, ...

Financial institutions: private banks, investment firms, multilateral banks (MDBs)

Organizations: Carbon Sequestration Leadership Forum (CSLF), International Energy Agency (IEA), IEA Greenhouse Gas R&D Programme (IEAGHG), Mission Innovation (MI), Global CCS Institute (GCCSI), and Oil and Gas Climate Initiative (OGCI)

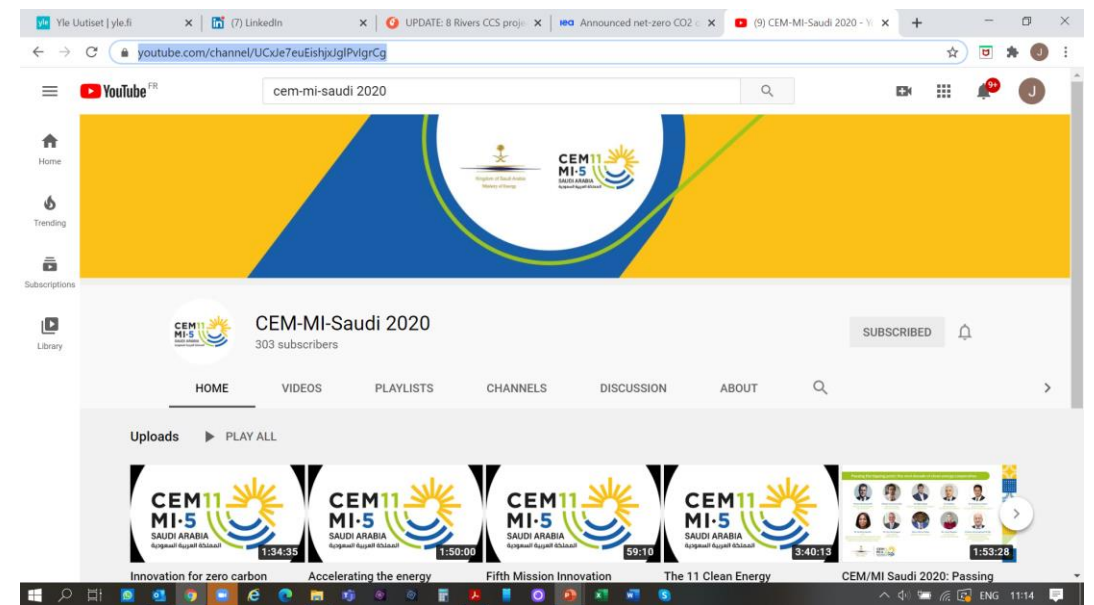
11th Clean Energy Ministerial 15 – 22 September 2020

Clean Energy Ministerial website



<https://www.cleanenergyministerial.org>

CEM-11 Youtube channel:



<https://www.youtube.com/channel/UCxJe7euEishjxJglPvlgrCg>

CCUS: positive energy – but we must keep the wheel turning!

EMERGING POLICY and AMBITIONS

- 30+ countries with “net-zero” ambitions by ~2050!
- EU: 2050 net-zero target; CEF, Innovation Fund etc.
- NOR: Gov. investment in Longship & Northern Lights
- UK: GBP800m fund & business models
- NL: SDE++ and EUR100m EU support
- US: 45Q tax credits
- China: 2060 net zero target
- JP: Commercialise CCUS by 2030
- UAE: ADNOC to ramp up CCUS by 500% by 2030
- ...

