Carbon Capture and Storage

How proven technologies can help cut CO_2 emissions and grow Indiana's economy.

What is CCS

Carbon Capture and Storage (CCS) is a suite of technologies that can be deployed to prevent CO_2 from being emitted to the atmosphere by safely capturing it at the source and securely storing it deep underground.

CO_2 Source

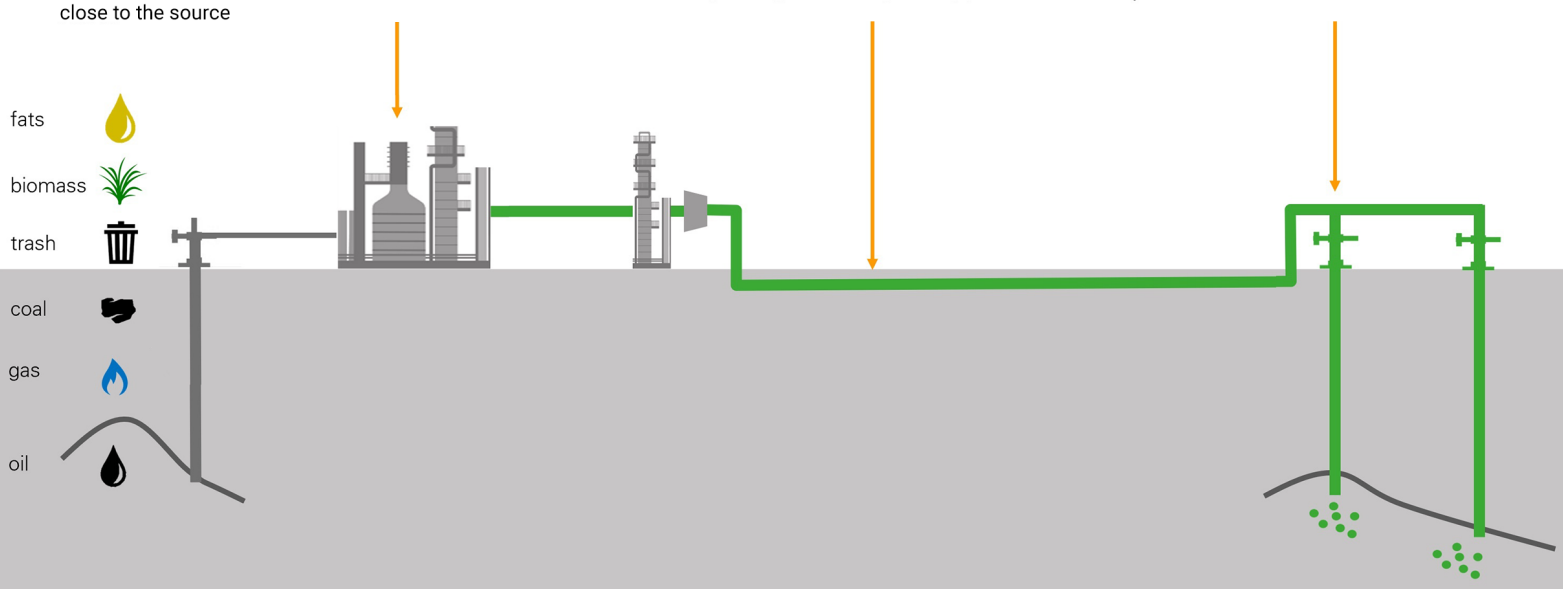
Carbon dioxide that is generated through activities such as refining, industrial manufacturing and ethanol production is captured, separated, and compressed close to the source

CO_2 Transportation

The purified liquid CO_2 is transported from the capture site to the storage location, usually through an underground pipeline

CO_2 Sequestration

The CO_2 is injected many thousands of feet underground, into carefully selected storage sites permitted through the EPA



Why CCS in Indiana

Indiana is home to geologic formations that are ideal for securely and permanently storing captured CO_2 thousands of feet underground, far below useable water resources. Plus, Indiana has a thriving manufacturing industry, which emits a lot of CO_2, making it a prime location for large-scale CCS investment. And, Indiana now has state law in place to help bring CCS projects to scale.

Large number of stationary emitters

+

Regulation & policy that create a commercial frame

+

Access to secure geological storage

How CCS benefits Indiana's economy

Supports jobs – CCS helps decarbonize industries like steel, cement, and refining, which will add thousands of jobs and help future-proof the economic viability of these sectors.

Promotes economic growth – Captured CO_2 can be used as a raw material in building materials, such as concrete. Capturing and storing CO_2 also enables the production of low carbon hydrogen, which unlocks new opportunities for Indiana's manufacturers.

Attracts investment – The bipartisan Infrastructure Investment and Jobs Act and the Inflation Reduction Act further incentivize CCS, and potentially related hydrogen projects. Not only is Indiana a prime location for carbon capture and storage projects, it's also poised to compete for federal hydrogen hub funding.

Reduces CO_2 emissions – Indiana's thriving industrial sectors make it one of the top CO_2 emitters in the US. CCS can help reduce CO_2 emissions from existing industries, making Indiana and the products it produces cleaner.

What CCS looks like in your community

- A big part of CCS is safely storing CO_2 deep underground without harming local communities, farms, or historical sites. bp may need to build new infrastructure to transport and store captured CO_2.
- As part of our work at the Whiting Refinery, the largest refinery in the Midwest and bp's largest anywhere in the world, some of our existing equipment will be outfitted with CO_2 capture technology. To transport the captured CO_2 to a suitable storage destination, we will need to construct some new underground pipeline. We are working with community leaders and landowners to help us determine the best route for any new infrastructure.

Safety

- CO_2 capture and transportation technologies have been operating safely across the globe and US for many years. Storage sites are thousands of feet underground and undergo stringent testing to ensure safety, combined with robust monitoring techniques and government regulation.
- Captured CO_2 will be stored thousands of feet below the lowest underground source of drinking water. In addition, a naturally occurring impermeable rock barrier, more than 600-feet thick, will serve as a geologic barrier preventing upward migration of CO_2 into drinking water resources.
- Under the Safe Drinking Water Act, and Underground Injection Control program administered by the Environmental Protection Agency, bp will actively monitor wells to ensure stored CO_2 remains secure and complies with all regulations.

Go deeper –

for more information on CCS visit:

globalccsinstitute.com

bp.com/US-CCS

bp.com/MidwestCCS