PULSE ON THE POWER MARKET //

Decarbonization

Tisha Scroggin-Wicker
Director of Decarbonization

Megan Reusser
Technology Manager

pulse on the power market

2025 GENERATION SYMPOSIUM

What's Moving the Market

Massive New Load Growth

AI /data centers + electrification are driving unprecedented demand.

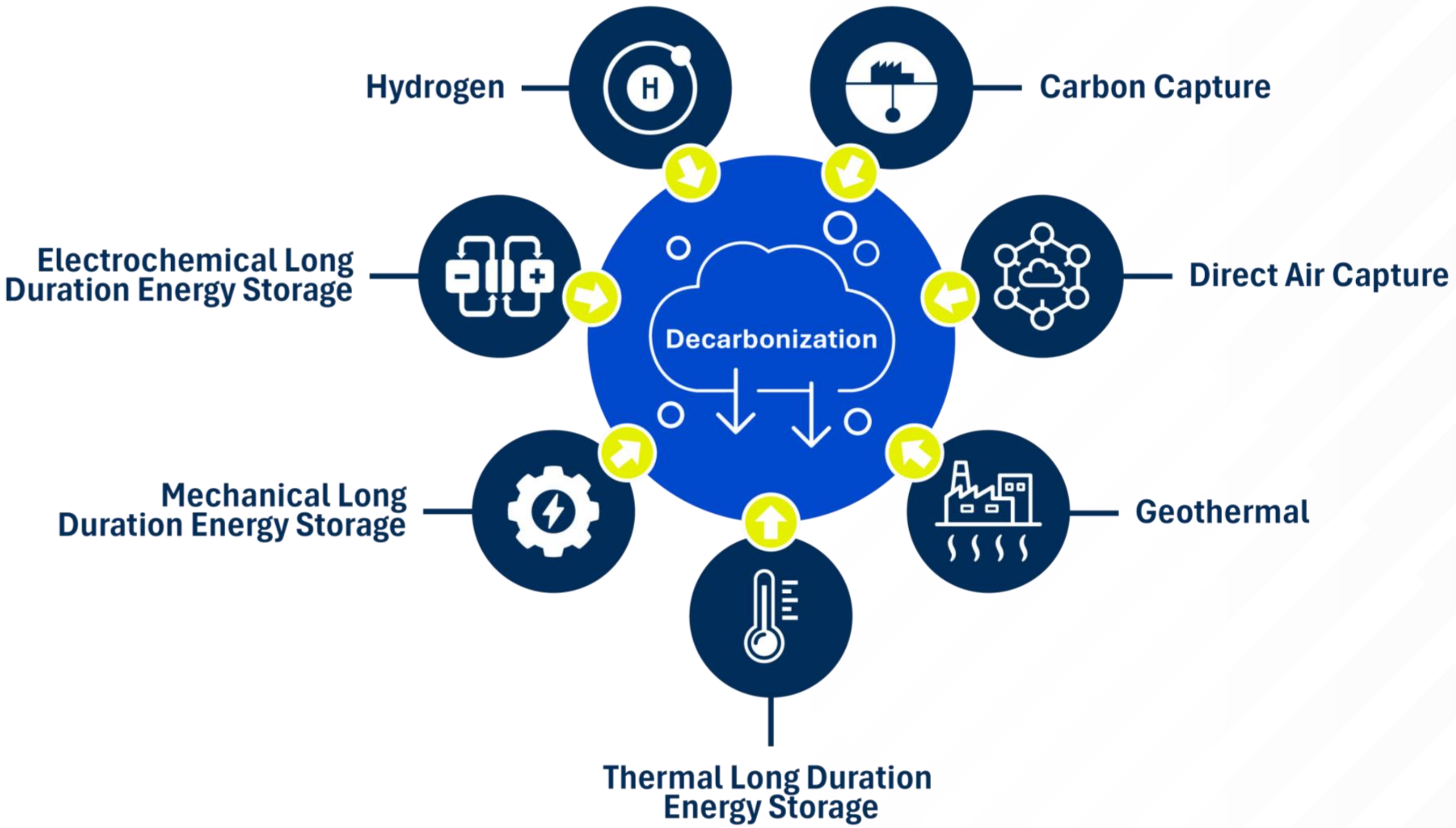
Timelines are Already Stretching

New gas projects are already targeting COD 2030 and beyond.

