

# NORTH DAKOTA IS A GREAT PLACE FOR CCUS

## CARBON CAPTURE, UTILIZATION, AND STORAGE (CCUS) ADDRESSES AN ENVIRONMENTAL CHALLENGE, AND NORTH DAKOTA IS A GREAT PLACE TO DO IT.

Scientists are concerned that increased greenhouse gases from human activities are contributing to climate change.



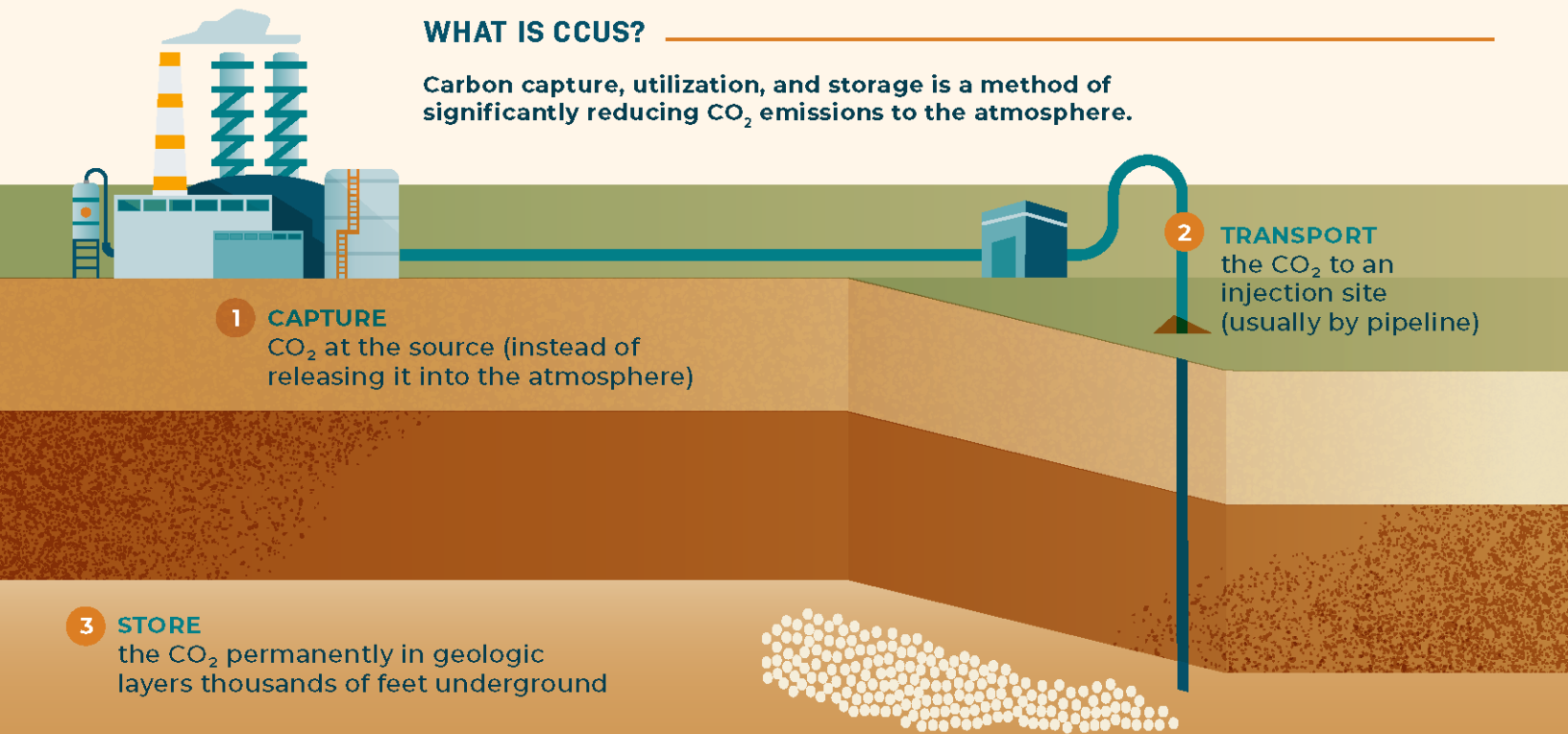
Carbon dioxide from North Dakota's energy development and consumption is one of those greenhouse gases.