RESETTING STRATEGIC NARRATIVE

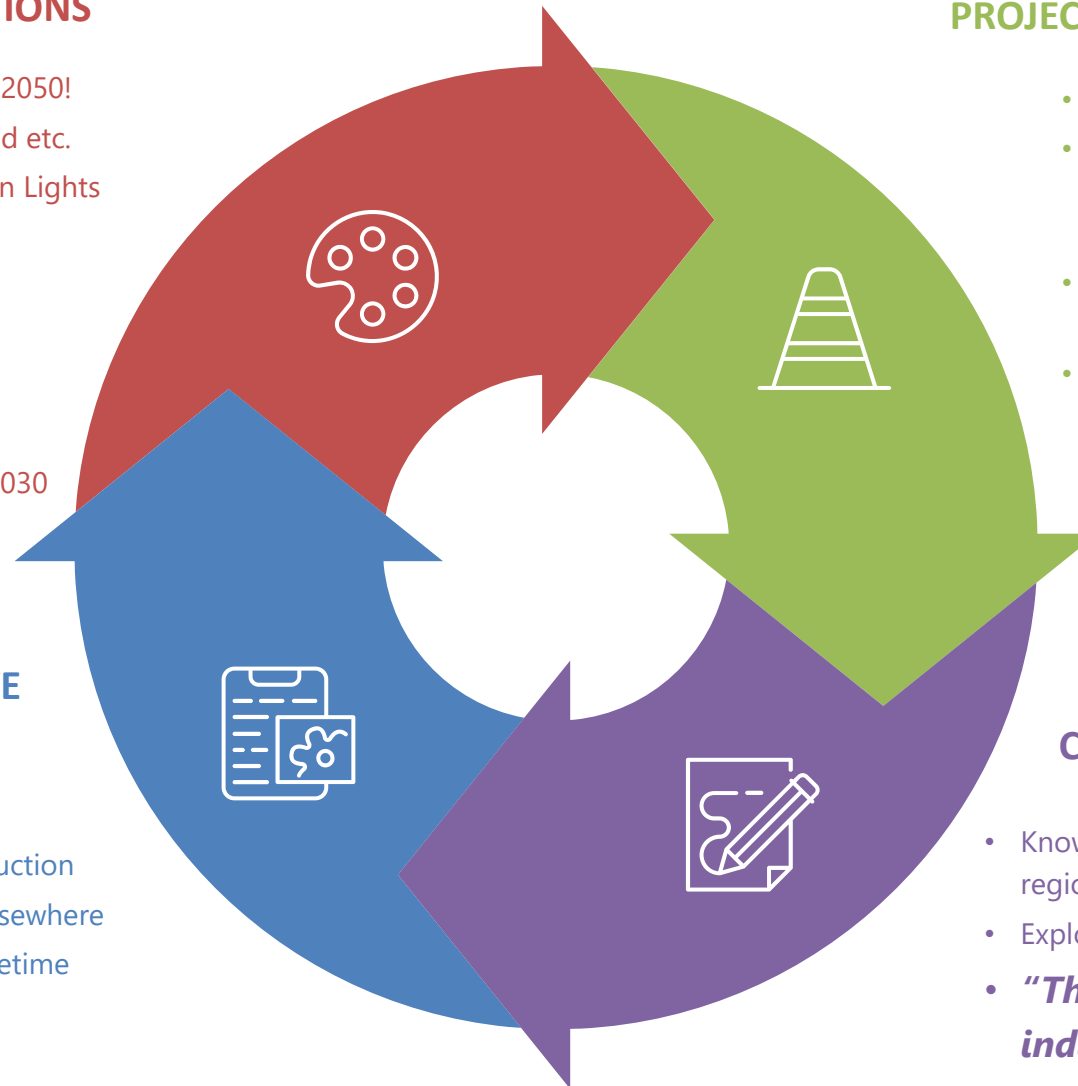
- From “burden” to “opportunity”
- Decarbonise hard-to-abate industry sectors
- CCUS as partner in low-carbon hydrogen production
- CO2 removal & CCUS as offset for emissions elsewhere
- Decarbonise existing power assets with long lifetime

PROJECT DEVELOPMENT SPEEDS UP

- 20 projects today
- 30 new projects announced since 2017: US, Europe, Middle East, Korea, China, Australia, New Zealand etc.
- 16 projects closest to implementation (FID in 12 months) represent USD27bn in investment
- Joint infrastructure → hubs are the way forward, with common transport and storage infra for a multitude of capture facilities

COLLABORATION REMAINS CRITICAL

- Knowledge-sharing between projects, countries and regions
- Exploiting regional synergies, strategies and investment
- **“Three-legged stool”: government, industry, finance sector all have their role to play**



CEM CCUS Initiative: accelerating CCUS together by:



Actively **including CCUS** within Clean Energy Ministerial agenda and global clean energy discussions.



Facilitating identification of both near and longer-term **investment opportunities**.



Bringing **together** governments, the private sector and the investment community.



Disseminating **best practice** in CCUS policy, regulation and investment.

