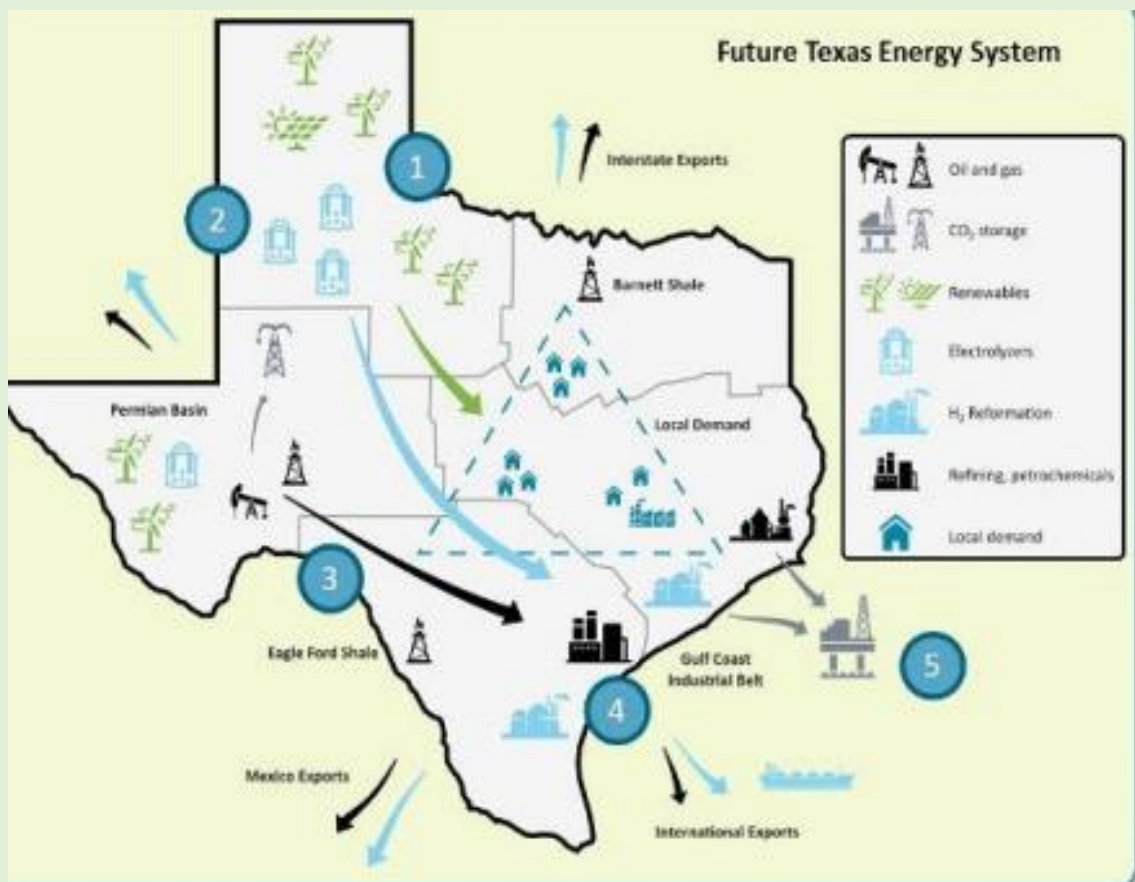


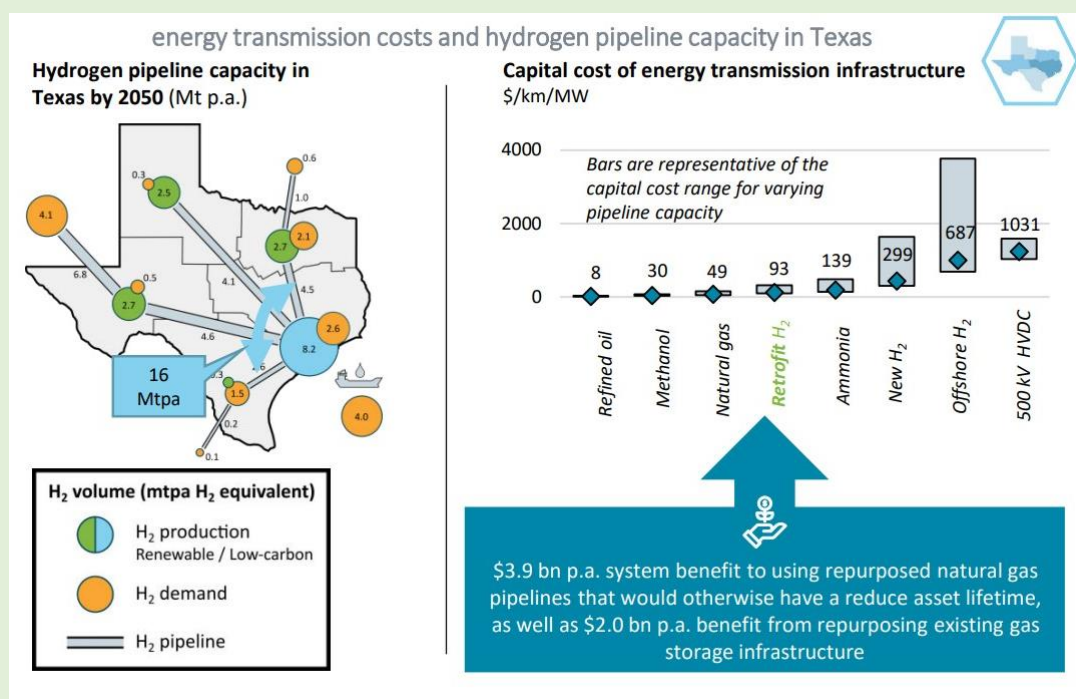
Hydrogen, Texas



Yesterday I shared an interesting series of Hydrogen Council/ Baringa modelled scenarios;
<https://energycentral.com/c/cp/hydrogen-decarbonized-energy-systems>

Building on this and, in advance of my CCS and Hydrogen course next week, I thought a summary of hydrogen sectoral developments in Texas may be of interest?

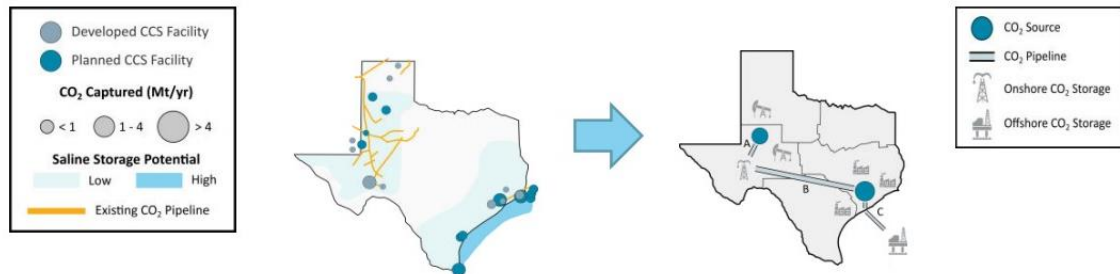
Name	Location	Hydrogen	Funding (Millions)	Major Participants
ARCH2	WV, OH, PA	Blue	\$925	Plug, Bloom, Air Liquide, Chemours
