NOVEMBER 6, 2025

2025 ANNUAL MEETING

Lafayette, California

CARBON CAPTURE COALITION

Welcome Remarks

Alex Makler,
Executive Vice President, West Region,
Calpine

Opening Remarks

Jessie Stolark,
Executive Director,
Carbon Capture Coalition

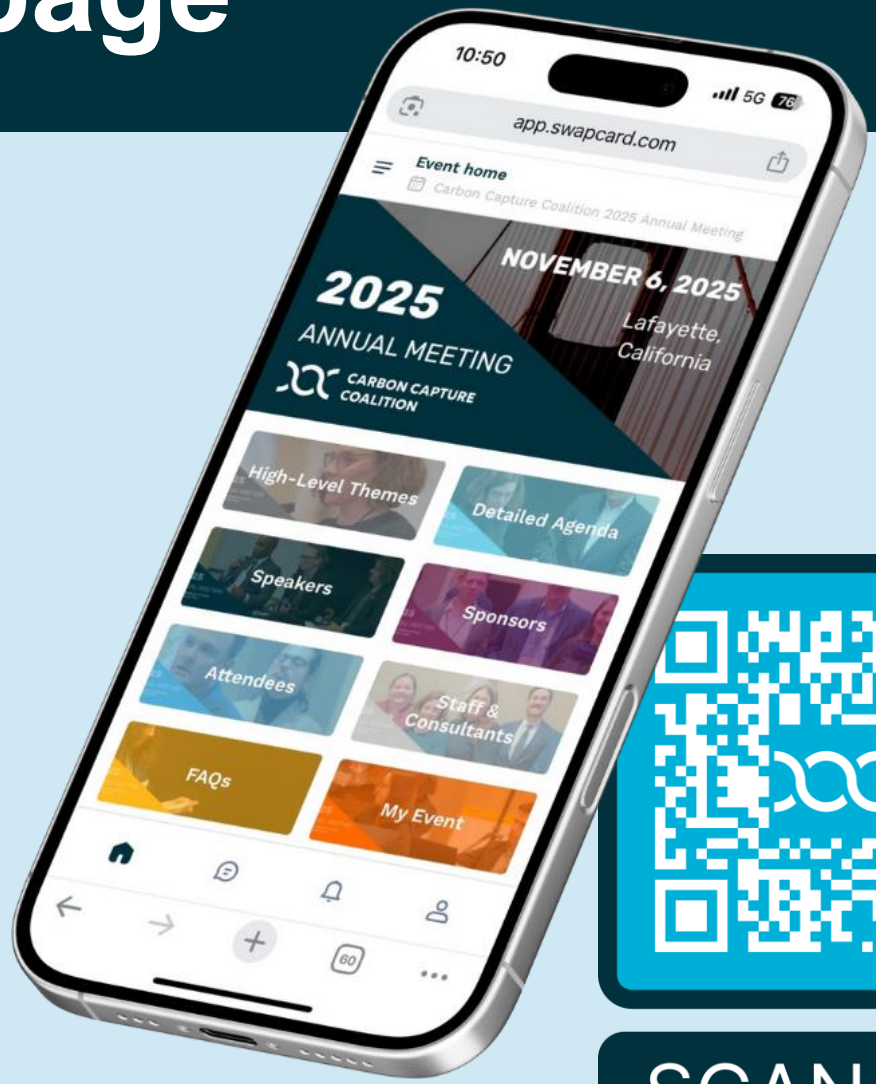
CARBON CAPTURE COALITION

View our Event Homepage

Event App Includes:

- Detailed Agenda
- Speaker Bios
- Participant Details
- Sponsor Information
- FAQs

https://bit.ly/CCCAM2025



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November 6 Agenda

8:00 AM	*Registration & Welcome Breakfast*
9:00 AM	Welcome & Opening Remarks
9:40 AM	Federal Legislative Update
10:10 AM	*Networking Coffee*
10:40 AM	Unlocking Project Permitting
11:40 AM	Keynote
12:00 PM	*Lunch*
1:00 PM	Fireside Chat: Carbon Capture, DAC Opportunities in California
1:30 PM	Communicating Carbon Management
2:10 PM	Natural gas + CCS – Drivers for the FOAK Generation
3:10 PM	*Networking Coffee*
3:40 PM	Coalition Website Reveal
3:50 PM	Systemic Bankability: A framework for Addressing the “missing middle” in Technology Deployment
4:20 PM	Breakout Sessions
4:50 PM	Report out from Breakout Sessions
5:00 PM	Closing Remarks & Adjourn

View our Agenda in Swapcard:

CARBON CAPTURE COALITION

2025: Separating the signal from the noise

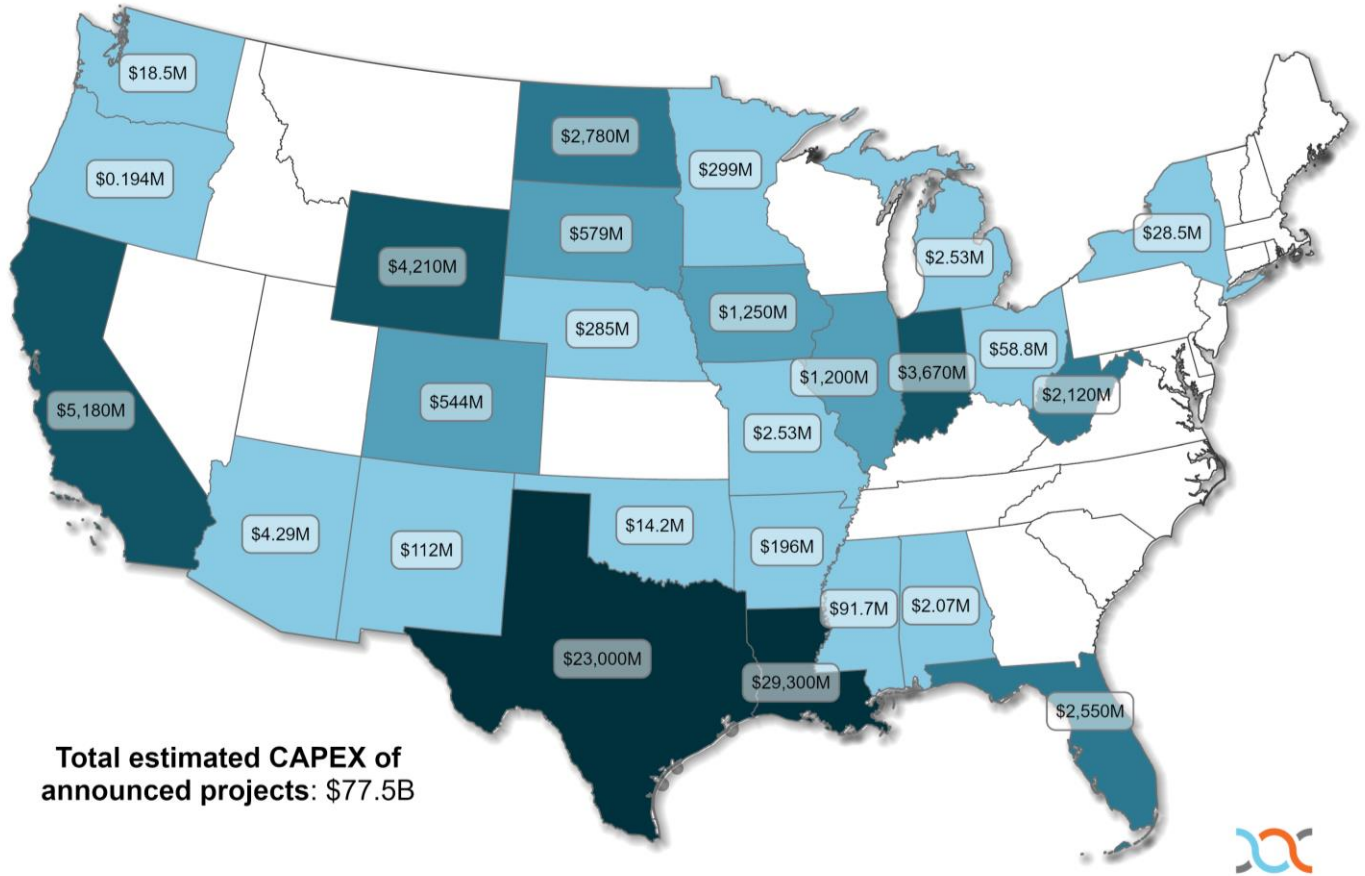
"We are building 50-year businesses. We are not building five-year businesses. Focus on the signal and not the noise."

- Steve Varvik, CEO, Earthrise Energy

45Q and Budget Reconciliation

Coalition Leads National, Multi-Stakeholder Call on Congress to Maintain Critical Support for 45Q Tax Credit

JANUARY 28, 2025 | SHARE



Source: Estimated CAPEX for announced projects in carbon management and related projects. Q4 2016 through Q4 2024. Clean Investment Monitor. Accessed 5/7/2025.
Note: Alaska and Hawaii do not have actual investments reported.

CARBON CAPTURE COALITION

Total estimated capital expenditures of announced carbon management projects through the end of 2024

Looking Beyond the Headlines

"If it wasn't for the work prior to the Big Beautiful Bill, everything would have been repealed right away. It was the work we did … both here in the House and Senate …Was the final [OBBBA] language perfect? No, … but it was not a full repeal which a lot of people demanded. I am happy. I am satisfied with what we got in the bill. … It gives people time."

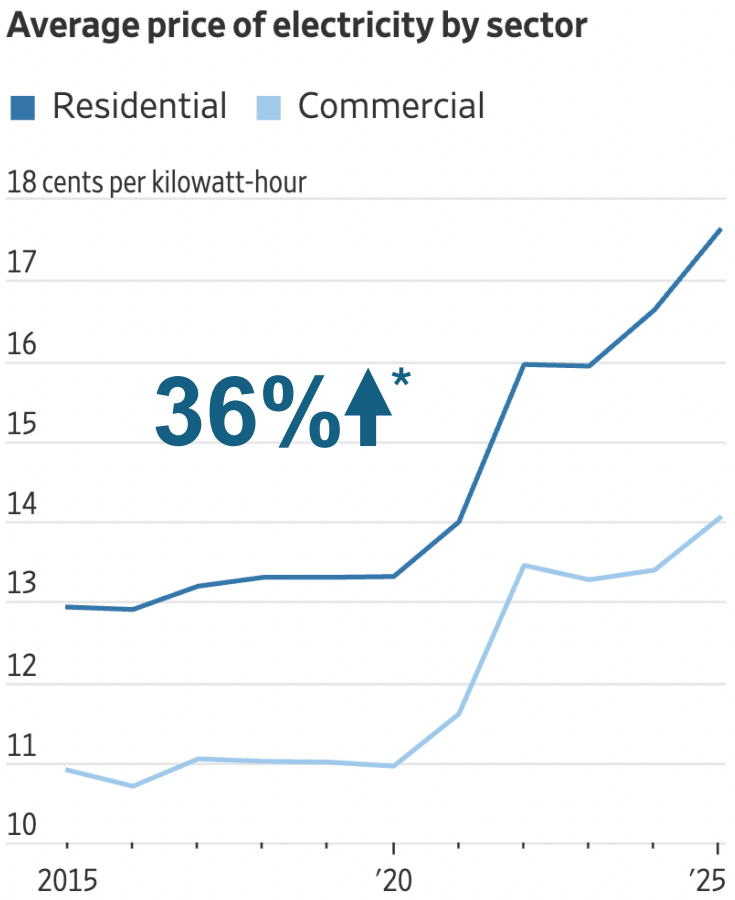
- Representative Andrew Garbarino (R-NY)

Are We Entering a New Energy & Climate Paradigm?

