

Produced Water's Role in Energy Expansion: Unlocking a Multi-Billion Dollar Resource for Texas's Future

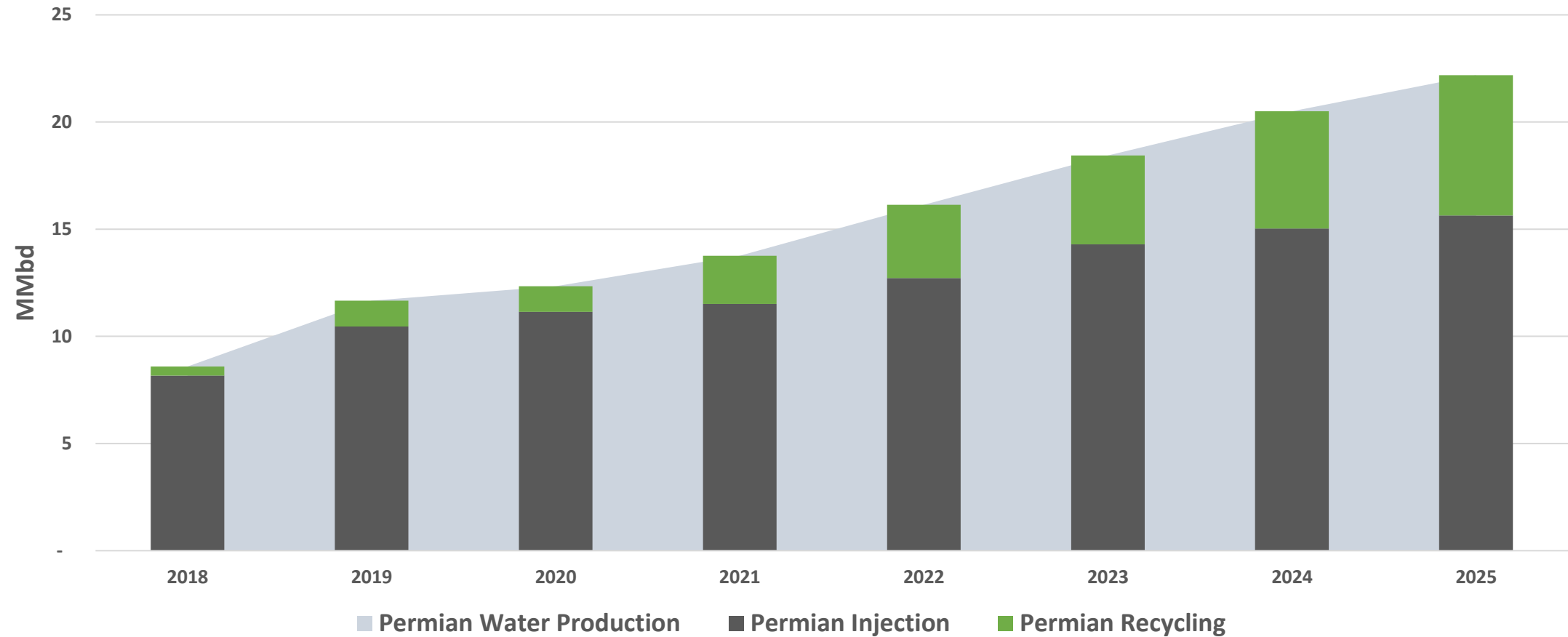
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July 16th, 2025

