

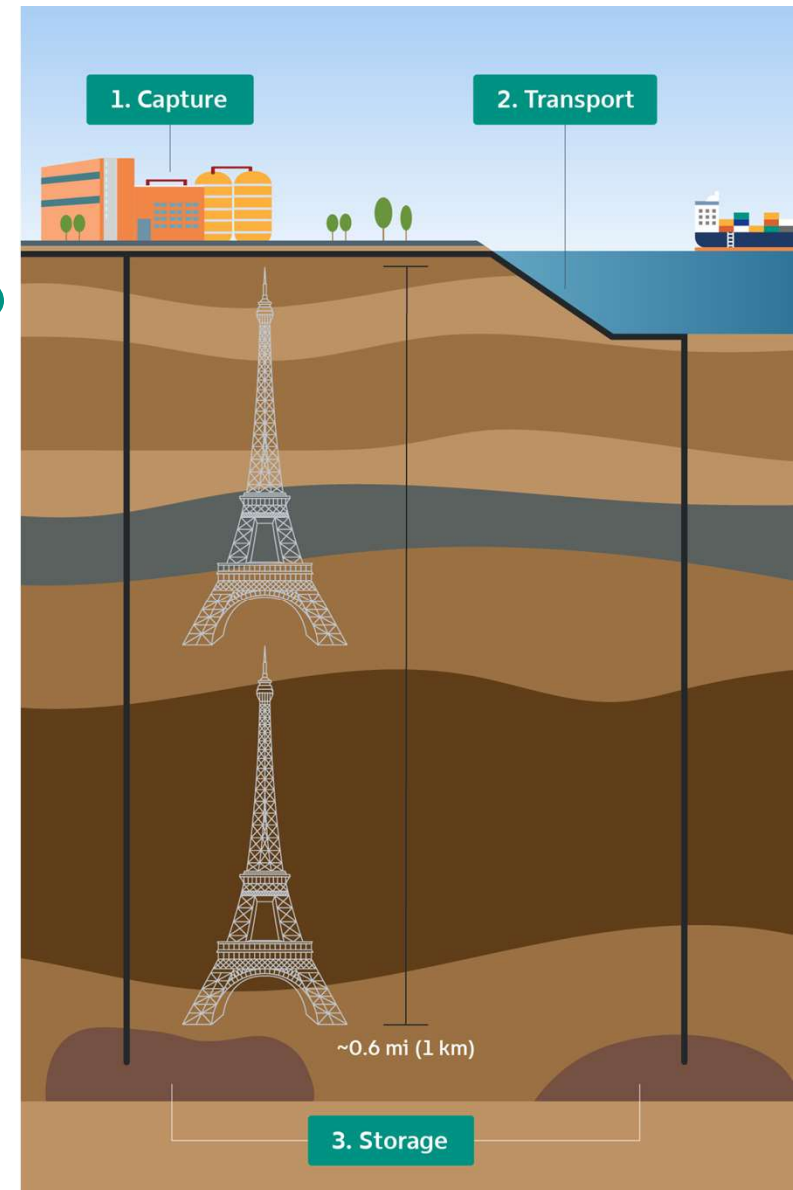
Houston CCS Alliance

March 2023



What is Carbon Capture & Storage?

- Safe, proven technology
- Reduces industrial carbon dioxide (CO₂) and greenhouse gas (GHG) emissions
- Captures CO₂ emissions that would otherwise be released into the atmosphere
- Captured CO₂ is transported to a storage site, then injected into deep underground geological formations for storage



Safe & Proven

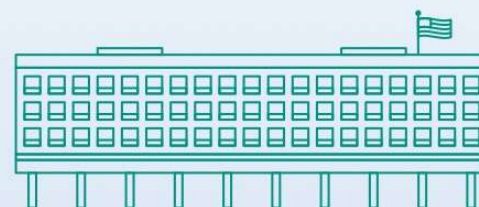
Studies by the UN Intergovernmental Panel on Climate Change & Carnegie Mellon University conclude that:

- **Storing CO₂ in geological formations is a safe and viable practice**
- **CO₂ storage does not pose any major geological threats, including seismic activity**



CCS technologies have safely operated for

50+ YEARS



>\$7 BILLION

the amount the U.S. Department of Energy
has invested in CCS R&D since 1997

Federal Support

ENR

Engineering News-Record
Clean Energy Construction

Feds Roll Out \$12.1B in Infra Funding for Carbon Capture Tech, Pipelines

By Mary B. Powers, Debra K. Rubin

 UTILITY DIVE

DOE to attack CO2 emissions with billions in funding from inflation reduction, infrastructure laws

 | CLIMATEWIRE

DOE releases record funding for removing carbon



Which industries benefit from raising 45Q to \$85?

Industry	Total costs of CCS (\$/tonne) ^a
Chemicals	55 - 65
Hydrogen	61 - 82
Cement	65 - 100
Refineries	68 - 93
Steel	80 - 89
Petrochemicals	82 - 85



“This will move carbon capture and storage closer to realizing its potential as a critical decarbonization solution for hard-to-abate industries such as steel, cement, refineries, and power generation.” – **Clean Air Task Force**

Houston's Opportunity



40 MILLION
METRIC TONS PER YEAR*

the annual capture capacity of current
CCS facilities around the world

*Source: International Energy Agency



~100 MILLION
METRIC TONS PER YEAR BY 2040*



the amount of CO₂ the Houston region could safely capture and store (instead of releasing into the environment), which is approximately the annual emissions of **two New York Cities****

*Source: analysis of data from the U.S. Dept. of Energy (2018)

**Source: NYC Mayor's Office of Sustainability

In addition to significantly reducing CO₂ emissions, deploying CCS technologies will:



Support good-paying jobs associated with existing industries



Continue giving back to the community through volunteering and charitable giving



Stimulate investments in locally-owned businesses



Provide valuable tax revenue that local communities need to fund education, essential public services, and other community initiatives



Studies show that investing in the development of CCS could support 18,000 jobs while creating \$60+ billion in private investment across Texas (Source: Rhodium Group)

Our Members



Our Mission

- Help decarbonize the Houston area, one of the nation's largest concentrated sources of CO₂
- Make Houston the model for an emerging, lower-emission world that supports jobs, economic growth, and prosperity



Local Support

Sylvester Turner

Mayor of Houston



“

Houston can achieve our net-zero goals by working together, and it's exciting to see so many companies have already come together to talk about making Houston the world leader in carbon capture and storage.

Jane Stricker

Executive Director, Houston Energy Transition Initiative and SVP, Energy Transition, Greater Houston Partnership



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Houston has a responsibility and an opportunity to leverage our energy leadership to accelerate global solutions for an energy-abundant, low-carbon future. We see Initiatives like Houston CCS Alliance as crucial opportunities that will help our city achieve this goal.

David Robinson

Houston City Council Member



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Houston has an important responsibility to the world to leverage and lead in the energy transition. With the guiding principles grounded in its "Climate Action Plan" (CAP) and "Resilient Houston" Strategy, our city can build the foundation necessary for a sustainable future.

Learn more at **houstonccs.com**

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