"What comes next? And it should be something that aligns energy dominance needs with reindustrialization, with climate co-benefits as a result. It's just a new way of approaching and thinking about these issues."

- Chris Barnard, President, American Conservation Coalition

- American energy dominance
- Affordable, reliable energy
- Firm, dispatchable
- Clean



CARBON CAPTURE COALITION

*Kurtz, Sara. "Surging Power Costs Are Putting the Squeeze on Customers." *The Wall Street Journal*, November 4, 2025.

Steady Growth in Global Deployment

77

Number of facilities in operation rises 54% year on year

64 Mtpa

Capture capacity in operation rises 25% year on year

734

Total number of facilities rises 17% year on year

46%

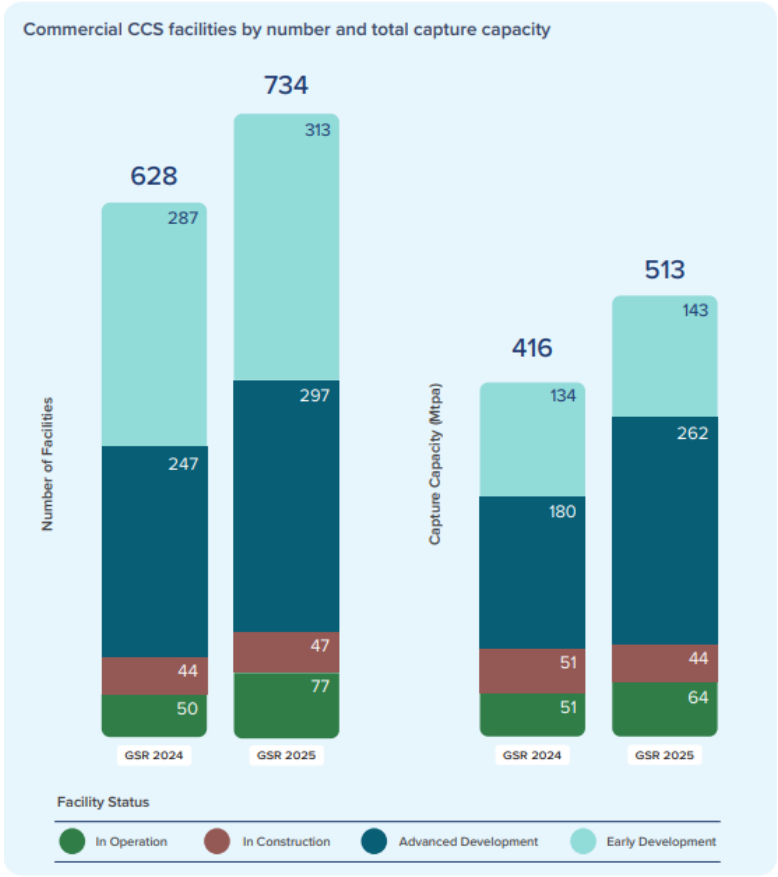
Increase in the capture capacity of facilities in advanced development (FEED) from 180 to 262 Mtpa.

513 Mtpa

Total capture capacity rises 23% year on year

44 Mtpa

Capture capacity in construction in July 2025



Source: Global CCS Institute

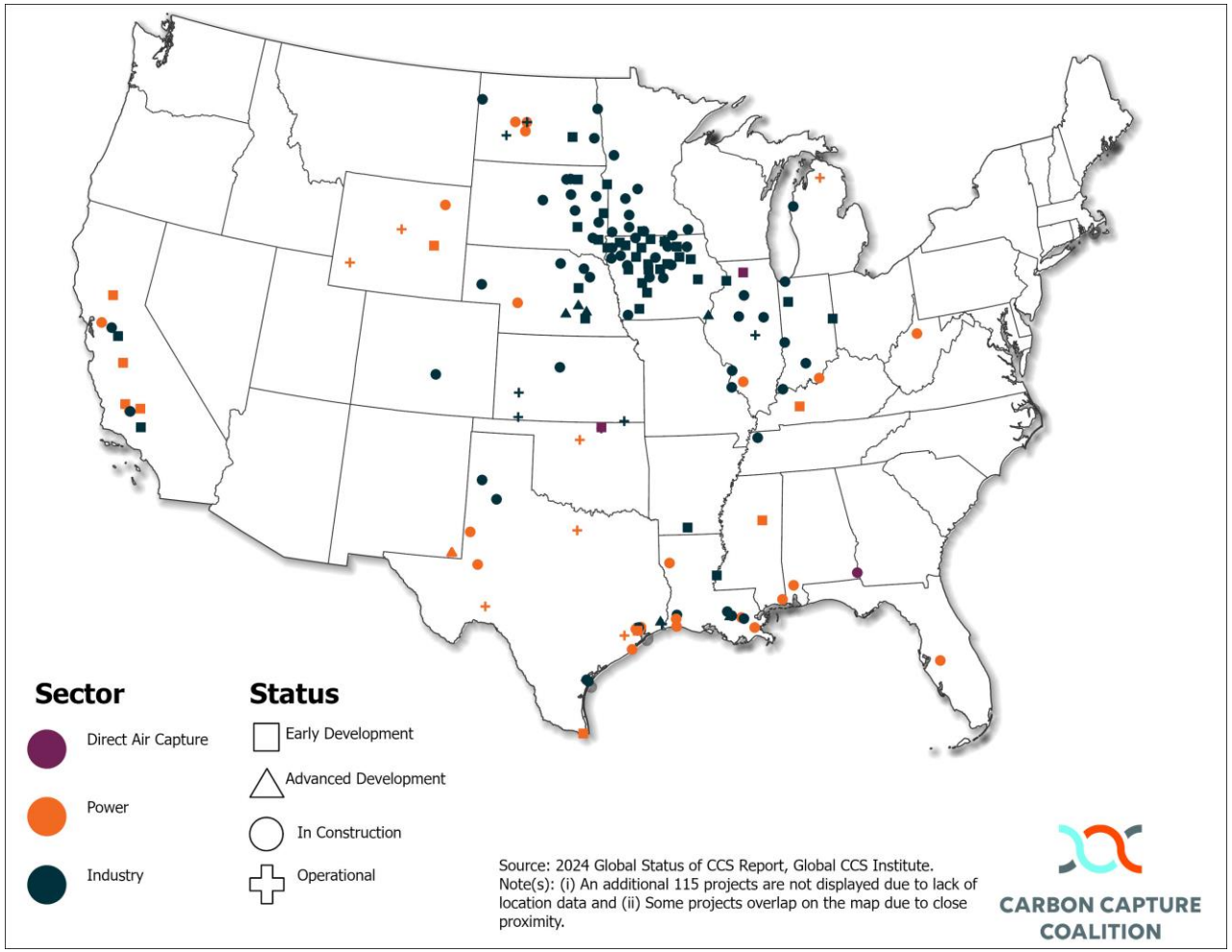
2025: US Carbon Management Progress

According to the Global CCS Institute, as of July 2025, there are 320 announced & operational carbon management projects in United States.

- Operational= **32**
- In Construction= **14**
- Advanced Development= **170**
- Early Development= **104**

FIDs: In February 2025, **BKV** announced final investment decision (FID) for a CCS project at a natural gas processing facility.

Similarly, in April 2025, the **Blue Point Low-Carbon Ammonia Production Project** in the US reached the FID.



Snapshot: California carbon management

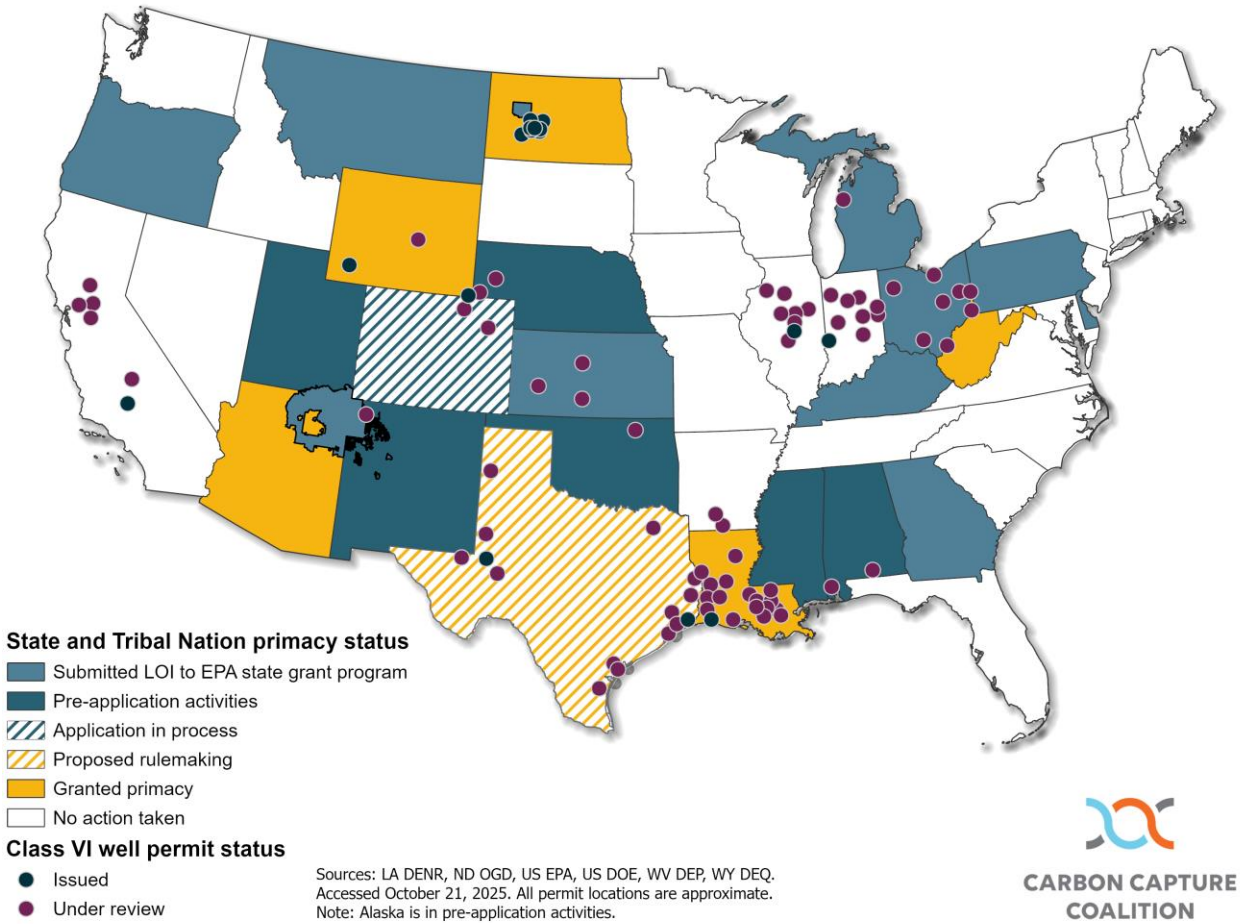
- **12 projects** in California, representing a total of **55 Class VI well applications,** are under review with the Environmental Protection Agency (EPA).
  - Of these, **7 projects (38 wells)** are nearing completion or approval.