Clean Power is a Bonus

Speed is the top priority, but clean power may add competitive advantage or premium power pricing.

Technology Pulse Check

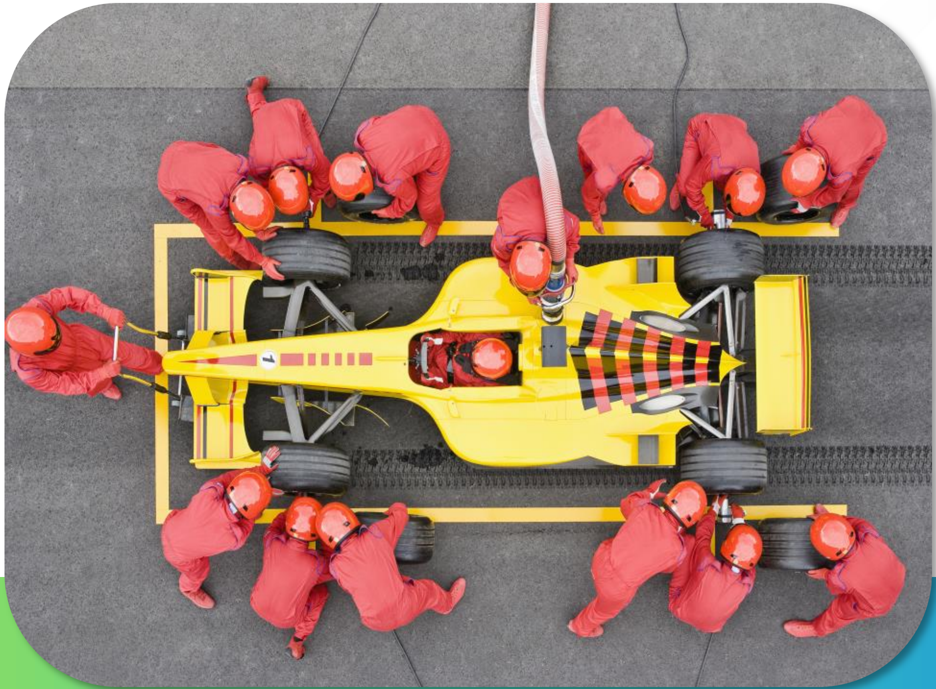


Technology Pulse Check

Technology Pulse Check

Surging

Technology Pulse Check



Stalling

Technology Pulse Check

Shifting

Surging Technologies

Strong Pulse

Geothermal

- Gaining traction as 24/7 baseload as well as LDES
- Successful pilots across the US
- Attractive for data centers seeking firm, clean power
- New drilling + closed-loop tech expanding potential for siting locations in non-traditional locations

Surging Technologies

Strong Pulse

Carbon Capture

- 45Q incentives remain in play in U.S. at $85/ton
  - EOR now on par with Sequestration
- Canadian carbon tax at $95 CAD/tonne
  - Annual increase by $15 CAD up to $170 CAD/tonne by 2030

PROJECT EXAMPLE

Pastoria Energy Facility – CCS FEED

Project: FEED study for Post-Combustion Carbon Capture system at an existing Natural Gas Combined Cycle facility

Client: Calpine

Services Provided:

- FEED Contractor for Balance of Plant (BOP) Engineering
- Schedule development and constructability analysis
- Development of total project cost estimate (AACE Class 3)

95% — CO_2 Capture from three NGCC turbines

1.8M — Tonnes of CO_2 captured annually

UOP — UOP/Honeywell Advanced Solvent Carbon Capture (ASCC) technology

Stalling Technologies

Weak Pulse

Hydrogen

- NSPS (2024) removed hydrogen co-firing as a compliance option
- 45V production tax credits now expire at end of 2027

