

# **An Effective Regulatory Framework for Queensland's Hydrogen Industry**

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Master Electricians Australia (MEA) is the trade association representing electrical contractors recognised by industry, government and the community as the electrical industry’s leading business partner, knowledge source and advocate. You can visit our website at [www.masterelectricians.com.au](http://www.masterelectricians.com.au)

MEA strongly advocate that energy usage for households and businesses (exclusive of heavy industry industrial processes) should primarily rely on solar energy produced through both public and privately owned consumer energy resources (CER) and firmed by battery storage. We believe that the importance of ensuring any regulatory impact to arise from this hydrogen consultation should concentrate on heavy industry and any such regulatory changes are not at the expense of CER policies, regulations, funding, resource and infrastructure.

As outlined by the graphic below, there is also the vast difference between the efficiency of Renewable-Battery-Load at 76% overall efficiency, as opposed to Renewable-H Processing-Battery-Load of 30%<sup>1</sup> making the production costs of hydrogen uncompetitive with CER. With the exception of some heavy industrial processes and possibly heavy transport, MEA believe that public resources would be better directed towards a commitment to CER as the most efficient path to Net Zero in the energy Transition.

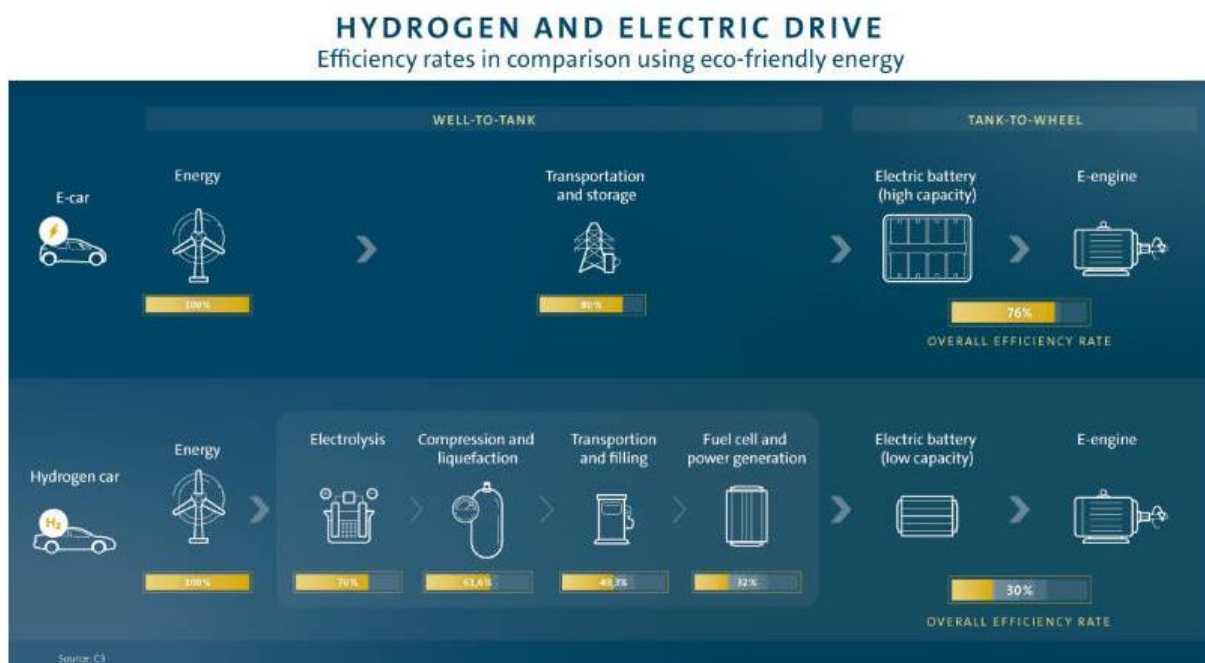


Image source (n1) in footnotes.

We further note the consultation’s assertion that-

“large scale storage of hydrogen could be used to store surplus renewable energy to back up energy supply when needed to meet peak demand or counter the intermittency of wind and solar energy generation. Unlike battery storage, energy stored as hydrogen can be stored indefinitely with minimal energy loss.”<sup>2</sup>

MEA argues this is a redundant argument as a key benefit of CER is its ability to respond to price signals sent through Time of Use (ToU) tariffs. Households and Businesses will

<sup>1</sup> Bevis Yeo, ‘Batteries vs hydrogen – who wins this tussle?’ Stockhead Energy News [9 September 2021] < [Batteries vs hydrogen - who wins this tussle? - Stockhead](#) >.

<sup>2</sup> Queensland Government, ‘An effective regulatory framework for Queensland’s hydrogen industry’ [2024] (25).

significantly benefit from implementation of flexible demand and generation ToU tariffs in concert with solar and battery storage, giving households control over power bills. During the middle of the day, the network experiences minimum demand for energy, while CER generated energy is at its greatest. Then, during 4PM-9PM, the network experiences peak demand for energy, while CER energy is no longer being generated. Implementing ToU tariffs sends price signals to consumers when to store excess energy and when to utilise and/or send excess energy back to the grid. During the minimum demand window, ToU charges would deter consumers from sending excess energy back to the grid, preventing an oversupply of energy on the network. Then, during the peak demand window when energy rates are at their highest, ToU tariffs would provide consumers with rebates, encouraging excess energy to be supplied to the grid leading to sustainable economic growth thereby increasing disposable household income.

Ultimately, ToU tariffs incentivises effective utilisation of solar energy reducing 'wasted energy' mentioned in the consultation. To protect reliability and integrity of solar energy, Government should prioritise financial and non-financial policies to support successful nation-wide implementation of Solar PV as opposed to relying on non-ecological, expensive hydrogen projects to fulfil this function.