- In **December 2024**, **California Resources Corporation's (CRC) Carbon TerraVault** became the **first Class VI well project approved** in the state, with construction beginning last month.

- **Heirloom's Direct Air Capture (DAC) facility** in **Tracy, CA** has been operating since **2023**.

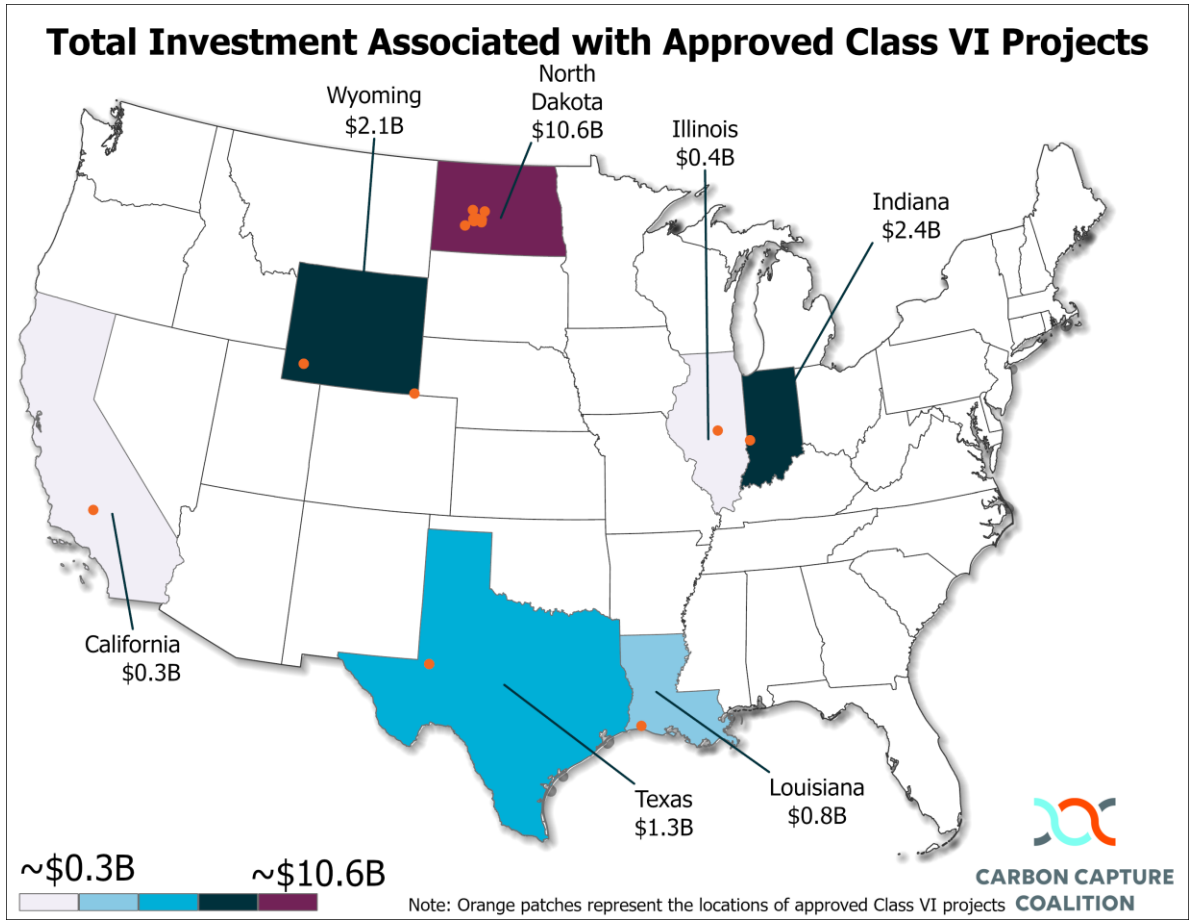
- **45Q eligible facilities:** California has **165 industrial facilities emitting** roughly **50 million metric tons of CO_2 per year** and **71 power facilities** emitting about **34 million metric tons per year**.

2025: Class VI Primacy Update



- In January 2025, EPA granted **West Virginia** Class VI primacy.
- In June 2025, the EPA proposed the approval of **Texas'** request for Class VI wells primacy.
- After the completion of the rule-making process, Texas will join **West Virginia**, **Arizona, Louisiana**, **Wyoming, and North Dakota**.

Investments associated with approved Class VI Wells



Note: Data current as of September 22, 2025. Total investment will increase following the recent approval of Exxon's Class VI well project in Texas.

- About **$18 billion of CAPEX** is associated with approved Class VI wells and the relevant capture projects.
- **Class VI Well Projects Approvals (as of 2025):**
  - Total approved—**17**
  - EPA—**6**
  - North Dakota—**8**
  - Wyoming—**2**
  - Louisiana—**1**
- Currently, EPA has **70** Class VI projects under review with a total of **257** Class VI well applications.
- **34** projects out of those **70** projects under review are close to being completed or approved[1].

[1]Class VI well project application with estimated date of preparation of the draft permit within the next 6 months (04/24/2026) or the ones with draft permit already been issued are deemed as close to being completed or approved.

Momentum is evident

Reuters World Business Markets Sustainability Legal Commentary Technology Investigations More

Google backs US gas power plant with carbon capture for Midwest data centers

By Laila Kearney

October 23, 2025 2:39 PM EDT · Updated October 23, 2025

BAKERSFIELDnow Eyewitness News KBAK FOX58 NEWS WEATHER FEATURES EYEWITNESS MORNINGS GAME CENTER WATCH LIVE

Pioneers celebrate groundbreaking on California's first carbon capture and storage site

by Steve Virgen, Eyewitness News | Thu, October 16, 2025 at 5:32 PM

Updated Thu, October 16, 2025 at 7:26 PM

businesswire A BERKSHIRE HATHAWAY COMPANY Newsroom Services & Solutions Resources For Journalists

Apr 23, 2025 10:52 AM Eastern Daylight Time

Calpine, ExxonMobil Sign CO_2 Transportation and Storage Agreement for Power Generation Project

AGRICULTURE BUSINESS + LABOR MANUFACTURING

CF Industries, Japanese partners to build $4B 'blue' ammonia plant in Ascension Parish

BY: **GREG LAROSE** - APRIL 8, 2025 3:43 PM

Monday, April 7, 2025 3:15 PM ET

Occidental and 1PointFive Secure Class VI Permits for STRATOS Direct Air Capture Facility

Reuters World Business Markets Sustainability Legal Commentary Technology Investigations More

Norway's Northern Lights CCS project starts operations with first CO2 injected

By Nora Buli

August 25, 2025 3:36 AM EDT · Updated August 25, 2025

May 13, 2025 4:50 PM Eastern Daylight Time

Svante Launches World's First Commercial Gigafactory for Carbon Capture & Removal Filters

Can the US still lead?

NEWS ARTICLE | 22 May 2025 | Directorate-General for Climate Action | 3 min read

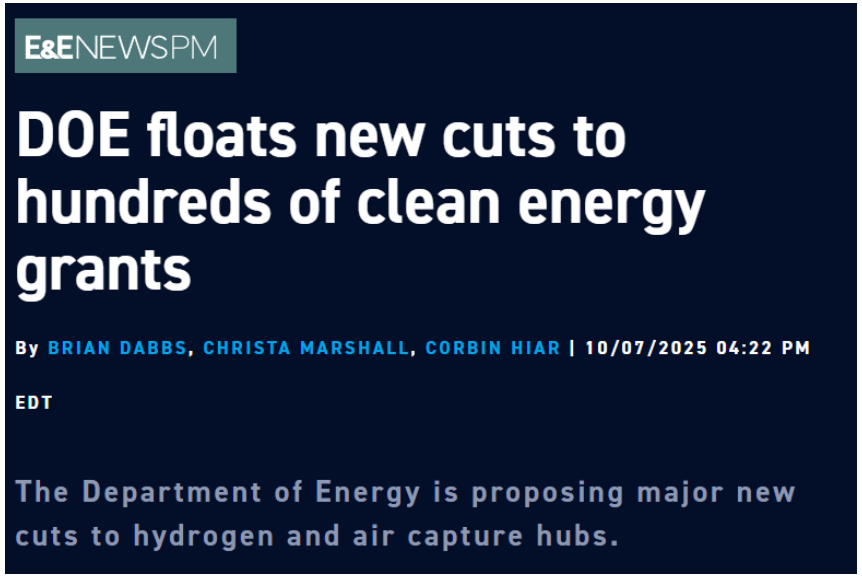
Commission identifies the EU oil and gas producers to provide new CO_2 storage solutions for hard-to-abate emissions in Europe

NEWS RELEASE

China claims 70-90% cost advantage in power plant carbon capture as European projects face costs approaching US$300 per tonne

Carbon capture for power plants progresses despite absence of commercial-scale fiscal incentives worldwide

08 October 2025 | 4 minute read



Canada's carbon removal prime minister

In the midst of federal upheaval in the United States, Mark Carney is positioning Canada to lead the global CDR market's next phase.

MAEVE ALLSUP | JULY 16, 2025

What's Next for the Carbon Capture Coalition?

Expand and defend the available regulatory framework for carbon management technologies.

- **Greenhouse Gas Reporting Program**
- **Offshore storage**
- **Pipeline Safety Regulations**

Continuing to build broad, bipartisan support for the full suite of carbon management technologies.

- **Policymaker education, earned media**

Develop appropriate levers for market pull.

- **Valuing clean, firm power in the market.**

Continue to build the groundwork for permitting reform.

- **CO_2 pipeline permitting**
- **Advancing common-sense updates to Class VI regulations**

Launch **Carbon Capture Impact** to align tactics and strategies with the Coalition's mission.

CARBON CAPTURE COALITION

Carbon Capture Impact

- Impact will officially launch in January 2026.
- Relevant staff and consultants will register under Carbon Capture Impact.
- Beginning in 2026, Impact will take ownership of the Legislative Work Group and advocate for high-impact legislation with Members of Congress and weigh in with the administration.

