

Carbontech

Carbontech refers to the wide variety of commercial products made with the CO₂ emissions captured from power plants, biomass, or direct air capture. There is an estimated \$1 trillion available market in the U.S. alone for carbontech goods, including everything from fuels and plastics to building materials and other industrial products.

CARBON WASTES

-  CO₂
-  Biomass
-  Manure
-  Garbage



CONVERSION TECHNOLOGIES

-  Electrochemical
-  Photochemical
-  Thermochemical
-  Bio-catalyzed
-  Photosynthetic

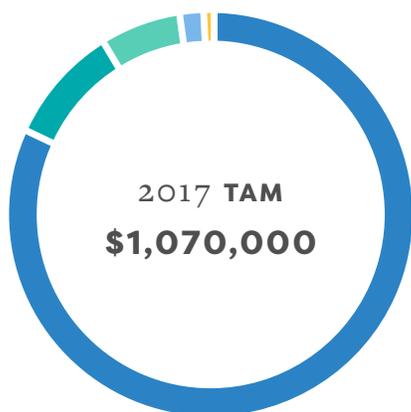


PRODUCTS & SERVICES

-  Fuels
-  Building Materials
-  Plastics
-  Chemicals

The economic potential of carbontech

The economic opportunity for carbontech goods is enormous – \$1 trillion in the U.S. alone. Globally, that number rises to \$6 trillion. Carbontech encompasses a diverse set of goods and services, including global commodities like fuel, plastics, and building materials as well as valuable niche applications like cosmetics, food, beverages, and emerging technologies like carbon nanotubes.



Total Available Market (TAM)

<ul style="list-style-type: none"> ● TRANSPORTATION FUELS Gasoline, Diesel, Jet 	\$882B
<ul style="list-style-type: none"> ● BUILT ENVIRONMENT Cement, Concrete, Asphalt, Aggregate 	\$101B
<ul style="list-style-type: none"> ● PLASTICS Polyethylene, Polypropylene 	\$72B
<ul style="list-style-type: none"> ● WOOD-BASED PANELS Plywood, Particleboard, OSB 	\$13B
<ul style="list-style-type: none"> ● CHEMICALS Fertilizer, Feed 	\$2B

MAJOR ENACTED POLICIES

FUTURE ACT: Expands and enhances the “45Q” tax credit to provide a \$35 dollar credit for every ton of carbon dioxide stored in carbontech products

MAJOR BILLS IN CONGRESS

USE IT Act: Provides funding for a direct air capture technology prize and establishes a R&D program for carbontech at the Environmental Protection Agency

Office of Fossil Energy Research & Development Act/EFFECT Act: Updates the Department of Energy’s work on carbon management technologies like carbon capture and expands their focus on carbontech

SEA FUEL Act: Establishes a direct air capture and ocean carbon removal program at the Department of Defense that focuses on turning captured carbon from the ocean into fuels

OTHER RELEVANT BILLS

- The Carbon Utilization Act of 2018
- The Fossil Energy Utilization, Enhancement, and Leadership Act of 2018
- The Advancing CCUS Technology Act

Carbontech is a win-win for business and climate.

- + Provides a market-based incentive to repurpose carbon emissions
- + Displaces fossil fuels and high-emissions products like cement and steel
- + Drives down the cost of carbon removal and encourages further research & development of carbon removal technology

The industry today

There are at least 182 ongoing carbontech projects in at least 14 different countries, including the U.S., Canada, Germany, China, and India. The U.S. is home to more projects than any other single country.

- Virgin Atlantic and LanzaTech flew a 747 jet from Orlando, Florida to London, England using jet fuel derived from factory CO₂ emissions.
- Climeworks has partnered with Coca-Cola to provide CO₂ from their Swiss direct air capture plant for carbonated beverages.
- CarbonCure has supplied over 3 million cubic yards of concrete made from carbon waste to construction projects all over the U.S. and Canada.



Photo: [Jordan Sanchez](#) (left), [Ravi Sharma](#) (right)

FURTHER READING

[“Carbontech: A trillion dollar opportunity,”](#) Matt Lucas, Carbon180

[“CO₂ Utilization: A Look Ahead,”](#) Center for Climate and Energy Solutions

[“Climate Change Solutions Slowly Gain Ground,”](#) Washington Post

REFERENCES

[On carbontech-related policies:](#)

[“Policy Tracker,”](#) Carbon180

[On the current market opportunity for carbontech:](#)

[A Review of Global and U.S. Total Available Markets for Carbontech,](#) a Carbon180 report

[On the current industry of carbontech startups:](#)

[“Carbon Capture Projects Map,”](#) Third Way

[“Richard Branson’s Virgin Atlantic set to fly a 747 jet with fuel made from factory pollution,”](#) CNBC

www.carboncure.com

www.climeworks.com



Learn more
at carbon180.org.