

Hydrogen Infrastructure Strategies to Enable Deployment in High-Impact Sectors

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Acknowledgements to the Workshop Organizing Team



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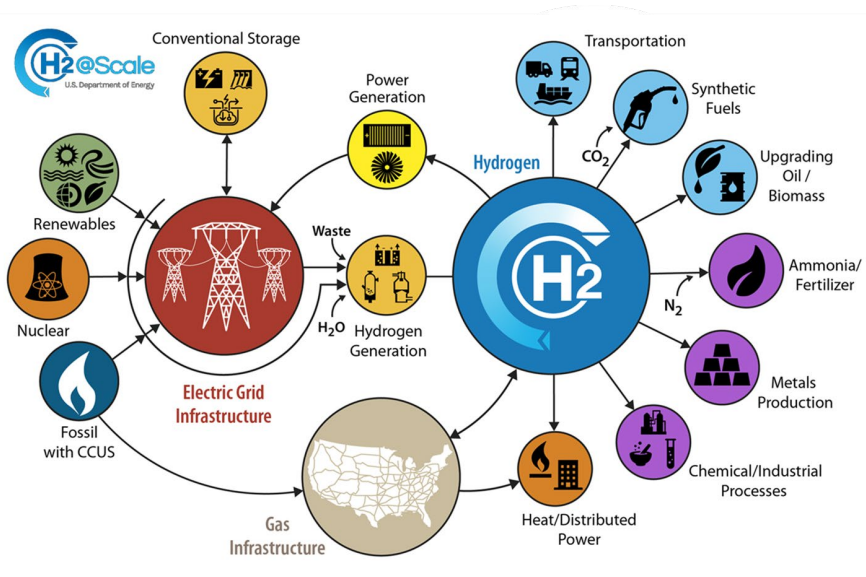


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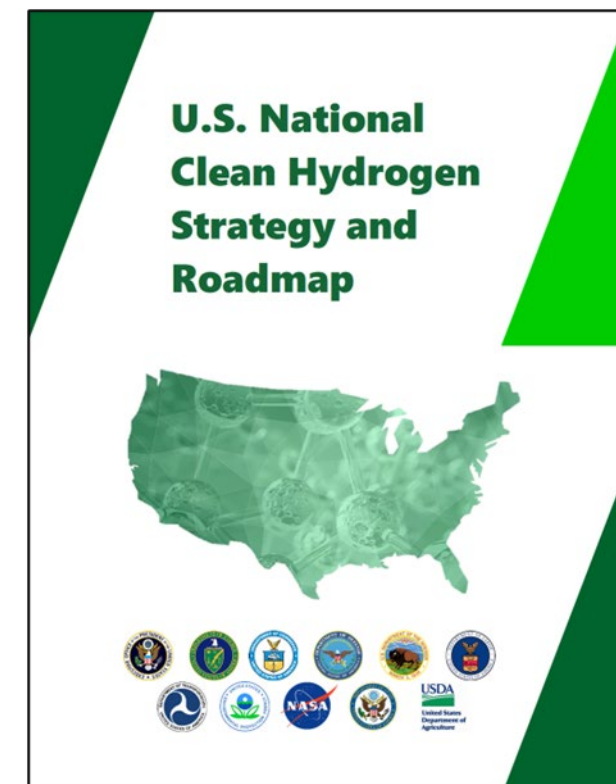
Evolution of Priorities for Clean Hydrogen