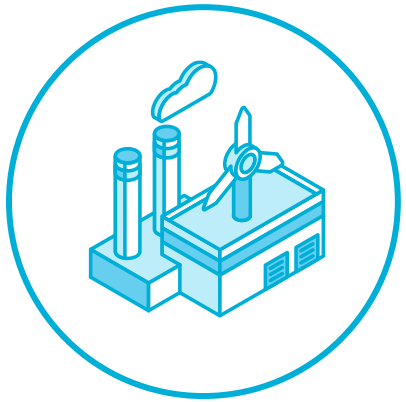
CARBON CAPTURE IMPACT

The Coalition will continue to house our…

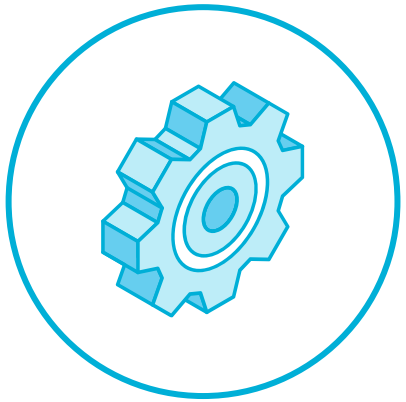
Blueprint Work Group

Regulatory & Guidance Work Group

Communications Work Group



Implementation Work Group



Other technical or ad-hoc Work Groups

CARBON CAPTURE COALITION

Coalition & Impact Staff and Boards

COALITION & IMPACT STAFF

- Jessie Stolark, Executive Director
- Madelyn Morrison, Director of Gov't Affairs
- Christian Flinn, Manager of Public Policy
- Sangeet Nepal, Technology Specialist
- Leo Duke, Communications & Member Relations Specialist
- Communications, RENEW**PR**
- Gov't Affairs, KDCR
- Tax, Steptoe

COALITION GOVERNANCE BOARD

- Barbara McBride, Calpine
- Andrew Fishbein, Climeworks
- Laura Brannen, Nature Conservancy
- Xan Fishman, Bipartisan Policy Center
- Jeremy Moddrell, United Association

IMPACT BOARD OF DIRECTORS

- Andrew Fishbein, Climeworks
- Xan Fishman, Bipartisan Policy Center
- Jeremy Moddrell, United Association

Questions & Discussion

Federal Legislative Update

Randi Reid,
Partner, KDCR

MJ Kenny,
Principal, KDCR

***Moderator*: Madelyn Morrison,**
Director of Government Affairs,
Carbon Capture Coalition

Unlocking Project Permitting

Chris Hannan
President, State Building and Construction Trades Council of California

Joe Ashley,
Director of Government and Regulatory Affairs, California Resources Corporation

Le-Quyen Nguyen,
Deputy Secretary for Energy, California Natural Resources Agency

Virgil Welch,
Partner, Caliber Strategies

***Moderator*: Christian Flinn**
Public Policy Manager, Carbon Capture Coalition

CARBON CAPTURE COALITION

Keynote

State Senator Anna Caballero,
(D-14)

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ION CLEAN ENERGY

MITSUBISHI HEAVY INDUSTRIES

Fireside Chat

Dr. Sarah Saltzer,
Managing Director of the Stanford Center for Carbon Storage

Shashank Samala,
CEO, Heirloom

Moderator: **Laura Brannen,**
Senior Policy Advisor and Federal Climate Policy Team Lead,
The Nature Conservancy

Communicating Carbon Management

Bradley Pischea,
National Director, Land & Liberty Coalition

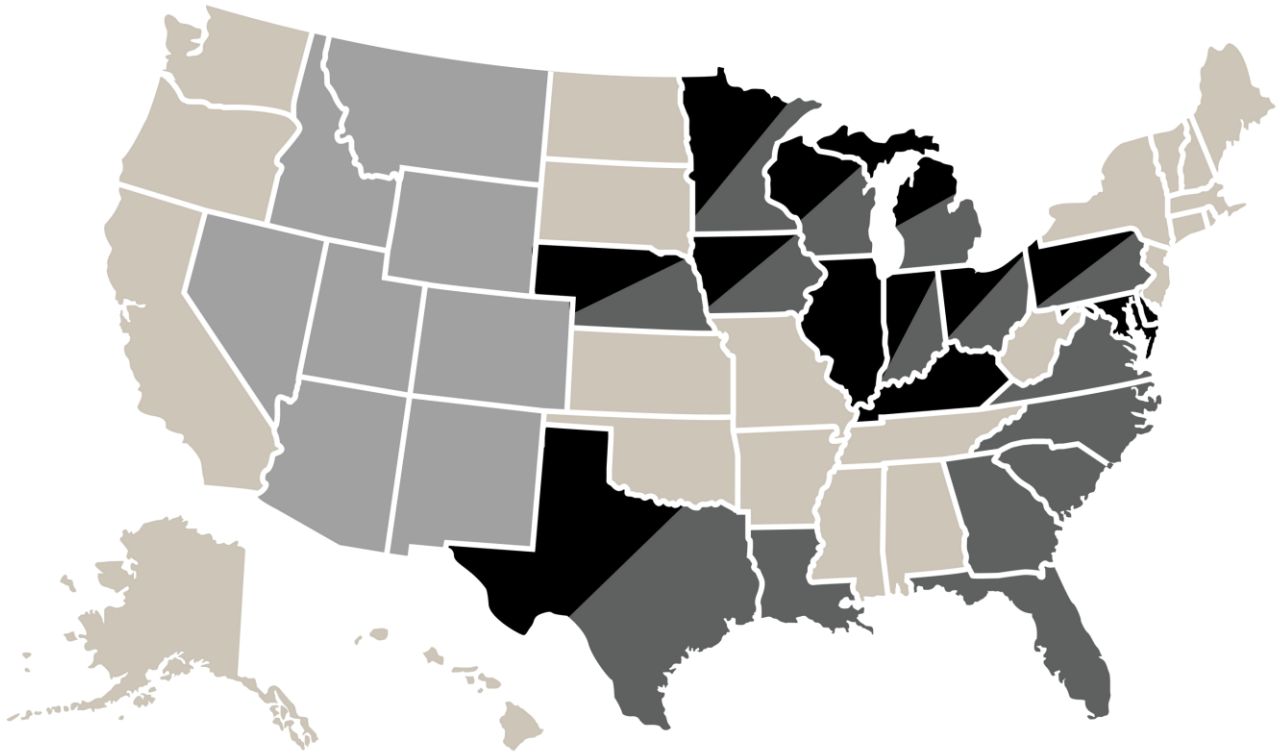
***Moderator*: Ben Finzel,**
President, RENEW**PR**

land & liberty coalition®

Advancing Conservative Clean Energy Leadership in Rural America

Bradley Pischea | bpischea@landandlibertycoalition.com

who we are



Land & Liberty Coalition Conservative Energy Network The Western Way

- A 13-state coalition of farmers, landowners, and rural conservatives supporting renewable energy
- Project of the Conservative Energy Network (CEN)
- Grounded in values: Private property rights, local development, national security
- Powered by trusted conservative messengers in the communities where projects are built

the problems we solve

- Local opposition to renewable energy is growing, driven by:
  - Misinformation
  - Fear of change
- Increasingly restrictive land use ordinances
- Industry often lacks trusted local messengers to respond effectively
- Without early, consistent, engagement, opponents define the narrative

our approach

01 We build “Renewable Ready Communities” by engaging early, authentically, and strategically

02 Identify and activate local supporters before opposition hardens

03 Build opt-in supporter lists for long-term organizing

04 Use field-tested conservative messaging tailored to local values

engagement toolkit

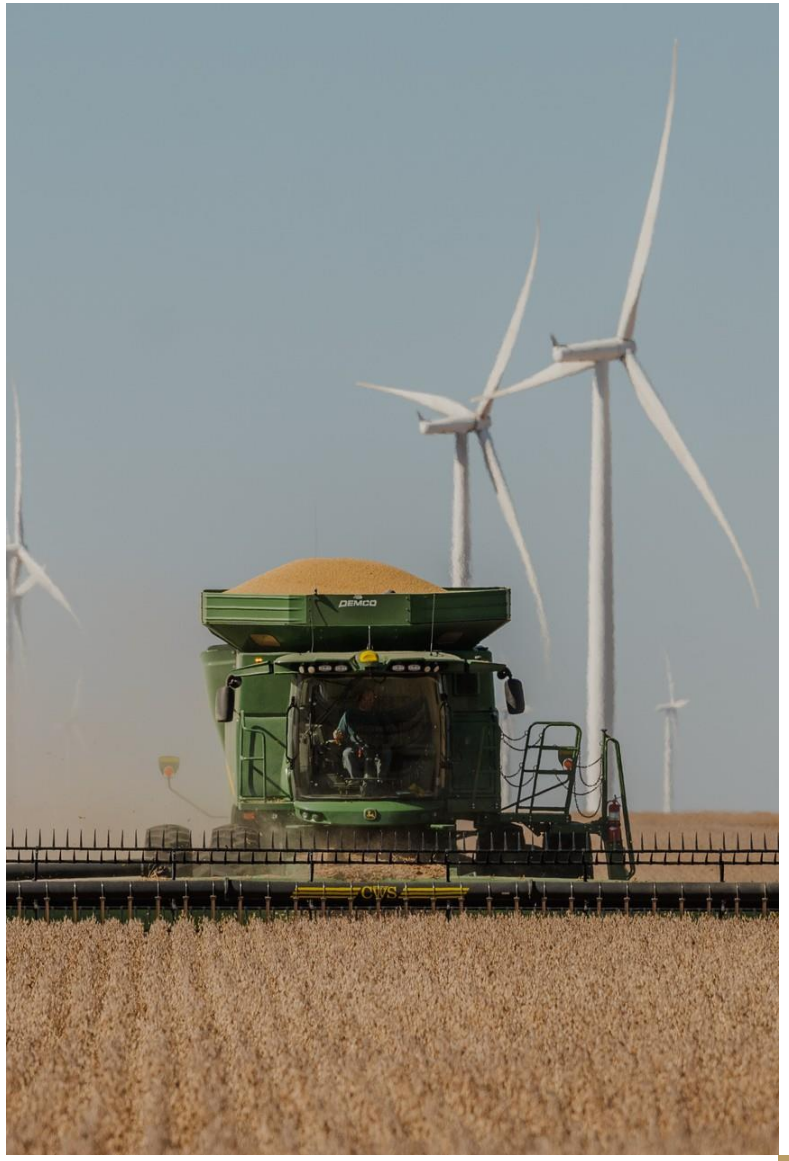
List-Building & Supporter ID
Identify and organize grassroots supporters.

Messaging & Communications Design
Tailored narratives that resonate locally.

Public Education Tools
Power Hours, community events, and direct mail that inform and inspire.

Coalition Development
Engage policymakers, political chapters, chambers, ag leaders, unions, veterans, and more.

Optional Media & Digital Campaigns
Amplify reach with targeted content and ad strategy.



our results

Supported over **15 GW** of new wind, solar, and storage.

Operated in **134 counties**, influenced **101 governing bodies.**

3.3 million+ digital impressions and **50+ media stories** in 2024.

Thousands of landowners and farmers empowered to have a voice.

