

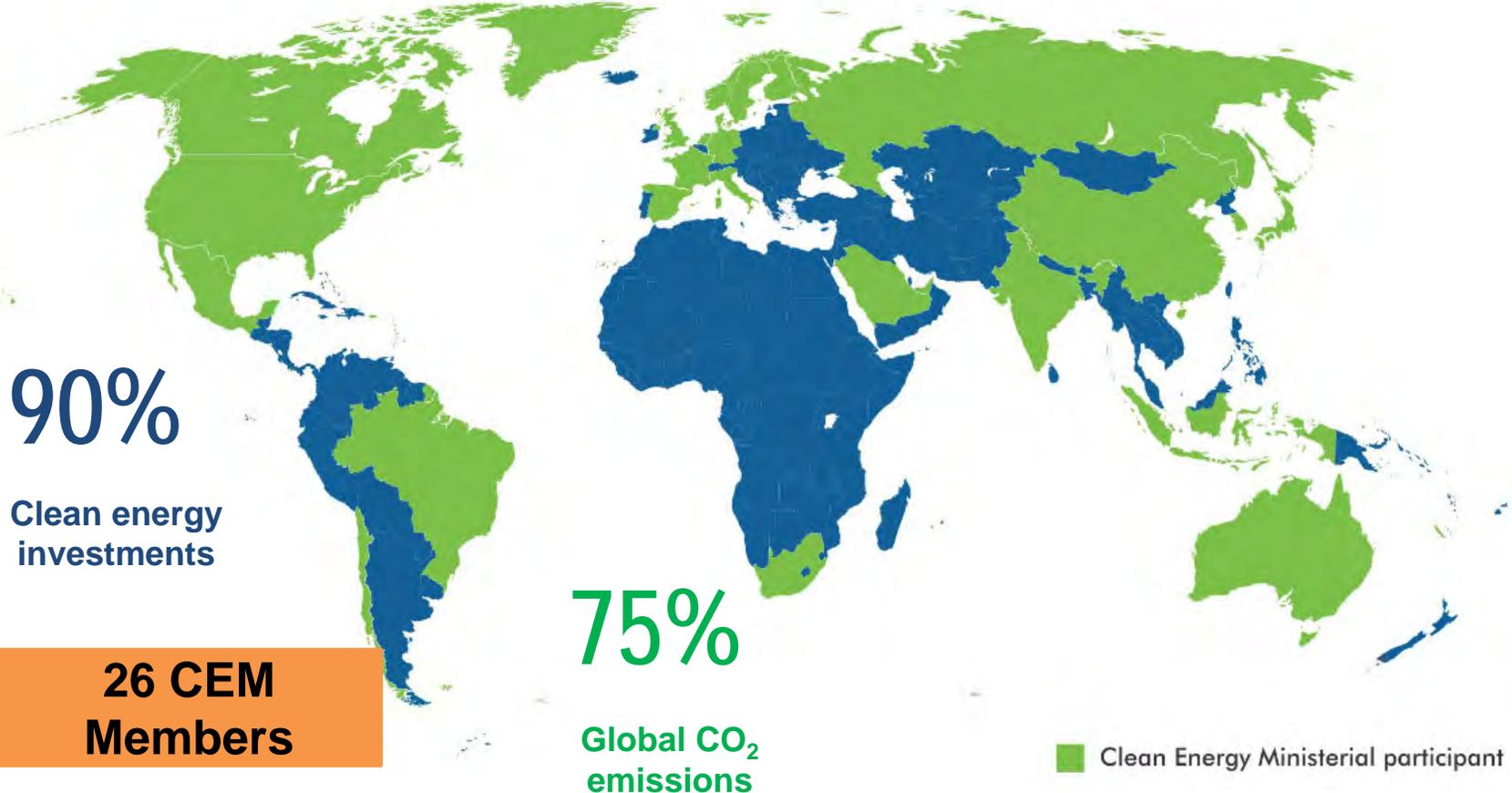


Accelerating CCUS Together: CEM CCUS Initiative update

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*CSLF Technical Group
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The Clean Energy Ministerial is a global process



CCUS Initiative: Member Governments and Key Links



Saudi Arabia



United States



South Africa



Norway



Japan



United Kingdom



United Arab Emirates



Mexico



China



Canada



Netherlands

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 including the oil and gas community

Financial institutions including multilateral development 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)

Other relevant CEM Initiatives: 21st Century Power Partnership, Power System Flexibility, Investment and Finance Initiative, Long-term scenario campaign, Clean Energy Solutions Center



Accelerating CCUS Together by:

1. Actively **including** CCUS within CEM
2. Bringing **together** the private sector, governments and the investment community
3. Facilitating identification of both near and longer-term **investment opportunities**
4. Disseminating **best practice** in CCUS policy, regulation and investment

Side-event at CEM-10 in Vancouver, Wednesday 29 May



- 80% of our primary energy is from fossil fuels, and this has not changed in the past 30 years
- CCUS technology is available, and has been for several decades
- Public-private collaboration is critical to drive more action
- Banks are interested in investing in CCUS, but need good projects driven by government incentives



CCUS in the Gulf Region, Abu Dhabi 10 September 2019



- Event jointly hosted by UAE and Saudi, to discuss how to accelerate CCUS in the region
- Participants from government, industry and financial organisations from UAE, Saudi, and Bahrain, plus international participants
- Key messages:
 1. CCUS needed and the region is ready
 2. Finance needs to be “tuned” for CCUS
 3. The Gulf Region countries and industries can gain from closer collaboration
- Next: to help drive regional collaboration to develop CCUS jointly