CCUS reduces CO<sub>2</sub> emissions from large, stationary sources.

## WHAT IS CCUS?

Carbon capture, utilization, and storage is a method of significantly reducing CO<sub>2</sub> emissions to the atmosphere.



## WHY NORTH DAKOTA IS A GREAT PLACE FOR CCUS!



MULTIPLE LARGE SOURCES OF CARBON DIOXIDE EMISSIONS THAT ARE IMPORTANT TO THE ECONOMY AND QUALITY OF LIFE IN A VARIETY OF WAYS

These CO<sub>2</sub> sources include various industrial plants:



Agricultural processing (ethanol)



Produce energy



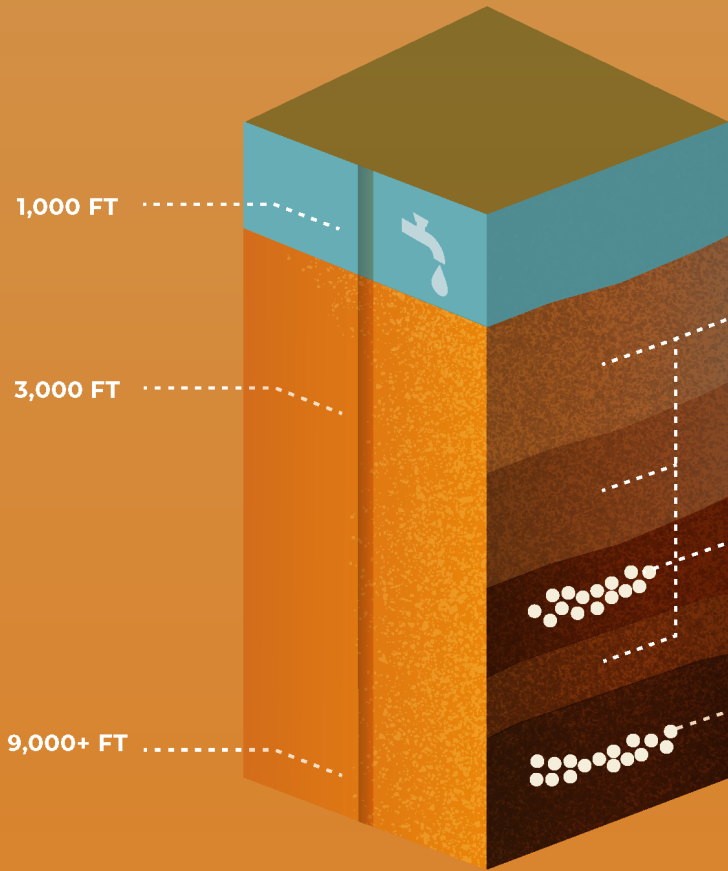
Provide economic benefits like jobs



Coal-based facilities (electrical generation, gasification)



## THE RIGHT GEOLOGY FOR SAFE, PERMANENT STORAGE IN DEEP, DEEP ROCK LAYERS



### STABLE GEOLOGY

- ✓ Very low risk for seismic events

### CAP ROCKS

- ✓ Impermeable rocks prevent salty water and CO<sub>2</sub> from leaving the injection zone

### INJECTION ZONES

- ✓ Porous rocks containing salty water
- ✓ Older oil fields that might use CO<sub>2</sub> to produce more oil while permanently storing CO<sub>2</sub>
- ✓ North Dakota's potential injection zones are large enough to hold all the CO<sub>2</sub> from coal-based energy facilities



## CO<sub>2</sub> SOURCES LOCATED NEAR POTENTIAL PERMANENT STORAGE SITES



## THE RIGHT REGULATORY, INDUSTRY, AND POLICY ENVIRONMENT



- ✓ Structure to oversee safe, permanent CO<sub>2</sub> injection and storage
- ✓ Authority to regulate CO<sub>2</sub> injection wells
- ✓ Long-term liability laws for the permanently stored CO<sub>2</sub>
- ✓ State regulatory agencies familiar with the state's subsurface geology
- ✓ Experience with CO<sub>2</sub> pipelines

# SUPPORT THE DEVELOPMENT OF CCUS IN NORTH DAKOTA AS A CLEAN ENERGY STRATEGY.

LEARN MORE AT [UNDEERC.ORG](http://UNDEERC.ORG)

