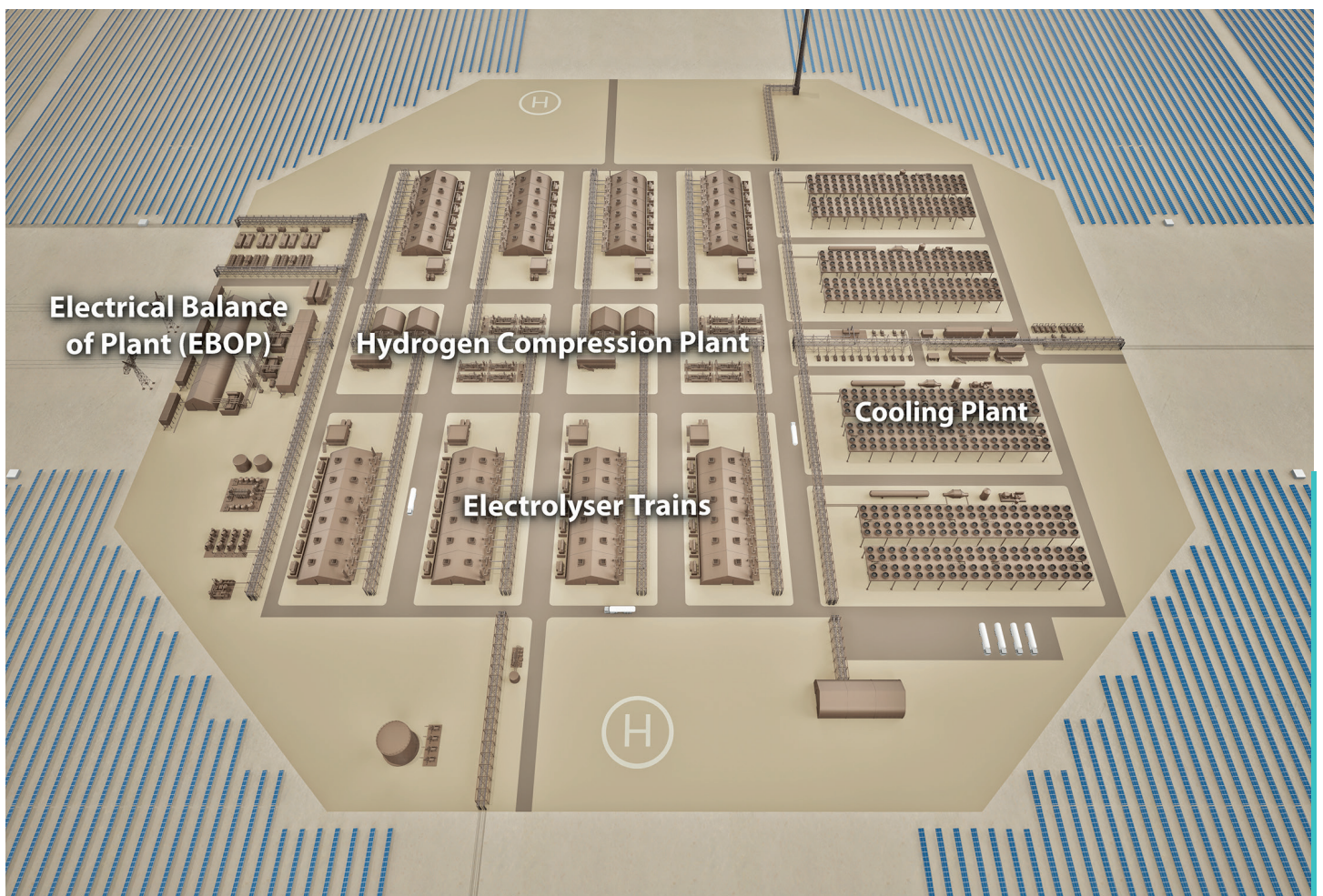


# The Future of Giga-Scale Green Hydrogen

The Patented P2(H<sub>2</sub>)Node™ Architecture



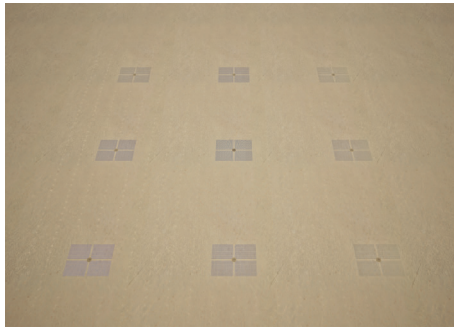
Innovative, standardised, scalable.