“Finance Sector Lead Group for CCUS”

- Informal group of banks interested in CCUS – open to all interested banks!
- Platform to discuss CCUS as investment opportunity
- Opportunity to give advice to governments and ministers
- Opportunity to take part in work to identify investment opportunities with industry
- Banks who have participated to date:

World Bank

Asian Development Bank

Islamic Development Bank

EIB

EBRD

Apicorp

Japan Bank for Int’l Cooperation

Legal and General

Aviva Investors

Zero-Carbon Partners

Société Générale

Citi

ABN Amro

Bank of America

Credit Suisse

ING

Linklaters

KPMG

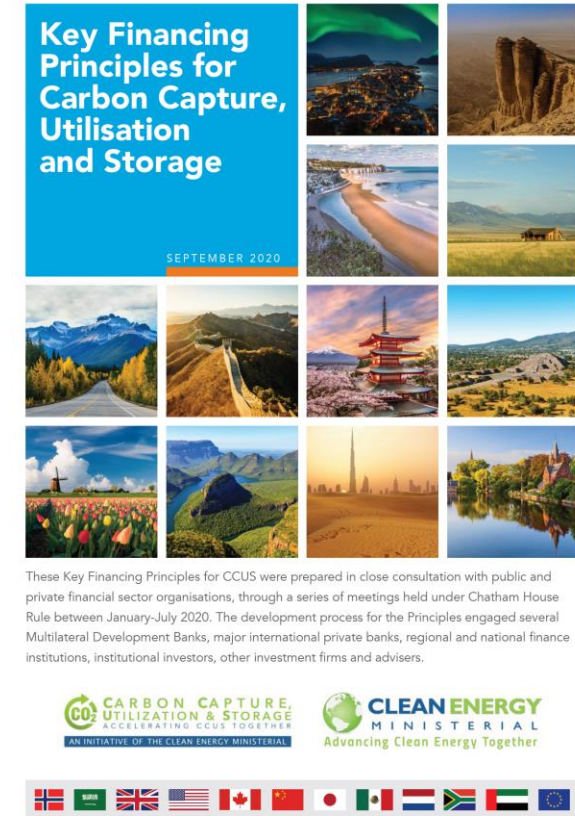
Expressed interest / contacts taken:

HSBC

Macquarie

Key Financing Principles for CCUS

- **Objective:** to support the establishment of a business case for CCUS and to facilitate financing;
- **Target groups:** governments, industry and the financing sector who each have a unique and essential role to play;
- **Global coverage:** both developed and developing countries, taking into account differences in countries' circumstances;
- **Developed in close consultation with public and private financial sector organisations.**



DOCUMENT AVAILABLE AT:

<https://www.cleanenergyministerial.org/initiatives>

Key Financing Principles for CCUS (1)

1

Industry, governments and the financial sector should communicate the **importance of CCUS**.



2

Government policies should establish a **revenue stream** for CCUS to facilitate private sector investment.



3

The financial sector, industry and government should work together to facilitate CCUS investment and help **mitigate the risks** of CCUS deployment.



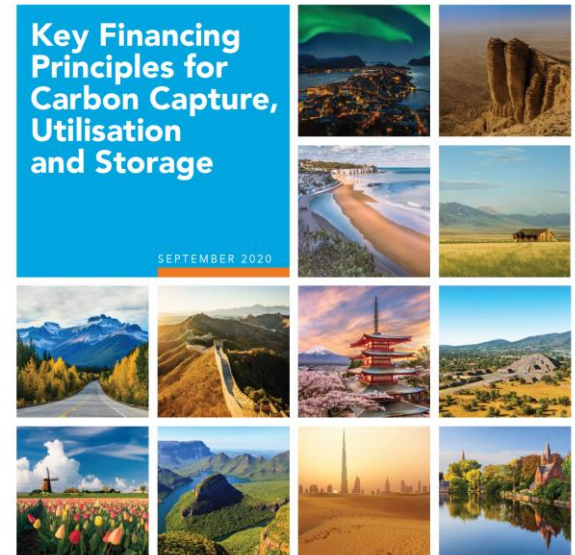
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Industry, the financial sector and governments should work together to establish a **pipeline of CCUS projects**.



5

The financial sector should ensure CCUS is part of their **climate change strategies** and is eligible for sustainable finance.



These Key Financing Principles for CCUS were prepared in close consultation with public and private financial sector organisations, through a series of meetings held under Chatham House Rule between January-July 2020. The development process for the Principles engaged several Multilateral Development Banks, major international private banks, regional and national finance institutions, institutional investors, other investment firms and advisers.



Key Financing Principles for CCUS (2)

6

The financial sector should strive to accelerate the development of *novel financing approaches* to CCUS



7

Governments should consider CCUS as part of their *Nationally Determined Contributions* (NDC) under the Paris Agreement.



