



The #H2IQ Hour

Today's Topic: Hydrogen Business Case Prize Competition

This presentation is part of the monthly H2IQ hour to highlight research and development activities funded by U.S. Department of Energy's Hydrogen and Fuel Cell Technologies Office (HFTO) within the Office of Energy Efficiency and Renewable Energy (EERE).



The #H2IQ Hour Q&A

Please type your
questions into
the **Q&A Box**

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Hydrogen Business Case Prize Competition

Hydrogen and Fuel Cell Technologies Office

Mariya Koleva, Neha Rustagi and Michael Hahn

10/08/2021



What is the Hydrogen Business Case Prize?

This prize competition is looking for user-friendly computational tools that characterize regional value propositions for hydrogen in multiple applications, including opportunities to co-locate supply and demand



The competition creates educational opportunities for emerging talents within the hydrogen and fuel cell technology space



Tools developed during the prize will inform stakeholders about investment opportunities for hydrogen technologies and end-use applications in the U.S.

Who Can Enter the Competition?



photo credit: istock

- Graduate Students
- Emerging Professionals
- Anyone with interest in hydrogen technologies or development of computational tools

* All participants must be U.S. citizens or permanent U.S. residents

** Teams diversity and underrepresented groups are particularly encouraged to participate

How can you participate?

As a competitor...



Individuals with interest in hydrogen and fuel cells are encouraged to enter the prize by:

Forming teams of up to 5 people each

Submitting document packages by appointed deadlines

Checking out rules available at [Hydrogen Business Case Prize \(americanmadechallenges.org\)](https://americanmadechallenges.org)

Following updates on American-Made Challenge



As a mentor, reviewer or intern host...

Stakeholders with expertise in hydrogen and fuel cells in industry and nonprofits can support the Prize by:

Mentoring competing teams for no more than 1 hour/week

Serving as a reviewer during the Demo Day

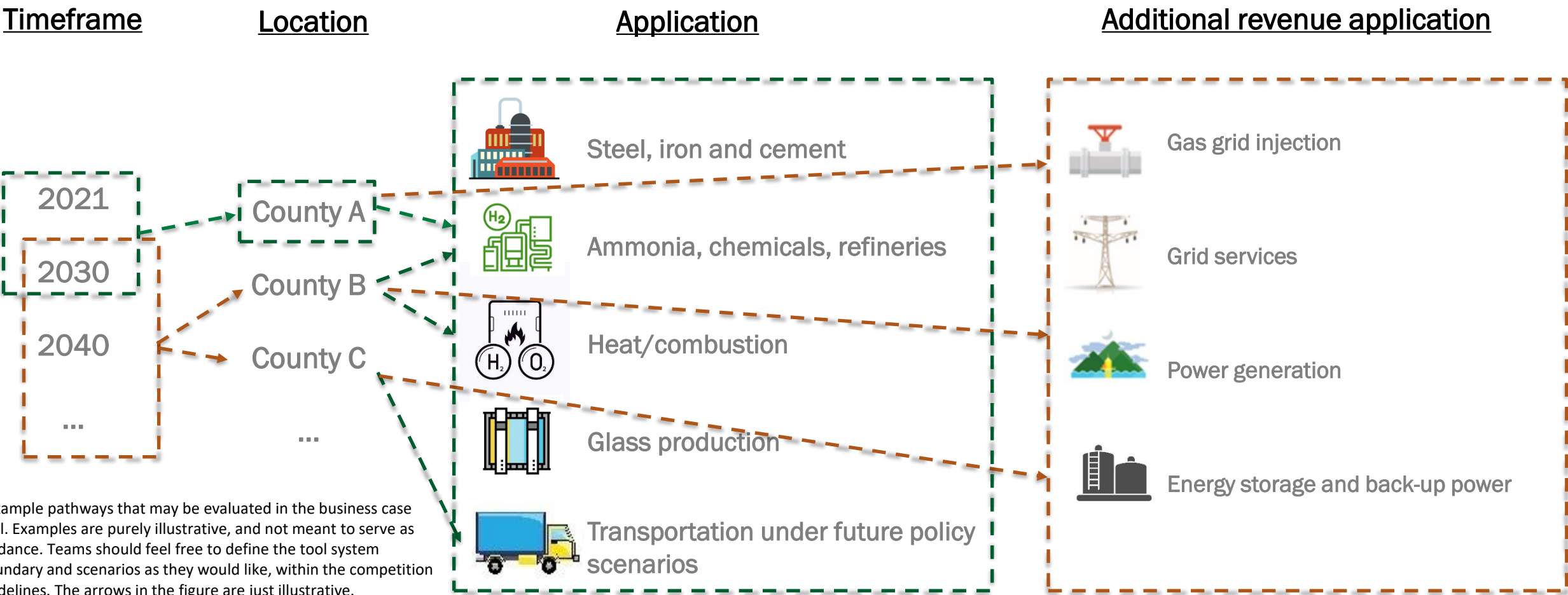
Considering members of winning teams for internships funded by DOE

Contacting H2BusinessCase@NREL.gov to get involved!

HYDROGEN PRIZE

What are we looking for?

Computational modeling tools that characterize regional business cases for hydrogen, including opportunities to co-locate supply and demand



What types of parameters could modeling tools include?