The H₂@Scale Initiative



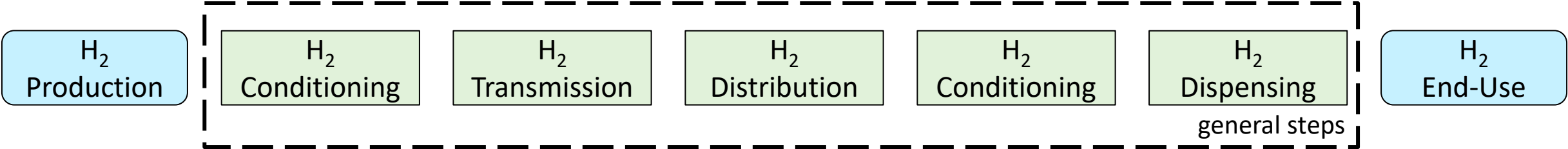
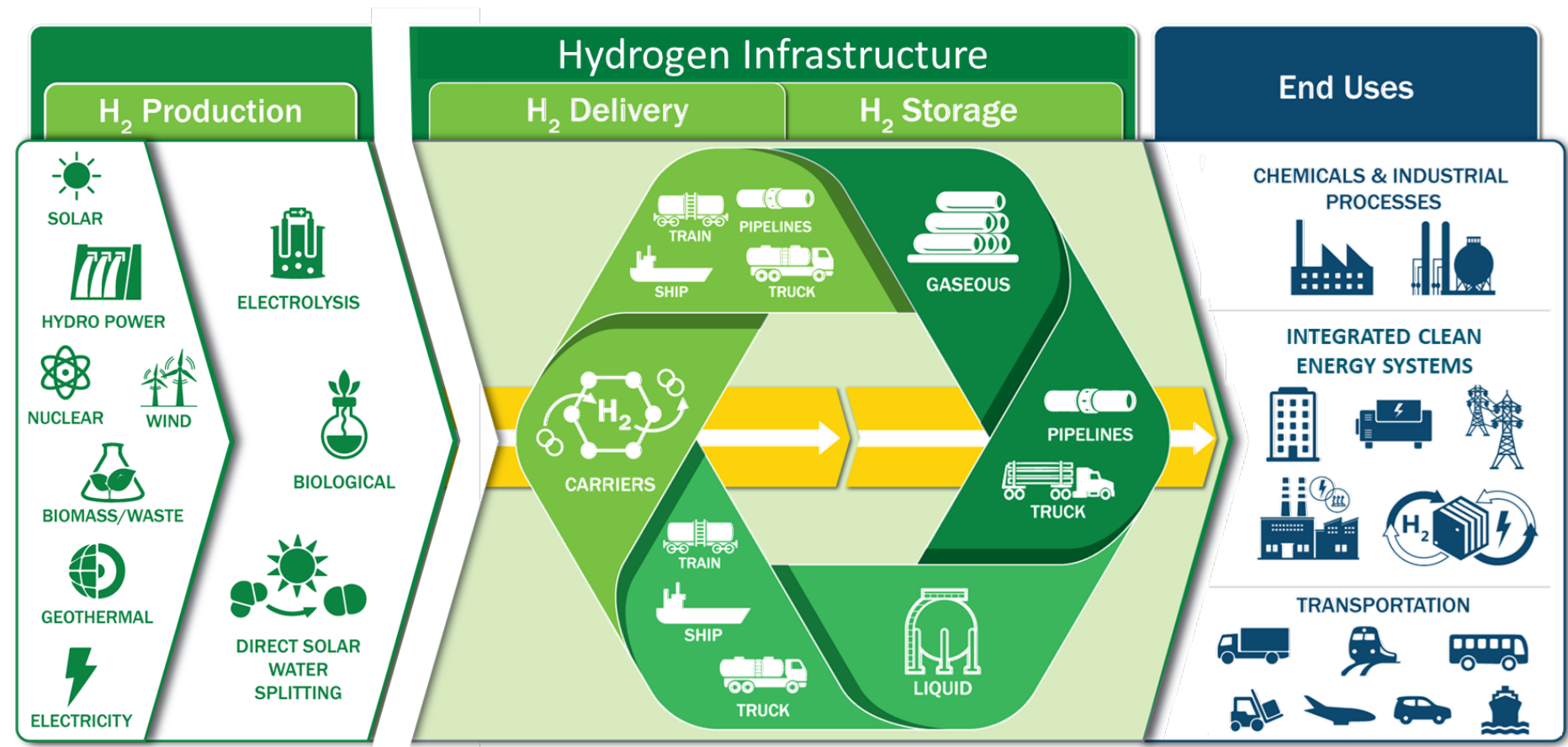
Biden Administration's Decarbonization Goals include:

- Net-zero emissions economy by 2050 and 50–52% reduction by 2030
- 100% carbon-pollution-free electric sector by 2035



Strategy calls for production of 10 MMT of clean, low-carbon hydrogen by 2030, with most of it for use in new developing applications

