

Australian Government  
Department of Industry, Science, Energy and Resources

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### **Hydrogen Guarantee of Origin – Discussion Paper**

The Australian Energy Council ('AEC') welcomes the opportunity to make a submission to the Department of Industry, Science, Energy and Resources' ('DISER') consultation on *A Hydrogen Guarantee of Origin Scheme for Australia* ('GO Scheme').

The Energy Council is the industry body representing 20 electricity and downstream natural gas businesses operating in the competitive wholesale and retail energy markets. These businesses collectively generate the overwhelming majority of electricity in Australia, sell gas and electricity to over ten million homes and businesses, and are major investors in renewable energy generation.

As the world shifts towards cleaner energy, new markets and opportunities will, and or already are, emerging. One of these prospective markets is hydrogen, with its potential to serve as a clean fuel for dispatchable generation, transportation, and industrial processes. This potential has captured the imagination of many governments, both national and sub-national, especially in places where the scope for electricity sector decarbonisation using existing renewable generation technologies is limited. This includes key Australian exports markets, such as Japan, which has signalled its intent to become a "hydrogen society".<sup>1</sup> The lighting of the Olympic torch with hydrogen was intended to be symbolic of this transition.

It is therefore important that Australia puts itself in a position to capitalise on these opportunities, given its potential to become a major green hydrogen producer. Noting this, and the important role many AEC members play in the production of hydrogen, the AEC has previously recommended the introduction of a formal guarantee of origin certification scheme for hydrogen,<sup>2</sup> consistent with the recommendations of the National Hydrogen Strategy. Not only will this position Australian exports favourably, it should also assist Australia's own journey to net-zero by 2050.

This submission welcomes the intent of the GO Scheme and considers key criteria for success to be:

- harmonisation with international standards and carbon accounting frameworks;
- transparent and government administered;
- leverages off existing Australian legislation, carbon accounting schemes and regulatory bodies;
- based on a standardised benchmark tradeable hydrogen product;
- all Australian renewable generation be eligible for accreditation in the production of green hydrogen; and
- timely development and implementation of the scheme.

#### **Harmonisation with international standards**

The need for Australia to have mature carbon accounting frameworks can be seen by the European Union's proposed carbon border adjustment mechanism, and signals from key countries like the

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<sup>1</sup> Government of Japan, 'Strategic Energy Plan', Ministry of Economy, Trade and Industry, July 2018, [https://www.meti.go.jp/english/press/2018/0703\\_002.html](https://www.meti.go.jp/english/press/2018/0703_002.html).

<sup>2</sup> See, for example: Australian Energy Council, 'Submission to Discussion Paper on Tasmania's Climate Change Act', 30 April 2021, <https://www.energycouncil.com.au/media/ftsdejkm/20210430-aec-submission-to-discussion-paper-on-tasmania-s-climate-change-act.pdf>.

United States and Japan that they may follow suit.<sup>3</sup> Australia risks putting its exports at a competitive disadvantage if it cannot provide transparency around the embedded carbon in its products in line with international expectations. Promisingly, the Discussion Paper here recognises this, and seeks to align the GO scheme with international best practice. Because international schemes and expectations are constantly evolving, the Department should continue to actively work with the International Partnership for Hydrogen and Fuel Cells in the Economy (IPHE) about the progress of Australia's GO scheme to ensure it has international acceptance among the major economies.

Consistent with this desire for harmonisation, the AEC supports the Discussion Paper's proposal to adopt a well-to-gate boundary (as used in Europe's CertifHy scheme) and apply the ISO standards and GHG protocol to underpin any carbon accounting framework. Given this will place new reporting requirements on industry, processes like co-design workshops may be beneficial to minimise the regulatory burden.

A marked-based method for verifying consumption is preferred over a location-based method, similarly because it aligns with overseas practices and therefore should improve the scheme's long-term durability.

### **Standardised benchmark tradeable hydrogen product**

The AEC supports emissions to be calculated based on:

- a well-to-gate boundary (section 2.1.3); and
- a standardised benchmark hydrogen specification (e.g. possibly the 3MPa pressure and 99 percent purity referred to in the Discussion Paper).

Basing the GO Scheme on a standard product should facilitate trading and enhance market liquidity. Product standardisation is a key characteristic of deep and liquid commodity markets. Where products differ from the 'standard', markets will apply a premium or discount relative to the price of the 'standard' product.

With respect to offsets outlined in section 2.3, the AEC supports Option One. Our view is that the GO Scheme should focus only on the emissions created by the production of hydrogen. Where emissions have been created in the production of hydrogen, it should not be the role of the GO Scheme to record any carbon offsets that the producer has acquired. Rather, this is a matter that should be managed as part of the sales transaction between the producer and purchaser of the hydrogen.

### **Scope 2 emissions and verifying and tracking renewable energy inputs**

The AEC supports the use of a market-based method to calculate electricity (scope 2) emissions. The AEC considers the surrender of LGCs under the market-based method to be the most logical way to verify above baseline renewable generation until the LRET expires in 2030. In addition to this, it is critical that a method is developed to verify below baseline renewable generation. As noted in the Discussion Paper, failure to do this (i.e., solely relying on LGC surrender) would place Australia at a disadvantage to potential competitors (e.g. Europe and the USA) that have GO schemes covering all renewable generation.

To illustrate this point, the Discussion Paper quotes an estimate of 9.5 million MWh of below baseline renewable generation. This renewable generation could potentially produce 150ktpa of green hydrogen with a value likely to be in excess of \$500 million.<sup>4</sup>

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<sup>3</sup> Australian Energy Council, 'European Union plans to get "Fit for 55"', 22 July 2021, <https://www.energycouncil.com.au/analysis/european-union-plans-to-get-fit-for-55/>.

<sup>4</sup> Advisian, 'Australian Hydrogen Market Study: Sector Analysis Summary', May 2021. These estimates use assumptions from this report.

Accordingly, the AEC supports the first option proposed in the Discussion Paper, being to track and verify below baseline renewable generation through the creation of renewable GO certificates and use LGCs for above baseline renewable generation (as described above). Once the RET expires in 2030 and no LGCs can be created, renewable GO certificates should then be used exclusively to track and verify all renewable energy generation.

The AEC also supports the GO certification scheme recognising other renewable generation sources that are not captured as either below or above baseline.

#### **GO Scheme Governance and Administration**

The AEC supports appointing the Clean Energy Regulator ('CER') as the body responsible for administering and overseeing the GO scheme. The CER has appropriate and transferrable experience administering other carbon accounting frameworks and their stewardship will improve the overall credibility of the GO scheme.

Any questions about this submission should be addressed to Rhys Thomas, by email to [Rhys.Thomas@energycouncil.com.au](mailto:Rhys.Thomas@energycouncil.com.au) or by telephone on (03) 9205 3111.

Yours sincerely,



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