Hydrogen Market Pathways

Introductory Remarks

13:00-13:05 GMT Welcome Remarks Mason Hamilton Special Assistant to the Secretary-General, International Energy Forum

Hydrogen Market Pathways Roundtable Discussion

13:05-15:00 GMT

Moderators Egbert-Jan Schutte-Hiemstra Senior Director, Business Development Utility Markets

Anne-Sophie Corbeau Global Research Scholar, Columbia Center on Global Energy Policy

Panelists

Noé van Hulst Chair at IPHE, Hydrogen Advisor to IEA and Gasunie

- René Schutte Director HyNorth
- Erik Rakhou Associate Director, BCG
- Peter van Ees Banker Renewable Energy, ABN AMRO
- Neil Brown Managing Director, KKR Global Institute and KKR Infrastructure
- > Bart Cornelissen Partner, Deloitte

Hydrogen Market Pathways

Discussion Topics:

- 1. Can hydrogen be economically competitive with other low-carbon energy options given the inefficient conversions hydrogen undergoes during production and for transportation?
- 2. Can a higher carbon price alone make hydrogen a competitive lowcarbon energy option? Are other price support mechanisms are needed (feed-in tariffs, premium, contract for difference, etc.)?
- 3. At this stage of hydrogen's market development, what elements of the regulation are the most essential to support the take-off of hydrogen?
- 4. What other industry or commodity is the market for hydrogen most likely to mirror? (LNG, LPG, ethylene? or iron ore)?
- 5. What makes a hydrogen supply project "investable" other than Return on Investment?
 - 1. backed by long-term demand contracts?
 - 2. advantageous production costs?
 - 3. low cost of capital through subsidies/incentives?
- 6. What questions/demands are financiers asking/making that the hydrogen industry has yet to find a sufficient answer to?
- 7. Beyond Hydrogen Hubs connected via pipelines, what technology or mechanism is most likely to link different regional markets into one global commoditized market? (as LNG has for natural gas)
 - 1. Liquified hydrogen
 - 2. H2 to ammonia (and back to H2?)
 - 3. H2 to methanol (and back to H2?)
 - 4. Other liquid organic hydrogen carriers?