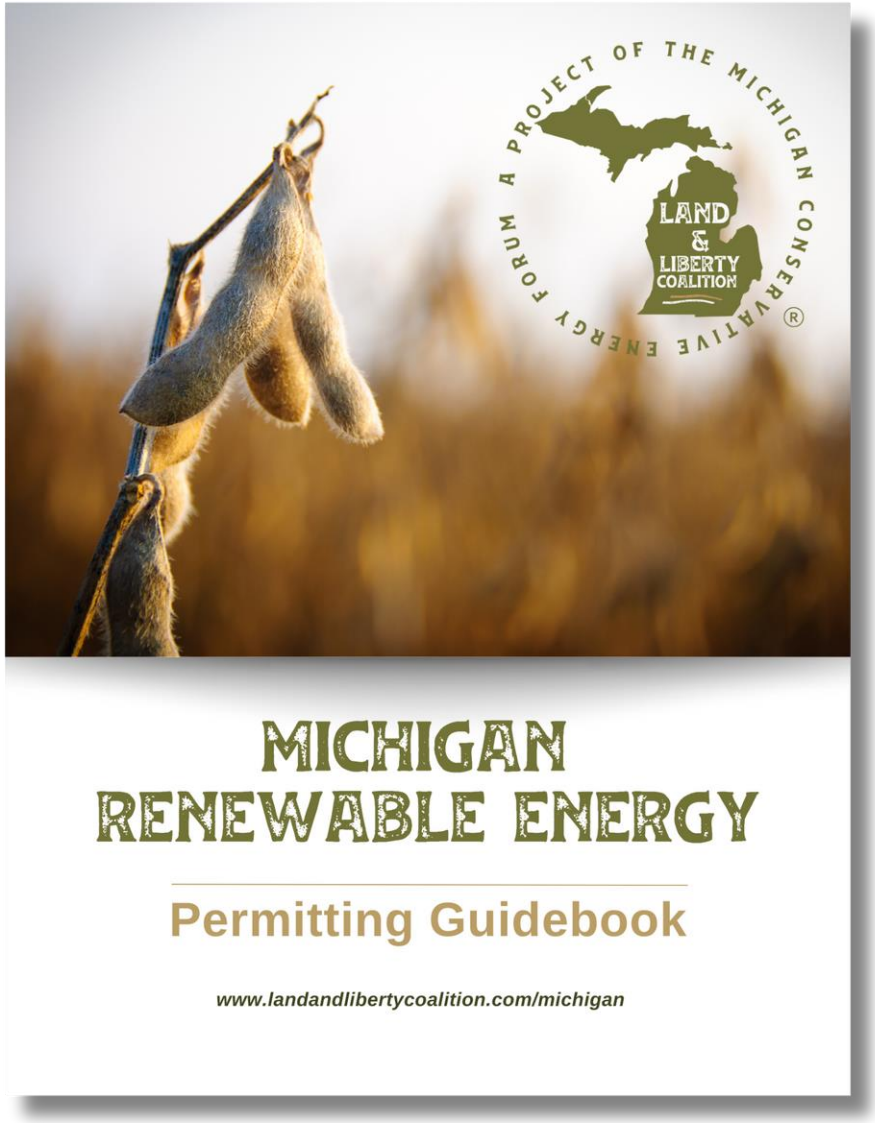
These numbers represent more than just data points, they reflect **real progress** in clean energy advocacy. From rural communities to urban centers, our work is **helping shape the energy future** by informing, engaging, and activating stakeholders. By elevating the voices of local leaders, farmers, and landowners, we're building lasting support for projects across the country.

case study

Michigan Guidebook Distribution

Created to empower local decision-makers, we created and distributed a comprehensive ordinance guidebook across counties.

This resource is equipping Michigan officials with practical tools and policy examples to support clean energy growth in their communities.



case study

88 County Tour - Ohio

Ohio’s ambitious goal:
Connect with every county.

Through face-to-face meetings, open forums, and local partnerships, this effort is expanding reach, building trust, and laying the groundwork for renewable energy readiness in all corners of the state.

renewable ready communities

Community-first, not industry-led.
We elevate local values to build authentic, lasting support.

Credibility in overlooked places.
Our team resonates in rural, conservative regions where national efforts often fall flat.

Fast, lean, and effective.
We deploy tested strategies and local trust, no need to start from scratch.

Support built early and upstream.
We shape narratives before opposition hardens, creating space for progress.