Flow Batteries

- Continued challenges with scale-up and ability to reach cost parity with lithium-ion
- In 2025 we have seen several players exit the market

Shifting Technologies

Irregular Pulse

Mechanical / Thermal LDES

- Early pilots + data center partnerships, but need economics to improve over lithium
- Includes industrial process integration (e.g., heat)

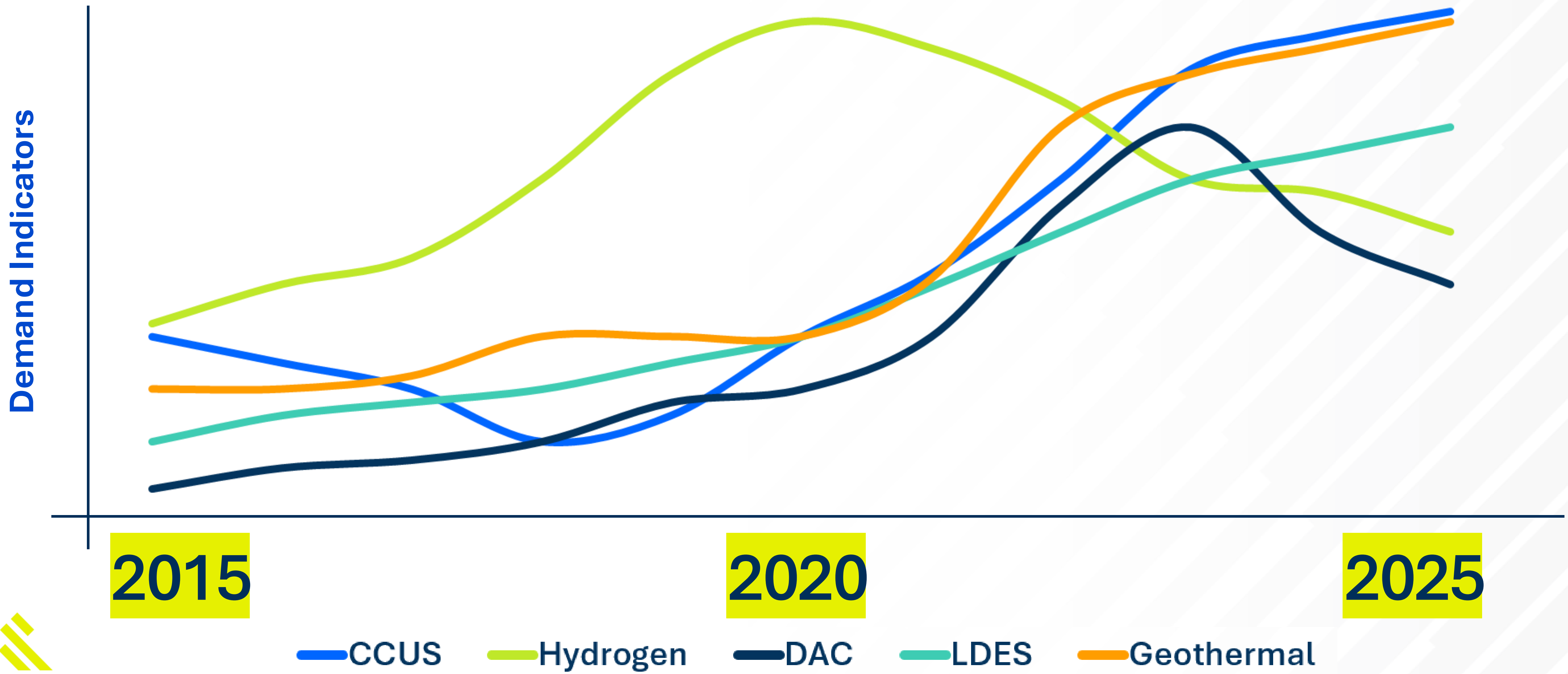
Fuel Cells (stationary power)

