

Market Update – Carbon Capture & Storage

September 18, 2024

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The News

What is happening in the CCS world: The News (1/5)

Date	News	Category
9/17/2024	8 Rivers Secures Investment from JX Nippon for First Commercial Deployment of the Calcite Direct Air Capture Technology	Transactions
9/17/2024	Shopify launches e-commerce platform for trading carbon credits	Other
9/13/2024	PPL's Carbon Capture Project Gets \$72M US DOE Funding	Projects
9/13/2024	Deep Sky receives an investment of \$1.8mm from National Bank of Canada and BMO	Transactions
9/12/2024	Baker Hughes Launches CarbonEdge™ Digital Solution for CCUS Projects	Other
9/12/2024	Gevo to acquire Red Trail Energy Assets in North Dakota for \$210mm	Transactions
9/12/2024	1PointFive's South Texas Direct Air Capture Hub Awarded U.S. Department of Energy Funding of up to \$500mm	Projects
9/12/2024	Iowa Lawmakers File Lawsuit Against Summit Carbon Pipeline Approval	Projects
9/12/2024	Origen, Shell & Mitsubishi To Launch Pelican Gulf Coast DAC Project	Projects
9/10/2024	Google signs \$10m Holocene DAC carbon capture deal, at \$100 per ton of CO2	Projects

What is happening in the CCS world: The News (2/5)

Date	News	Category
9/7/2024	EPA Issues Draft Permits for Underground Injection Control Class VI Wells in Texas	Government/ Policy
9/5/2024	DOE awards \$5mm to CO2 Capture pilot at Basin Electric's Dry Fork Power Station in Wyoming	Projects
9/5/2024	Mantel Raises \$30M in Series A Funding led by Shell Ventures and ENI Next	Transactions
9/5/2024	Harvestone Low Carbon Partners and Bank of America Close \$205 million Carbon Capture and Sequestration Tax Equity Financing	Transactions
9/4/2024	Skytree partners with Scanfil to scaleup Direct Air Capture manufacturing across the globe	Projects
9/4/2024	Montana Technologies Announces Memorandum of Understanding with Clarity Technology to Deploy AirJoule® in Support of Direct Air Capture Carbon Dioxide Removal Projects	Projects
9/2/2024	CarbonCapture Inc. Pauses Development Of Project Bison In Wyoming	Projects
8/29/2024	Nu:ionic Technologies and RW Energy Announce Strategic Alliance for Distributed Scale Hydrogen Production and CO2 Capture Projects	Projects

What is happening in the CCS world: The News (3/5)

Date	News	Category
8/28/2024	The Iowa Utilities Commission (IUC) issues pipeline permit to Summit Carbon Solutions	<i>Projects</i>
8/28/2024	NETL launches Carbon Storage Planning Inquiry Tool- PlanIT	<i>Other</i>
8/28/2024	Carbon Clean and PETRONAS CCS Solutions ink MOU to jointly collaborate and evaluate Carbon Clean's CCS technology	<i>Projects</i>
8/28/2024	Department of Energy grants WMU \$5M to advance carbon capture and storage	<i>Other</i>
8/26/2024	Germany To Invest \$3.7B In Industry Transition And Carbon Storage	<i>Government/ Policy</i>
8/23/2024	DOE Modifies \$10mm Carbon Utilization Program, Raises Maximum Funding Tenfold	<i>Government/ Policy</i>
8/21/2024	Enterprise Products to acquire Pinon Midstream for \$950mm	<i>Transactions</i>
8/21/2024	Alaska oil and gas regulator takes first step toward Carbon Storage Program	<i>Projects</i>
8/20/2024	UCF researcher develops lotus-inspired tech to Convert CO2 to Fuels, Chemicals	<i>Other</i>

What is happening in the CCS world: The News (4/5)

Date	News	Category
8/20/2024	Fortera secures \$85mm to accelerate the global deployment of Low-Carbon Cement Production	Transactions
8/20/2024	NextDecade Withdraws Carbon Capture and Storage Application at FERC	Projects
8/19/2024	DOE announces over \$127mm to advance Carbon Capture, Removal, and Conversion Test Centers	Government/ Policy
8/16/2024	Newlab and Greater New Orleans Inc. launch programs in Louisiana to support Decarbonization Start-Ups	Other
8/15/2024	Canada Growth Fund invests \$100mm in Svante	Transactions
8/14/2024	Heidelberg Materials finalizes Award Contract with U.S. DOE for Cement Plant in Mitchell, Indiana	Projects
8/13/2024	DOE announces \$54.4mm to expand portfolio of Carbon Management Technologies to reduce Carbon Emissions	Government/ Policy
8/13/2024	Heimdal and CapturePoint launch largest Operational DAC Facility In Oklahoma, US	Projects
8/13/2024	Altera Infrastructure launches Carbon Capture Pilot Project to tackle shipping emissions	Projects

Legend:

--- Deep dive on the transaction in the upcoming pages

What is happening in the CCS world: The News (5/5)

Date	News	Category
8/13/2024	Pioneering the Future of Carbon Capture: 8 Rivers and Siemens Energy join forces to develop a Zero-Emissions Turbine that generates electricity from CO2	Other
8/9/2024	U.S. DOE releases Principles of Guidance for Responsible Development of Carbon Management Projects	Government/ Policy
8/9/2024	U.S. Department of Energy announces \$52.5mm to catalyze Commercial Carbon Dioxide Removal Technology	Government/ Policy
8/8/2024	Carbon Quest announces its Series A funding led by Riverbend Energy to advance its distributed Carbon Capture Technology	Transactions
8/8/2024	University of North Dakota, EERC awarded \$5mm to develop CO2 Storage in Williston Basin	Other
8/8/2024	DOE Selects Nine Projects to receive \$44.5mm for Technical Assistance Partnerships in Geologic Basins targeted for Carbon Storage	Government/ Policy
8/7/2024	Deep Sky to build world's first Carbon Removal Innovation & Commercialization Centre, Deep Sky Labs, in Innisfail, Alberta	Projects
8/6/2024	Carbon America's FrostCC™ technology demonstrates Ultraclean Carbon Capture	Other
8/1/2024	SLB and Aker Carbon Capture joint venture awarded FEED contract by CO280 for large-scale Carbon Removal Project	Projects

Transactions Analysis

CCUS Transactions Deep Dive – Svante x CGF (1/2)

Canada Growth Fund invests \$100M in Svante

The logo for Svante, featuring the word "Svante" in a large, bold, teal-colored sans-serif font.The logo for the Canada Growth Fund, featuring the words "CANADA", "GROWTH", and "FUND" stacked vertically in a bold, dark teal-colored sans-serif font.

- **Transaction:** CGF will invest up to \$100mm in Svante via Convertible Notes in two tranches
- **Tranches:** First tranche of \$50mm cash disbursement upon closing of transaction and potential second tranche of \$50mm to be drawn subject to approval by both organizations
- **Use of Proceeds:**
 - The First Tranche of funding is to be utilized towards advancing and de-risking of Svante's ongoing first-of-a-kind (FOAK) commercial projects
 - The Second Tranche of funding is expected to be tied to project-specific requirements to match Svante's capital needs for the development and construction of projects alongside the Company's co-development partners
- CGF's investment will be Svante's sixth transaction in past five years, bringing the total capital raised to \$553mm (including grants) during that period
- This transaction marks Svante's progression along the maturity curve, evidenced by its first investment involving a debt component and the largest single-investor contribution to date
- With over \$500mm in capital raised, 7 projects and several other tie ups, Svante is well positioned to be one of the largest Carbon Capture Technology companies in North America

About Svante

Svante is a purpose-driven, leading carbon capture and removal solutions provider. The Vancouver, Canada-based company manufactures nanoengineered filters and modular rotary contactor machines that capture and remove CO₂ from industrial emissions and the air in an environmentally responsible manner.

