

GLOBAL CCS INSTITUTE UPDATE

CSLF Technical Group Meeting – 28 April 2021

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CCS FACILITIES (ADVANCED DEVELOPMENT TO OPERATING- NEW CLASSIFICATION SYSTEM)

- 66 commercial CCS facilities: 26 operating, 4 under construction, 34 under development, 2 with operations suspended.

- Almost 40 million tonnes of CO₂ captured annually from 26 commercial CCS facilities currently in operation.

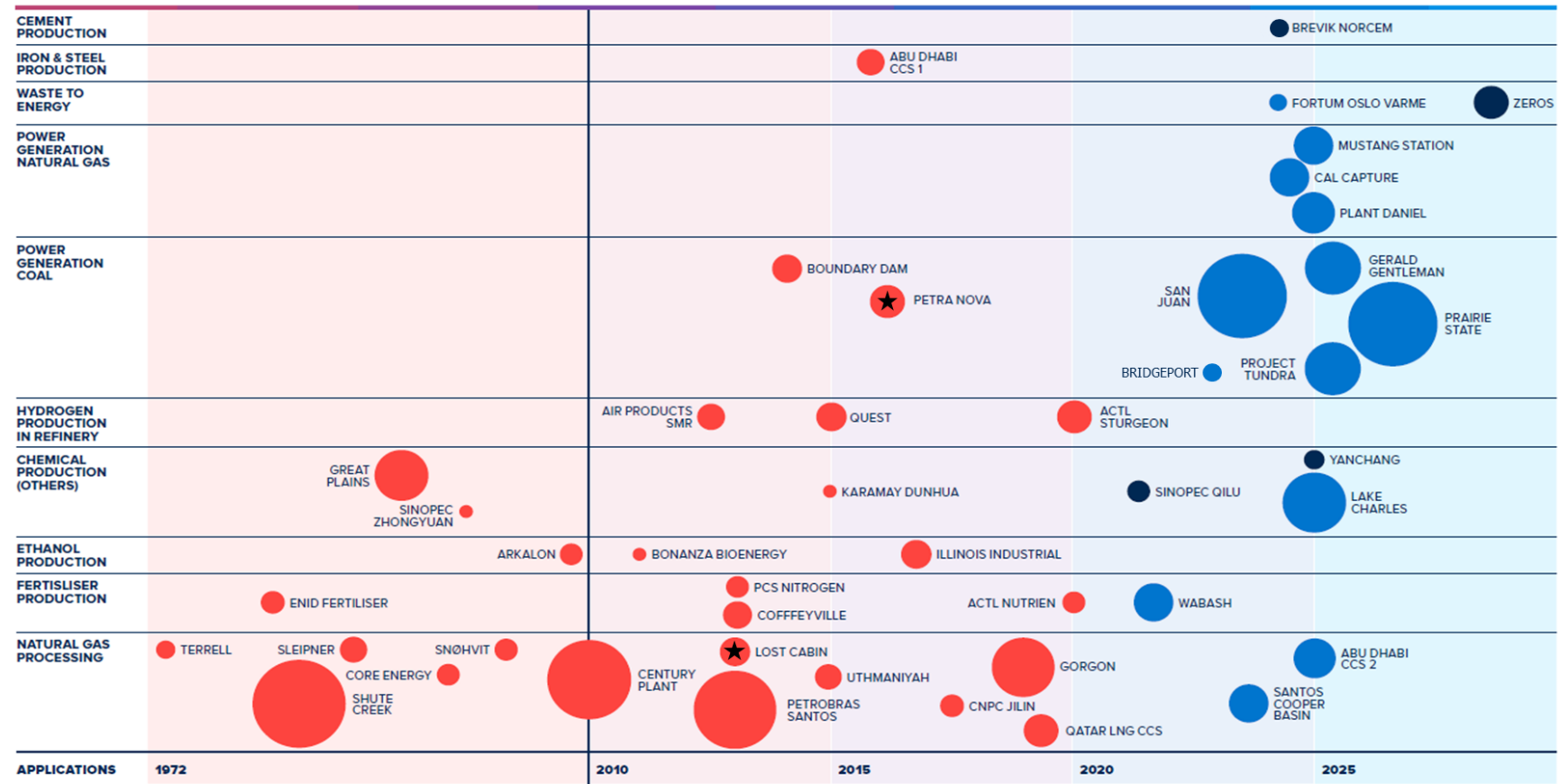


Chart indicates the primary industry type of each facility among various options.

- IN OPERATION
- IN CONSTRUCTION
- ADVANCED DEVELOPMENT
- ★ OPERATION SUSPENDED

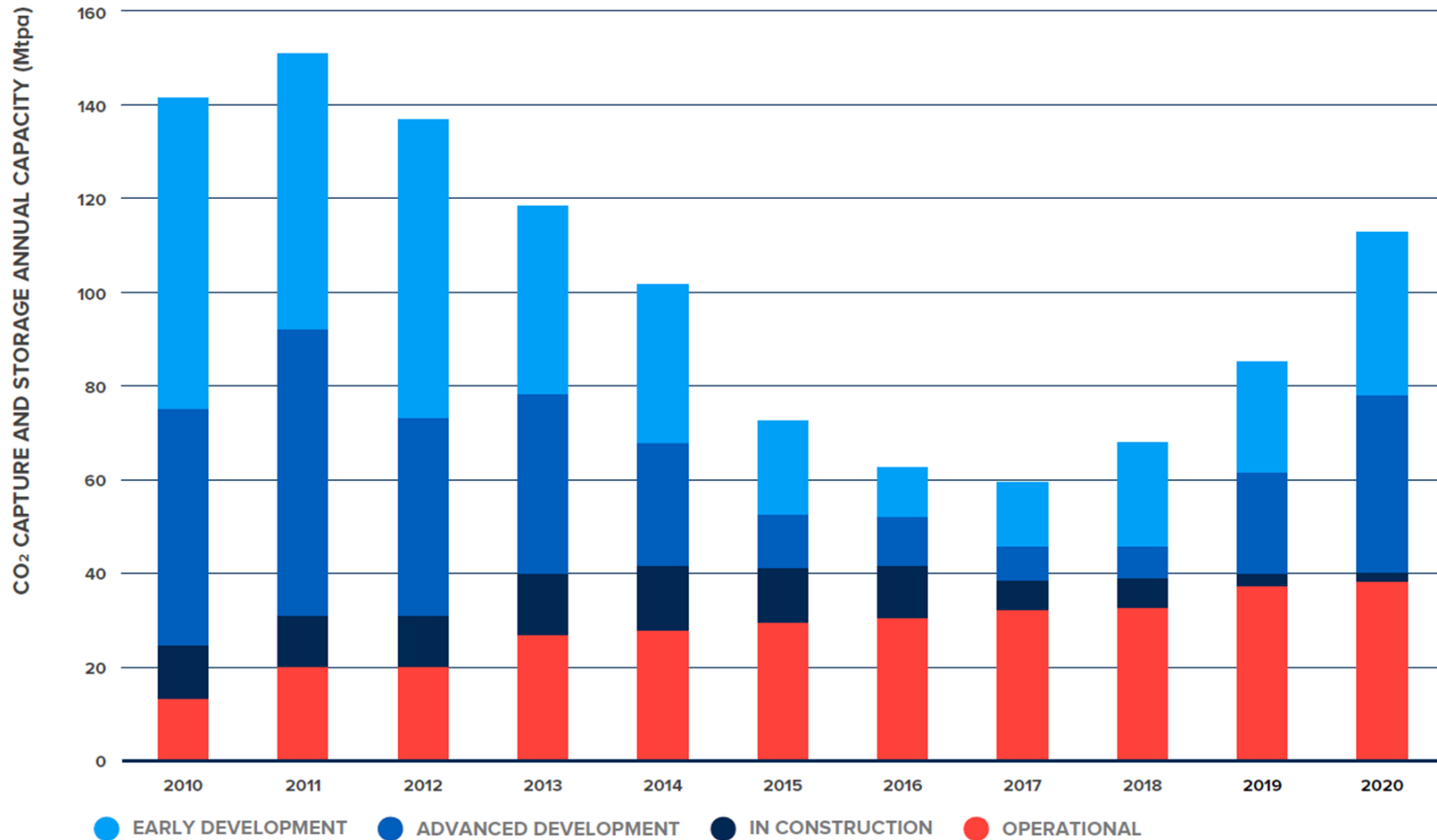
Size of the circle is proportionate to the capture capacity of the facility.