ARCHES	CA	Green & Blue	\$1,200	Amazon, Plug, Woodside, Air Products, Air Liquide, Linde
HyVelocity	TX Coast	Blue	\$1,200	GTI, Air Liquide, Chevron, Orsted, Sempra
Heartland	MN, ND, SD	Green & Blue	\$925	Xcel, Marathon Pet, TC Energy
MACH2	DE, NJ, PA	Green	\$750	Air Liquide, Bloom, DuPont, PSEG, Messer, Enbridge
MachH2	IL, IN, MI	Green, Blue, Pink	\$1,000	Constellation, Air Liquide, Arcelor Mittal, Plug, ExxonMobil, BP, Gevo
PWNH2	WA, OR, MO	Green Only	\$1,000	Amazon, Air Liquide, Mistubishi Power, Atlas Argo, PACCAR Inc



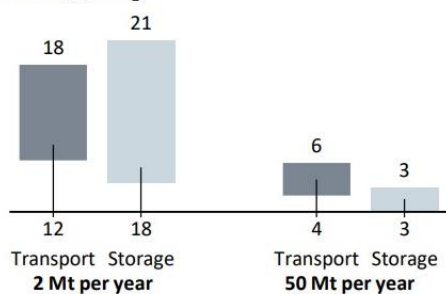
CCS transport and storage current infrastructure, costs and vision in Texas