About CGF

CGF is a \$15 billion arm's length public investment vehicle that helps attract private capital to build Canada's clean economy by using investment instruments that absorb certain risks, in order to encourage private investment in low carbon projects, technologies, businesses, and supply chains.

CCUS Transactions Deep Dive – Svante x CGF (2/2)

Svante Last 5 – Years Transactions

Transaction Date	Transaction Value (\$mm)	Key Investor	Transaction Type
8/15/2024	100.0	Canada Growth Fund	Convertible Notes
3/29/2023	15.0	United Airlines	Strategic
12/15/2022	318.0	Led by Chevron New Energies	Series E
7/7/2021	20.3	Government of Canada	Grant
5/18/2021	25.0	Suncor	Strategic
2/2/2021	75.0	Led by Temasek with strategic investments from Chart Industries, Carbon Direct, Export Development Canada and other existing investors	Series D

Svante Announced Projects

Project Name	Location	Scale	Emitter Industry	Project Phase
Big Spring Refinery FCCU Pilot	Big Spring, TX	Pilot	Oil & Gas	Feasibility
Chevron, San Joaquin	San Joaquin, CA	Pilot	Oil & Gas	Operational
Lafarge CO2MENT	Richmond, BC	Demonstration	Cement	Operational
Husky Energy, Pikes Peak South	Lashburn, SK	Pilot	Oil & Gas	Operational
Kwiana to Cliff Head Seaborne CO2	Kwiana, Australia	Commercial	Various	Feasibility
Lafarge Holcim Cement, Colorado	Florence, CO	Commercial	Cement	Feasibility
St. Lawrence River Valley DAC Hub	St. Lawrence River Valley, QC	Commercial	NA	Feasibility

CCS Transactions – LTM (1/3)^(a)

Transaction Date	Target	Transaction Value (\$mm)	Investor	Target Sector	Transaction Type	Target US Office	Pure Play?
8/21/2024	Piñon Midstream	950.0	Enterprise Products	Midstream + Storage	M&A	Houston, TX	No
8/20/2024	Fortera	85.0	Presidio Ventures, Saint-Gobain NOVA, Wollemi Capital, Alumni Ventures, Khosla Ventures, Temasek Holdings	Point Source + Utilization	Series C	San Jose, CA	No
8/15/2024	Svante	100.0	Canada Growth Fund	Point Source+DAC	Debt	British Columbia, Canada	Yes
8/8/2024	CarbonQuest	Undisclosed	Riverbend Energy	Point Source	Series A	Spokane, WA	Yes
7/31/2023	Mitico	1.2	SOSV/HAX, Freeflow Ventures, Caltech	Point Source	Pre-Seed Round	Los Angeles, CA	Yes
7/31/2024	Applied Carbon	21.5	Participation from 12 investors led by TV OC	Carbon Removal - Biobased	Series A	Houston, TX	Yes
7/30/2024	Graphyte	30.0	Prelude Ventures, Carbon Direct Capital, Breakthrough Energy Ventures, Overture	Carbon Removal - Biobased	Series A	Dover, DE	Yes
7/12/2024	Carbon Limit	0.7	South Florida ClimateReady Tech Hub	Carbon Removal	Grant	Boca Raton, FL	Yes
7/9/2024	KC8 Capture Technologies	6.7	Woodside Energy, Cemex	Point Source	Strategic	Melbourne, Australia	Yes
7/3/2024	CO2Brew	0.8	Avatar Innovations and Several Angel Investors	Point Source + Utilization	Seed Round	Calgary, Canada	Yes
7/3/2024	Blue Dot Carbon	2.5	Carbon Streaming	Carbon Credit Financing	M&A	Vancouver, Canada	Yes
7/1/2024	Yama	3.0	The Grantham Foundation, Susquehanna Sustainable Investments, Kibo Invest, VOYAGERS.io and Plug and Play	DAC	Early Stage VC	DE	Yes
6/25/2024	Travertine	8.5	Clean Energy Ventures, Holcim Group and The Grantham Foundation	DAC + Utilization	Early Stage VC	Boulder, CO	No
6/7/2024	Artic Capture	Undisclosed	Y Combinator	Carbon Removal - Biobased	Pre-Seed Round	New York, NY	Yes
6/5/2024	Capsol Technologies	2.8	Undisclosed	Point Source	PIPE	Houston, TX	Yes
5/24/2024	Earth RepAIR	1.5	WARF Ventures	DAC + Mineralization	Seed Round	Madison, WI	Yes
5/22/2024	Xpansive	Undisclosed	Participation by 10 Investors led by Aramco	Credits Market	Later Stage VC	New York, NY	No
5/22/2024	Global Thermostat	Undisclosed	Zero Carbon Systems	DAC	M&A	Brighton, CO	Yes
5/21/2024	Osmoses	0.6	NGIF Accelerator	Point Source	Grant	Cambridge, MA	Yes
5/20/2024	Spiritus	Undisclosed	Aramco Ventures	DAC	Strategic	White Rock, NM	Yes

Notes:

a) The listed transactions includes select VC, PE, strategic/corporate investments, debt raises, M&As, LBOs, and JVs in USA and Canada as of 8/31/2024

b) Source: Company Website, Press Releases, SEC Filings

CCS Transactions – LTM (2/3)

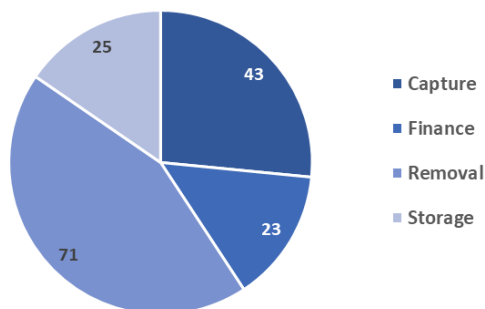
Transaction Date	Target	Transaction Value (\$mm)	Investor	Target Sector	Transaction Type	Target US Office	Pure Play?
5/16/2024	TerraFixing	1.6	Led by Angel Investors	DAC	Seed Round	Ottawa, Canada	Yes
4/11/2024	Captura	23.8	National Grid Partners and Japan Airlines Innovation Fund/Translink Capital	DOC	Series A	Pasadena, CA	Yes
4/11/2024	Bison Low Carbon Ventures	3.7	Mizuho Bank	Carbon Capture as a Service	Strategic	Calgary, Canada	Yes
4/4/2024	ION Clean Energy	45.0	Chevron New Energies, Carbon Direct Capital	Point Source	Strategic	Boulder, CO	Yes
3/28/2024	Oka	10.0	Aquiline Capital Partners, Firstminute Capital, Overview Capital	Carbon Credit Insurance	Early Stage VC	Los Angeles, CA	Yes
3/27/2024	Aker Carbon Capture	513.0	SLB	Point Source	M&A	Houston, TX	Yes
3/26/2024	ZeoDAC	Undisclosed	Wilson Hill Ventures, Global Brain, Coca-Cola Europacific Partners, Freeflow Ventures, Accelr8	DAC	Seed Round	DE	Yes
3/26/2024	AirMyne	6.9	Alumni Ventures, Liquid 2 Ventures, Impact Science Ventures, Another Brain, EMLES, Soma Capital, Wayfinder	DAC	Seed Round	Berkeley, CA	Yes
3/26/2024	Aquarry	Undisclosed	Evergreen Climate Innovations	Carbon Removal	Early Stage VC	Emeryville, CA	Yes
3/12/2024	CarbonCapture	80.0	Led by Prime Movers Lab, participated by Amazon, Aramco, Siemens and several others	DAC	Series A	Pasadena, CA	Yes
2/28/2024	Ample Carbon	Undisclosed	Prime Coalition	BECCs	Early Stage VC	CA	Yes
2/22/2024	Clarity Technology	6.8	Initialized Capital and Lowercarbon Capital	DAC	Seed Round	Los Angeles, CA	Yes
2/16/2024	Capsol Technologies	8.4	Munters and other individual investors	Point Source	PIPE	Houston, TX	Yes
2/14/2024	Banyu Carbon	6.5	Grantham Foundation, United Airlines Ventures, ReGen Ventures, Carbon Removal Partners and Propeller	DOC	Seed Round	Seattle, WA	Yes
2/6/2024	AVNOS	36.0	5 Investors led by NextEra Energy	DAC	Series A	Los Angeles, CA	Yes
1/30/2024	Humble Midstream II	Undisclosed	Quantum Capital Group	Midstream	Seed Round	Berkeley, CA	No
1/22/2024	Captura	21.5	Maersk Growth, Eni Next, and EDP Ventures	DOC	Series A	Pasadena, CA	Yes
1/16/2024	Blue Planet Systems	Undisclosed	Marathon Petroleum	Mineralization	Strategic	Los Gatos, CA	Yes
1/8/2024	Parallel Carbon	3.6	Aramco Ventures, Axon Partners, DNX Ventures, Voyagers, Rumbo Ventures	DAC	Seed Round	Jersey City, NJ	Yes
1/3/2024	Mantel	0.7	Arosa Capital Management	Point Source	Early Stage VC	Cambridge, MA	Yes