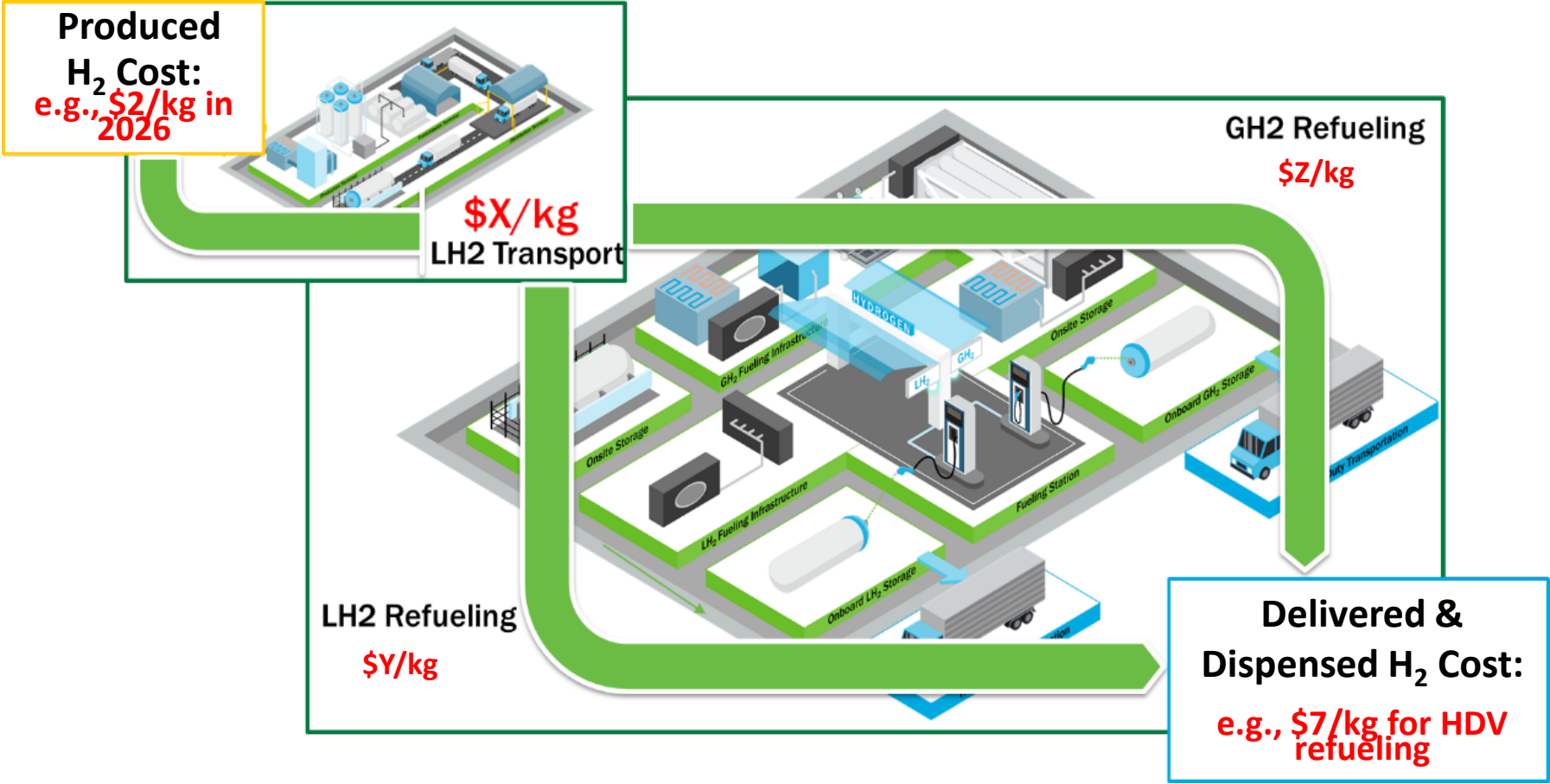
The Role of the H₂ Infrastructure Program



Scenario Planning to Enable Deployment of Clean Hydrogen

- Team is developing **scenarios for deployment of Clean Hydrogen** in high-priority end-use applications
 - MD/HD Transportation
 - Energy Storage
 - Chemical/Industrial Processes
- Scenarios **identify likely pathways** to deploy clean hydrogen
- State-of-the-Art processes and hardware are evaluated to **determine priority areas for further development** to enable meeting cost and performance targets
- Scenarios will be used to **develop a multi-year program plan** to be used in formulating FOA topics, national lab activities, and joint industry/national lab activities and justification of budget requests

Example Scenario: HD refueling



Objective of this Workshop

- Provide input on the scenarios being developed to address high-priority needs to enable clean, low-carbon hydrogen to be used in the evolving end-use applications
- Identify where the scenarios should be revised to match industry's expectations on the direction clean hydrogen deployments are most likely to go
- Help identify what are the high priority end-use applications most in need of further development support by the DOE
- February workshop is intended to go more into the weeds on development needs for the identified high-priority end-use applications
 - Input will be used to develop cost and performance targets

Thank you for your participation

- **Your expert input is highly valued**
- The scenario planning will set the stage for the program's activities for the next 5 to 10 years, so **it is important to “get it right”**
- The goal is to **enable successful deployment of clean, low-carbon hydrogen that meets the needs of the end-use application**

Thank You

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