

Scene Setting

APEC Clean and Low-Carbon Hydrogen (CLCH) Policy Convention

Dr. Tarcy Sih-Ting JHOU, Senior Researcher, APERC
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Background

2024

APEC Hydrogen Initiative (Peru-Led)

- **Early to Mid 2024:** Peru, as the 2024 APEC host economy, prioritised sustainable energy transition and advanced work on clean and low-carbon hydrogen (CLCH).
- **15–16 August 2024:** At the APEC Energy Ministerial Meeting in Lima, Energy Ministers endorsed the APEC POLICY GUIDANCE TO DEVELOP AND IMPLEMENT CLEAN AND LOWCARBON HYDROGEN POLICY FRAMEWORKS IN THE ASIA-PACIFIC, a key deliverable of APEC Peru 2024.
- **November 2024:** During APEC Leaders' Week in Lima, Leaders endorsed the Policy Guidance in the Machu Picchu Declaration.

2025

Japan's METI and APERC proposed the APEC CLCH Annual Convention project (EWG_203_2025A)

2026

Launch of the First APEC CLCH Convention in Hong Kong, China.

THEME

Hydrogen Demand Creation

1 Policy Spectrum

Development stages across APEC economies and policy maturity levels

2 Production Scenarios and Current Projects

Hydrogen output outlooks, and operational status of the current project pipeline

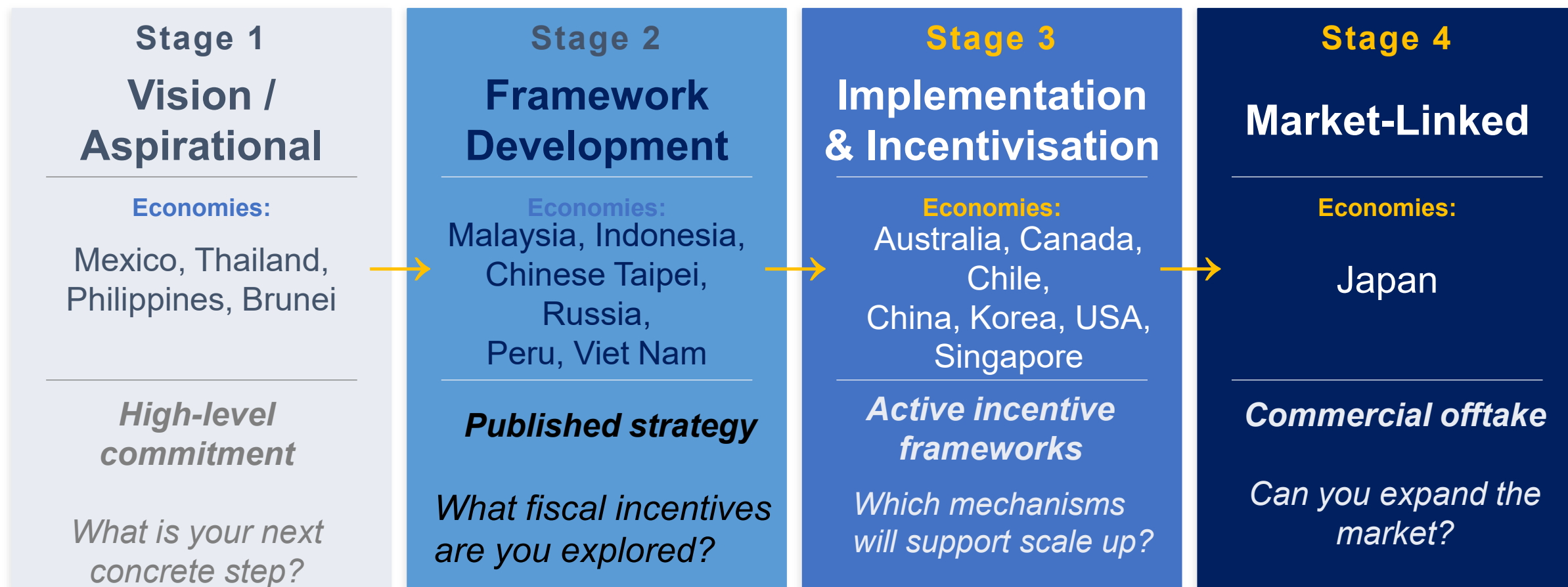
3 Private Sector Engagement and Investment Decisions