10 - 20% lower production cost.

Proudly Designed in Australia. Built for the World.

# How the P2(H<sub>2</sub>)Node™ Architecture Works

The patented P2(H<sub>2</sub>)Node architecture is an innovative, modular system designed to maximise efficiency and scalability in green hydrogen production. At its core, each Node is strategically positioned close to abundant wind and solar resources. This proximity allows renewable electricity to be fed directly into electrolysers without the need for long-distance transmission lines, significantly reducing energy losses and infrastructure costs.



- ✓ Flexible locations
- ✓ No long-distance transmission losses
- ✓ Modular hydrogen building blocks

The P2(H<sub>2</sub>)Node consists of ringed arrays of wind turbines and solar farms that supply electricity to on-site electrolysers. These electrolysers split desalinated seawater into hydrogen and oxygen. The produced hydrogen is then stored and transported via pressurised pipelines - allowing the system to buffer supply and meet downstream demand with consistent flow.

This decentralised, distributed approach ensures that each renewable electron is used where it is generated, while hydrogen molecules are efficiently transported to end users. The P2(H<sub>2</sub>)Node architecture eliminates inefficiencies found in traditional centralised systems, enabling giga-scale hydrogen production that is both repeatable and cost-competitive.

## Turning Wind and Sun into Molecules at Scale



- ✓ Wind turbines and solar arrays feeding power directly into electrolysis hubs
- ✓ On-site desalination and hydrogen production
- ✓ Pipelines line-packed for storage and transmission

By combining modular scalability, integrated energy storage, and smart transport solutions, the P2(H<sub>2</sub>)Node architecture paves the way for industrial-scale decarbonisation across sectors such as steel, fertiliser, shipping, and aviation.



# P2(H<sub>2</sub>)Node: The New Blueprint for Hydrogen at Scale

- ✓ 10-20% lower production costs through:
  - Higher efficiency via optimised systems and design
  - Reduced CapEx via standardisation, modularity and streamlined infrastructure
- ✓ Built-in energy storage and line-packing for consistent supply
- ✓ Enables super-major scale projects comparable to oil & gas infrastructure
- ✓ Supports diverse industries from green steel and shipping to aviation e-Fuels



*"The P2(H<sub>2</sub>)Node is a transformative innovation, a catalyst for the global energy transition. By enabling scalable, efficient, and cost-effective green fuels production, it paves the way for a sustainable energy future for the world"*

— Alexander Tancock, CEO

## Case Study: The World's Largest Green Hydrogen Plant

### Australia's Strategic E-Fuels Initiative, the Western Green Energy Hub (WGEH)



| Western Australia Green Hydrogen Hub (WGEH)

With the Australian Government's 'Future Made in Australia Act' providing significant support to Green Hydrogen, such as the \$2/kg Hydrogen Production Tax Incentive, WGEH is set to drive Ammonia and e-Fuels production costs lower, unlocking transformative investment opportunities and creating new jobs.

With Australian government incentives and InterContinental Energy's patented P2(H<sub>2</sub>)Node system at the core, giga-scale projects, like WGEH, will drive decarbonisation and industrial transformation by offering a global, scalable, cost-efficient model for providing green molecules to the hard to de-carbonise heavy industry and transport sectors.

## Supporting industries include:

- ✓ Green iron/steel
- ✓ Fertilisers
- ✓ Aviation e-Fuels
- ✓ Shipping e-Fuels
- ✓ Power generation

## At full capacity WGEH will provide:

- ✓ 70 GW renewable power
- ✓ ~5 MTPA of Hydrogen
- ✓ ~28 MTPA of Ammonia
- ✓ Green fuels at giga-scale, operating in the lowest decile of global costs from 2033
- ✓ 5000 jobs supporting
- ✓ \$100 billion USD in investment opportunities



**InterContinental  
Energy**

**The Trusted Partner in Hydrogen**



**Join the revolution.**

Contact **info@intercontinentalenergy.com**

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