- Select OEMs have announced promising partnerships with data centers

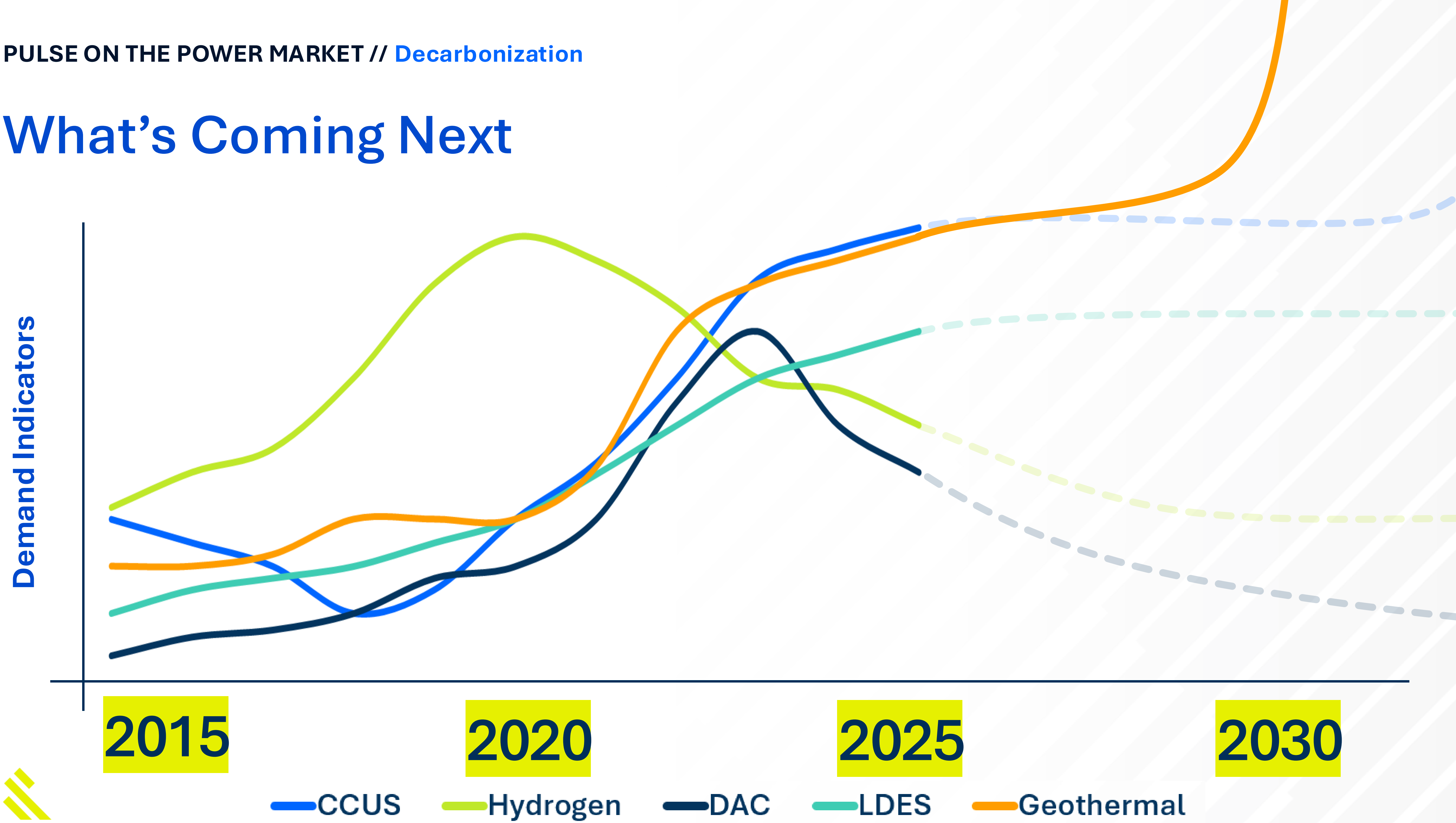
Direct Air Capture (DAC)

- Continued to be supported by 45Q and now receive equal credit for EOR and sequestration ($180/ton)
- Financial viability remains uncertain

