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CCS and the Path to Net Zero

An Opportunity for the Oil & Gas Industry

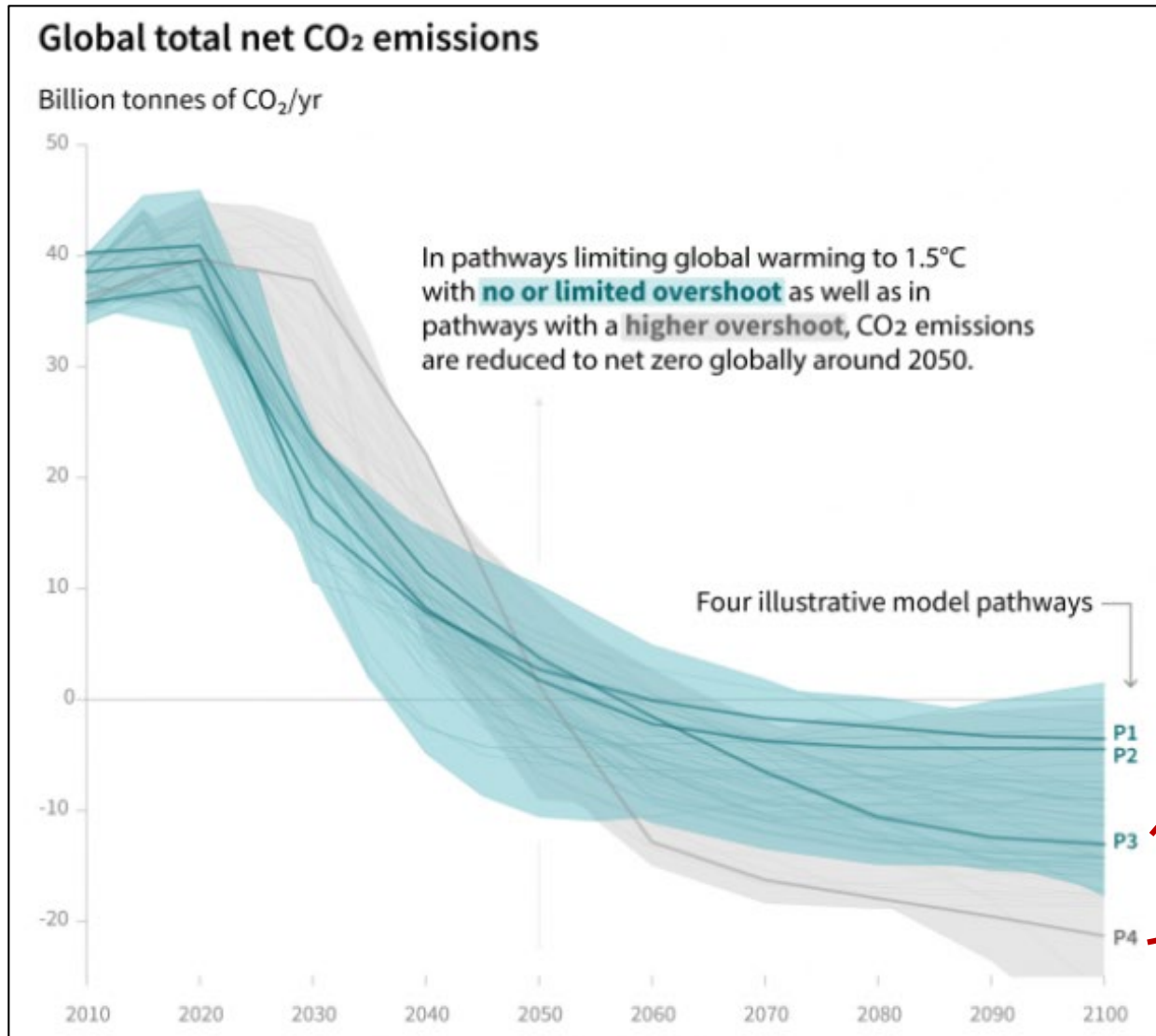
Enercom Dallas

April 7, 2022

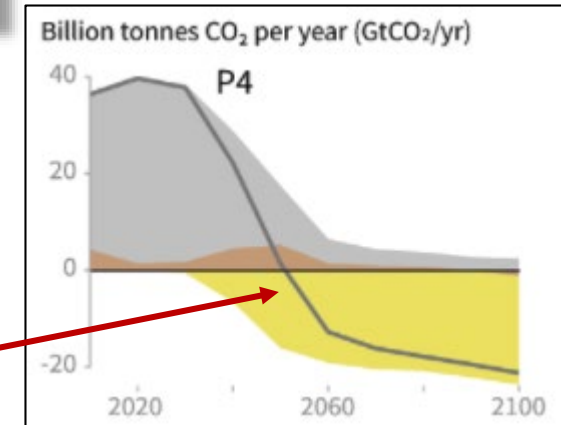
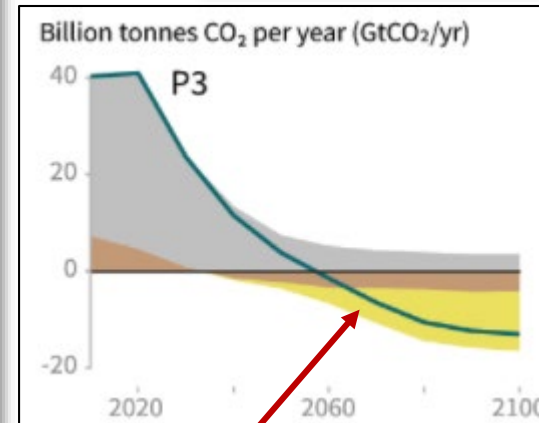
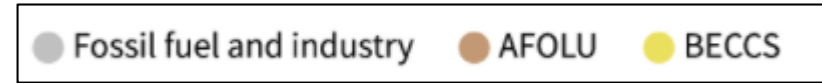
Joe Mello



There Are Many Potential Paths to Net Zero...



