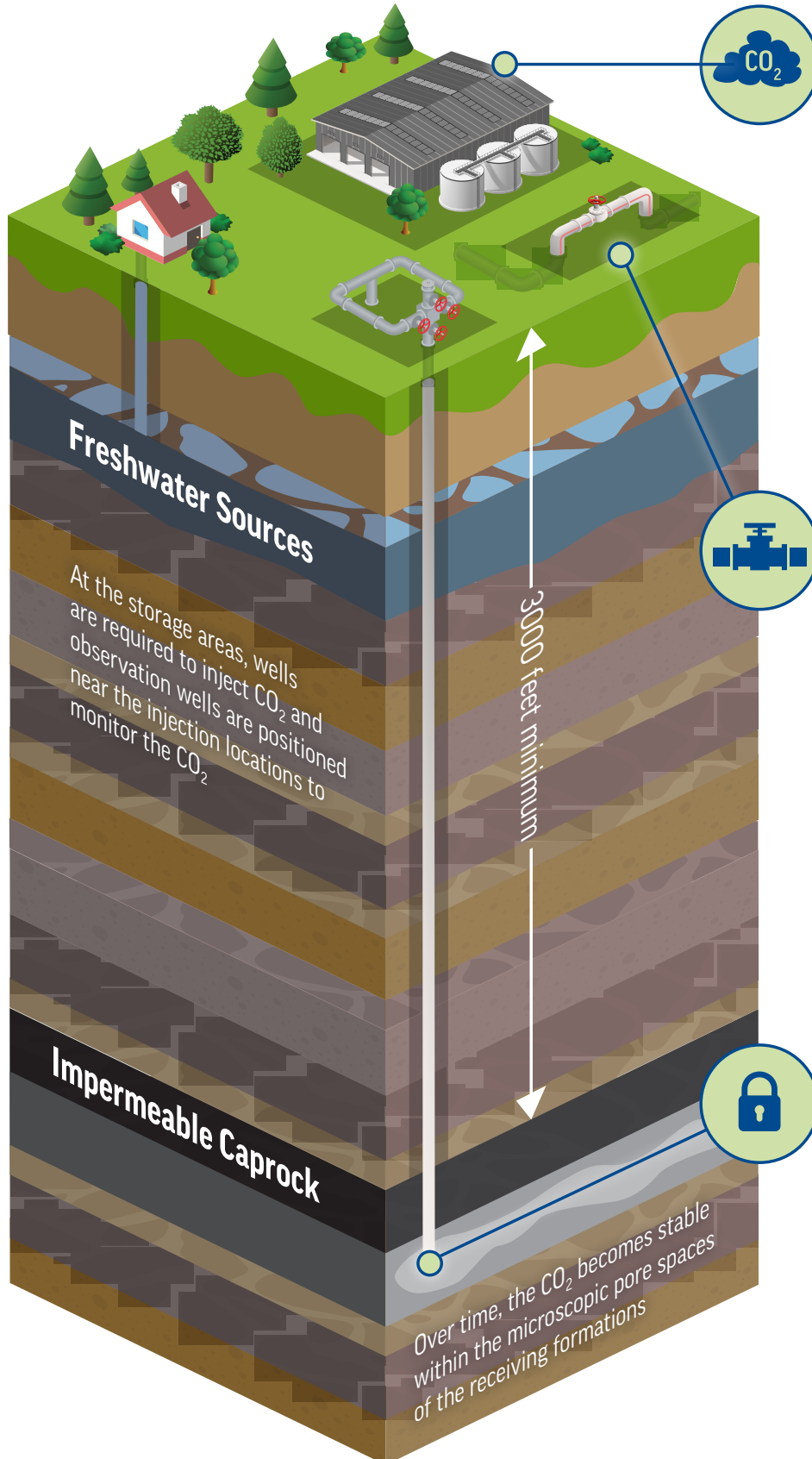


The Sequestration Process

CCS is a process where CO₂ is captured from emitters such as ethanol plants, steel plants, cement factories and natural gas generation facilities and injected deep underground where it can be stored safely. The entire process uses technology that has proved effective and safe in projects around the world. At the storage areas, wells are required to inject CO₂ and observation wells are positioned near the injection locations to monitor the CO₂



DTE VANTAGE

CAPTURE

Equipment is typically installed at CO₂ sources to capture, purify and liquify the CO₂ to prepare it to be transported and injected into wells that convey the CO₂ deep underground

- Carbon capture facilities can usually be added to facilities without interrupting normal operations
- Depending on the CO₂ concentration from the industrial process, carbon capture technologies vary. Traditional (amine) capture has been joined by more complex (membrane), and experimental (cryogenic) technologies



TRANSPORTATION

The liquid gas is gathered from the facility and transported in a high strength, underground steel pipeline to the sequestration site

- CO₂ is non-combustible
- CO₂ pipelines pose less risk than already safely managed pipelines transporting natural gas
- When CO₂ is in a liquid “super-critical phase” and released into open air, it naturally vaporizes into a heavier than air gas and dissipates
- 24/7 pipeline transportation monitoring and control



SEQUESTRATION

CO₂ is injected into the ground beneath an impermeable layer of rock for safe and permanent storage, or sequestration

- Geologic sequestration requirements include a reservoir; ample injectivity or porosity; a dense layer of rock that contains the CO₂ or a Caprock
- The U.S. Environmental Protection Agency (EPA) has intensive permitting, monitoring and reporting regimens to ensure the CO₂ is safely and permanently sequestered
- By definition, CO₂ sequestration is non-damaging to natural formations, and produces no fossil fuels

The image features the DTE logo in white, bold, sans-serif capital letters. The logo is positioned in the upper left quadrant of a solid blue background. To the right and slightly below the logo is a stylized sunburst graphic composed of numerous thin, light blue lines radiating outwards from a central point, creating a fan-like shape that extends towards the top right corner of the page.

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