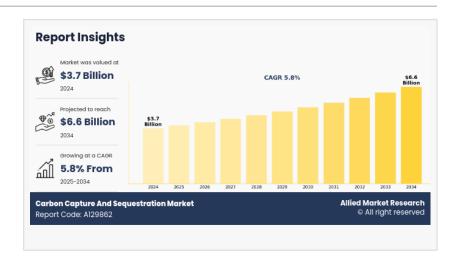


Carbon Capture and Sequestration Market to Reach \$6.6 Billion by 2034 | Clean Energy Future Ahead

□□ CCS Market Surges with 5.8% CAGR | Carbon Capture Technologies Drive Net-Zero Progress

WILMINGTON, DE, UNITED STATES, August 7, 2025 /EINPresswire.com/ --

According to a new report by Allied Market Research, the global <u>carbon</u> <u>capture and sequestration (CCS)</u> <u>market</u> was valued at \$3.7 billion in



2024 and is projected to reach \$6.6 billion by 2034, growing at a CAGR of 5.8% from 2025 to 2034. The increasing urgency to tackle climate change and meet global net-zero emission goals is propelling the adoption of CCS technologies across industries.



Global Carbon Capture and Sequestration (CCS) market to reach \$6.6B by 2034, driven by net-zero goals & clean energy investments.

Allied Market Research

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☐ What is Carbon Capture and Sequestration?

Carbon capture and sequestration (CCS) is a key climate technology that captures <u>carbon dioxide (COII) emissions</u> from sources like power plants and industrial facilities. The COII is then transported and stored underground in secure

geological formations. This prevents it from entering the atmosphere and contributing to global warming.

CCS is particularly important for hard-to-abate sectors such as:

Cement

Steel
Chemicals
Power Generation
By reducing emissions from these sources, carbon capture and sequestration supports long-term climate goals and complements the deployment of renewable energy.
☐ Market Drivers: Clean Energy Investment & Net-Zero Targets
A major growth driver for the carbon capture and sequestration market is the global surge in clean energy infrastructure investments. Governments and corporations are increasingly directing funds toward CCS as part of their decarbonization strategies.
□ Examples:
The U.S. Department of Energy allocated \$1.3 billion to support CCS projects and shared COI transport/storage infrastructure.
Microsoft has entered major carbon removal agreements, including projects in Louisiana and pulp/paper mills, showcasing growing corporate commitment to CCS.
Such initiatives are enhancing scalability, reducing costs, and strengthening investor confidence—boosting CCS as a viable tool for the global energy transition.
☐ Market Restraints: Storage Site Limitations
Despite its potential, the CCS market faces challenges, particularly in the availability and security of geological storage sites. Reliable CO storage requires:
Appropriate depth
High porosity
Impermeable rock layers
The high cost and complexity of evaluating these sites can limit adoption. These geotechnical constraints pose a barrier to scaling up CCS across all regions, particularly where suitable storage formations are scarce.
☐ Opportunities: Integration with Clean Energy & Industrial Clusters

The growing momentum around decarbonization and sustainability is unlocking significant opportunities for the CCS market:
Integration with hydrogen production
Support for Bioenergy with <u>Carbon Capture and Storage</u> (BECCS)
Development of industrial CCS hubs
Shared carbon hubs and centralized infrastructure help reduce costs, especially when multiple emitters collaborate in clusters. This model boosts scalability, speeds up commercialization, and reduces financial risks.
Procure This Report (337 Pages PDF with Insights, Charts, Tables, and Figures): https://bit.ly/4no0cYQ
☐ Market Segmentation Overview
□ By Type:
Ocean Sequestration
Terrestrial Sequestration
Others
Terrestrial sequestration is expected to grow at a CAGR of 6.1%, driven by natural solutions such as afforestation, reforestation, and soil carbon capture. These nature-based approaches are gaining attention for their cost-effectiveness and scalability.
□□ By Technology:
Pre-Combustion Capture
Post-Combustion Capture
Oxy-Fuel Combustion Capture
Others
Pre-combustion capture leads in growth, projected to expand at 5.9% CAGR. It's favored for its high efficiency and lower energy penalties, especially in integrated gasification combined cycle (IGCC) plants.

☐ By End-Use Industry:
Oil & Gas
Power Generation
Iron & Steel
Cement
Others
The power generation segment is projected to grow at a 6.9% CAGR, driven by global efforts to reduce emissions from coal and gas power plants. Government incentives and emission reduction mandates make this a primary sector for CCS integration.
□ Regional Insights
☐ Asia-Pacific: Fastest-Growing Region
Asia-Pacific is set to grow at a CAGR of 6.7% through 2034, outpacing other regions due to:
Rapid industrialization
High energy demand
Strong government policies in countries like China and India
Investments in CCS infrastructure and rising environmental awareness support sustained growth across the region.
□ Other Key Regions:
North America: Robust federal funding and leadership in CCS pilot projects.
Europe: Stringent climate regulations and strong cross-border CCS collaborations.
LAMEA: Increasing interest, particularly in the Middle East and Africa, for enhanced oil recovery and emissions control.
☐ Leading Players in the CCS Market

Key companies driving innovation and expansion in the carbon capture and sequestration market include:
Siemens A.G.
Fluor Corporation
ExxonMobil Corporation
Chevron Corporation
TotalEnergies
Air Liquide
Linde Plc
Mitsubishi Heavy Industries, Ltd
Carbon Engineering Ltd.
China National Petroleum Corporation
These players are focusing on strategic partnerships, advanced capture technologies, and expanding CCS infrastructure globally.
Get a Customized Research Report: https://www.alliedmarketresearch.com/request-for-customization/A129862
□ Conclusion: A Vital Tool for Climate Action
The carbon capture and sequestration market is at the forefront of the global fight against climate change. As both public and private sectors double down on climate commitments, CCS is emerging as a critical bridge technology to decarbonize heavy industries and energy sectors.
With technological innovations, supportive regulations, and increasing investments, the carbon capture and sequestration industry is well-positioned to play a central role in the transition to a low-carbon future. $\Box\Box$
Trending Reports in Energy and Power Industry:
Carbon Capture and Sequestration Market

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Low Carbon Building Market
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Carbon Capture and Storage (CCS) in Power Generation Market
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Pawan Kumar, the CEO of Allied Market Research, is leading the organization toward providing high-quality data and insights. We are in professional corporate relations with various companies and this helps us in digging out market data that helps us generate accurate research data tables and confirms utmost accuracy in our market forecasting. Each and every data presented in the reports published by us is extracted through primary interviews with top officials from leading companies of domain concerned. Our secondary data procurement methodology includes deep online and offline research and discussion with knowledgeable professionals and analysts in the industry.

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