Source: Summary for Policymakers, IPCC



...but CCS is likely to play a key role in the path society ultimately follows

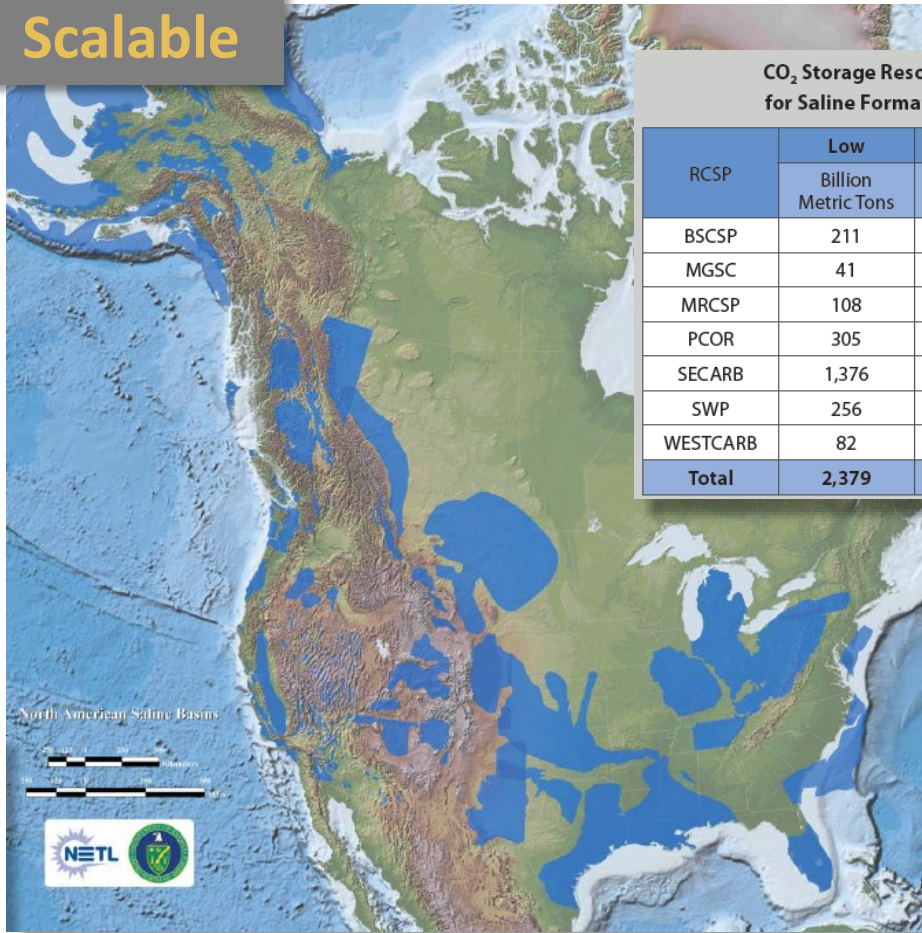


CCS Strengths

Scalable

CO₂ Storage Resource Estimates for Saline Formations by RCSP*

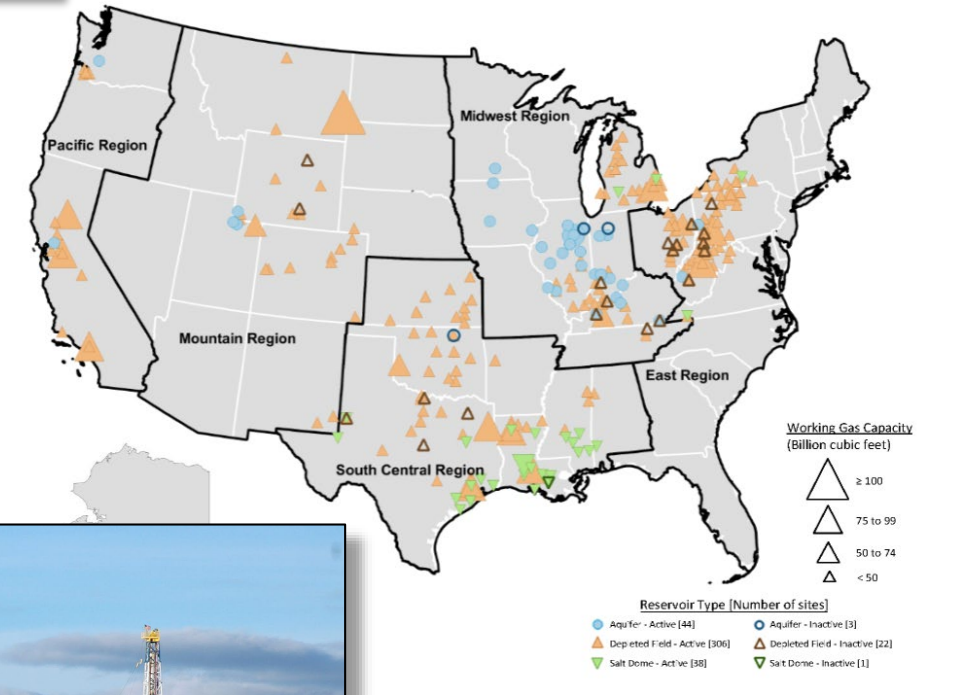
RCSP	Low	Medium	High
	Billion Metric Tons	Billion Metric Tons	Billion Metric Tons
BSCSP	211	805	2,152
MGSC	41	163	421
MRCSP	108	122	143
PCOR	305	583	1,012
SECARB	1,376	5,257	14,089
SWP	256	1,000	2,693
WESTCARB	82	398	1,124
Total	2,379	8,328	21,633



Carbon Sequestration Atlas of the US (DOE, 2015)

Reliable

U.S. Underground Natural Gas Storage Facility, by Type (December 2017)