17 NEW FACILITIES ADDED IN 2020

Facility Title	Capture Capacity (Mtpa)	Operation Date	Status	Country Name	Industry	Storage Code
Qatar LNG CCS	2.1	2019	Operational	Qatar	Natural Gas Processing	Dedicated Geological Storage
Santos Cooper Basin CCS Project	1.7	2023	Advanced Development	Australia	Natural Gas Processing	Dedicated Geological Storage
San Juan Generating Station Carbon Capture	6	2023	Advanced Development	USA	Power Generation	Under Evaluation
Velocys' Bayou Fuels Negative Emission Project	0.5	2024	Early Development	USA	Chemical Production	Dedicated Geological Storage
Project Pouakai Hydrogen Production with CCS	1	2024	Early Development	New Zealand	Hydrogen Production and Power Generation	Under Evaluation
Cal Capture	1.4	2024	Advanced Development	USA	Power Generation	Enhanced Oil Recovery
Red Trail Energy BECCS Project	0.18	2025	Early Development	USA	Ethanol Production	Dedicated Geological Storage
Clean Energy Systems Carbon Negative Energy Plant - Central Valley	0.32	2025	Early Development	USA	Power Generation	Under Evaluation
The Illinois Clean Fuels Project	2.7	2025	Early Development	USA	Chemical Production	Dedicated Geological Storage
Drax BECCS Project	4	2027	Early Development	United Kingdom	Power Generation	Dedicated Geological Storage
Hydrogen to Humber Saltend	1.4	2026 - 2027	Early Development	United Kingdom	Hydrogen Production	Dedicated Geological Storage
The ZEROS Project	1.5	Late 2020s	In Construction	USA	Power Generation	Enhanced Oil Recovery
LafargeHolcim Cement Carbon capture	0.72	Mid 2020s	Early Development	USA	Cement Production	Enhanced Oil Recovery
Mustang Station of Golden Spread Electric Cooperative Carbon Capture	1.5	Mid 2020s	Advanced Development	USA	Power Generation	Under Evaluation
Plant Daniel Carbon Capture	1.8	Mid 2020s	Advanced Development	USA	Power Generation	Dedicated Geological Storage
Gerald Gentleman Station Carbon Capture	3.8	Mid 2020s	Advanced Development	USA	Power Generation	Under Evaluation
 Prairie State Generating Station Carbon Capture	6	Mid 2020s	Advanced Development	USA	Power Generation	Dedicated Geological Storage ³

CCS PROJECT PIPELINE – CONTINUED MOMENTUM



THE CAPACITY OF FACILITIES WHERE OPERATION IS CURRENTLY SUSPENDED IS NOT INCLUDED IN THE 2020 DATA.