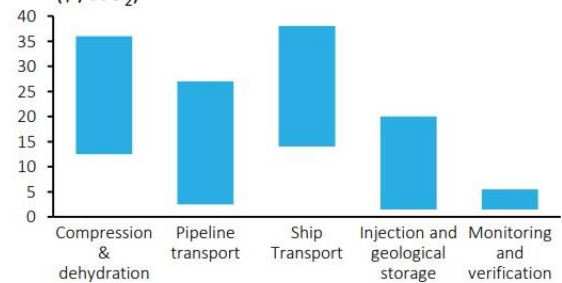
Conceptual evolution of CCS infrastructure in Texas versus today



Economy of scale in CO₂ transport and storage costs (\$/tCO₂)



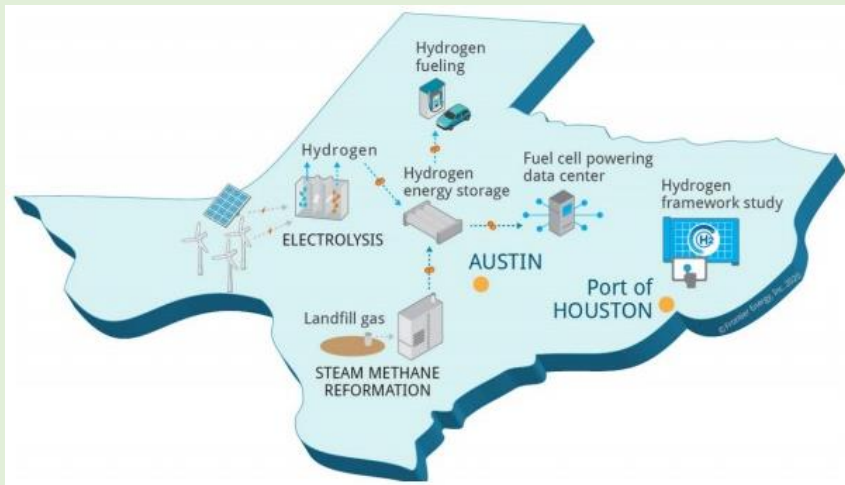
Cost ranges for CCS value chain components (\$/tCO₂)



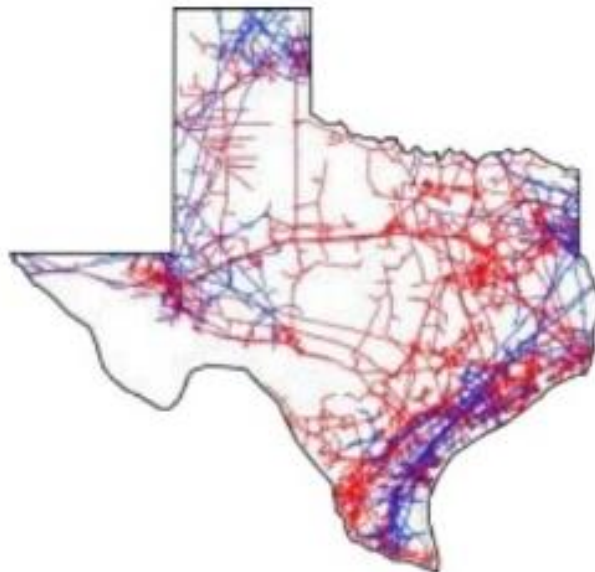
Technology costs

Power infrastructure costs are based on Baringa intelligence on each region and are summarized below. Otherwise, technology costs assumed are consistent with our previous assessment of infrastructure costs detailed in **Path to hydrogen competitiveness: A cost perspective** and updated annually through our **Hydrogen Insights** reports.