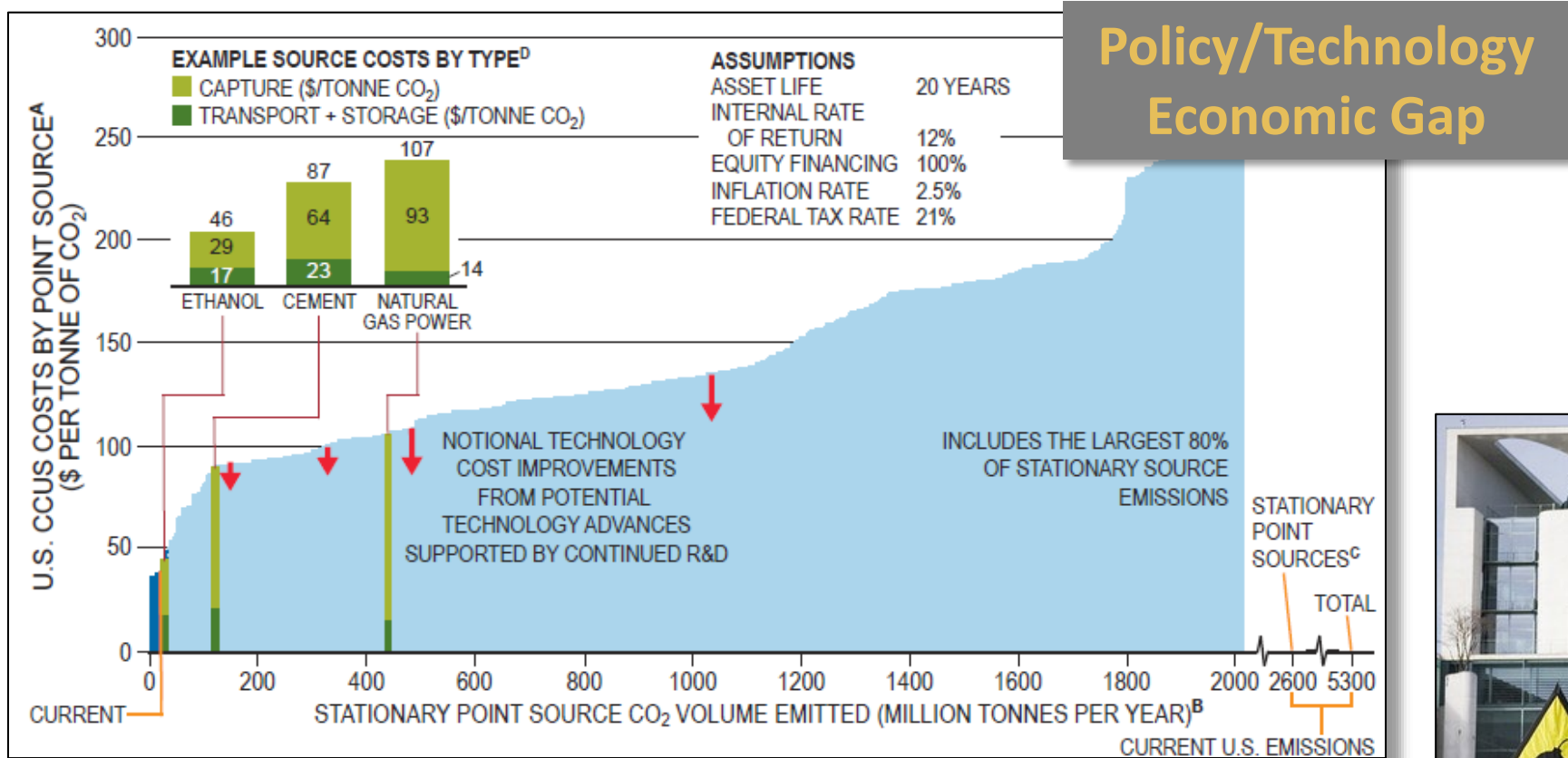
Source: EIA



Infrastructure



Potential Barriers to CCS



Source: "Meeting the Dual Challenge", Ch. 2



Source: "Shell's Plan to Lead in Storage of Carbon Dioxide Hits a Snag", *The Wall Street Journal*, Apr 21, 2009.

SPE Storage Resources Management System

- Most language, logic, and methods follow PRMS
- "Capacity" replaces reserves