CCS Transactions – LTM (3/3)

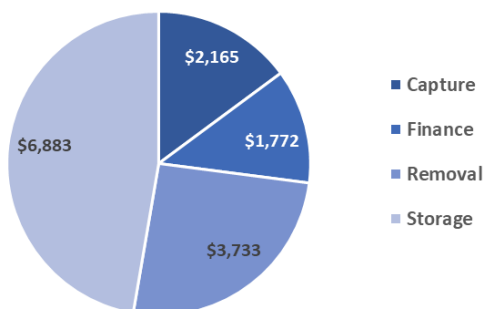
Transaction Date	Target	Transaction Value (\$mm)	Investor	Target Sector	Transaction Type	Target US Office	Pure Play?
1/2/2024	CarbonPilot	0.3	Antler	Credit Certification	Seed Round	NewCastle, DE	Yes
12/20/2023	Entropy	147.5	Canada Growth Fund	Carbon Capture as a Service	Growth Equity	Calgary, Canada	Yes
12/19/2023	Carbon to Stone	0.2	US DOE	Mineralization	Grant	Ithaca, NY	Yes
12/18/2023	Cquesta	5.0	Undisclosed	Carbon Removal - Biobased	Seed Round	Kent County, DE	Yes
11/29/2023	Arca	0.9	British Columbia Centre for Innovation and Clean Energy	Mineralization	Grant	Vancouver, Canada	Yes
11/16/2023	DeepSky	54.8	Led by Whitecap Venture Partners, Brightspark Ventures,	Project Developer	Series A	Montreal, Canada	Yes
11/7/2023	Stratos	550.0	Oxy, Blackrock	DAC Project	JV	Plano, TX	Yes
10/26/2023	GigaDAC	0.3	National Science Foundation	DAC	Grant	Houston, TX	Yes
10/11/2023	Cnaught	2.2	Greycroft, Carthona Capital, Long Run Capital	Credits Market	Seed Round	San Francisco, CA	Yes
10/10/2023	Neutral X	3.2	7 Investors led by North Island Ventures	Credits Market	Early Stage VC	New York, NY	Yes
10/3/2023	Osmoses	11.0	Engine Ventures, F-Prime Capital, Little Green Bamboo Capital, Blindspot Ventures, New Climate Ventures, Collaborative Fund, and Martin D. Madaus	Point Source	Seed Round	Cambridge, MA	Yes
10/2/2023	VyCarb	Undisclosed	Katapult Ocean, Gigascale Capital	DOC	Early Stage VC	New York, NY	Yes
9/28/2023	CO2 Lock (FPX Nickel)	1.1	Undisclosed	Carbon Removal	Early Stage VC	Vancouver, Canada	No
9/13/2023	DevvStream	7.5	Undisclosed	Carbon Credit Financing	Bridge Loan	Vancouver, Canada	Yes
9/8/2023	Spiritus	11.0	Khosla Ventures, Page One Ventures,	DAC	Strategic	White Rock, NM	Yes
9/7/2023	Vaulted Deep	8.0	Lowercarbon Capital, EarthShot Ventures	Carbon Removal	Seed Round	Houston, TX	Yes
9/7/2023	Vaulted Deep	Undisclosed	Advantek Waste Management Services	Carbon Removal	Spin-off	Houston, TX	Yes
9/1/2023	Carbon to Stone	0.4	Carbontech Development Initiative	Mineralization	Grant	Ithaca, NY	Yes

CCS Transactions by Target Sector – Key Takeaways^(a)

Number of Transactions by Target Sector



Value of Transactions by Target Sector (\$mm)



Target Sectors

- Capture: Point Source Capture
- Finance: Carbon Market Platforms, Financing, Credits Trading and Insurance
- Removal: DAC, DOC, Bio-Based Removal; Excludes Nature Based Solutions like re-forestation etc.
- Storage: Geological Storage, Mineralization and Transportation

Key Highlights

- The average transaction value (excluding outliers) declined by 44% from 2022 to 2023, and by an additional 36.4% in 2024 (YTD)^(b)
- The increase in both the total value and the number of transactions in 2023 reflects the policy incentives and momentum driven by the IRA and Canadian CCUS ITC
- While both Carbon Removal and Capture share similar average transaction values, greater corporate involvement in technology and project development suggests that the Capture industry and technology is more mature
 - This trend is further underscored by the rising investment in the Capture sector in 2024
- Over 80% of Removal transactions by value involved DAC companies, solidifying DAC as the most favored Removal technology to date
- Despite the long timeframe and regulatory challenges, Storage (including transportation) accounted for the largest share of total investment, reflecting positive long-term investor sentiment towards CCS

Notes:

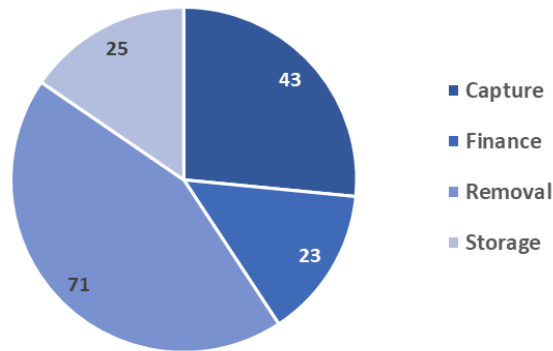
a) The analysis includes select transactions from 2022 onwards, all values indicated are only for publicly disclosed transactions; Transactions of Large Corporations with only a small CCS segment have been excluded in this analysis

b) Outlier transactions include \$0.95B acquisition of Pinon Midstream in 2024, \$4.9B acquisition of Denbury in 2023 and \$1B capital raise by Rubicon Carbon in 2022

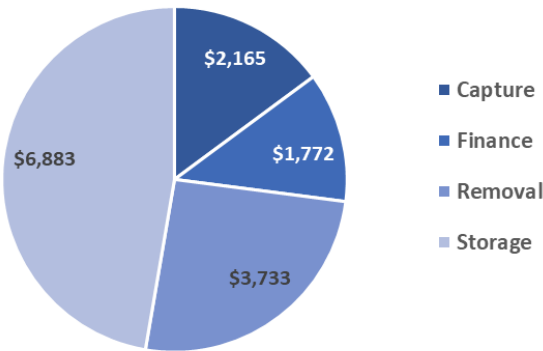
CCS Transactions by Target Sector – Pure Play Vs Cumulative

