EIC INSIGHT REPORT

APAC Hydrogen

April 2026

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Executive summary

The renewables and cleantech sector in Asia Pacific are gaining strong momentum, increasingly solidifying its position as the heart of the region's energy transition strategy. The current operational landscape of the hydrogen sector in Asia Pacific is largely driven by grey hydrogen production, with only a limited number of hydrogen liquefaction facilities in operation. In terms of clean hydrogen, most existing green hydrogen installations in the region consist of small-scale demonstration projects with capacities below 1 MW. Larger electrolysers, with capacities greater than 10 MW, are found mainly in key markets such as India, Japan and Australia.

This report also provides a comprehensive analysis of Asia Pacific's evolving hydrogen landscape, evaluating the progress of both established and emerging markets. It examines the critical roles of regulatory framework, strategic partnerships, mobilisation of private and public financing in scaling up the hydrogen sector.

Beyond the operational pipeline, the Asia Pacific region comprises 221 hydrogen projects (excluding China), with combined estimated capital expenditure of US$240bn, according to EICDataStream. Green hydrogen projects are steadily gaining traction, representing 161 projects (72.9%) of the total project pipeline, driven by announcements in Australia, India, Indonesia, South Korea and Malaysia.

Key regional challenges observed over the past year that have hindered the pace of deployment and scaling in the hydrogen market are tied to strategic pivots by major key players, insufficient offtake agreements and demand, high cost of renewable energy, lack of policy framework, slow permitting processes, and supply chain constraints. It is apparent in the sector that strong governmental support and firm offtake agreements remain the fundamental pillars for ensuring long-term project bankability and continued project progress.

Across the supply chain, eight key categories of hydrogen-related equipment and services were analysed to assess hydrogen capabilities across selected markets. A total of 187 companies providing key hydrogen-related equipment and services were identified across the region through the regional supply chain analysis. More than half of the identified companies have a strong presence in the oil and gas industry. India hosts the largest concentration of companies, supported by a relatively integrated hydrogen supply chain. A significant presence is also identified in Australia, followed by Malaysia, Indonesia, South Korea and Japan.

In manufacturing and assembly, India and Australia lead the market for electrolysers, heat exchangers and compressors. India has a more localised supply chain and is currently expanding its electrolyser manufacturing capacity. Companies from Europe, and other parts of Asia are increasingly partnering with Indian firms to scale up electrolyser manufacturing, supporting the country's ambition to localise and expand capacity under the National Green Hydrogen Mission. In contrast, electrolyser manufacturing capacity in South Korea and Japan remains relatively limited and is still in the early stage of scale-up, with only a small number of domestic players actively developing technologies. Meanwhile, hydrogen supply chains in Indonesia and Malaysia remain nascent, with most identified companies comprising international engineering firms and technology providers. These companies are well-positioned to capture future opportunities as project pipelines expand in the region and support the development of local hydrogen supply chain.

The report also highlights China's role as the one of the largest hydrogen markets globally, although it is excluded from this report's analysis due to limited visibility and its closed borders for supply chain opportunities. With its announcement of the 15th Five-Year Plan, green hydrogen plays a large role in decarbonising China's huge industrial sector alongside the rapid renewable power deployments. China accounts for more than half of global electrolyser manufacturing capacity and host over 3,000 supply chain companies across the hydrogen value chain. However, technology gaps and export barriers are among the key challenges within China's hydrogen value chain. To address these challenges, companies are increasingly adopting new strategies, such as forming joint ventures and partnerships across international markets to expand their presence and access new opportunities.