- Must be commercial
 - Storage fees
 - Tax credits
 - Government subsidies
 - **Coupled with revenue- and CO₂-generating project**
- Independent project evaluations with standard definitions protect capital

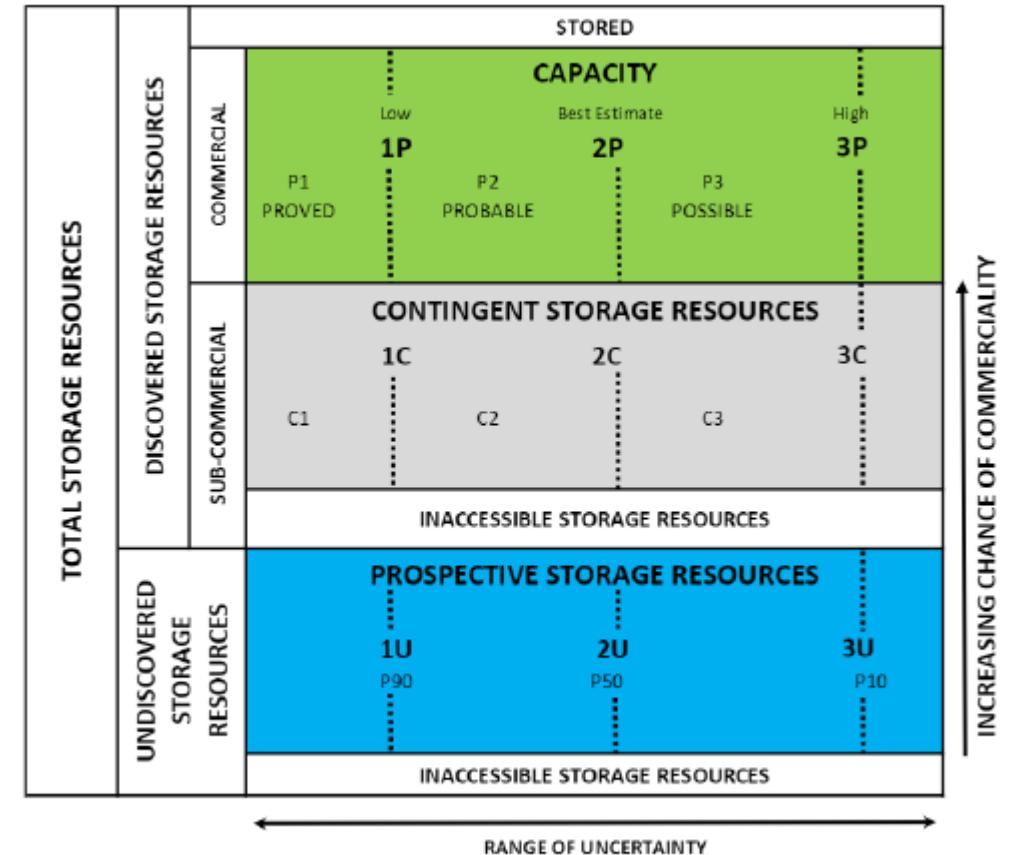


Fig. 1.1 – Resources Classification Framework

Disclaimer

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