FID status, financing bottlenecks, and limited offtake commitments

4 Regional Hydrogen Trade Dynamics

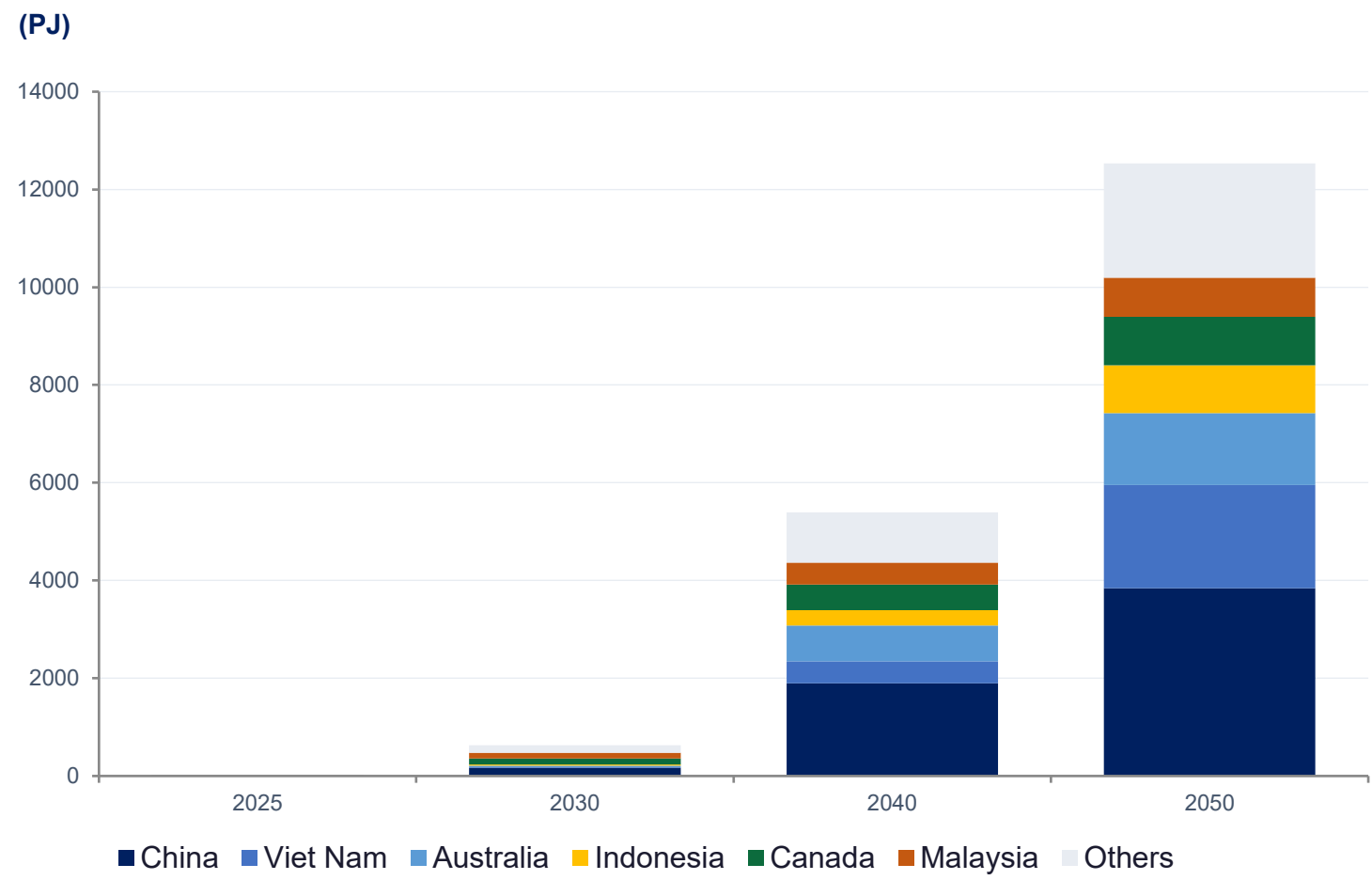
Net exporter vs. net importer and market anchors