RRC 2025

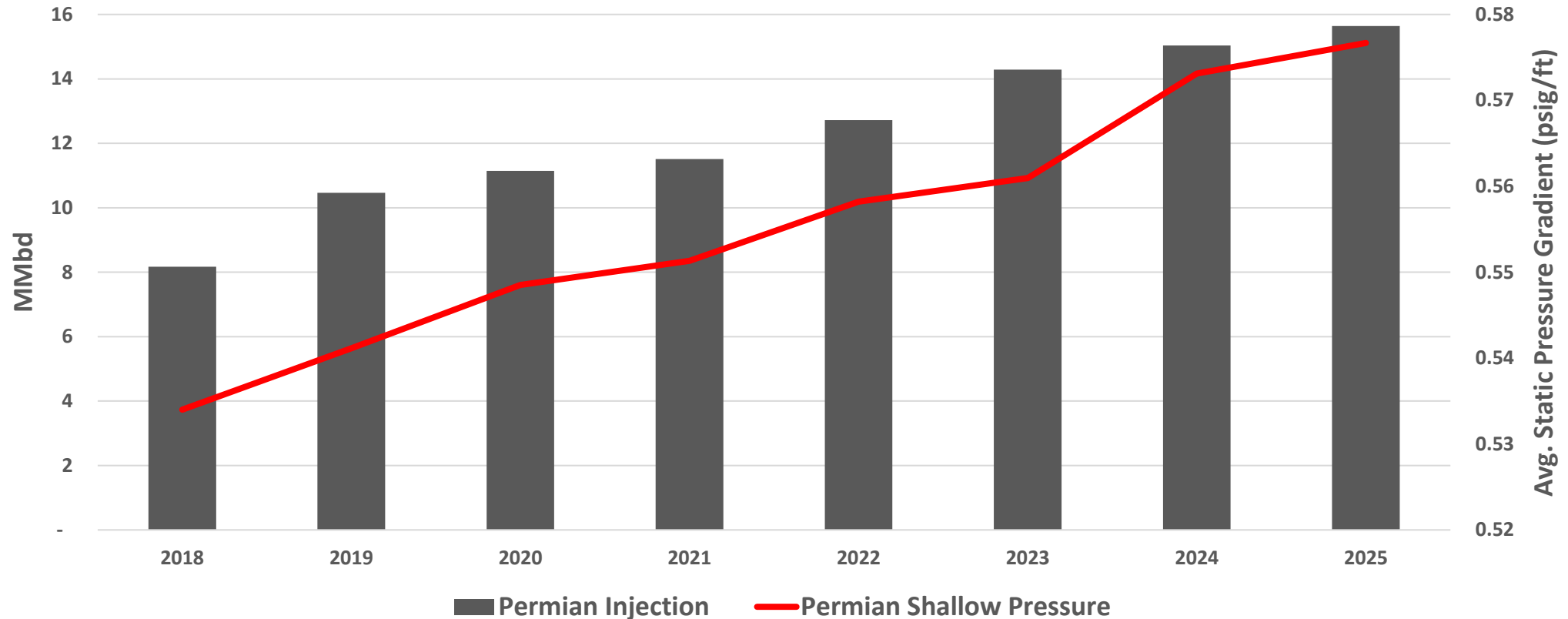


Produced Water: Volume & Management:



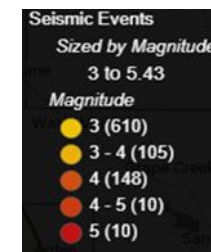
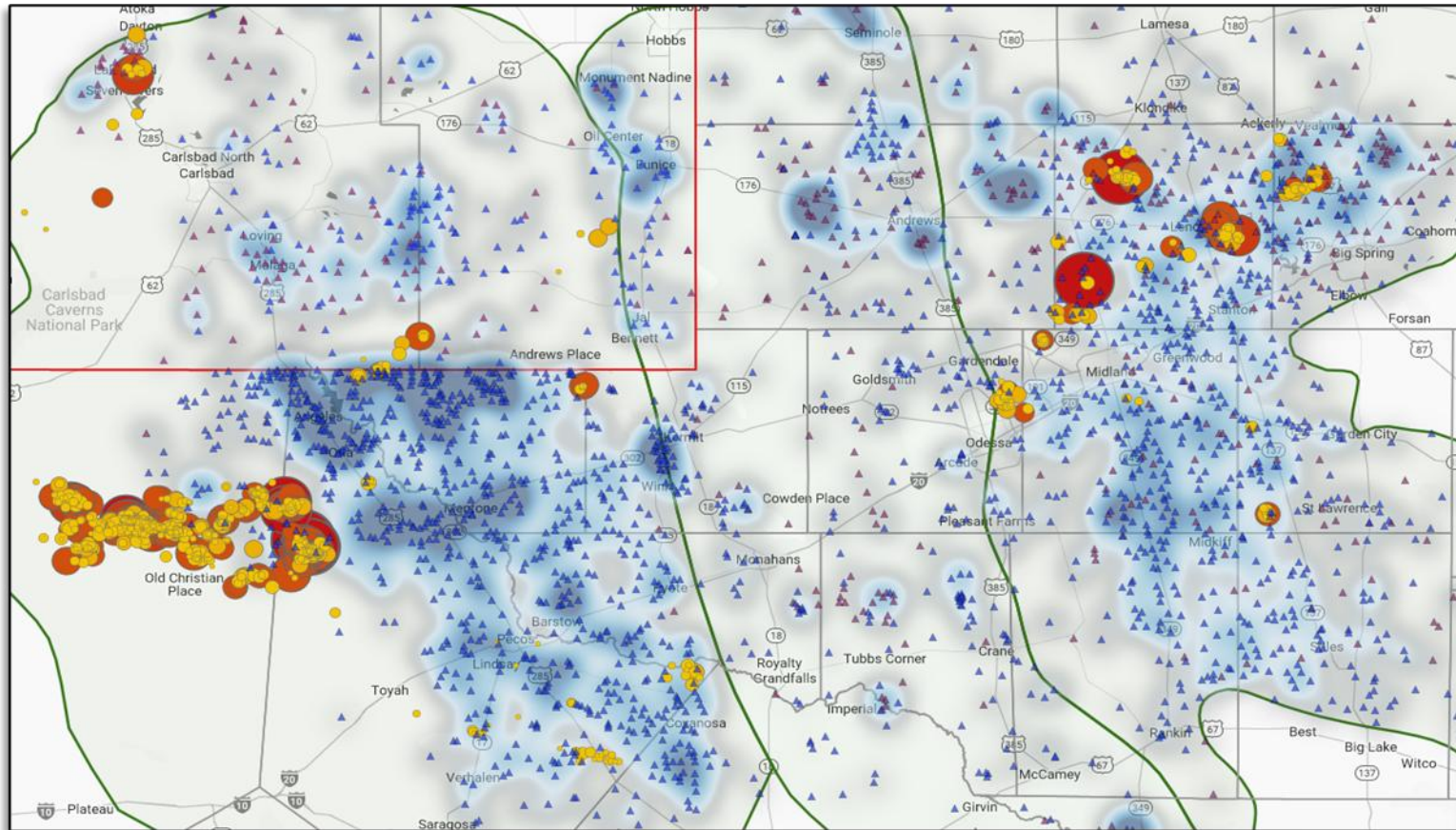
“Data used with permission from B3 Insight”

Disposal Volume & Shallow Pressure:



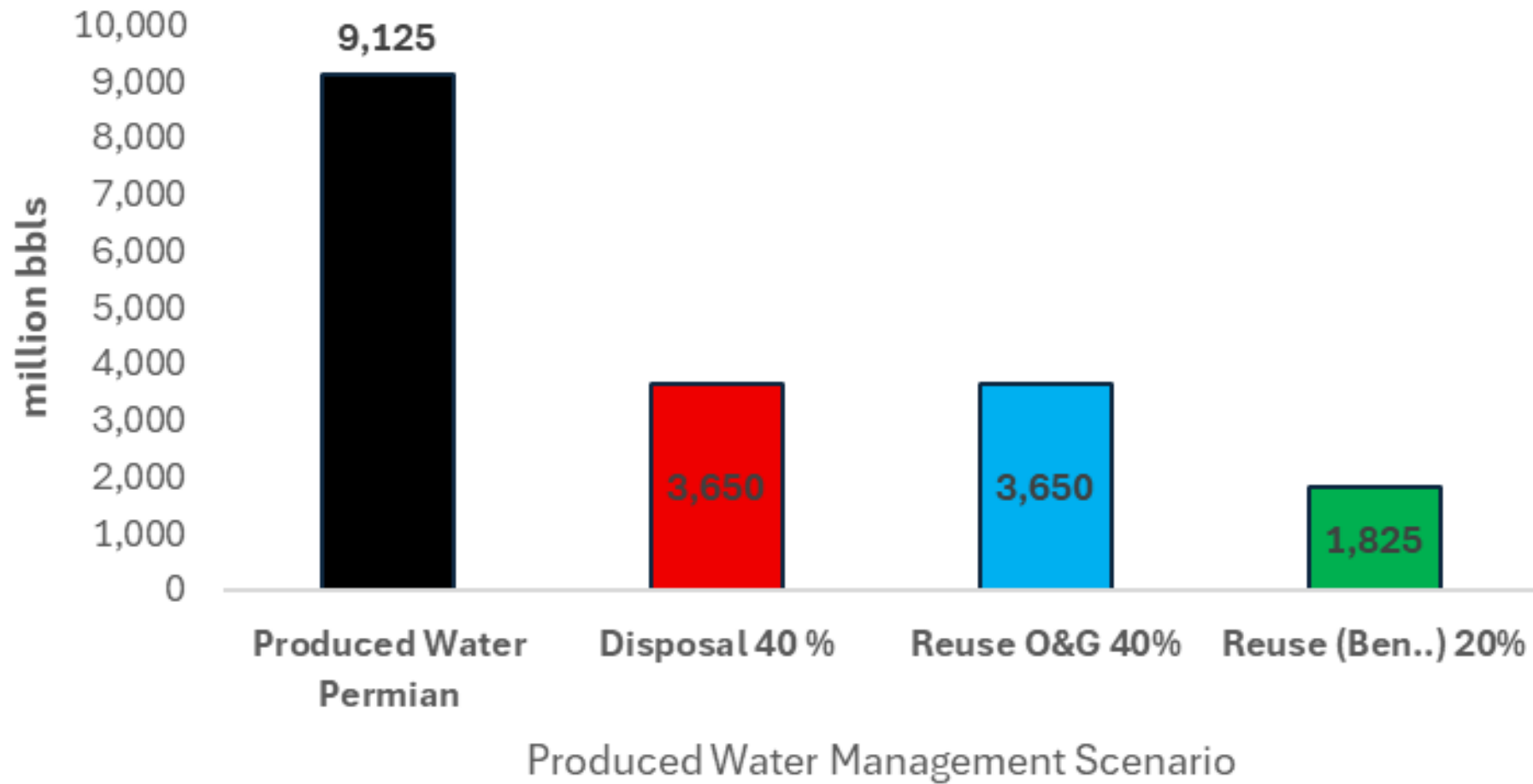
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Seismic events since 2017, magnitude 3.0 or greater, USGS. Density heat map showing average daily injection rates from June 2024 to December 2024, data from B3 Insights' OilfieldH2O