thank you

Natural gas + CCS: Drivers for the FOAK Generation

AJ Simon,
Director of Industrial Decarbonization, Carbon Direct

Diana Gallegos,
Director, Government & Regulatory Affairs, Calpine

Mark Caine,
Senior Lead, Energy & Climate, Google

Matthew Davidsaver, P.E.
CCS Product Champion, GE Gas Power

***Moderator*: Sangeet Nepal,**
Technology Specialist, Carbon Capture Coalition

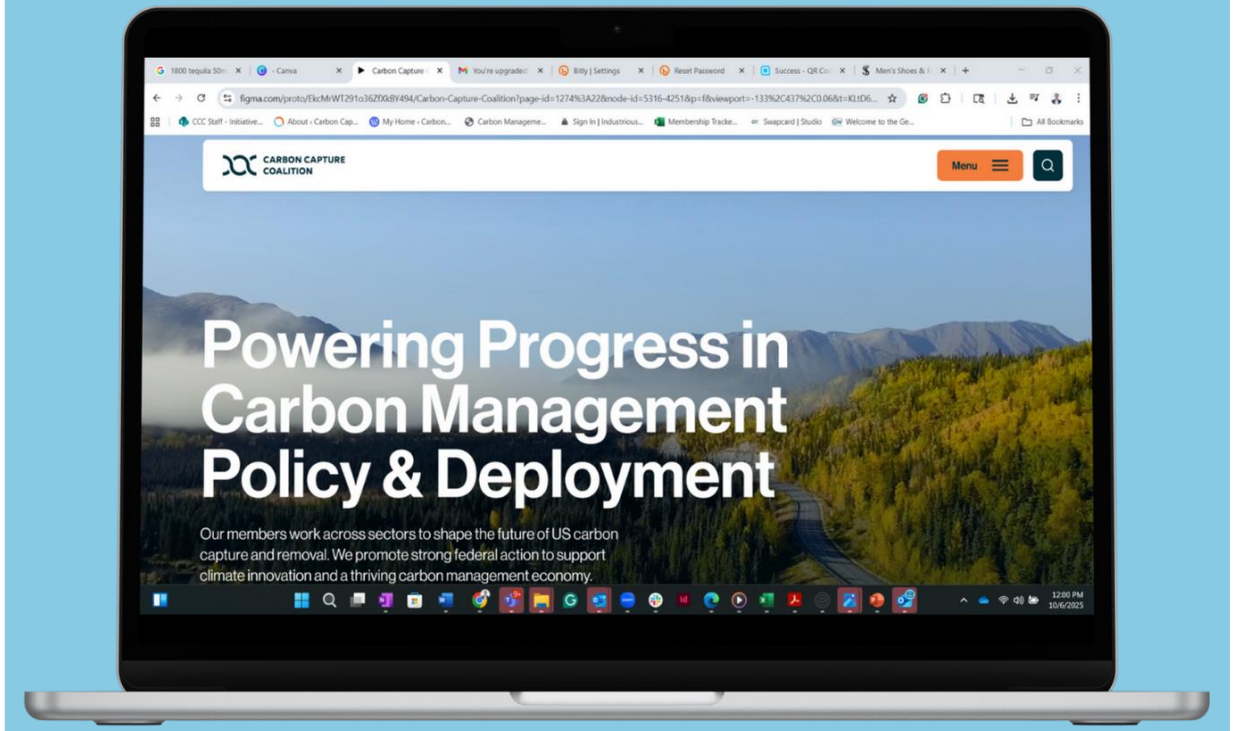
Coalition Website Reveal

Leo Duke
Communications & Member Relations Specialist,
Carbon Capture Coalition

CARBON CAPTURE COALITION

New Coalition Website

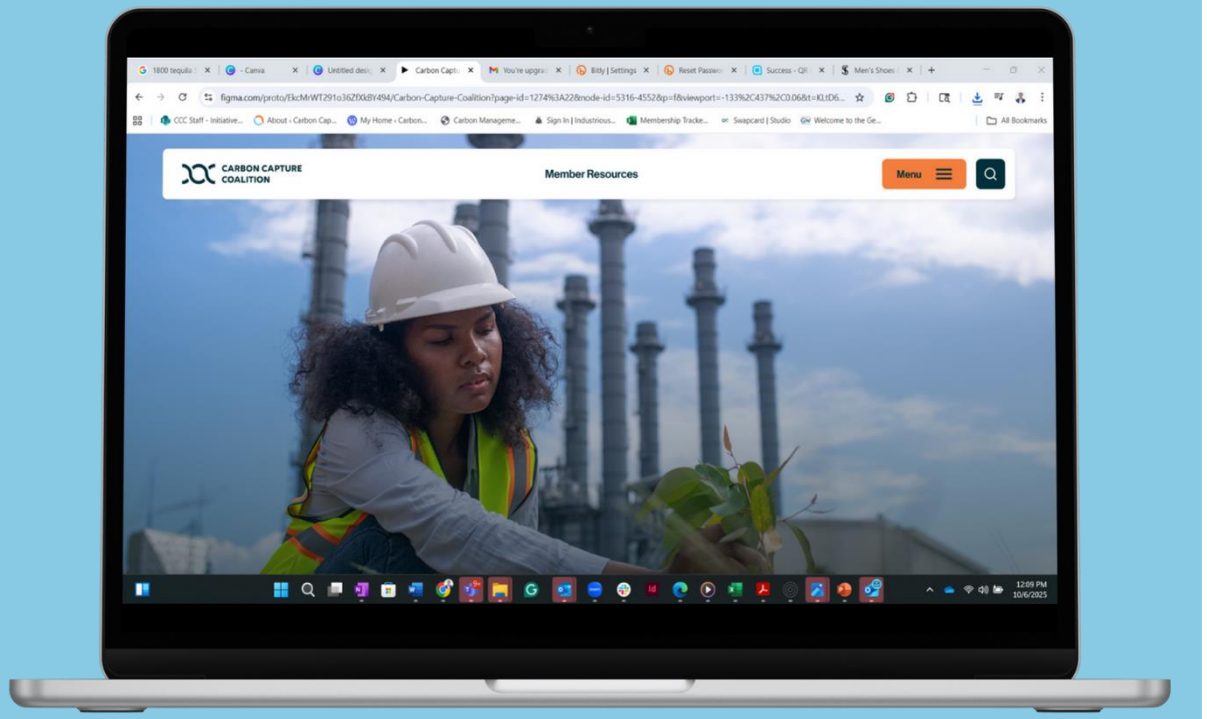
Web Address:
carboncapturecoalition.org



New Member Website

Web Address:
carboncapturecoalition.org/member-portal/

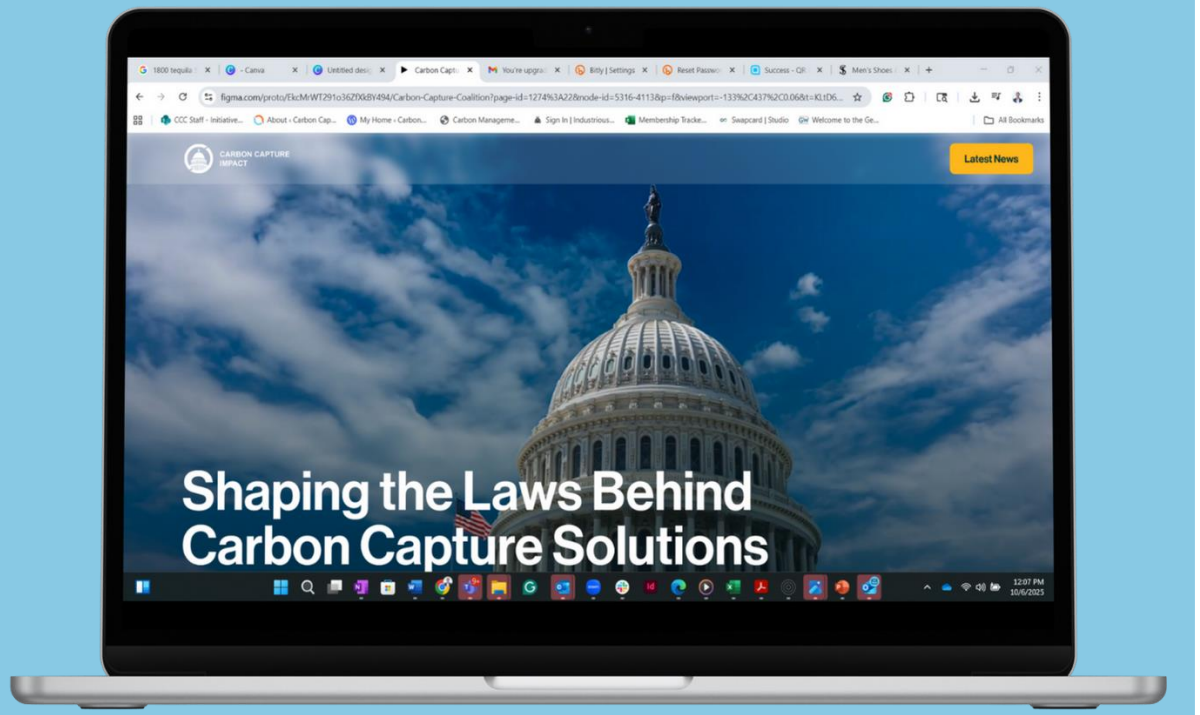
Password: ccc12345q



CARBON CAPTURE COALITION

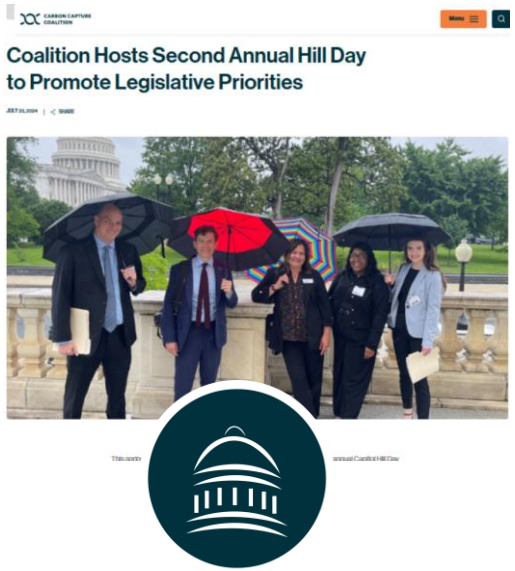
Carbon Capture Impact Website

Web Address:
carboncaptureimpact.org

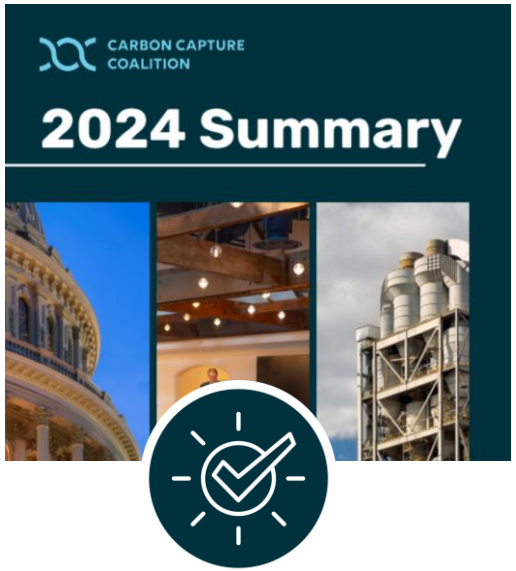


Website Launch Scavenger Hunt!

Pull up our **Carbon Management 101 page** from our **Coalition Website** and find the expected capital expenditure invested by project developers.



Pull up our statement, "**Coalition Hosts Second Annual Hill Day to Promote Legislative Priorities**," on our **Coalition Website** and note how many offices members and staff met with.



Pull up our **2024 Summary** from our **Members' Website** and note one accomplishment from the year.

Pull up our **Federal Legislative Tracker** from the **CCI Website** and find the last timeline action on S. 2505.

Systemic Bankability:

A framework for Addressing the “missing middle” in Technology Deployment

Darryle Ulama
Senior Technology and Infrastructure Manager, Carbon Capture
Clean Air Task Force

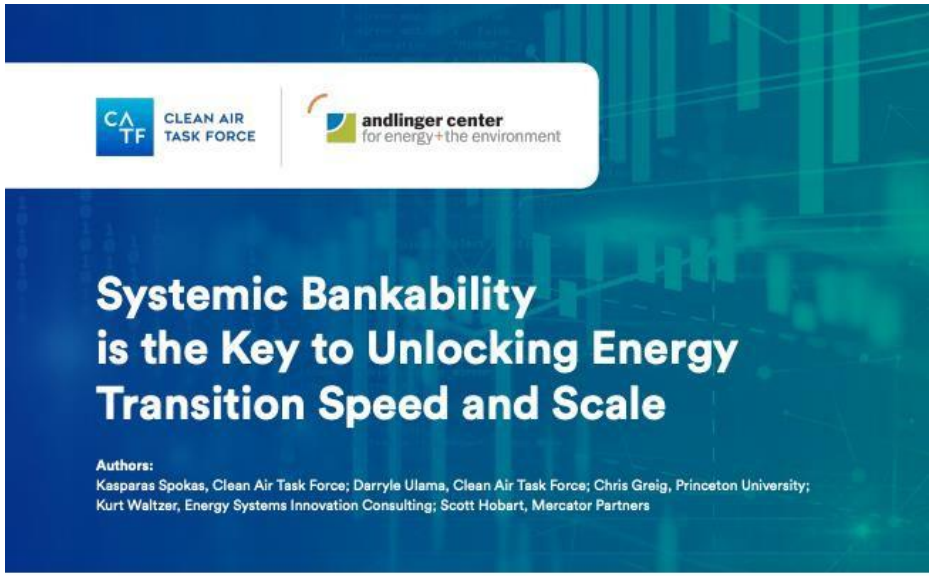
CLEAN AIR TASK FORCE

A Systemic Bankability Framework to Guide Strategies and Solutions to Scale CCS

Annual Carbon Capture Coalition Meeting
November 6th, 2025

This Presentation Will Cover

- Introduction of the **”Systemic Bankability” framework** and its use cases
- Examples of the framework applied to **US nuclear power** and **SpaceX**
- A preliminary evaluation of **bankability conditions and policy for CCS**



Executive Summary

The pace of commercialization for emerging clean energy and industrial decarbonization technologies is insufficient to achieve ambitious climate goals. This is in part due to investment barriers and “chicken-and-egg” challenges that are largely unaddressed by existing analyses and policy frameworks. These challenges are especially acute for technologies characterized by capital-intensive infrastructure with long development lead times.

For emerging technologies, each first-of-a-kind and early-mover project requires large amounts of capital to be at risk over multiple years in the face of considerable technological uncertainty and execution challenges. Such conditions do not align with the low-risk profile sought by large project finance banks and private equity investors, or the very high returns and short exit horizons sought by venture investors. This mismatch, that is absent with “infrastructure-light” software and consumer technologies, is often referred to as the “missing middle”, reflecting the dearth of capital available for early deployment of infrastructure-heavy emerging technologies.

The missing middle is increasingly being recognized as a challenge but is typically depicted as the financing hurdles for first- to nth-of-a-kind projects. In reality, it can persist much longer, driven by a variety of policy, market, and industrial gaps rather than technology performance or cost.

The International Energy Agency (IEA) estimates that 75% percent of cumulative emissions reductions by 2050 will need to be drawn from technologies that are currently at the protype phase or not yet in mass market production (1). Such technologies, including but not limited to low-emission fuels, advanced nuclear energy, next generation geothermal (2), face a variety of investment obstacles that stifle their widescale deployment (3). Continued delays in overcoming such challenges for nascent and new technologies are putting global decarbonization targets at risk.

Link to CATF Systemic Bankability Report.

A Misunderstood Challenge

- **Existing tools and frameworks narrowly focus** on technology performance and cost.
- **Policymakers, industry, and investors often ignore systemic conditions gaps** that limit investment and technology progress.
- **As a result, solutions and strategies are insufficient** relative to what is needed to achieve societal goals.
- **Few stakeholders have mandate to establishing systemic bankability** other than policymakers and technology providers.

The “Missing Middle” is a Structural Financing Gap for Infrastructure Tech

Stage: RD&D

Capital Source:
Research Grants and VC

Scale: Bench/Pilot Scale

Stage: Pre-bankable

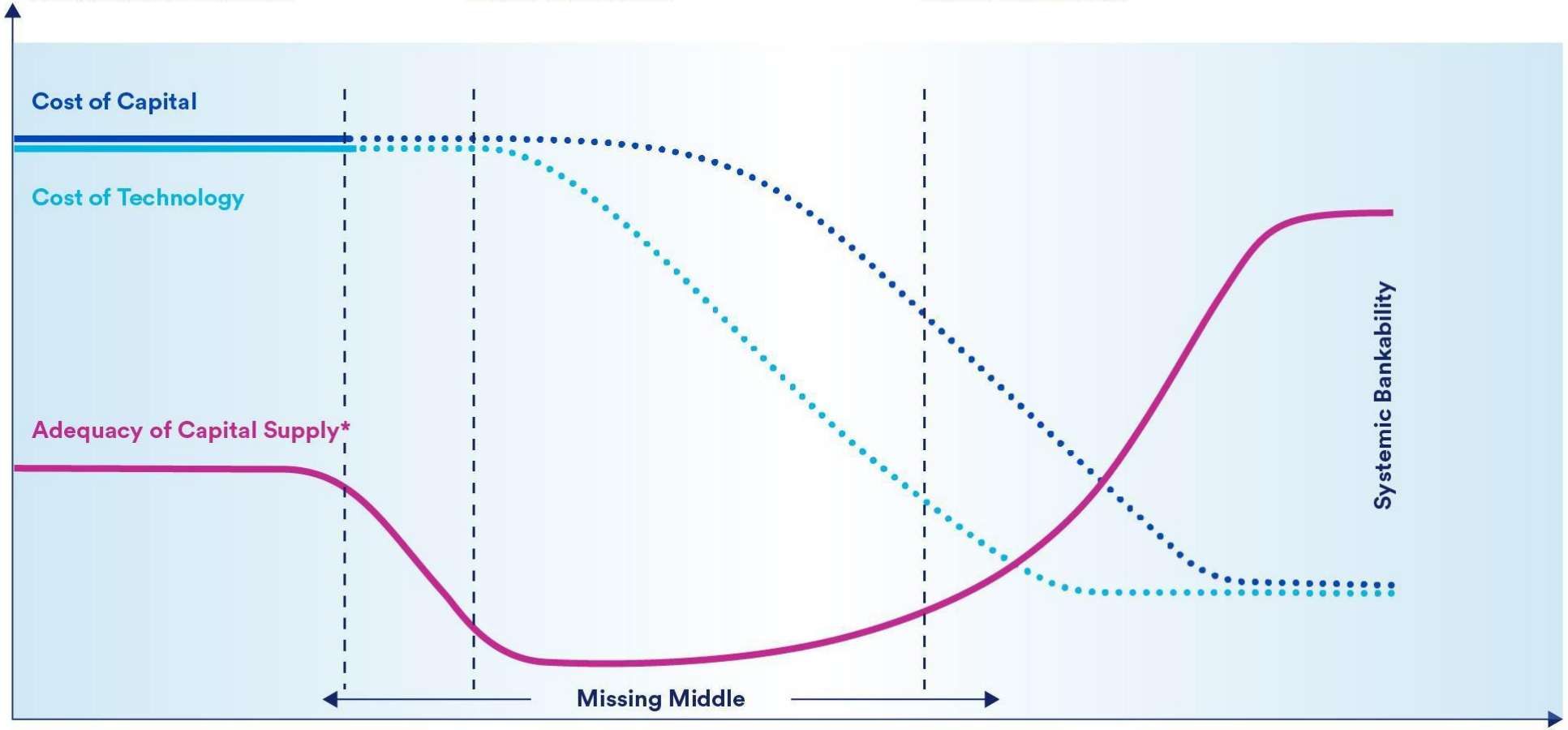
Capital Source:
Balance Sheets, Growth Equity

