

The Hydrogen Economy in 2025 & Beyond: Status and Challenges

An overview of hydrogen hub development focusing on ARCH2 and MACH2, examining recent challenges and opportunities in the changing political landscape.

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SELECTED REGIONAL CLEAN HYDROGEN HUBS





Political Challenges

1

Funding Freeze

Executive order pausing funding tied to Bipartisan Infrastructure Law, Inflation Reduction Act and Procurement Announcements.

2

National Energy Dominance Council

Administration's pursuit to unleash American energy will shift focus away from decarbonization objectives.

3

Public Meetings Canceled

DOE cancels all meetings between planned H2 hubs and the public.

4

Tax Credits on Life Support

Industry and Republicans advocating for clean energy tax credits to be spared



ARCH2 Status Update

\$25 Million Funding

Received for Phase One, expected to carry the project team through this year.

Project Losses

Lost one-third of projects with four development partners leaving.

Five Canceled Projects

MPLX storage facility, First Mode H2 mining trucks, CNX ammonia facility, and the TC Energy & Chemours H2 production projects.

Unknown Status

Hope Gas blending project



MACH2 Status Update

- In January, the Hub secured a final deal with the DOE for \$18.8 million, part of a \$750 million federal cost share, just days before Biden's term ended.
- The administration's review of spending under the IRA and Bipartisan Infrastructure Law, including a January 3 executive order freezing grants, casts doubt on the Hub's future

Industry Setbacks

1

Air Products Cancellations

Projects canceled in TX, CA, and NY due to regulatory changes affecting hydroelectric power eligibility.

2

DOE Meeting Cancellations

Three in-person ARCH2 scoping meetings canceled, including its environmental impact statement meeting.

3

CNX Pauses Involvement in ARCH2

Company waiting to see how the Trump administration will move forward.



Hub Prioritization

Blue Hydrogen Focus

Two of six DOE hydrogen projects most likely to be prioritized, ARCH2 and HyVelocity in TX, are developing hydrogen from natural gas with carbon capture.



Positive Developments



West Virginia Primacy

EPA granted authority to regulate Class VI wells for underground carbon dioxide storage.



Pennsylvania CCS

PA applied for primacy with application pending. Potential fast-track approval. Passed CCS legislation.



Legislative Progress

WV Senate passed bill allowing DNR to lease state park land for CO2 storage.

Projects Moving Forward



West Virginia Projects

Fidelis and B&W developing BrightLoop facility at Mountaineer GigaSystem. Coal-to-hydrogen and natural gas to blue hydrogen projects.

Pennsylvania Manufacturing

PMF Industries expanding Williamsport operations with 16,000-square-foot addition. Will produce metallic liners for hydrogen storage and transportation.

Conclusion

- Significant uncertainty due to new administration and regulatory changes
- ARCH2 and HyVelocity Hubs are the two most likely to proceed in the immediate future—45V is safe as of now
- Still progress being made, related to CCS, hub development and standalone projects
- Building a H2 economy is a marathon not a sprint



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