Cumulative^(a)

Number of Transactions by Target Sector

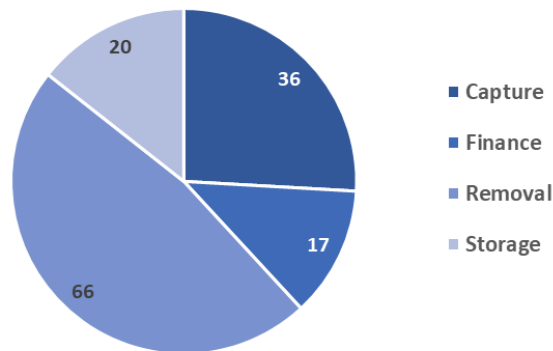


Value of Transactions by Target Sector (\$mm)

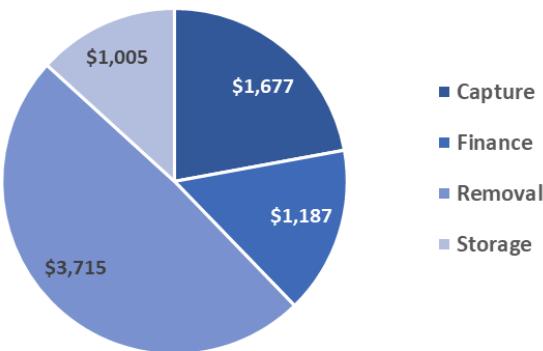


Pure Play

Number of Transactions by Target Sector



Value of Transactions by Target Sector (\$mm)



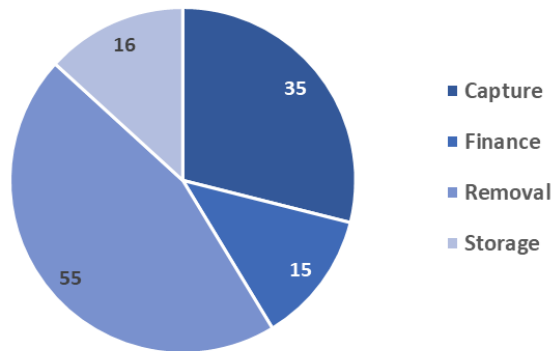
Notes:

a) Cumulative includes non-pure play companies that have a considerable portion of their business in CCS; Transactions of Large Corporations with only a small CCS segment have been excluded in this analysis

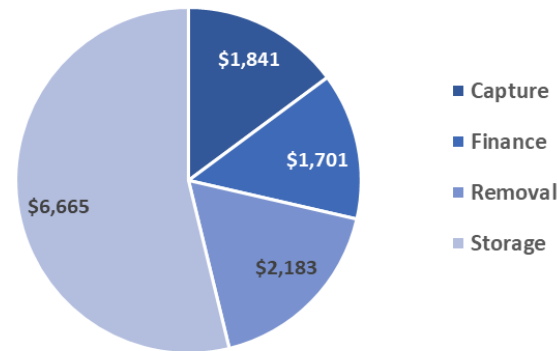
CCS Transactions by Target Sector – Country Comparison

USA

Number of Transactions by Target Sector

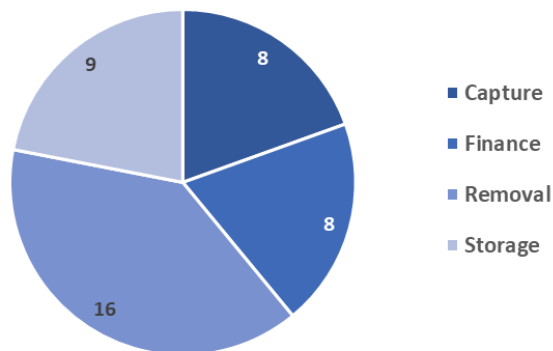


Value of Transactions by Target Sector (\$mm)

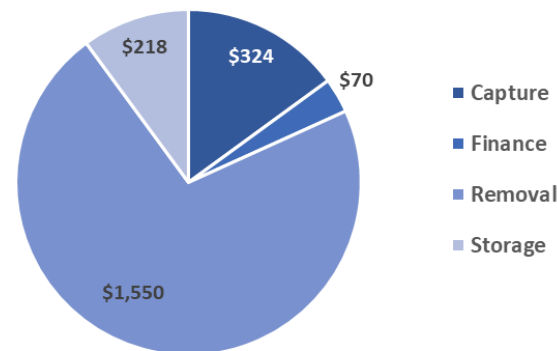


Canada

Number of Transactions by Target Sector



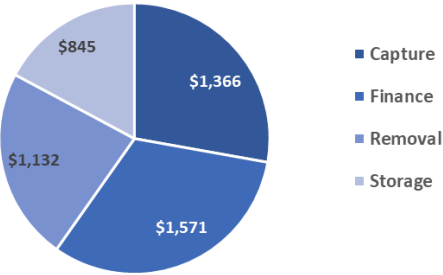
Value of Transactions by Target Sector (\$mm)



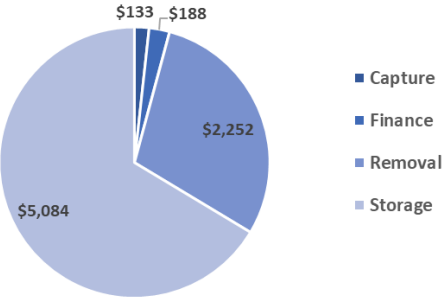
CCS Transactions by Target Sector – Annual Comparison

Value of Transactions by Target Sector

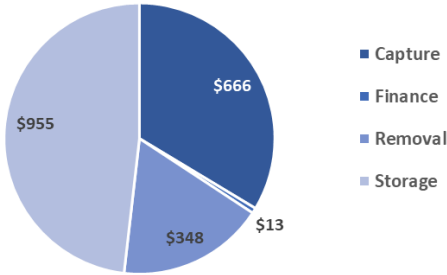
Value of Transactions by Target Sector - 2022
(\$mm)



Value of Transactions by Target Sector - 2023
(\$mm)

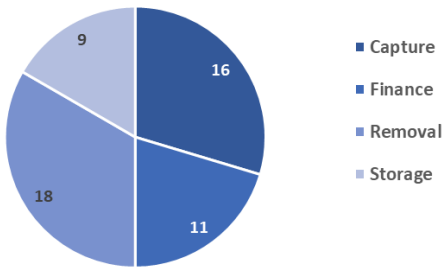


Value of Transactions by Target Sector - 2024^(a)
(\$mm)

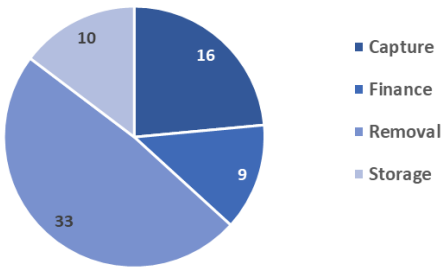


Number of Transactions by Target Sector

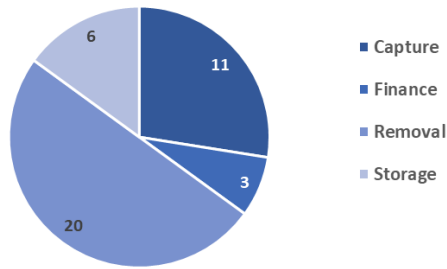
Number of Transactions by Target Sector - 2022