8

Governments should utilize existing development and climate institutions to advance CCUS in *developing countries*.



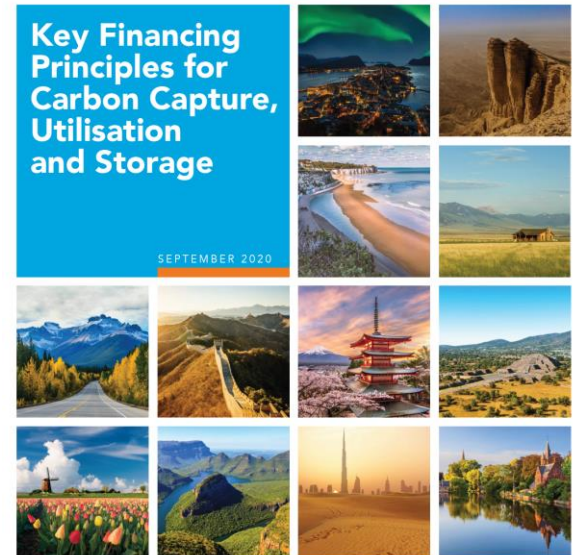
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Governments should consider CCUS investment as a means of creating and preserving sustainable jobs and providing a *low-carbon stimulus* to the economy.



10

Industry, governments and the financial sector should consider CCUS investment as a means of driving *innovation* and supporting broader *industrial development*.



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11th Clean Energy Ministerial pre-event

15 September



Key Financing Principles for CCUS



HRH Abdulaziz bin Salman Al Saud
Minister of Energy
Ministry of Energy,
Kingdom of Saudi Arabia



HE Tina Bru
Minister of Petroleum
and Energy, Ministry of Petroleum and
Energy, Norway



Dr. Fatih Birol
Executive Director,
International Energy Agency



Mr. Allan Baker
Managing Director,
Global Head of Power Advisory
and Project Finance,
Société Générale



Mr. Mark Sisouw de Zilwa
Managing Director,
Energy - Head Technical team,
ING Bank



Ms. Natalia Kulichenko-Lotz
Lead Energy Specialist
in the Energy & Extractive Global Practice
World Bank



Ms. Sue-Ern Tan
Group Carbon Relations Manager,
Oil and Gas, Climate Initiative,
Royal Dutch Shell



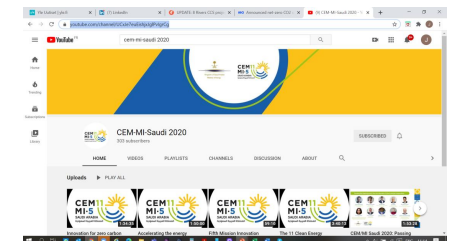
Mr. Anthony Yuen
Managing Director
& Head of Energy Strategy, Citi



Mr. Jarad Daniels
Office of Strategic Planning, Analysis,
and Engagement, United States,
Department of Energy



CEM-11 Youtube channel:



<https://www.youtube.com/channel/UCxJe7euEishjxJglPvlgrCg>

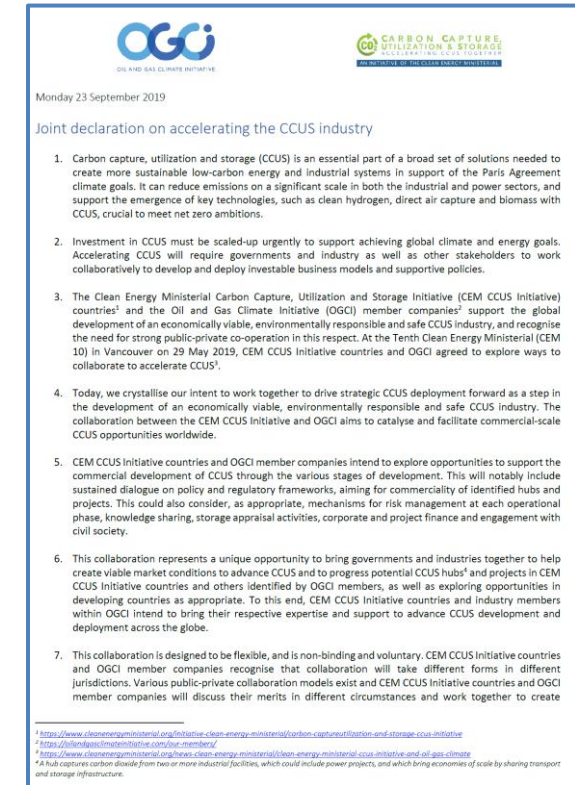
#CEM11MI5KSA

#CEM11

Collaboration with industry

- **Accelerating current projects:** actively connecting all current five OGCI “Kickstarter” projects and corresponding CEM governments to share experience and keep projects advancing
- **Identifying new projects:** working with OGCI to identify new investment opportunities, based on a hubs approach
- **Connecting with other key industries:** active dialogue with cement and steel sectors

