

20 OCTOBER 2021 *JAPAN-ASIA CCUS FORUM 2021*


SOUTHEAST ASIA CCUS ROUNDTABLE UPDATE

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Global CCS Institute**



THE GLOBAL CCS INSTITUTE

- International member led organization
- Not-for-profit entity limited by guarantee, incorporated in Australia
- Offices in Washington DC, Brussels, London, Beijing and Tokyo.
Headquarters in Melbourne
- Our diverse international membership consists of:
 - Governments
 - Global Corporations
 - Small Companies
 - NGOs
- Specialist expertise covers the complete CCS/CCUS chain



GLOBAL CCS INSTITUTE

INSTITUTE STRATEGY
2017 - 2022

OUR VISION
CCS is an integral part of a low emission future

OUR MISSION
To accelerate the deployment and commercial viability of CCS globally

OUR STRATEGIC IMPERATIVES
We're a Member led organisation
We're a sensible, but bold, risk taker
We're agile and we embrace change
We're financially sustainable
We expand and leverage the CCS community
Our focus is on valued and impactful work

OUR IDENTITY
We're recognised and sought out as the premier CCS body

Diverse Members

North America - 27

Aera Energy	Government of USA (DoE)
Air Products	Government of Alberta
Archer Daniels Midland	Halliburton
Baker Hughes	Indep. Project Analysis
Int'l B'hood of Boilermakers	Kiewit Engineering Group
Carbon Capture, Inc.	NET Power
Cemvita Factory	NEXT Carbon Solutions
Chevron	Occidental Petroleum Corp.
ClearPath	Silver Point Capital
Denbury	Southern Company
Enhance Energy	Stratum Reservoir
EQT	Svante
ExxonMobil Corporation	Whitecap
General Electric	

Europe - 35

Air Liquide	CO2 CAPSOL AS	Government of Scotland	Prime Marine
Aker Carbon Solutions	Drax Group, PLC	Gunvor Group Ltd	Ramboll
BP International Ltd.	Dril Quip	Heidelberg Cement AG	Saipem
Brevik	EBN	HSBC Holdings plc	Shell Int'l Petroleum Co.
C-Capture Limited	ENI	Linde	SICK
Calix	Equinor	MAN Energy Solutions	Suez
CarbFix	Ervia	Motor Oil Hellas SA	Technip Energies
Carbon Clean	Gassnova SF	Petrofac	Tecnicas Reunidas
	Government of UK (BEIS)		Tenaris
			Veolia

Japan - 22

Chiyoda Corporation	(JOE)	Mitsui Global Strategies
Government of Japan (METI)	JBIC	Mitsui OSK
IHI Corporation	J-Power	Nippon Yusen (NYK)
INPEX	JOGMEC	RITE
Japan CCS Company Limited	JX Nippon Oil & Gas	Sumitomo Corporation
Japan Coal Energy Center	Kawasaki Heavy Industries	Torishima
Japan Oil Engineering CO	Kobe Steel	Toshiba Energy Systems
	Mitsubishi Corporation	
	Mitsubishi Heavy Industries	

Africa - 1

Council for Geoscience (SA)

China - 3

Clean Energy Project Tech
CNPC RISE
Government of China (MEE)

Australia/SE Asia - 18

ANLEC	Government of Australia	Mineral Carbonation Int'l	Repsol
BHP Billiton Ltd.	Government of Victoria	Minerals Council of Australia	Santos Ltd
Bridgeport Energy	Horizon Oil	NT Government	Southern Green Gas Ltd
CO2CRC Limited	ITRI	Origin Energy	Woodside Energy Ltd
CSIRO	LET Australia	Petronas	