Number of Transactions by Target Sector - 2023



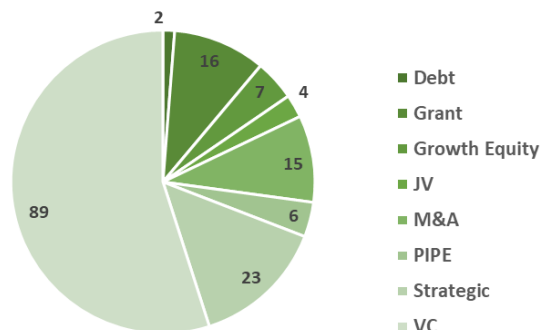
Number of Transactions by Target Sector - 2024^(a)



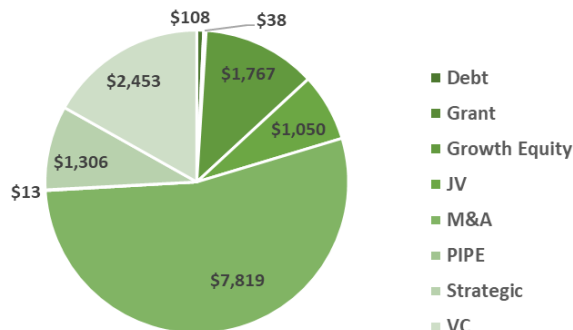
Notes:
a) Select transactions as of 8/31/2024

CCS Transactions by Type – Key Takeaways^(a)

Number of Transactions by Type



Value of Transactions by Type (\$mm)



Transaction Type

- Debt: All transactions with any type of Debt
- Grant: Government and Private Grants
- M&A: All Mergers, Acquisitions and Spin-Offs
- VC: All Early Stage and Later Stage VC rounds

Key Highlights

- From 2022 to 2023, VC and Growth Equity transactions declined. Conversely, M&A transactions in 2023 increased in both number and value, suggesting that while private markets were cautious, cash-rich corporations intensified their focus on strategic M&A
- The minimal number of debt transactions (<2%) underscores the nascent stage of the CCS industry
 - This is further emphasized by the significant gap between the number of VC transactions and those involving Growth Equity or PIPE
- The majority of M&A (70%+) and strategic (30%+) investments were directed toward the Storage sector, suggesting that despite the CCS industry's early stage, Storage and Transportation are perceived as less risky due to their technological similarities with the traditional Oil and Gas sector
- Over 50% of VC transactions involved Removal companies, compared to just 19% for Capture companies, further highlighting the difference in the technological maturity between the two sectors

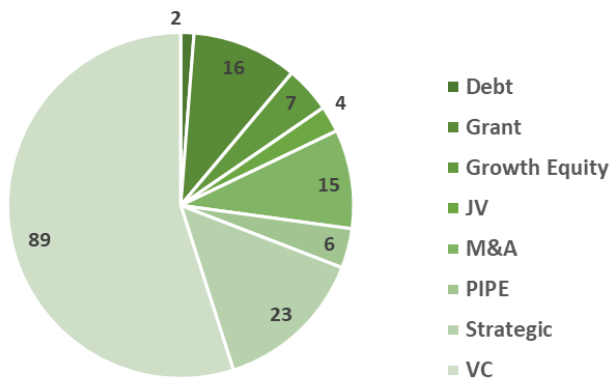
Notes:

a) The analysis includes select transactions from 2022 onwards, all values indicated are only for publicly disclosed transactions; Transactions of Large Corporations with only a small CCS segment have been excluded in this analysis

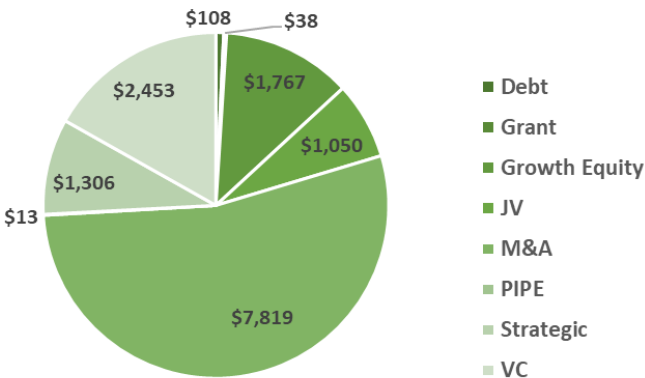
CCS Transactions by Type Pure Play Vs Cumulative

Cumulative ^(a)

Number of Transactions by Type

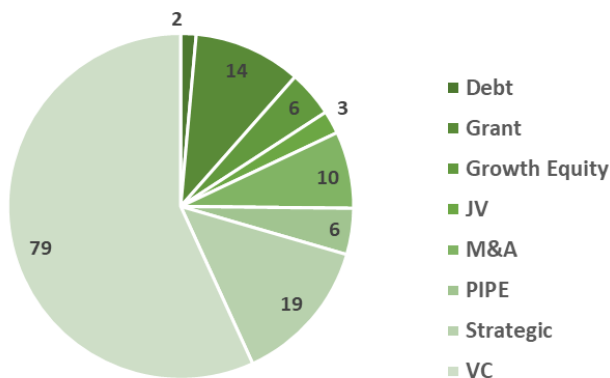


Value of Transactions by Type (\$mm)

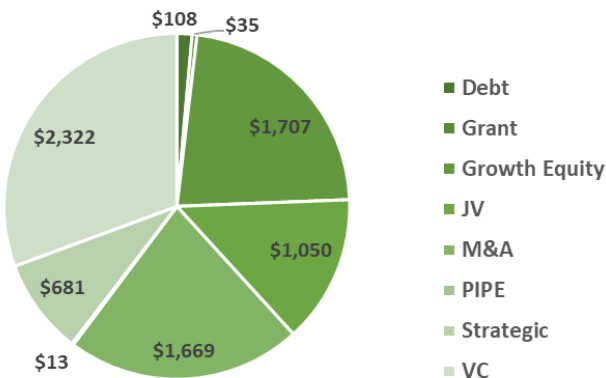


Pure Play

Number of Transactions by Type



Value of Transactions by Type (\$mm)

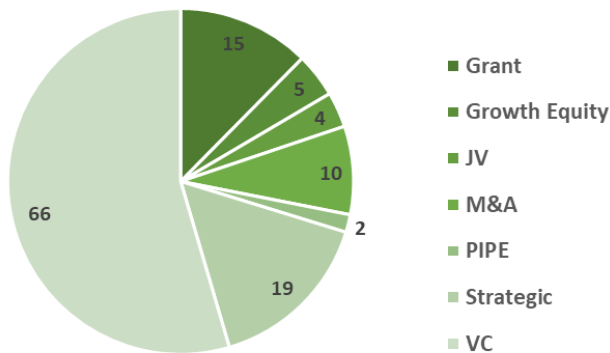


Notes:
a) Cumulative includes non-pure play companies that have a considerable portion of their business in CCUS; Transactions of Large Corporations with only a small CCS segment have been excluded in this analysis

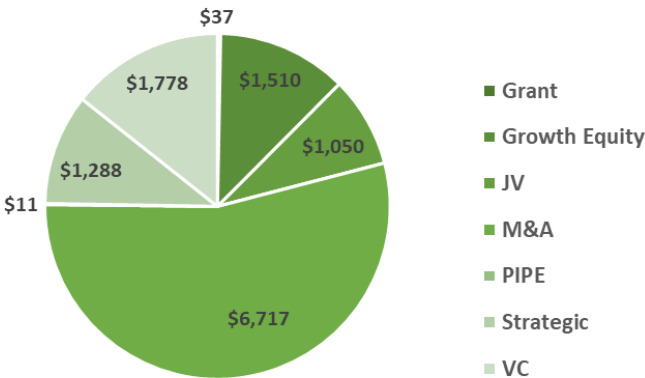
CCS Transactions by Type – Country Comparison