APEC Hydrogen Policy Development Spectrum



2026 milestone: Japan's METI awarded first GX CfD contracts: JERA & Mitsui to import ~772,000 tonnes blue ammonia/year from Louisiana from 2030–31, cementing Stage 4 status.

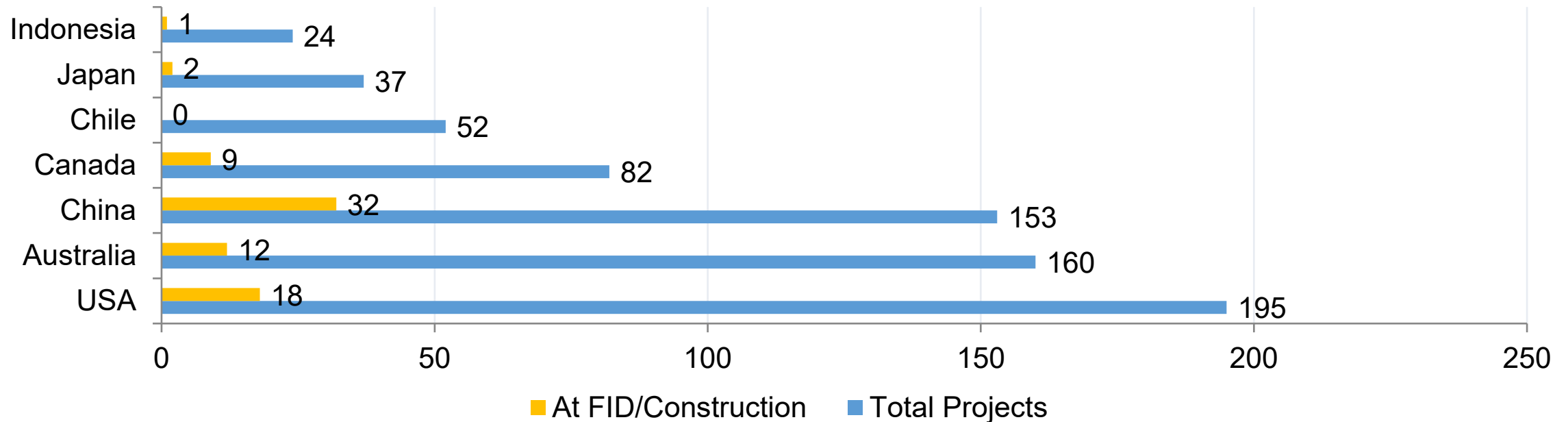
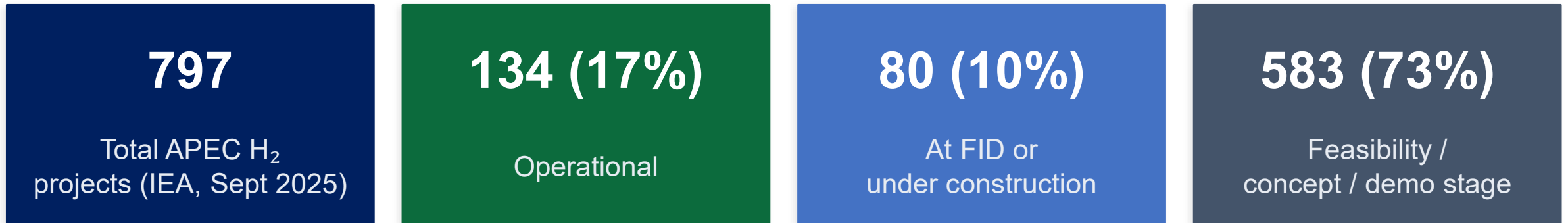
APEC Hydrogen-Based Fuel Output Scenario by Economy