COLLABORATION STATEMENT WITH



DOCUMENT AVAILABLE AT:

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Webinars to disseminate country experience

Google My Profile - Zoom (12) YouTube (12) CEM: Carbon Capture, Utilization and Storage

https://www.youtube.com/playlist?list=PLKRmGa9s99JVssP8Gb5buwLg3Bl1lls

clean energy solutions center

YouTube FR

Home Trending Subscriptions Library

CEM: Carbon Capture, Utilization and Storage

7 videos • 433 views • Last updated on Apr 22, 2020

Webinar about CCUS from the Clean Energy Ministerial

Clean Energy Solutions Center SUBSCRIBE

1 Direct Air Capture of CO₂: Helping to Achieve Net-zero Emissions Clean Energy Solutions Center 59:27

2 Progress and Layout for Carbon, Capture, Utilization and Storage in China Clean Energy Solutions Center 59:31

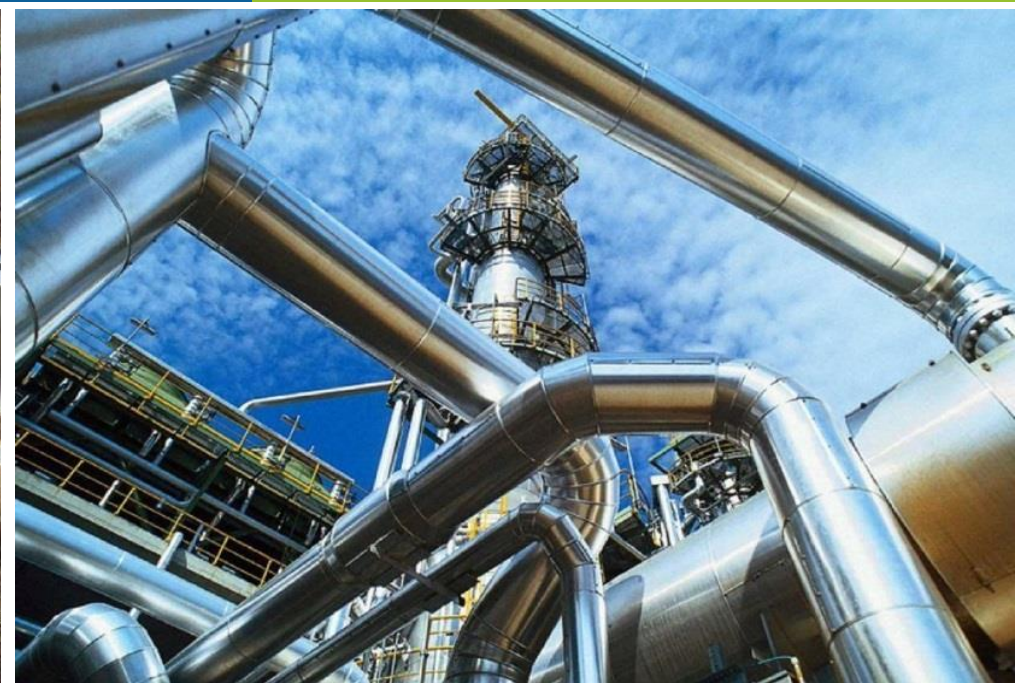
3 A Roadmap to At-scale Deployment of Carbon Capture, Use, and Storage (CCUS) Clean Energy Solutions Center 1:01:26

4 Approaching Final Investment Decision: CCUS Developments in Norway Clean Energy Solutions Center 58:07

5 Progressing CCUS in the UK and Accelerating CCUS Globally Clean Energy Solutions Center 57:35

6 CCUS in Mexico for a Low Carbon Economy

<https://www.youtube.com/playlist?list=PLKRmGa9s99JVssP8Gb5buwLg3Bl1lls>



<https://www.linkedin.com/company/clean-energy-ministerial-ccus-initiative/>



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