USA

Number of Transactions by Type

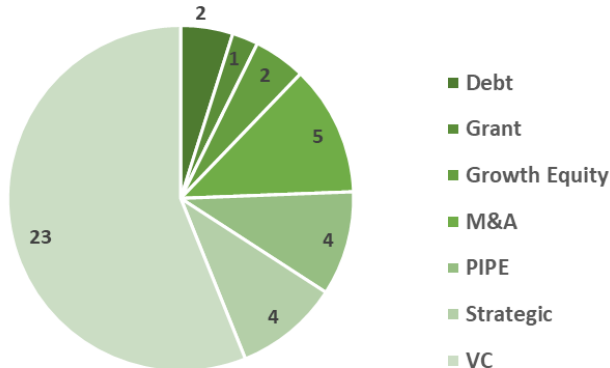


Value of Transactions by Type (\$mm)

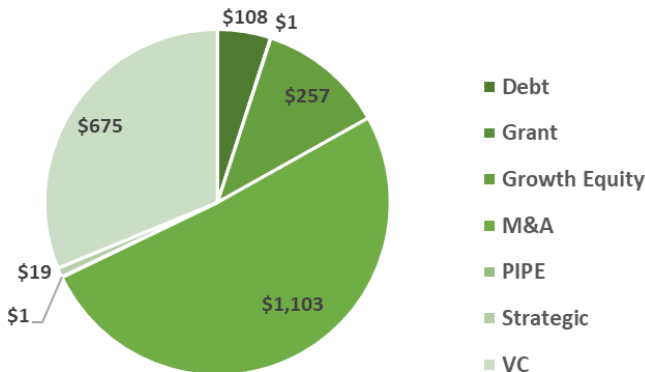


Canada

Number of Transactions by Type

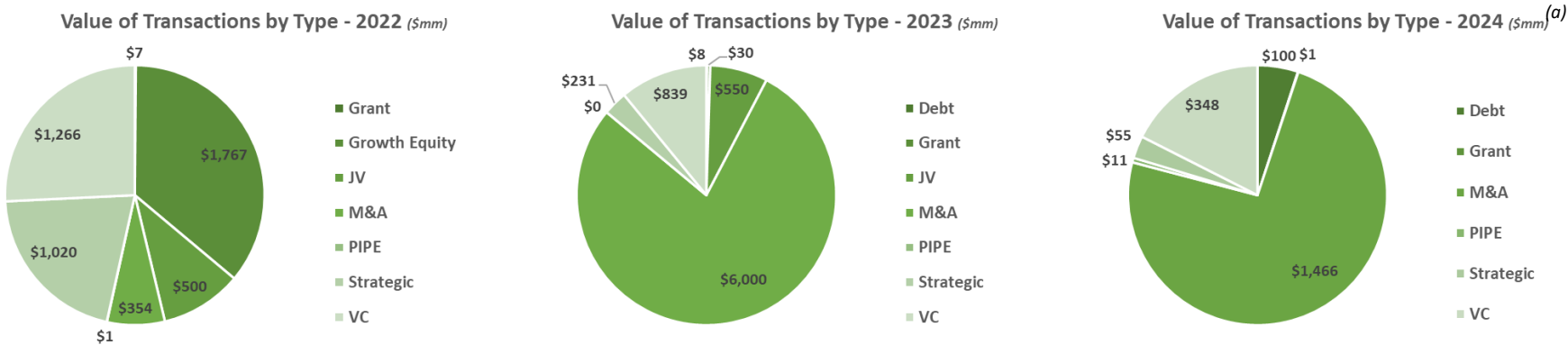


Value of Transactions by Type (\$mm)