APEC Total Output (PJ)	
2025	18.1 PJ <i>Baseline</i>
2030	629 PJ <i>35× scale-up needed</i>
2040	5,396 PJ
2050	12,532 PJ
2060	18,600 PJ

10% of potential projects are at Final Investment Decision (FID)

The pipeline is large; commercial commitment is not



APEC Hydrogen Trade: Likely Exporters vs. Importers by 2050

NET EXPORTERS (Net imports negative = exports)

Australia	2030: -21 PJ	2050: -1,221 PJ
Canada	2030: -106 PJ	2050: -594 PJ
Malaysia	2030: -115 PJ	2050: -670 PJ
Chile	2030: -0.3 PJ	2050: -444 PJ
New Zealand	2030: 0 PJ	2050: -13 PJ

NET IMPORTERS

Japan	2030: 14.9 PJ	2050: 2,332 PJ
Singapore	2030: 42 PJ	2050: 1,390 PJ
Korea	2030: 85 PJ	2050: 1,309 PJ
Chinese Taipei	2030: 6.4 PJ	2050: 611 PJ
Hong Kong, China	2030: 13.4 PJ	2050: 364 PJ

Source: APERC Energy Demand and Supply Outlook, 9th Edition (2025)

Japan alone is projecting a need for 2,332 PJ of imports by 2050, approximately 1.8× Korea and 1.7× Singapore. This concentrated demand anchors the entire APEC export market.

Three Binding Constraints

1

Cost and Demand Deadlock

Green H₂ at USD 4–8/kg vs. gray H₂ at USD 1.5–3.0/kg.
Carbon pricing of **USD 100-300/tCO₂** or production incentives of **USD 2–3/kg** needed.

[Addresses Area: Policy Spectrum & Area: Private Sector Engagement]

2

Certification Fragmentation

Australia GO, Japan GX, Korea CHPS, EU RFNBO —use different emission definitions.
Different certification systems create barriers for international hydrogen trade.

[Addresses Area: Regional Hydrogen Trade Dynamics]

3

Infrastructure Gap

No major export corridor (AUS–JPN, CHL–KOR, MAS–SGP) has a fully committed investment chain. Zero commercial-scale export terminals at FID.

[Addresses Area: Production Scenarios and Current Projects]

► *This convention directly addresses Constraint #1:*

Convention Agenda: Mapping the Sessions to the 4 Key Areas

DAY 1 — 20 May 2026

Building Market Foundations

Session 1: Policy & Regulatory Instruments for Demand Creation
(Focus Area: Policy Spectrum)

Session 2: Insights from Projects: Current Status & Barriers
(Focus Area: Production Scenarios and Current Projects)

Session 3: Private Sector Engagement: Unlocking Market Potential
(Focus Area: Private Sector Engagement)

Session 4: Policy Roundtable: Economy Updates & Initiatives
(Focus Area: Policy Spectrum)

DAY 2 — 21 May 2026

Enabling Cross-Border Hydrogen Trade

Session 5: Addressing Trade Challenges: Technology & Regulation
(Focus Area: Regional Hydrogen Trade Dynamics)

Session 6: Discussion on Next Steps

Summary: Key Takeaways

13:30 Site Visit: PADEL+ Hydrogen Power Generation Facility, Sai Kung

What We Need From You

Three asks for every economy in this room:

1

Share openly — your challenges, not just your successes

Policy gaps, stalled projects, and regulatory barriers often provide the most valuable lessons for regional cooperation.

2

Think demand, not just supply

Demand creation is essential to move hydrogen projects from announcement to implementation.

3

Consider one practical next step

Session 6 will invite each economy to reflect on one practical next step to support hydrogen development in the region.

Thank you.

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