# Hydrogen Market Development Update

(Mike Prokop - The Alliance Risk Group)













# The Formation of a Hydrogen Market:

## What you may not be hearing

### The DOE is leading the charge

- \$7.2B allocated from the IRA for clean H2 Hubs (seven named) <a href="https://www.utilitydive.com/news/doe-green-blue-hydrogen-hub-7-billion-gas-nuclear-carbon-capture/696569/">https://www.utilitydive.com/news/doe-green-blue-hydrogen-hub-7-billion-gas-nuclear-carbon-capture/696569/</a>
- \$1B allocated from the IRA for the demand side of the market (three entities named) https://www.energy.gov/oced/articles/doe-selects-consortium-bridge-early-demand-clean-hydrogen-providing-market-certainty
- The 45V PTC and Section 48 ITC <a href="https://www.morganlewis.com/pubs/2024/01/treasury-and-irs-publish-much-anticipated-guidance-on-clean-hydrogen-tax-credit">https://www.morganlewis.com/pubs/2024/01/treasury-and-irs-publish-much-anticipated-guidance-on-clean-hydrogen-tax-credit</a>

### The supply side of H2 is joining the effort

- Air Products, Air Liquide, and Linde have long dominated the hydrogen production market
- These companies are now looking beyond the past, and present, and to the future
- The Open Hydrogen Initiative (OHI) has open-source protocols for measuring and verifying H2 CI Open Hydrogen Initiative (OHI) (gti.energy)

### CERA Week may have been better named "Hydrogen Week"

- Attention shifted to H2 at last year's conference, this year it was the focus
- Energy Secretary Granholm and others spoke to the topic
- Agora Conference had 36 individual H2 panels and discussions

### The introduction of AIEN to the US markets and a welcome collaboration

- Who is AIEN? (Association of International Energy Negotiators)
- AIEN and NAESB are now coordinating in developing P&S Agreements for H2
- Industry is leading the push for comparable agreements in Europe and North America

www.NAESB.org

## **Final Observations**

### The names involved will sound familiar...

- S&P Global and ICE are two of the three entities named to create the demand side
- A number of institutional energy companies are involved (Google your company name and the word "hydrogen" to see how much you have spent or have committed to spend on H2 projects)
- Over 460 companies make up the sponsors and general members of the seven named Production Hubs
- The Houston/Gulf Coast HyVelocity Hub and California's ARCHES Hub were named for the largest awards

### Reach out internally....

- Be proactive to find out who is focusing on the development of the market internally (we can assist you)
- Contracts that your traders will be using are being created now and bi-lateral deals are being done
- Price discovery methods and indices are being discussed now
- Make yourself known internally as a part of this market. Don't wait to be asked.

#### The train has left the station...

- H2LA is a major project underway Biden-Harris Administration Announces Funding for Zero-Emission Medium- and Heavy-Duty Vehicle Corridors, Expansion of EV Charging in Underserved Communities | Department of Energy
- The HFCP has a near real-time map of H2 fueling stations in California
- Household names such as Walmart, Amazon, Maersk, and Microsoft are involved
- City buses, consumer vehicles, heavy trucks, and forklifts are operating now on H2
- Be prepared to see new counterparties, industry terms, production and delivery methods
- This will move quickly as we have the learning curve benefit of related markets

## **Thank you!**

### We are happy to answer your questions

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