What We've Seen from the Market



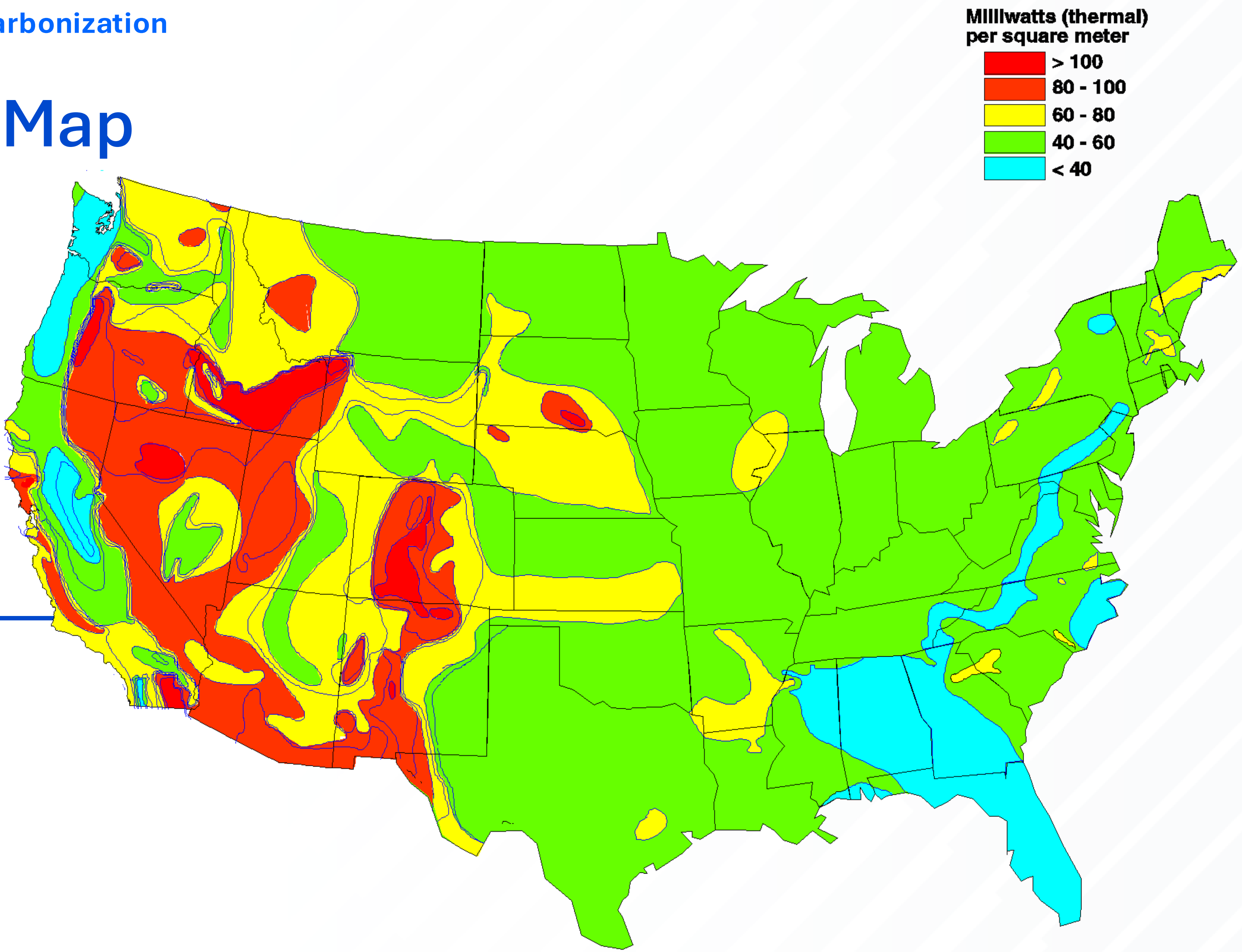
What's Coming Next



Geothermal Heat Map

Advanced Geothermal Systems (AGS)

Enhanced Geothermal Systems (EGS)



Source: Geothermal heat map US." Wikipedia, via Wikimedia Commons.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ENERGY

Q & A