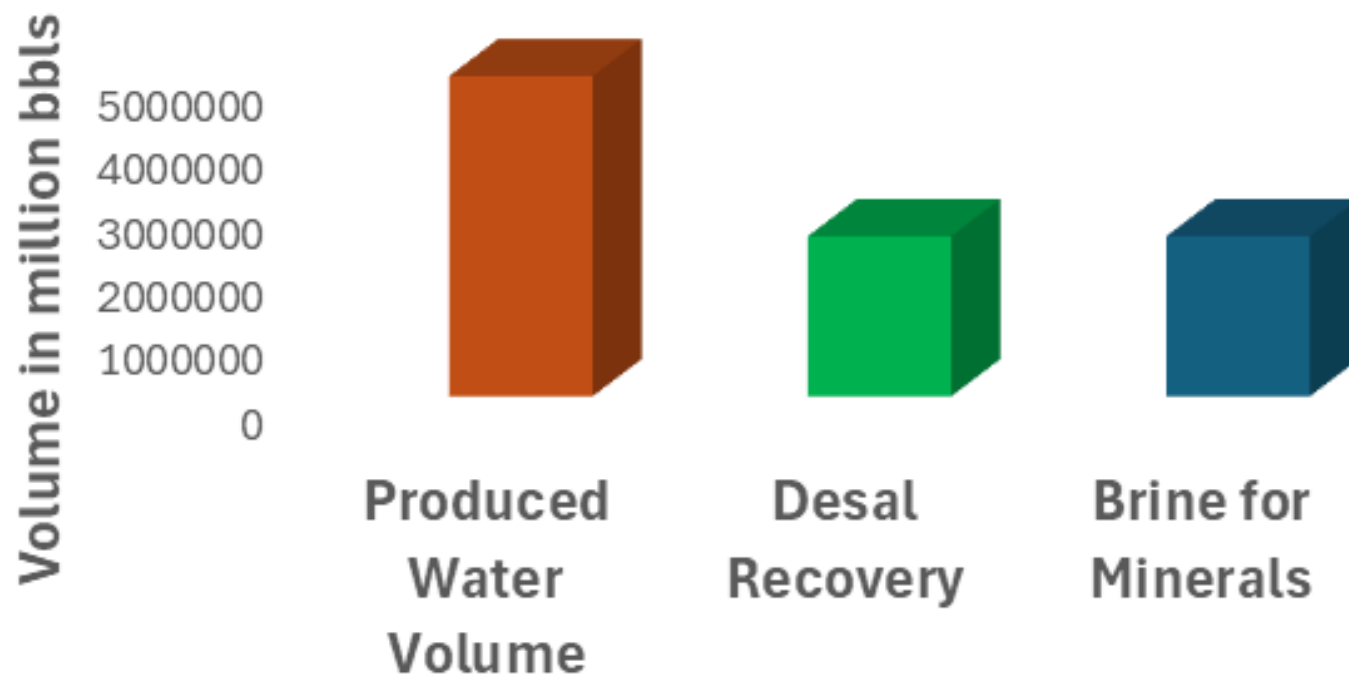


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Estimated Permian Vol & Management: 25 mbpd

