

All Energy Pty Ltd – Hydrogen (H₂) Capability Statement.



All Energy Pty Ltd
www.allenergypl.com.au

All Energy Pty Ltd has commercial and engineering expertise in industrial scale hydrogen (H₂), utility scale PV solar, rotating generation, process industries, gaseous fuels, and transport fuels, which meant that All Energy Pty Ltd was ideally placed to assist Australian businesses when the interest in H₂ started increasing.

Project Experience:

- Process engineering and capital cost estimation for the world's largest proposed electrolysis facility utilising an adjacent utility-scale PV Solar array to create renewable H₂. More information:

<https://arena.gov.au/blog/renewable-future-beckons-for-queensland-ammonia-plants/>

- Western Australian Renewable H₂ Fund supporting City of Cockburn Green Hydrogen Project: Feasibility study for solar H₂ production for waste collection and light vehicle fleets. Study also examines cogeneration opportunities for electricity and heat production. More information:

<http://www.drd.wa.gov.au/projects/EnergyFutures/Page/ Renewable-Hydrogen-Fund.aspx>

- Gladstone Regional Council – H₂ strategy for providing export tonnages of H₂; H₂ electrolysis; H₂ to support fuel refinery and power station requirements.

- Northern Oil Refinery: engineering review of a renewable H₂ system.

- WMI Pty Ltd biogas to renewable power to green fuel project (H₂ / bio-CNG).

- H₂ from recycled water and co-located embedded power generation systems (solar PV and biogas) to fuel a truck fleet - feasibility study; vertically integrated supply chain.

- Henderson Energy Park : Concept design and feasibility of a H₂ Transport Hub: techno-economic assessment for renewable energy generation and H₂ utilisation options including for heavy vehicle fuel, light vehicle fleet, and H₂ fuel cell off-grid power

- Advanced Process Modelling:

- ASPEN V9: gasification / pyrolysis of biomass to generate syngas (H₂ / CO); H₂ handling, compression and cooling systems modelling.
- CAPE-OPEN steady-state simulation environment: H₂ and electrolyser gases handling, compression, and cooling systems modelling.

- Queensland Government's zero emissions by 2050 target: opportunities assessment including hydrogen for infrastructure, industrial use, and transport energy.

- Institute of Chemical Engineers - Energy Workshops including H₂ production and utilisation options.

- Audits on industrial facilities including H₂ generation / utilisation.

All Energy Pty Ltd can assist your business with:

- Engineering design.
- Concept and feasibility studies.
- Capital cost estimation.
- Energy and transport strategies.
- Emissions and energy cost reduction.
- Environmental approvals.
- Project management.

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