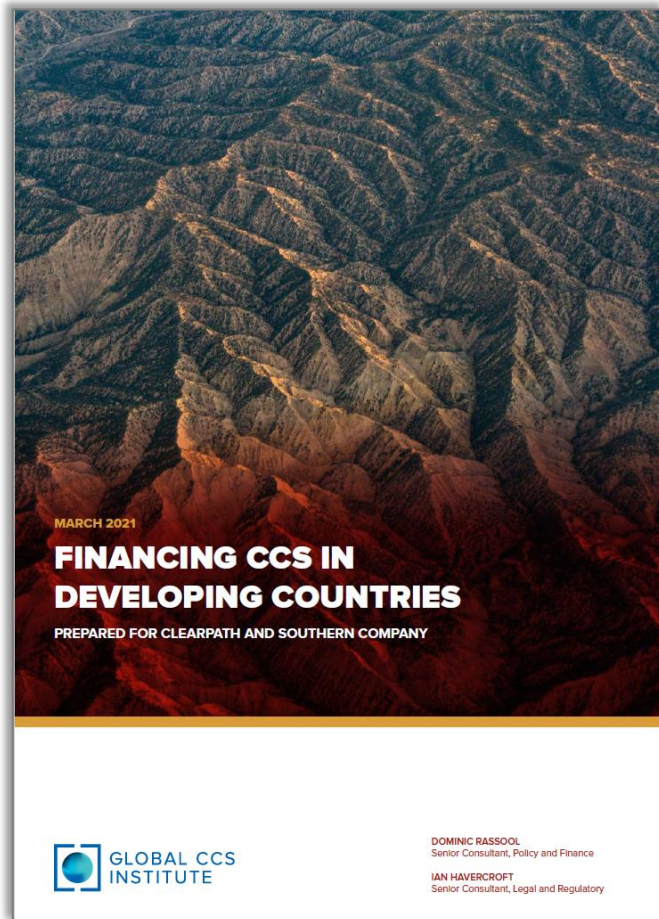


POLITICAL, POLICY AND COMMERCIAL DRIVERS

- Net Zero commitments – higher ambition
 - China by 2060!!
- Biden Administration puts US back in leadership role on climate
- Expectation of more stringent future climate policy everywhere
- ESG investment reallocating capital away from emissions intense assets
- Rising shareholder and stakeholder expectations impacting board rooms
- Voters leading governments
- Clean hydrogen emerging as a major contributor
- Government responding with policies to drive investment into CCS



GCCSI ACTIVITIES – RECENT REPORTS PUBLISHED



Webinar scheduled 5/6 May

Webinar held 20/21 April



REPORTS IN DEVELOPMENT (PUBLISH BY END JULY)

- Preliminary Global CCS Hub Opportunity Identification & Hub Optimisation Case Study
- CCS Policy & Regulation Recommendations
- Funding CCS at scale



ADVOCACY ACTIVITY

Recent virtual events held (<https://www.globalccsinstitute.com/resources/multimedia-library/>)

- Developing CCUS Projects in the US
- EU Industry Week: CCS and Reaching Net Zero
- Building Momentum for CCS in the GCC and around the World
- Opportunities for CCS: Finding Government Funding and Business Partners
- ESG Assessments and CCS (in collaboration with CEM CCUS)

Looking forward

- CCS 101 series: 3-part event targeting US policymakers on CCS projects, infrastructure and policy
- UK CCUS hub and clusters: 3-to-5-part series
- Circular carbon economy series (all reports to have an accompanying webinar)
- On the road to COP 26 series



MEMBER SERVICES

- Welcomed 12 new Members since January 1 – reflects diversity of CCS ecosystem
- Announced the impending opening of an office in Abu Dhabi
- CO2RE Database Enhancement
 - Addition of a “CCS Hubs Tab” – stage 1 before July
 - Update of all data in CO2RE
- Quarterly Global CCS Update – covering projects, policy, technology
 - Expanding with the significant increase in activity
- “Carbon dating” event (US/Europe) attracted numerous emitters and service providers
- Key roles in CCS symposiums sponsored by our government members in Japan and China
- SE Asia Roundtable and Australia CCS Working Group



THANK YOU

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