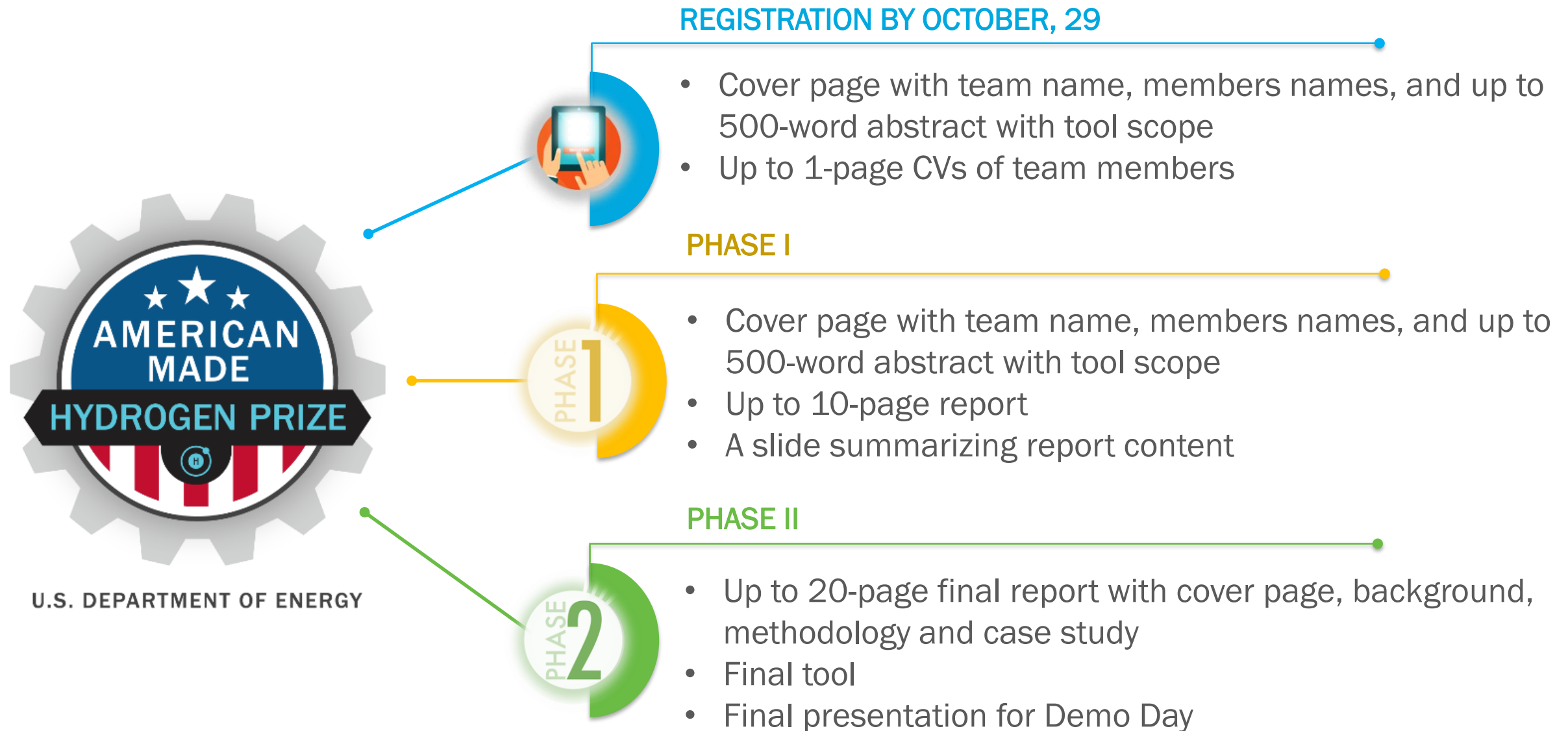
Example Inputs

- Energy prices (electricity, natural gas)
- Capital and operating costs of technologies for hydrogen supply, such as production and infrastructure
- Price points for hydrogen (willingness to pay) in end uses
- Regional policies and sustainability drivers

Example Outputs

- System cost
- Return on investment
- Payback time
- Greenhouse gas emissions reduction
- Evaluation of environmental justice potential such as creation of jobs in clean energy and reduction in emissions of criteria pollutants

How is the Competition Structured?



Which are the Important Dates?



What Prize Are You Going to Receive?

Phase I

- Up to 10 teams will receive \$10,000 each



What Prize Are You Going to Receive?

Phase I

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Phase II

- 1st place: \$50,000 and potential internships
- 2nd place: \$30,000 and potential internships
- 3rd place: \$30,000
- 4th place: \$20,000
- 5th place: \$10,000
- Up to 10 teams will be sponsored for participation at the DOE Hydrogen Program 2022 Annual Merit Review on June, 6-9



Public recognition for all the winning teams!

How Are You Going to be Scored?

Phase I

01 Breadth of scope

02 Methodology

Based on Phase I deliverables, 10 teams will receive cash prizes of \$10,000 each, and will be invited to continue to Phase II

Phase II

01 Breadth of scope

02 User friendliness

03 Robustness

04 Presentation at Demo Day

10 winning teams will receive cash prizes, be considered for internships, and be given the opportunity to present at HFTO's 2022 Annual Merit Review

Learn More...

- Enter and follow updates of the Competition at [American-Made Hydrogen Business Case Prize](https://americanmadechallenges.org/h2businesscase/)
[\(https://americanmadechallenges.org/h2businesscase/\)](https://americanmadechallenges.org/h2businesscase/)
- To support the Prize and ask questions, e-mail us at H2BusinessCase@NREL.gov

GOOD LUCK!



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Thank you for your participation!

Learn more:

energy.gov/fuelcells
hydrogen.energy.gov