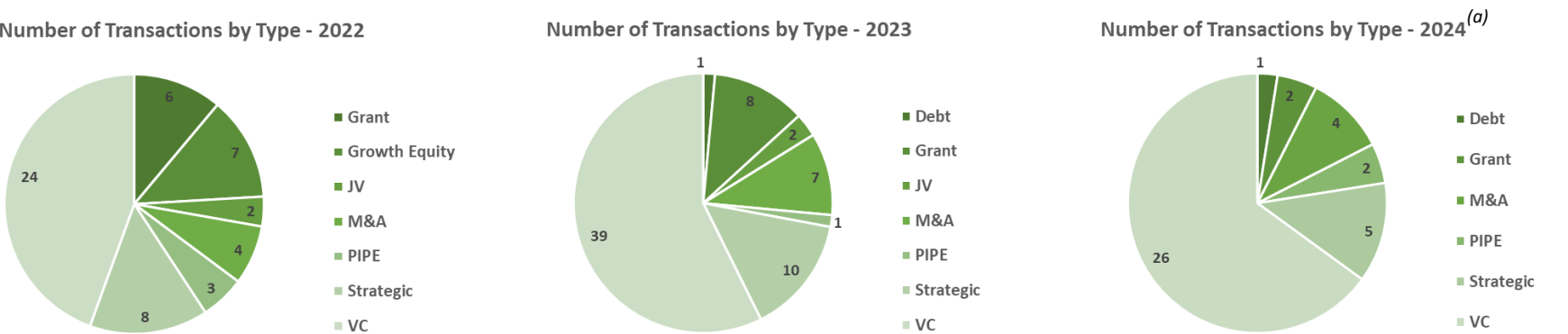


CCS Transactions by Type – Annual Comparison

Value of Transactions by Type



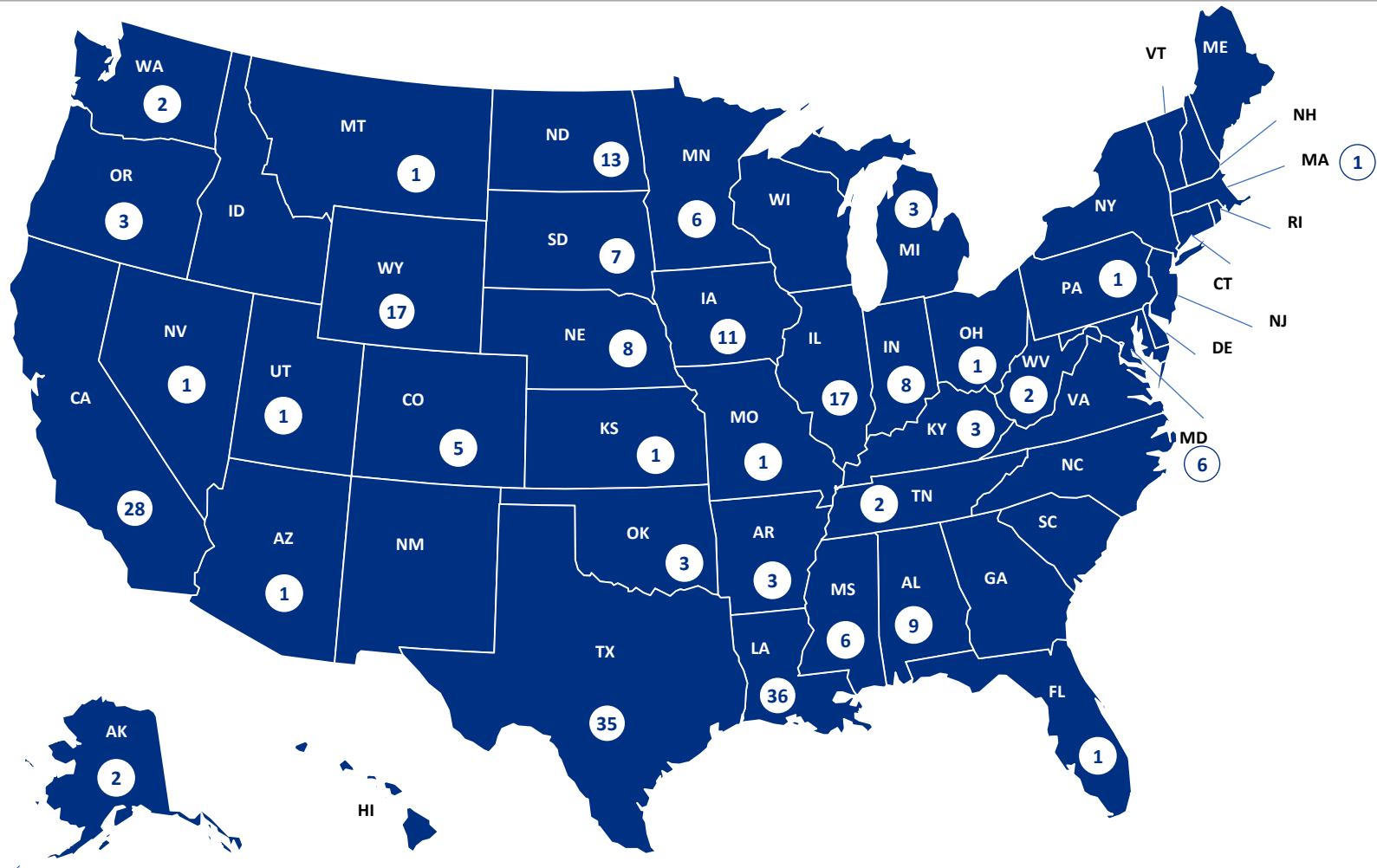
Number of Transactions by Type



Notes:
a) Select transactions as of 8/31/2024

Projects Analysis

CCS Projects Map – USA ^{(a)(b)}



Notes:

- a) Projects considered for the analysis include publicly announced projects at various scales (Feasibility Studies, Planned Pilots, Planned Commercial) and phases (planning, FEED, permitting, under development and operational); few of the projects with both capture and storage have been divided into two separate projects for the analysis
- b) The Map is not to scale

CCS Projects Map – Canada^{(a)/(b)}



Notes:

- a) Projects considered for the analysis include publicly announced projects at various scales (only Feasibility Studies, Planned Pilots, Planned Commercial) and phases (planning, FEED, permitting, under development and operational); few of the projects with both capture and storage have been divided into two separate projects for the analysis
- b) The Map is not to scale

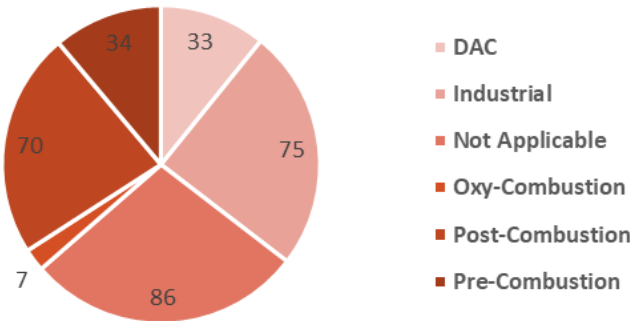
CCS Projects Comparison (1/3)

Capture Type^(a)

Key Highlights

- Point source capture with 111 projects has a clear edge over DAC with only 33 projects
 - The large difference in projects is explained by point source capture's easy integration with existing infrastructure, lower energy requirements and immediate impact on emissions

Projects by Capture Type



Capture Type

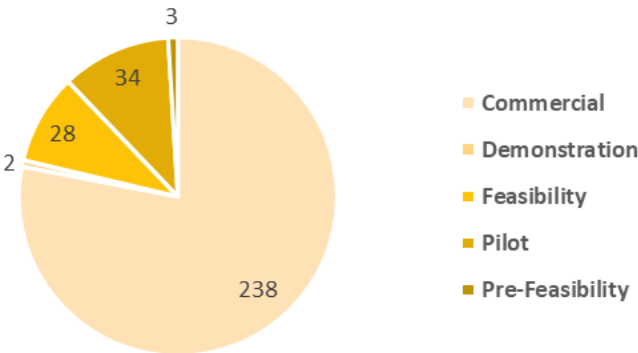
- DAC: Direct Air Capture
- Industrial: Carbon capture from several industrial like ethanol, natural gas processing
- Not Applicable: Projects that have no capture component (dedicated storage and transportation projects)

Project Scale^(a)

Key Highlights

- The large majority of projects are in the commercial stage, indicating growing industry confidence in the viability of CCUS as a technology to meet climate targets
 - The policy of providing tax incentives by both US and Canada government further explains the large number of commercial projects

Projects by Scale



Notes:

^{a)} Projects considered for the analysis include publicly announced projects at various scales (only Feasibility Studies, Planned Pilots, Planned Commercial) and phases (planning, FEED, permitting, under development and operational); few of the projects with both capture and storage have been divided into two separate projects for the analysis

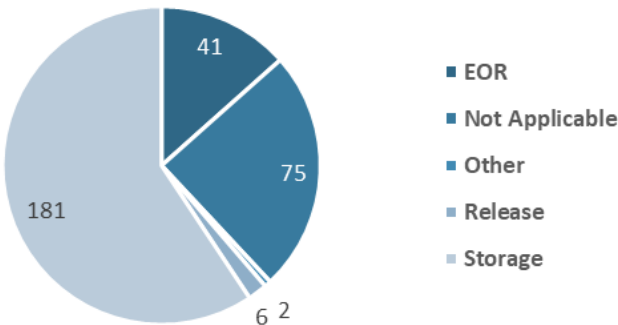
CCS Projects Comparison (2/3)

Fate of CO2^(a)

Key Highlights

- Significant portion of the projects focus on storage due to its permanent nature of removal compared to utilization

Projects by Fate of CO2



Fate of CO2

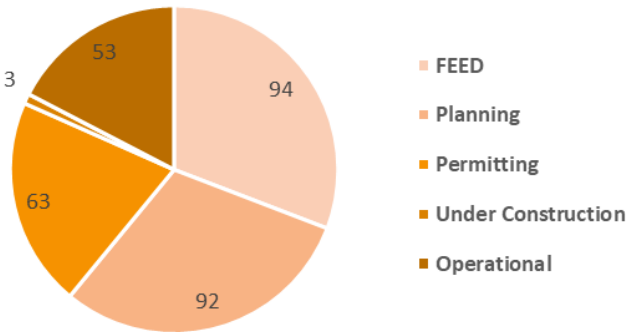
- EOR: Enhanced Oil Recovery
- Not Applicable: Capture projects that have no disclosed CO2 offtake/storage
- Storage: Geological storage both on-shore and off-shore

Project Phase^(a)

Key Highlights

- The majority of the projects being in the development stage indicates that while the interest in CCS is growing rapidly, practical deployment is still catching up to ambitious decarbonization goals

