JAPAN ENERGY SUMMIT & EXHIBITION

18-20 JUNE 2025 | **Tokyo Big Sight**

LEADERSHIP ROUNDTABLE SUMMARY REPORT

Scaling the New Energy system: Collaborative Strategies to Accelerate Hydrogen Demand Across Asia

DATE AND TIME:
WEDNESDAY, 18 JUNE 2025
12:30 – 14:00

SPONSORED BY : Chevron

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Executive Summary

On June 18, 2025, senior industry leaders convened under the Chatham House Rule at the Japan Energy Summit for a high-level Leadership Roundtable focused on accelerating hydrogen demand across Asia. The session examined how Asia's key demand centers and global suppliers can collaborate to de-risk investments and co-develop a resilient, scalable hydrogen and ammonia market.

The tone was candid yet forward-looking. While participants acknowledged significant challenges, the discussion centered on practical, collaborative solutions. Key themes included the need for bold policy frameworks, pragmatic infrastructure development, and enhanced international cooperation. This report summarizes the core insights and recommended actions that emerged from the dialogue.

Scaling the New Energy system: Collaborative Strategies to Accelerate Hydrogen Demand Across Asia

Discussion summary

1. Co-evolution of Demand Anchors and Market Enablement

Participants emphasized that strong and predictable policy signals—such as Contracts-for-Difference (CfDs)—are essential to de-risk hydrogen investments and stimulate demand. However, these mechanisms must be tailored to local market conditions. Japan's CfD scheme, for example, includes a 15-year subsidy followed by 10 years of independent operation, raising concerns about long-term viability and investor confidence.

Beyond supply-side incentives, participants stressed the need to stimulate end-use demand. Industrial sectors such as steel and chemicals are progressing toward hydrogen adoption, with key technologies under development and pilot testing underway, but few buyers are willing to pay the green premium. Blending mandates, certification systems were proposed to create markets for low-carbon products and support early adoption.

Several participants drew parallels with Japan's early LNG strategy, where government-industry collaboration and cost-sharing helped scale a new energy system. A similar approach—combining subsidies with carbon pricing—may be needed to make low-carbon hydrogen competitive.

However, not all countries in Asia can afford generous subsidies or high carbon prices. This sparked discussion on global equity and the need for international financial mechanisms to ensure that countries with fiscal constraints can also pursue hydrogen adoption. Overall, participants agreed that demand creation and market enablement must evolve together, supported by flexible policy design and regional cooperation.

2. Infrastructure and Supply Chain Development

Participants identified infrastructure and cost as the most significant barriers to scaling hydrogen across Asia. Green hydrogen remains far more expensive than conventional fuels, and the region lacks the infrastructure - such as pipelines, storage, and large-scale production facilities - needed to support growth. Without parallel development of supply- and demand-side assets, the market is unlikely to scale.

Cost reductions will require large-scale manufacturing, economies of scale, and improved operational

efficiency. Industry-wide collaboration and component standardization were seen as key to accelerating progress. One expert emphasized the need to improve capital costs (CapEx), operational costs (OpEx), and productivity as quickly as possible.

Infrastructure development must also align with demand anchors, such as hydrogen hubs at ports and associated power generation projects. In Japan, hydrogen is currently transported mainly by truck in compressed form, but this alone is insufficient to support large-scale deployment.

Standardization across projects and countries is essential to reduce costs and enable international supply chain integration. Harmonized safety and equipment standards would allow for mass production and lower unit costs.

Electricity cost was repeatedly cited as a critical issue. In countries like India, renewable electricity is produced at significantly lower prices than in Japan, reinforcing the case for international hydrogen trade and imports. CfDs and subsidies may help bridge the cost gap, but as they rely on public funds, sustained public understanding and support are essential.