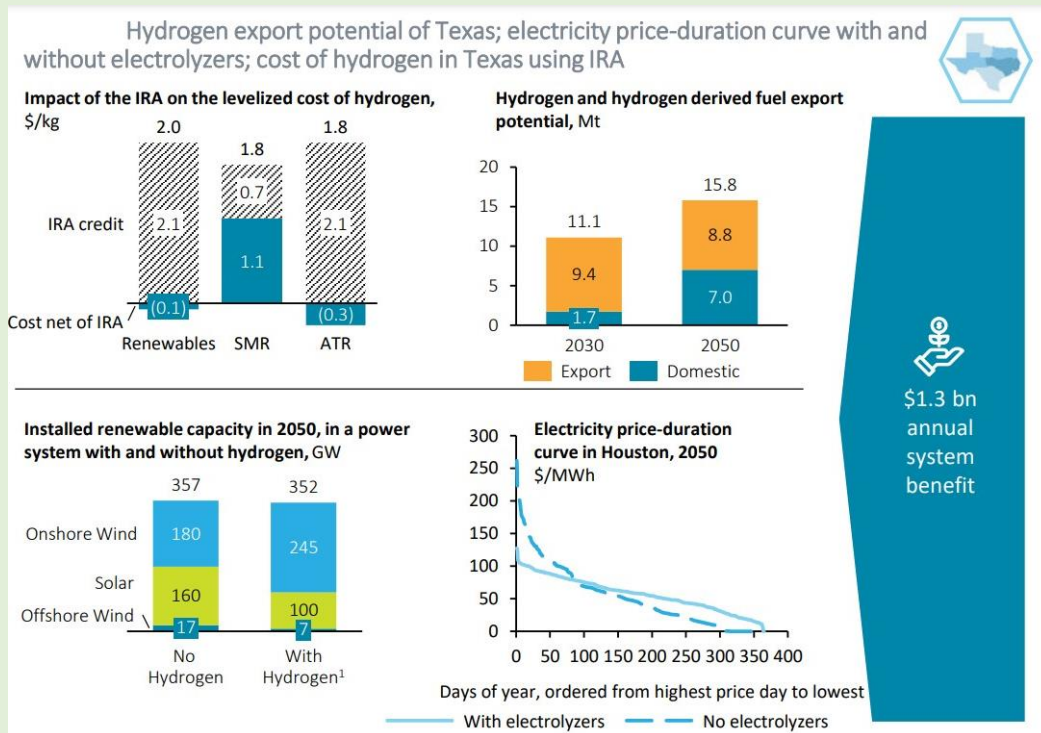
Base Case LCOE assumptions (\$ / MWh) (2030 → 2050)	Solar	Onshore Wind	Offshore wind
Texas - Panhandle	29 → 24	28 → 18	n/a
Texas - South	33 → 27	34 → 24	96 → 77

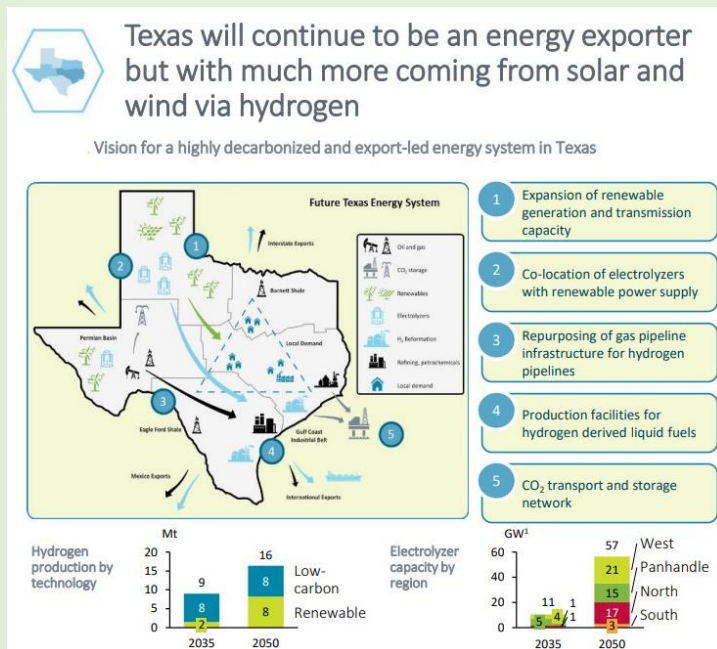


Texas gas pipelines today



— Interstate Pipeline
— Intrastate Pipeline





Stay informed; <https://bit.ly/2ZXK6f8>

[Hydrogen America](https://bit.ly/2ZXK6f8)