Projects by Phase



Project Phase

- Operational: Commercial, pilots, demonstration plants and EOR projects

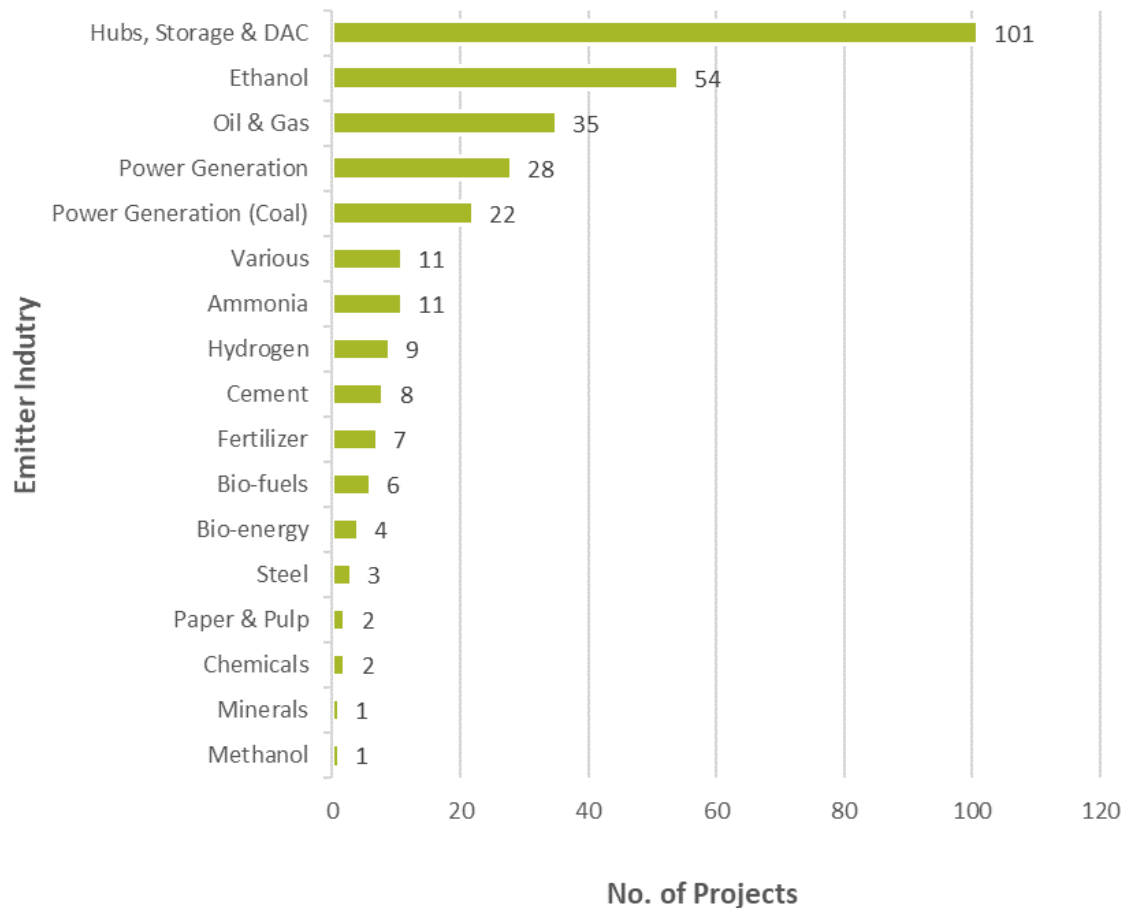
Notes:

a) Projects considered for the analysis include publicly announced projects at various scales (only Feasibility Studies, Planned Pilots, Planned Commercial) and phases (planning, FEED, permitting, under development and operational); few of the projects with both capture and storage have been divided into two separate projects for the analysis

CCS Projects Comparison (3/3)

Emitter Industry^(a)

Projects by Emitter Industry



Key Highlights

- Industries with emissions that have higher CO₂ concentrations like ethanol have larger number of projects compared to industries like steel and cement with much lower CO₂ concentrations
- Industries with easier CO₂ capture are prioritized for CCS, but as technologies improve, more projects are expected to emerge in harder-to-abate sectors like cement and steel

Emitter Industry Details

- Hubs, Storage and DAC: Includes projects with no specific emitter
- Various: Includes projects that have multiple emitters

Notes:

a) Projects considered for the analysis include publicly announced projects at various scales (only Feasibility Studies, Planned Pilots, Planned Commercial) and phases (planning, FEED, permitting, under development and operational); few of the projects with both capture and storage have been divided into two separate projects for the analysis

About Mast Capital Advisors

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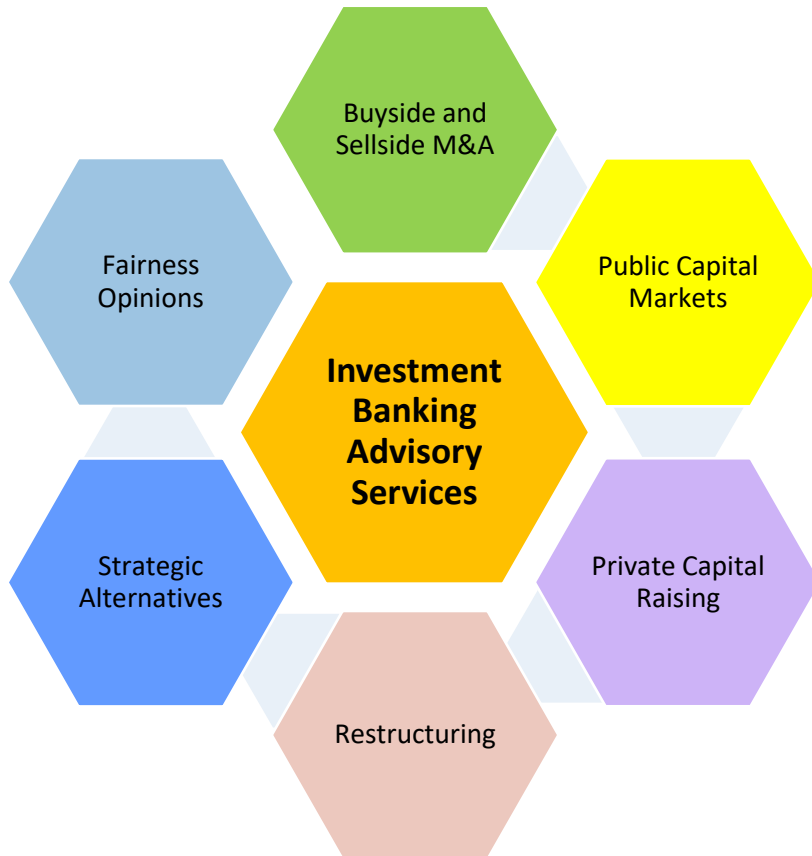
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Services Provided by Mast Capital

Formed in 2020, Mast Capital Advisors is an investment banking advisory firm providing strategic M&A and capital markets advice to clients in the Energy industry



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Mast Capital Leadership



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- Rahul is the Lead Partner at Mast Capital Advisors, a specialty investment banking advisory firm headquartered in Houston. With a track record of 20 years in investment banking, Rahul has provided invaluable strategic and financial counsel to CEOs, CFOs, and Corporate Boards across a diverse array of transactions, including M&A, recapitalizations, spin-offs, LBOs, IPOs, and capital raises.
- During his career, Rahul has completed 30 M&A transactions, representing \$50+ billion in value. Furthermore, he has successfully executed 24 book-run IPOs, raising \$13 billion in public equity. Additionally, Rahul has played a pivotal role in arranging several leveraged and investment-grade debt transactions, contributing to a cumulative value exceeding \$100 billion.
- Before joining Mast Capital Advisors, Rahul was a senior investment banker at Wells Fargo Securities, where he spearheaded the bank's integrated energy investment banking coverage on a global scale advising companies headquartered in 17 countries. Prior to this, he served as a Vice President of Energy Investment Banking at Citigroup, where he executed some of the firm's most substantial and complex transactions.
- Rahul's expertise is further enriched by his prior investment banking experience at global institutions including UBS, Bank of America Merrill Lynch and BNP Paribas. Throughout these experiences, he adeptly navigated leveraged finance, M&A, and equity capital markets across multiple industries.
- Rahul earned his MBA with Dean's Honors from Columbia Business School and B.Tech in Chemical Engineering from IIT Delhi.