Scale: Commerical

Stage: Bankable

Capital Source:
Balance Sheets, Private Equity, Project Debt

Scale: Commerical



Infrastructure Technologies Face Unique Challenges

Challenge	Software	Pharmaceutical	Hydr. Fracturing (US)	Nuclear Power, CCS, H2, Etc.
Scale of Funding Required to Pilot NewTechnology	Small	Moderate	Moderate	Large
Speed of Innovation and Learning	Fast	Moderate	Fast	Slow
IP Holder Payoff Potential	Large	Large	Moderate	Moderate
Complexity of Scaling Deployment	Low	Low	Low	High

What is “Systemic Bankability”?

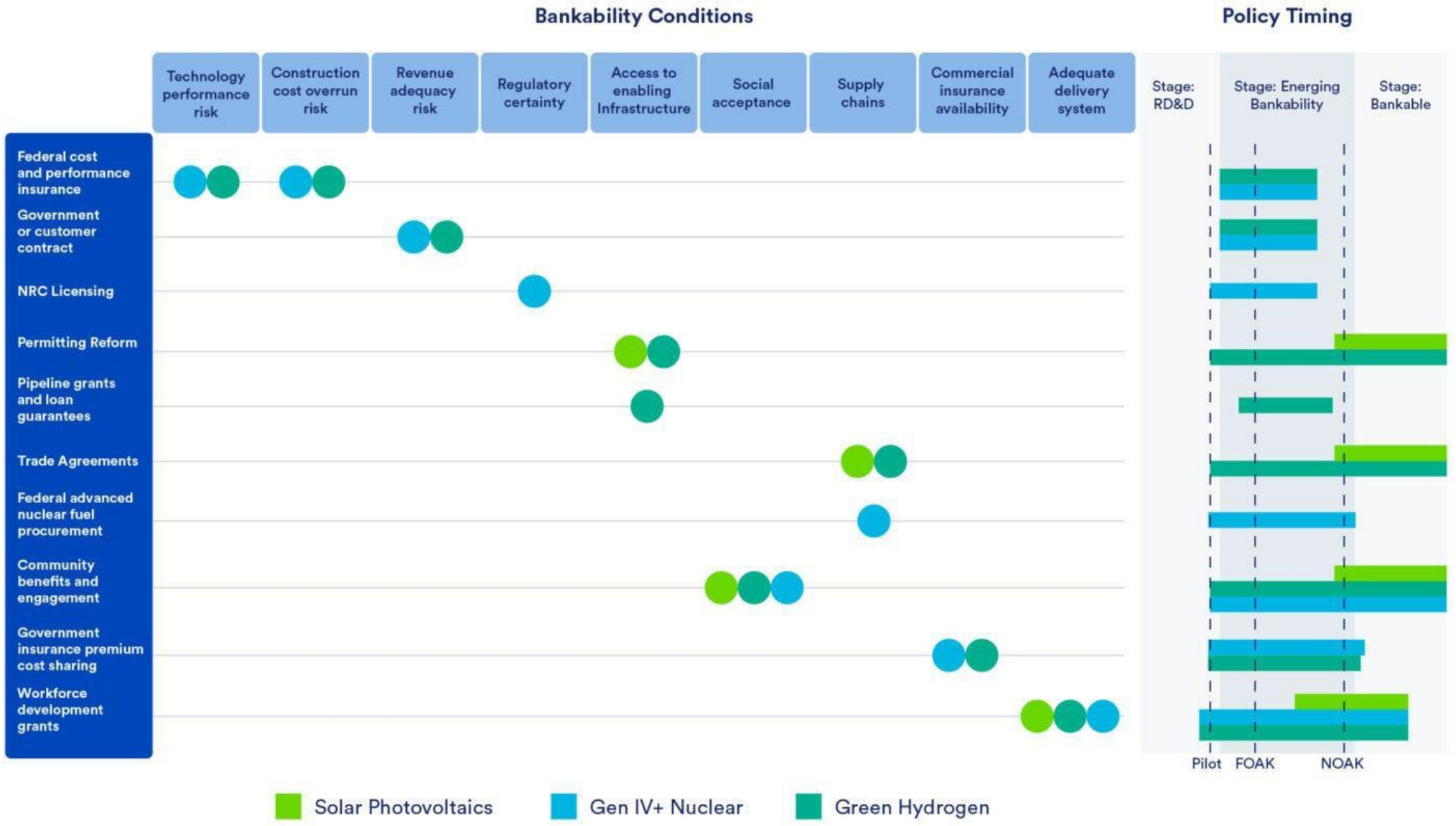
- Systemic bankability exists when the following **conditions for project bankability are pervasive and enable widescale deployment**. These characteristics include:

1. Low construction cost overrun risks
2. Low technology performance risks
3. Low revenue adequacy risks
4. Regulatory certainty
5. Access to enabling infrastructure networks (e.g. transmission)
6. Durable and widespread social acceptance
7. Robust supply chains
8. Access to commercial insurance
9. Adequate delivery system (e.g. workforce capacity, and engineering, procurement, and construction management (EPC) organizations)

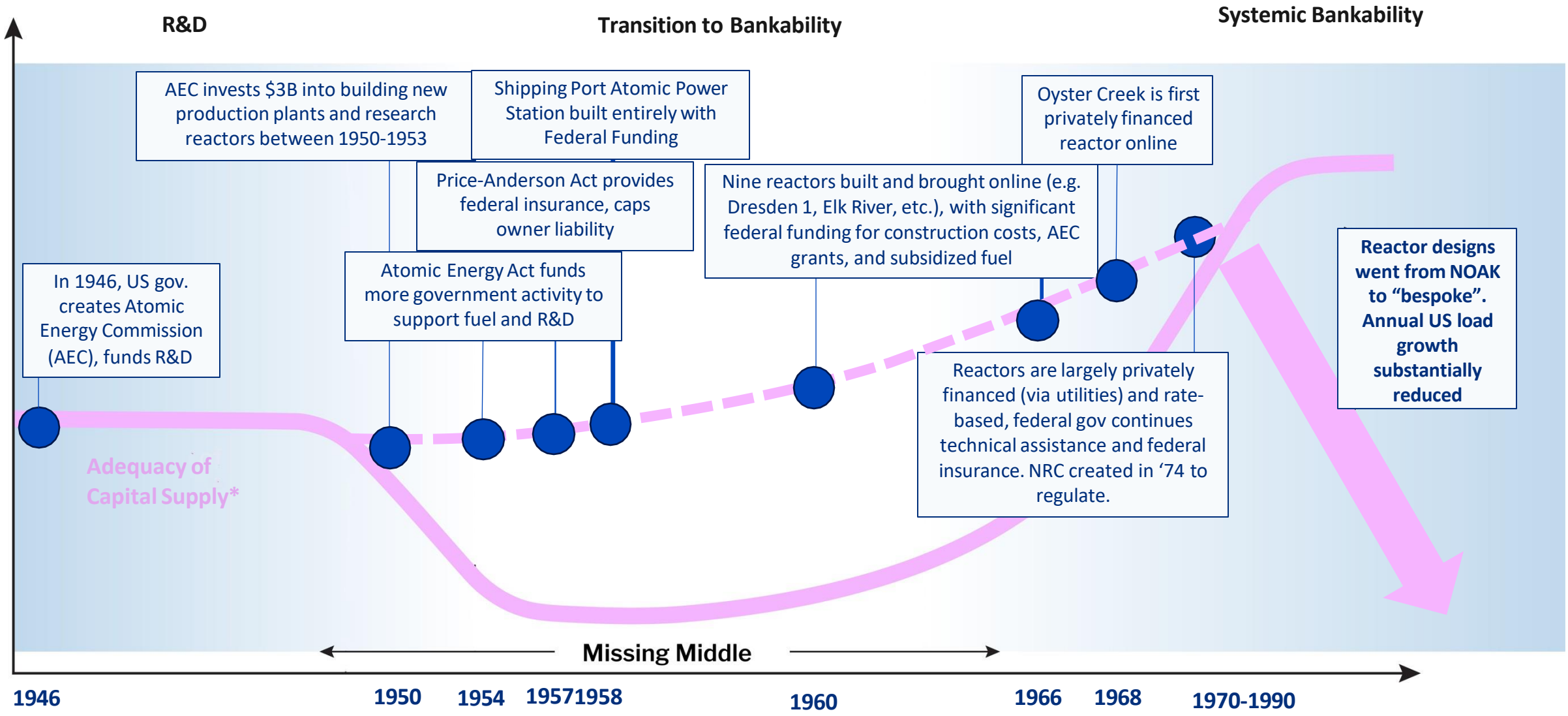
- Outcomes of systemic bankability include:
  - Access to abundant low-cost commercial capital (e.g. non-recourse debt financing)
  - Robust asset sale options
  - The **rapid recycling of capital**, where investors have the optionality to exit projects shortly after operational onset and reinvest in new projects – **leading to speed and scale**.