Government, Quasi-Govt - 11

Extractives, Services - 38

● Technology Providers - 21

● Power Producers - 4

● Research, Universities - 7

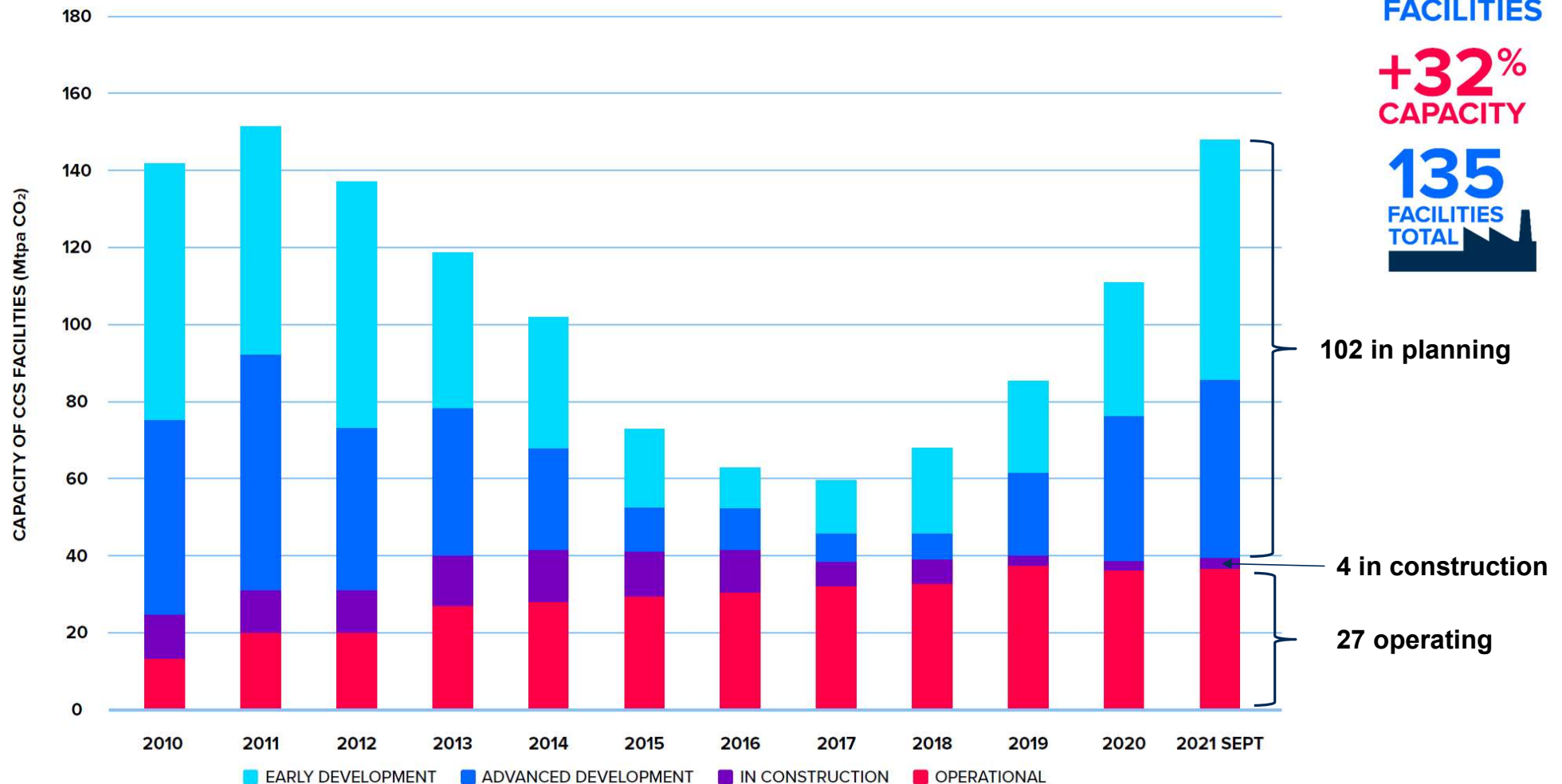
● Industrial - 7

● Other - 17

- NGOs/Unions
- Associations
- Finance
- Engineering

THE GLOBAL STATUS OF CCS IN 2021

Four years of growth in the CCS project pipeline.



* 135 total includes 2 facilities that have suspended operations – not shown on the chart

ASIA PACIFIC

- 5 new facilities in APAC added to the database.
- First commercial CCS projects announced in Indonesia and Malaysia.
- China launched its Emission Trading Scheme, covering >2000 power plants. CCS included in China's 5-year plan for the first time.
- Australia is including CCS in its Emissions Reduction Fund and allocated \$250 million in funding for CCS hubs.
- Japan is pursuing blue hydrogen opportunities and driving transnational cooperation in CCS.



AUSTRALIA
INCLUDES CCS
IN EMISSIONS
REDUCTION FUND



SOUTHEAST ASIA

- Emerging hot spot for CCUS in the Asia Pacific region
- Unique energy and industry system: CCS essential to decarbonisation
- Several projects close to FID or advanced development
- Regulation and policy development in several countries
- International collaborations
- Regional approach/collaboration critical to optimize CCS network

SOUTHEAST ASIA CCUS ROUNDTABLE

- Objectives of the platform
 - To provide updates
 - To discuss common policy and legal issues
 - To coordinate stakeholder engagement
 - To Identify/support technical areas of common interest as part of its work program
- First meeting on 16th June 2020
- Six meetings held to date, next in November 2021
- Great discussions: private and public sectors, including major governments, oil/gas corporations, utilities, financial institutions, and research institutions

SOUTHEAST ASIA CCUS ROUNDTABLE

- Topics covered:
 - Capacity development
 - CCS hub and cluster
 - Regulations
 - Carbon pricing
 - Marine transport

SOUTHEAST ASIA CCUS ROUNDTABLE

- Collaborations
 - CO₂ shipping
 - Business model for regional CO₂ shipping
 - Regional approach/harmonization: legal and regulatory framework
 - Regional framework for bilateral and multilateral transport and storage of CO₂
 - Regional carbon credit/carbon market for CO₂ stored

THANK YOU