3. Cross-Border Harmonization and Certification

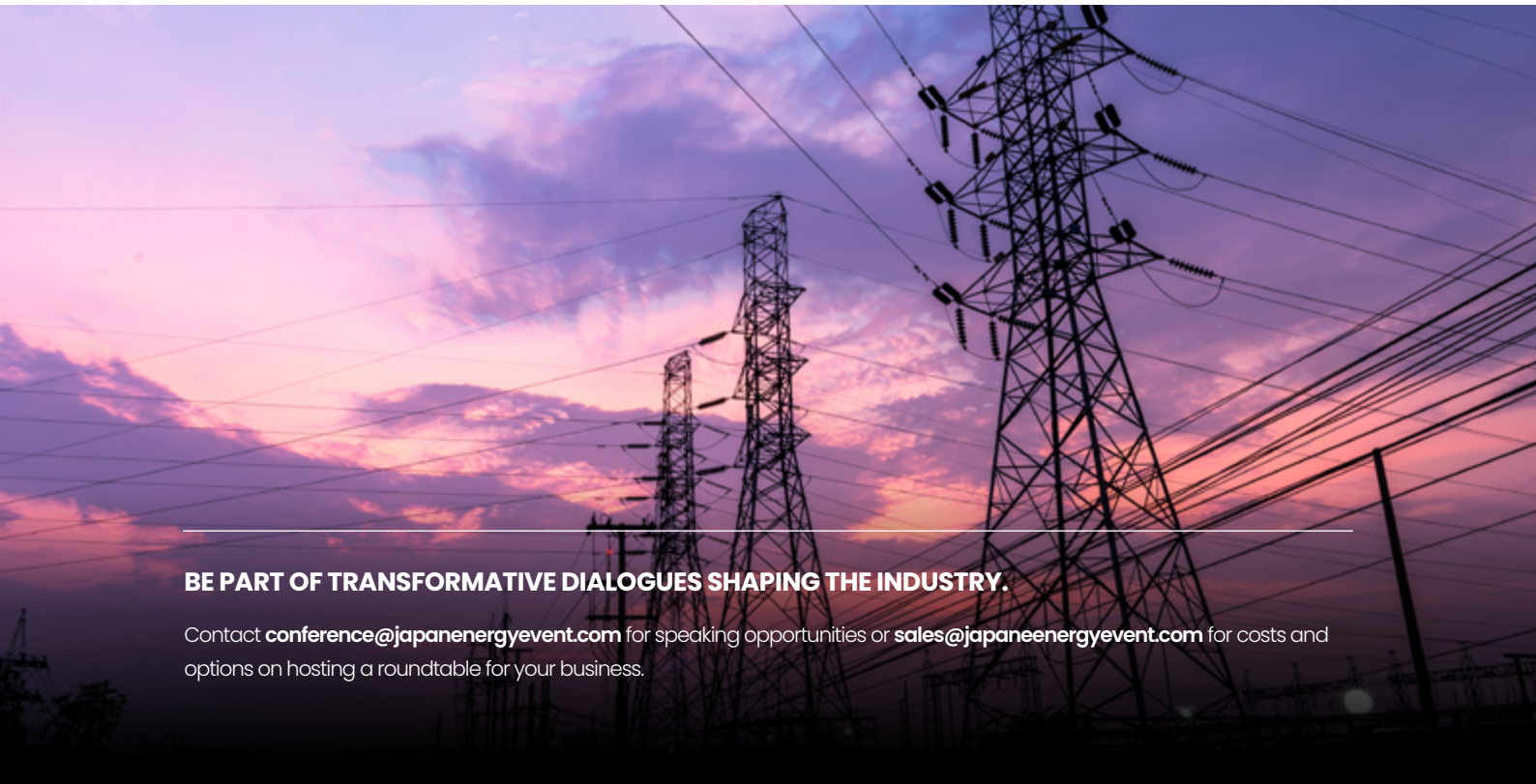
Participants emphasized that the hydrogen economy is inherently global, requiring cross-border alignment on policy, certification, and standards. No single country can scale hydrogen alone—collaboration is essential across technology, supply chains, and regulatory frameworks.

A key theme was "carbon equity." One participant noted that Japan contributes only around 2% of global CO_2 emissions, while the broader Asia-Pacific region accounts for over 50%, highlighting the importance of regional coordination in achieving meaningful climate impact. This comparison underscored the view that, although Japan and a few advanced economies are leading in hydrogen adoption, the climate impact will remain limited unless the entire region—and the world—moves forward together.

Harmonizing certification and standards was seen as a critical enabler for international hydrogen trade. Currently, definitions of "low-carbon" hydrogen, as well as safety regulations, vary widely by country. This fragmentation risks becoming a major barrier to cross-border trade. Interoperability—both technical and commercial—was identified as the goal, requiring coordinated efforts through diplomacy and industry collaboration.

The role of international forums, particularly the International Hydrogen Trade Forum (IHTF), was highlighted. With participation from over 30 countries, the IHTF—alongside organizations like the Hydrogen Council—was viewed as a promising venue to build consensus on global rules and infrastructure needs.

In conclusion, participants agreed that cross-border harmonization and certification are not only necessary but indispensable. Unified standards will accelerate market growth, reduce trade friction, and ensure that hydrogen produced in one country can contribute meaningfully to global decarbonization.



Priority Actions and Recommendations

Scaling hydrogen in Asia will require coordinated action—no single actor or country can succeed alone. The following priority actions, drawn from the roundtable dialogue, are recommended for policymakers, investors, and industry stakeholders:

- **Tailor Incentives to Local Markets**

  Deploy Contracts-for-Difference (CfDs) and other demand anchors, but adapt them to local market structures and fiscal realities. Stable price signals are essential to catalyze investment across the value chain.

- **Strengthen Carbon Pricing Signals**

  Introduce or refine carbon pricing mechanisms—such as taxes or cap-and-trade—to internalize CO_2 costs and improve hydrogen's competitiveness. Revenues can be recycled to support hydrogen deployment.

- **Accelerate Infrastructure and Cost Reduction**

  Invest in R&D, manufacturing scale-up, and access to low-cost renewable electricity to reduce CapEx and OpEx. Develop critical infrastructure—storage, pipelines, terminals—in tandem with demand hubs.

- **Harmonize Standards and Certification**

  Advance international efforts to align definitions, safety codes, and certification schemes. Common standards will reduce trade friction and enable cross-border hydrogen flows.

- **Deepen Regional and Industrial Collaboration**

  Engage hard-to-abate sectors (e.g., steel, cement, chemicals) and foster regional cooperation through shared projects and financing tools. A more inclusive approach will expand demand and ensure equitable transition.

Participants emphasized that hydrogen's success depends on a whole-of-economy and whole-of-region effort—aligning policies, mobilizing capital, and building trust across borders.

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