

# Global Direct Air Carbon Capture Technology Market: Revolutionizing Carbon Emission Mitigation Efforts Worldwide

*Global Direct Air Carbon Capture Technology Market is Projected to Reach US\$ 10.3 Bn by 2031, at a CAGR of 14% (2023 - 2031): states TNR*

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/EINPresswire.com/ -- As the world continues to grapple with the challenges posed by climate change, a groundbreaking solution is on the

horizon - the Global Direct Air Carbon Capture Technology Market. This innovative technology offers a promising pathway to tackle carbon emissions by directly capturing carbon dioxide (CO<sub>2</sub>) from the air, thereby contributing to a more sustainable and greener future. The global direct air carbon capture technology market has gained significant attention and momentum in recent years as governments, industries, and environmentalists unite in their commitment to combat climate change. The pressing need to reduce greenhouse gas emissions and limit global temperature rise has spurred the rapid development and adoption of direct air carbon capture technology.

Read Full Report: [Global Direct Air Carbon Capture Technology Market Study](#)

The IEA's scenario envisions a future where global CO<sub>2</sub> emissions are reduced to net-zero by 2050. In this scenario, DAC technologies are projected to capture over 85 million metric tons (Mt) of CO<sub>2</sub> by the year 2030, and this figure is expected to rise significantly to around 980 MtCO<sub>2</sub> by 2050. This ambitious increase in captured CO<sub>2</sub> demonstrates the need for a substantial expansion of DAC infrastructure and technology. Currently, there are more than 18 DAC facilities operating globally, primarily located in Canada, Europe, and the United States. These facilities are among the pioneers in direct air carbon capture technology market and represent a starting point for the development and deployment of this technology.

Global direct air carbon capture technology market is being driven by a combination of factors that reflect the increasing recognition of the importance of addressing climate change and

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reducing carbon emissions. A few key growth factors are listed below:

### Climate Change Concerns

Growing awareness of the urgent need to combat climate change and reduce greenhouse gas emissions is a primary driver of direct air carbon capture technology market. Governments, industries, and individuals are seeking effective solutions to limit global temperature rise. For instance, Carbon Engineering (Canada) is developing DAC technology to capture CO<sub>2</sub> from the air and reduce its concentration, thereby mitigating the impacts of climate change.

### Government Regulations and Policies

Many countries are implementing regulations and policies to encourage the adoption of carbon capture technologies, including DAC. Carbon pricing mechanisms and incentives are driving investments in the technology. Climeworks (Switzerland) has received support from the Swiss government and other European entities for its DAC projects, aligning with the region's climate goals.

### Corporate Sustainability Goals

Companies are committing to reducing their carbon footprint and achieving carbon neutrality or net-zero emissions. DAC technology provides a means to offset their emissions and achieve sustainability targets. Microsoft (USA) is investing in DAC technology as part of its ambitious goal to become carbon negative by 2030 and remove its historical emissions by 2050. Microsoft has pledged to invest \$1 billion in a new initiative called the "Climate Innovation Fund." This fund is aimed at accelerating the development and deployment of carbon removal technologies, including DAC. In addition to supporting DAC research, Microsoft is also looking into ways to utilize the captured carbon. This could include converting captured CO<sub>2</sub> into useful products, such as synthetic fuels or materials.

### Technological Advancements

Ongoing research and development are leading to improvements in DAC technology, making it more efficient, cost-effective, and scalable. Advancements in materials and capture processes are driving direct air carbon capture technology market growth. Global Thermostat (USA) is working on advancing DAC technology with innovative solutions that enhance CO<sub>2</sub> capture efficiency and utilization.

### Private Sector Investment

Private companies, venture capital firms, and impact investors recognize the potential of direct air carbon capture technology market and are investing in its development and commercialization. For example, Carbon Direct is an investment firm that focuses on accelerating the deployment of carbon removal technologies, including DAC. They work with companies and investors to identify and fund promising carbon removal projects, helping to bridge the gap between innovation and commercialization.

### International Collaborations

Countries are collaborating to share knowledge, resources, and best practices in direct air carbon capture technology market development. These collaborations accelerate innovation and facilitate cross-border investment. Carbon Engineering (Canada) is collaborating with companies and organizations in multiple countries, such as partnering with Occidental Petroleum (USA) to advance DAC deployment.

#### Carbon Market Opportunities:

The growing carbon market, including carbon offset initiatives and voluntary carbon credit programs, creates economic incentives for adopting direct air carbon capture technology market. Climeworks (Switzerland) has partnered with organizations like Stripe to offer carbon removal services, allowing companies to invest in DAC projects to offset their emissions.

#### Transition to Sustainable Energy:

The shift from fossil fuels to renewable energy sources prompts industries to find innovative ways to reduce emissions, and DAC technology offers a pathway for carbon-neutral or carbon-negative operations. Carbon Engineering (Canada) is exploring the potential of using captured CO<sub>2</sub> to produce synthetic fuels, contributing to a sustainable energy transition. The company is focused on using the captured CO<sub>2</sub> as a raw material to produce synthetic fuels, such as synthetic gasoline, diesel, or aviation fuels. These fuels can serve as direct replacements for conventional fossil fuels, offering a way to power transportation and industry without adding new carbon emissions to the atmosphere.

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#### Key Players & Insights: Global Direct Air Carbon Capture Technology Market

- o Capture Carbon Infinity
- o Carbon Engineering Ltd.
- o Climeworks
- o Global Thermostat
- o Heirloom Carbon Technologies
- o Infnitree LLC
- o Mission Zero Technologies.
- o Noya Inc.
- o Skytree
- o Soletair Power
- o Sustaera Inc.
- o Other Market Participants

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#### Global Direct Air Carbon Capture Technology Market Segmentation

Global Direct Air Carbon Capture Technology Market – System Type Outlook (Revenue, USD Million, 2018 - 2031)

- o Solid

- o Liquid

Global Direct Air Carbon Capture Technology Market - Deployment Outlook (Revenue, USD Million, 2018 - 2031)

- o Indoor

- o Outdoor

Global Direct Air Carbon Capture Technology Market – End Users Outlook (Revenue, USD Million, 2018 - 2031)

- o Renewable energy developers

- o CO2 storage companies

- o CO2 utilization companies

Global Direct Air Carbon Capture Technology Market - Regional Outlook (Revenue, USD Million, 2018 - 2031)

- o North America (U.S., Canada, Mexico, Rest of North America)

- o Europe (France, The UK, Spain, Germany, Italy, Nordic Countries (Denmark, Finland, Iceland, Sweden, Norway), Benelux Union (Belgium, The Netherlands, Luxembourg), Rest of Europe)

- o Asia Pacific (China, Japan, India, New Zealand, Australia, South Korea, Southeast Asia (Indonesia, Thailand, Malaysia, Singapore, Rest of Southeast Asia), Rest of Asia Pacific)

- o Middle East & Africa (Saudi Arabia, UAE, Egypt, Kuwait, South Africa, Rest of Middle East & Africa)

- o Latin America (Brazil, Argentina, Rest of Latin America)

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