Many Technologies Face Inadequate Conditions for “Systemic Bankability”

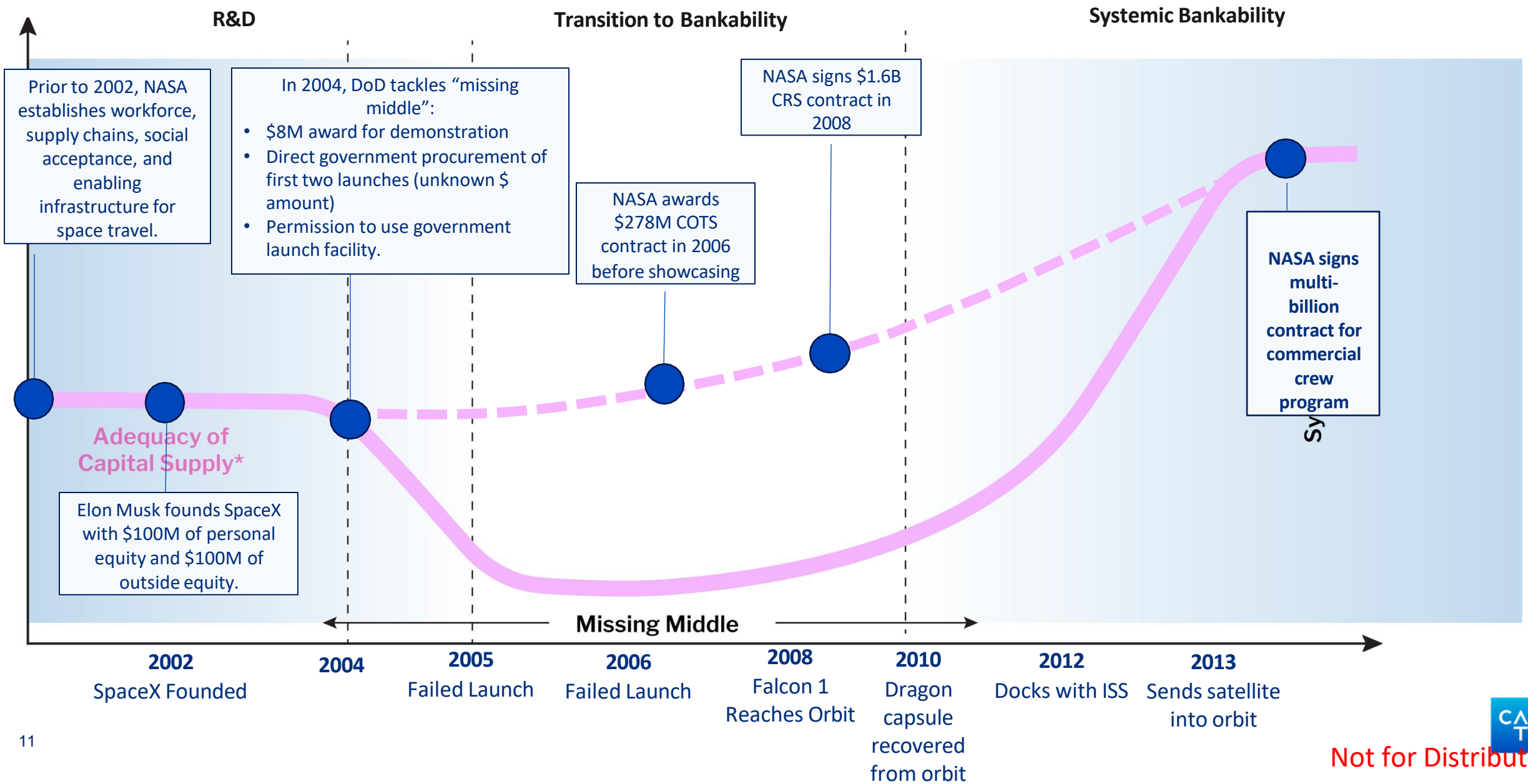
Policy Can be Mapped to Improving Conditions



Example of Policy to Address "Missing Middle": US Nuclear

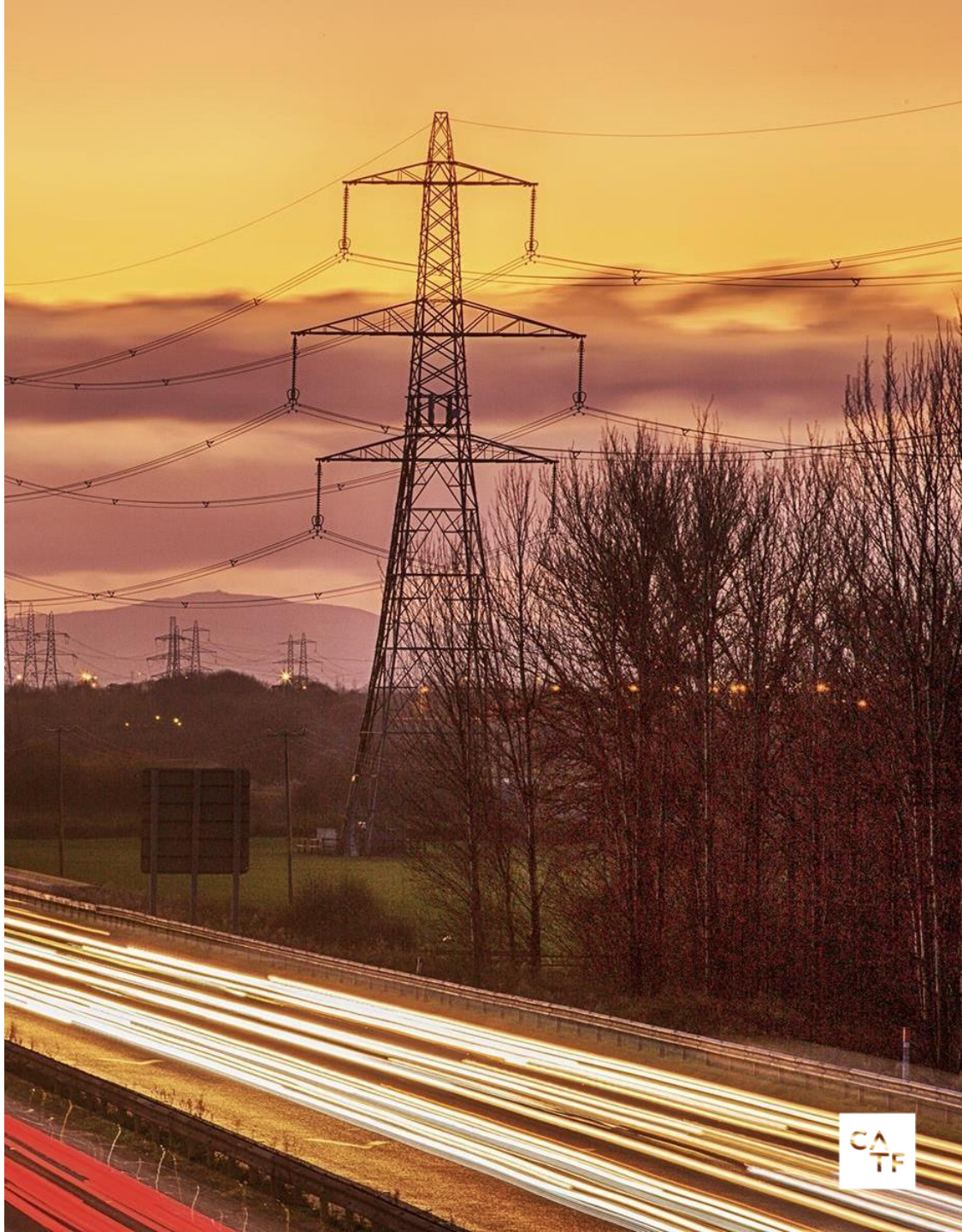


Example of Policy to Address "Missing Middle": SpaceX



How to Use this Framework

- The systemic bankability framework stands as a potential **conceptual foundation** to educate stakeholders on financing gaps.
- Could be an **analytical framework** to map deployment and investment barriers that goes beyond existing frameworks.
- **Gaps in conditions could be mapped to policy asks,** bringing clarity to advocacy efforts and strategy.



Thank you!

CLEAN AIR TASK FORCE

Breakout Sessions – 30 mins
Policies aimed at bridging the "missing middle"

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Breakout Group Topics & Discussion Questions

1. **Leveraging Markets**
2. **Energy Innovation**
3. **Permitting**
4. **Communities and Workforce**

Discussion Questions

- ✓ What new policies are needed in this area to address the “missing middle”?
- ✓ What challenges do you foresee in developing these policies (including political, cost, technical, and other)?
- ✓ How could we mitigate these challenges?
- ✓ How would you prioritize policy ideas?
- ✓ What work do you know of that is already being done, and can you identify any best practices?

Closing Remarks

Jessie Stolark,
Executive Director,
Carbon Capture Coalition

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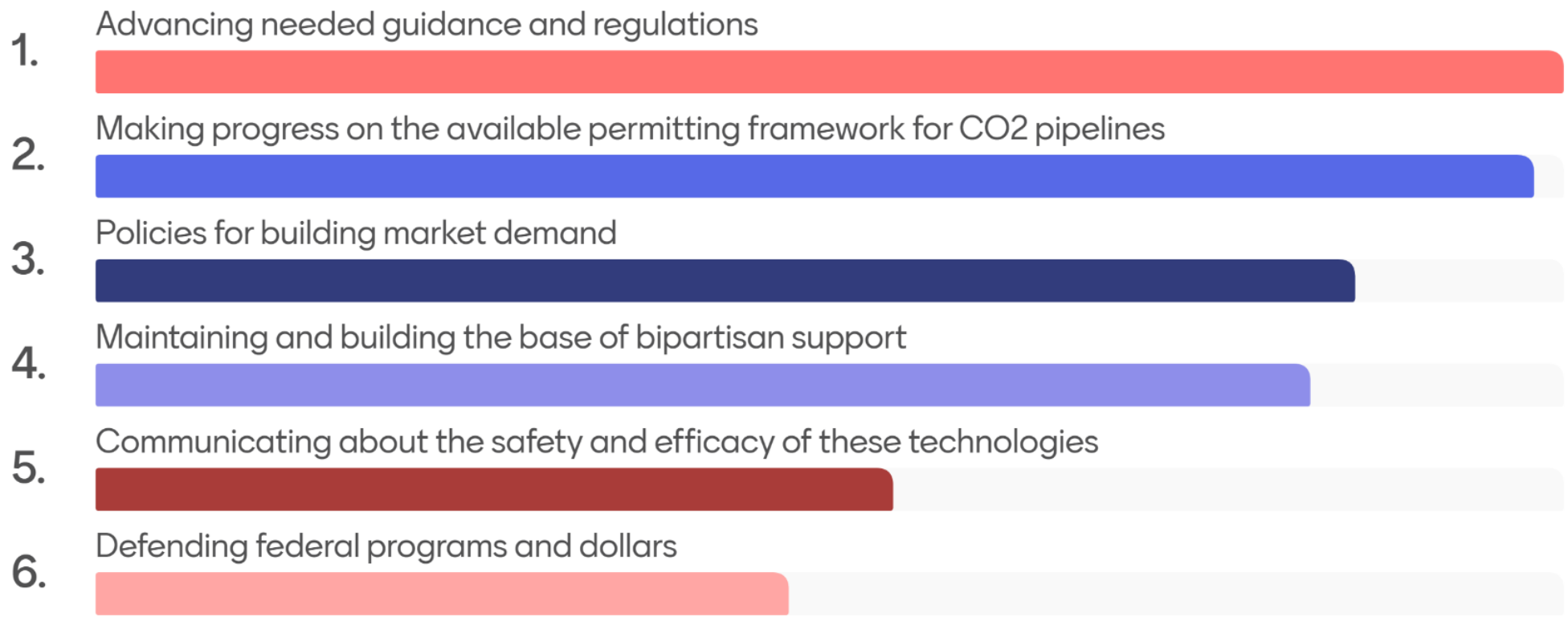
Join at menti.com | use code 5846 2785

Open Mentimote

After today's discussion, pick the top 3 topics for Coalition engagement and progress over the next 12 months?



Next slide

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Mentimeter

After today's discussion, what is one thing you are hopeful about for the carbon management sector?

← → End presentation

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Thank you!

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