



Deployment and Financing Report Out

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Hydrogen Shot Summit

Deployment and Financing Breakout - Overview

Objective – Understand how deployment and financing can:

- Advance equity and environmental justice challenges
- Enable regional emissions reduction targets to be met
- Enable bankable growth in economies of scale
- Most benefit from new policy structures and government investments

Breakout Organization –

- DOE Opening Remarks and RFI Overview
- Industry Market Outlook and Overview
- Expert panel on challenges and opportunities for financing of clean energy deployments
- Four panels on regional potential:
 - Southwest
 - Northeast
 - Midwest
 - West Coast

Deployment and Financing- By the Numbers

Participants -

- Presenters & Moderators from Government: 14
- Panelists from Industry and Academia 25
- Attendees ~230
 - US 93% - Non-US 7% Countries represented 6

| Offtake Sectors of Most Interest | % of Responses |
|----------------------------------|----------------|
| Power generation | 15 |
| Transportation | 23 |
| Energy storage | 24 |
| Industrial (steel, cement) | 8 |
| Ammonia | 8 |
| Synthetic Fuels | 6 |
| Blending with Natural Gas | 6 |
| Other | 11 |

Deployment and Financing Breakout – Key Takeaways

- **Equity and environmental justice impacts of hydrogen**
 - Stakeholder across regions (e.g. tribes, utilities, end users) should be heavily engaged in R&D and implementation of demonstrations, to ensure EJ, use of diverse resources, and workforce development.
 - Fugitive emissions of fossil resources during production, and emissions at the point of use (e.g. NOx) must be robustly quantified to ensure deployments achieve decarbonization and do not disproportionately burden disadvantaged communities.
- **Bankability**
 - Analysis is needed to understand how hydrogen compares to other decarbonization options, such as electrification or fossil pathways with CCS.
 - A production tax credit would create bankable demand, and enable scale
- **Integration with other energy systems**
 - Reductions in the price of renewable electricity throughout the US can support large-scale production of green hydrogen.
 - Hydrogen is integral to achieving regional decarbonization goals throughout the US by 2030.
- **Achieving scale**
 - Federal government can help convene, coordinate, and guide stakeholders across sectors to enable collaboration on deployments
 - Use of clean hydrogen in existing industries, such as petrochemical facilities and blending into natural gas, can facilitate near-term scale. Creation of blending limits would be valuable to enabling large-scale deployment.
 - Deployment of new pipelines and repurposing of existing pipelines are integral to low-cost hydrogen infrastructure. Improved clarity on regulations that pertain to interstate pipelines would help deployments.