

Leveraging Carbon Capture Technology



Pennsylvania's Energy Future depends on the rapid development and deployment of innovation-driven solutions to our energy needs – solutions that will power our economy and strengthen our communities.

Carbon management technologies will help us maintain and expand our industrial base while reducing air pollution and emissions from fossil power plants and industrial processes.

THROUGH INDUSTRY
PARTNERSHIPS,
WE CAN PROTECT OUR
**JOBS &
ECONOMY**

Carbon Capture & Storage

Carbon Capture and Storage technologies are a **promising solution to help industries safely and permanently capture and dispose of the emissions of carbon dioxide (CO₂)** – a greenhouse gas that is increasingly threatening our communities. By partnering this technology with Pennsylvania's existing and emerging industrial production operations, we can protect jobs and our economy while strengthening our communities for generations by driving down the CO₂ levels in our atmosphere. Carbon capture technology and infrastructure that will generate investments and jobs in our state.

Building a Stronger Economy: Carbon Capture, Transportation & Storage

- ✓ **Point Source Capture:** CO₂ emissions can be captured directly from a fossil-fuel-burning power plant or an industrial facility.
- ✓ **Transportation:** pipelines carry CO₂ from where it is produced to where it will be utilized or stored.
- ✓ **Direct Air Capture:** a carbon removal technology that pulls carbon directly out of the atmosphere. A solution for historic emissions that are already in the atmosphere contributing to climate change.
- ✓ **Storage:** CO₂ can be injected deep underground in saline formations below impermeable rock layers or can be sequestered in stable consumer or industrial products - keeping it from entering the atmosphere.

Efforts are underway to create a regional hydrogen hub with carbon capture technology, which would place Western Pennsylvania at the forefront of the nation's emerging clean energy economy. These hydrogen hubs have enormous potential to reshape Pennsylvania's energy future while preserving and expand jobs across the region.

Hydrogen Production

Carbon capture and storage technologies will also give rise to new and affordable zero-carbon fuels produced from fossil fuels. With its abundance and low cost, natural gas can be used as a feedstock to produce clean hydrogen. With carbon capture, we can safely store the CO₂ emissions that occur when producing hydrogen from natural gas.

Hydrogen is a zero-carbon fuel used in many current industrial processes. Still, it could be a more widely adopted solution for generating power and heat for a growing number of industries and as a clean fuel for transportation. Hydrogen can even be blended with natural gas to reduce emissions intensity from existing natural gas power plants. The production of hydrogen at scale has the potential to preserve Pennsylvania's gas jobs and spur economic growth across state.