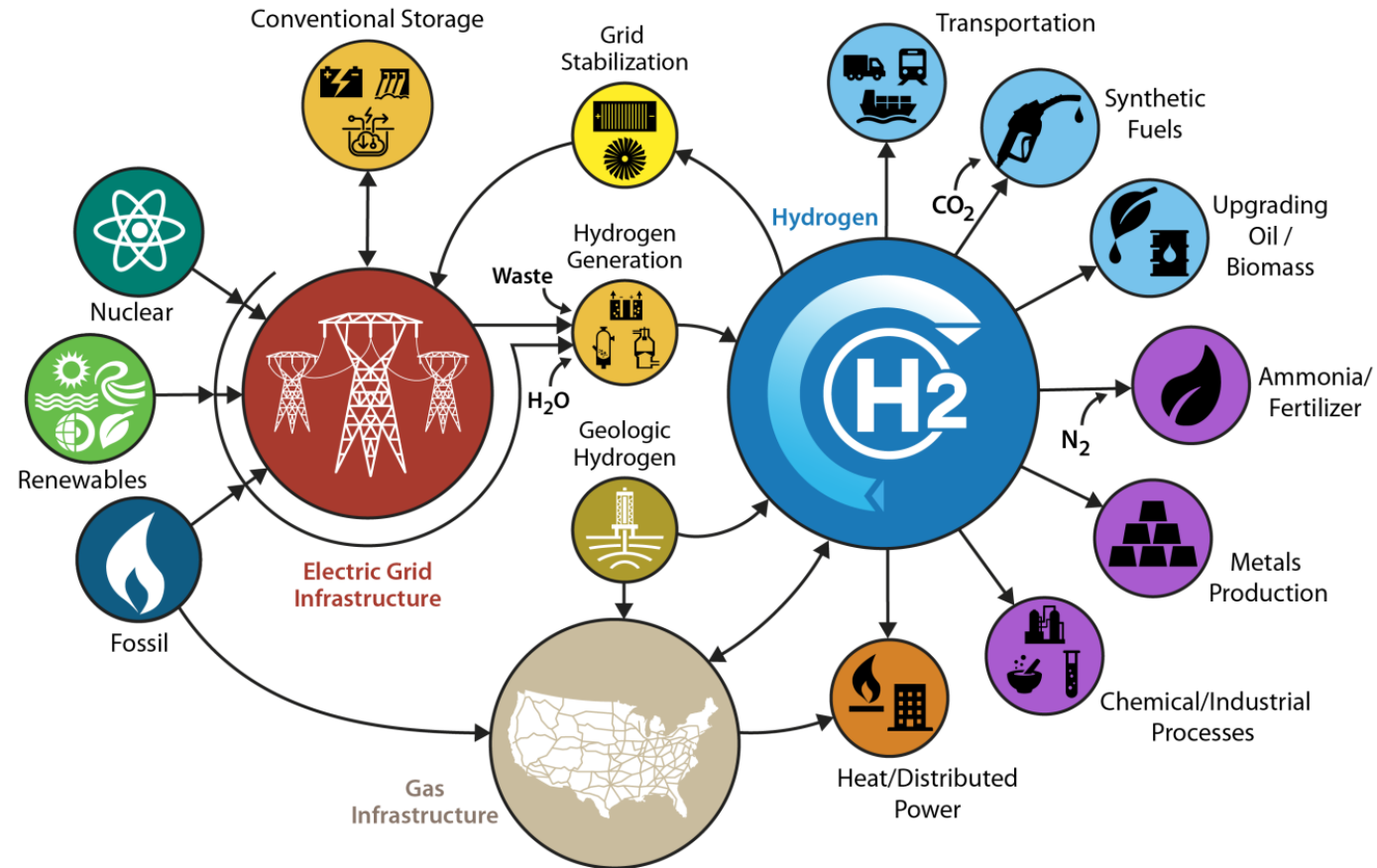


One example of Beneficial Reuse: 5 mbpd



Desalination of 5 million bpd Produced Water with 50 % Recovery

DOE Vision



<https://www.energy.gov/eere/fuelcells/h2scale>

DOE- Hydrogen Hubs



<https://www.c2es.org/2023/10/hydrogen-hubs-seek-to-build-on-regional-u-s-strengths/>

Projection for Green Hydrogen Only: \$ 39.57 Billion/Y

Desalinated Produced Water in bbls	2,500,000
Green Hydrogen in M Tons/Day	36133
Green Hydrogen in M Tons/Year	13.19 million
2030 Forcasted Demand	10-13 million M Tons
\$ Revenue \$/3 Kg/Day	108 million
\$ Revenue \$/3 Kg/Year	39.57 billion

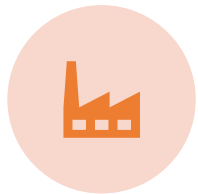
Projection for Selected Minerals: \$ 3.29 Billion/Y

80% Recovery

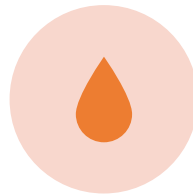
Minerals: Permian Perspective	Conc. mg/L	For Cal. mg/L	\$/Kg	Total \$/day	Total \$/year
Lithium	20-50	25	20	317,974	116.1 M
Magnesium	<u>200-4000</u>	<u>600</u>	3	1.145 M	417.8 M
Iodine	2.0-10.0	6	60	228,941	83.56 M
Bromine	400-700	500	2.2	699,543	255.33 M
Rubidium	2.0-6.0	3.65	800	1.86 M	678 M
Sodium Chloride	60,000-140,000	100,000	0.075	4.77 M	1.74B

Sources: Multiples, Kyle Murray, AI, etc

What Else...



Carbon Capture
Utilization and
Storage



Data Centers- AGI



Other Industrial
applications..



Nuclear Energy.. Role
in Desalination



Geothermal Energy..

The Greater Good

Agriculture

Surface Discharge

Aquifer ReInjection

Others

Thank you



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