

1. Capture:

CO² capture separates CO² from gas, before it is emitted, using a chemical solvent. The captured CO² is separated from the solvent and compressed into a liquid form for transport.

2. Transport:

CO² is generally pumped through a pipeline, taking the CO² from the industrial site where it has been produced, to its storage site which may be onshore or offshore.

3. Storage:

CO² is injected deep underground into the microscopic spaces in porous rocks. A layer of the impermeable rock, called a cap rock, lies directly above the porous rocks ensures that the CO² remains there permanently.

4. Measuring, monitoring and verification:

Monitoring of storage sites takes place within the storage reservoir, as well as at the injection well, where sensors can detect small changes in pressure or CO² levels. In addition, a number of monitoring technologies can be incorporated within the geosphere, biosphere and atmosphere surrounding the storage site to make sure the CO² is stored permanently.

