A way forward for CCUS in unconventionals
CCUS in unconventional

- Large resources with high potential for CCUS utilization
- Perian Basin in West Texas is a large, active market with lots of infrastructure

Approach:
- More efficient storage of the CO2 due to the low permeability
- Cyclic miscible CO2 injection
- Main mass transport mechanism molecular diffusion in unconventional oil reservoir
- Additional storage potential after EOR


https://seekingalpha.com/article/4250516-shell-prowling-around-permian-acquisition
The advantages of using unconventional CCUS

• Lower the emissions

• Better public relation

• Increase the oil recovery

• Geological analysis less extensive

https://www.desmogblog.com/2018/05/29/flip-well-fracking-shale-halcon-resources-floyd-wilson
Technological problems

• Pricing of separation is still too high, can be optimized

• Improve simulator for CO2 in unconventional reservoirs

• Energy efficient technology (eg: use of AICV)

• Monitoring techniques, what do we need to monitor?
Economy and business

• Identify and provide a good business case for investment
• 45Q – kickback from the government.
  EOR: 35 dollars pr ton stored
  CCS: 50 dollars pr ton stored
• CO2 pricing ranging from 100-700 $ pr ton
• Beneficial with an extra cycle with CO2
• Improve loans for CCUS
• Make sure insurance is designed for CCUS
Regulation

• We find that government should play a large role
  • Focus on taxes and incentives
  • Require portion of kickback to be put back into R&D
  • Special leases CCUS, ie. Improve type 6

https://abcnews.go.com/Politics/chief-justice-john-roberts-rebuts-trump-obama-judge/story?id=59344259
Communication strategies

• Communication strategies important
  • Proactive
  • Reactive

• Look back to working examples and learning

• Possibly a committee or a consortium

• Reach out to education
Lastly

This is a challenge for everyone. Let’s work together!

https://www.teachingenglish.org.uk/article/monthly-lesson-plan-earth-hour
Questions

• Thank you!