CEM CCUS Initiative – OGCI collaboration



Monday 23 September 2019

Joint declaration on accelerating the CCUS industry

1. Carbon capture, utilization and storage (CCUS) is an essential part of a broad set of solutions needed to create more sustainable low-carbon energy and industrial systems in support of the Paris Agreement climate goals. It can reduce emissions on a significant scale in both the industrial and power sectors, and support the emergence of key technologies, such as clean hydrogen, direct air capture and biomass with CCUS, crucial to meet net zero ambitions.
2. Investment in CCUS must be scaled-up urgently to support achieving global climate and energy goals. Accelerating CCUS will require governments and industry as well as other stakeholders to work collaboratively to develop and deploy investable business models and supportive policies.
3. The Clean Energy Ministerial Carbon Capture, Utilization and Storage Initiative (CEM CCUS Initiative) countries¹ and the Oil and Gas Climate Initiative (OGCI) member companies² support the global development of an economically viable, environmentally responsible and safe CCUS industry, and recognise the need for strong public-private co-operation in this respect. At the Tenth Clean Energy Ministerial (CEM 10) in Vancouver on 29 May 2019, CEM CCUS Initiative countries and OGCI agreed to explore ways to collaborate to accelerate CCUS³.
4. Today, we crystallise our intent to work together to drive strategic CCUS deployment forward as a step in the development of an economically viable, environmentally responsible and safe CCUS industry. The collaboration between the CEM CCUS Initiative and OGCI aims to catalyse and facilitate commercial-scale CCUS opportunities worldwide.
5. CEM CCUS Initiative countries and OGCI member companies intend to explore opportunities to support the commercial development of CCUS through the various stages of development. This will notably include sustained dialogue on policy and regulatory frameworks, aiming for commerciality of identified hubs and projects. This could also consider, as appropriate, mechanisms for risk management at each operational phase, knowledge sharing, storage appraisal activities, corporate and project finance and engagement with civil society.
6. This collaboration represents a unique opportunity to bring governments and industries together to help create viable market conditions to advance CCUS and to progress potential CCUS hubs⁴ and projects in CEM CCUS Initiative countries and others identified by OGCI members, as well as exploring opportunities in developing countries as appropriate. To this end, CEM CCUS Initiative countries and industry members within OGCI intend to bring their respective expertise and support to advance CCUS development and deployment across the globe.
7. This collaboration is designed to be flexible, and is non-binding and voluntary. CEM CCUS Initiative countries and OGCI member companies recognise that collaboration will take different forms in different jurisdictions. Various public-private collaboration models exist and CEM CCUS Initiative countries and OGCI member companies will discuss their merits in different circumstances and work together to create

- On Monday 23 September, CEM CCUS Initiative and OGCI announced their intention to collaborate
- Focus: accelerating CCUS projects with emphasis on key hubs and clusters: five OGCI “Kickstarters” as a starting point, but will look beyond
- Flexible and specific to each country and region
- Open to other industries and sectors to join
- Further details being discussed

<https://www.cleanenergyministerial.org/news-clean-energy-ministerial/clean-energy-ministerial-ccus-initiative-and-oil-gas-climate>

CEM CCUS Initiative: “Finance Sector Lead Group for CCUS”

- To gain a more systematic relationship and to provide input and advice on government policy conducive to investment
- Key objectives:
 1. To offer a platform for the financial sector to discuss CCUS investment challenges and opportunities and to gain insights from governments and industry on experience;
 2. To bring views and comments from the financial sector to governments and industry regarding the required government policy approaches and CCUS as an investment proposition;
 3. To help accelerate financing of CCUS clusters and key projects.
- Targeted participants:
 - Multilateral Development Banks
 - Commercial banks
 - Institutional investors
 - Finance-sector associations

CEM CCUS Initiative: other points

- Academic Task Force
 - CSLF TG better placed to revive and host the academic TF; CEM can contribute if necessary (e.g. policy-related research)
- Capacity-building funds
 - Funds in principle for the use of existing and new emerging economy members to participate in CEM CCUS Initiative
 - Other decisions case-by-case
- CSLF Stakeholder Group
 - Regional approach to stakeholder engagement, with ability to organise and host targeted events with key groups
 - Currently dormant; suggestion to discuss the future at the next CEM CCUS Initiative meeting in January
- Work on Business Models
 - CEM has circulated the templates drafted by TG (China); will continue to chase for input
- Collaboration towards CEM 11 in Santiago de Chile:
 - CEM CCUS Initiative invites TG readout at January 2020 CEM CCUS Initiative members' meeting in Abu Dhabi
 - January CEM Meeting: discussion and decision on requirements for CEM 11 meetings in Chile

Upcoming

- 14 November 2019, 14:00 CET: WEBINAR on “Progress with CCUS in Norway”
- 5-6 December 2019: IEA ministerial meeting, with CCUS side-event
- 14-15 January 2020: CEM CCUS Initiative meeting in Abu Dhabi
- 1-4 February 2020: CEM-11 preparatory meeting in Riyadh
- 25-27 February 2020: International CCUS Conference in Riyadh; part of Saudi Arabia’s G20 Presidency agenda
- Last week of May 2020: 11th Clean Energy Ministerial hosted by Chile

Interested? Want to get involved?

If you want to learn more about the initiative, please reach out to Mr. Juho Lipponen, CEM CCUS Initiative Coordinator: juho.k.lipponen@outlook.com

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



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CARBON CAPTURE, UTILIZATION & STORAGE

ACCELERATING CCUS TOGETHER

AN INITIATIVE OF THE CLEAN ENERGY MINISTERIAL