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Submitted online: aemc@aemc.gov.au

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Dear James,

Review into extending the regulatory frameworks to hydrogen and renewable gases.

The Australian Energy Council (AEC) welcomes the opportunity to respond to the Australian Energy Markets Commission (AEMC) consultation paper *Review into extending the regulatory frameworks to hydrogen and renewable gases – Draft Rules*.

The Australian Energy Council (AEC) is the peak industry body for electricity and downstream natural gas businesses operating in the competitive wholesale and retail energy markets. Our members collectively generate the overwhelming majority of electricity in Australia, sell gas and electricity to millions of homes and businesses, and are major investors in renewable energy generation. The AEC supports reaching net-zero by 2050 as well as a 55 percent emissions reduction target by 2035 and is part of the Australian Climate Roundtable promoting climate ambition.

Hydrogen represents an amazing opportunity for Australia. By 2030 Fortescue Future Industries (FFI) is contracted to supply Hydrogen To EON, Germany's biggest utility, sufficient to provide 10% of Germanys power.¹ FFI is the vehicle by which the Fortescue Metals Group (FMG) proposes to morph from a mining giant to a global energy company.² Michael Hutchison is the CEO of FFI and in listening to him talk of the opportunities for hydrogen of one thing he appears entirely certain – that for residential Australia “if you can make the electrons and you have a cable that’s the simplest way (to decarbonisation)”.³

Hutchinson makes the point that FFI are making a product you can ship, a “big battery” to “transport power”. He explains that there may be some future local applications in transport and industry (clearly FFI plans to power FMG), but that the export market is massive.⁴ It is not hard to deduct that the same problem with the export prices as endured in natural gas will beset Australian users of hydrogen, and that given the scarcity of hydrogen and the accelerated European to transition the replacement of Russian natural gas that Australian small consumers will likely not be better off with hydrogen in their pipes. A conservative approach to hydrogen readiness is justified.

A fascination with new technologies amongst governments and regulators frequently leads to overestimating their value and underestimating their weaknesses, and this sector has walked this path before. We might also reflect that it is less than a decade since whole narratives built from coal fired generation asset owners, who couldn't imagine a future without themselves in it, around Carbon Capture and Storage (CCS) making

¹ Tackling Transitions, Fortescues Green Hydrogen Plans, ABC Radio National, Mark Hutchinson, CEO FFI, <https://www.abc.net.au/radionational/programs/saturdayextra/tackling-transitions/101512646>

² Ibid

³ Ibid

⁴ Ibid

fossil fuel generation competitive with renewables have collapsed. The narrative of pipeline asset owners that hydrogen is or will be competitive domestically with electrification in low pressure distribution networks should be carefully considered in this context.

The AEC understands that it could perhaps be assumed that no harm could arise from the proposed changes to the rules in the Final Report. That perhaps even if hydrogen is the second-rate option to electrification, what is wrong with enabling its further use? We may also ask if the proposed changes in the Final Report are a “low cost” or “no regrets” option to explore the possibilities? In response to these questions, the AEC of course agrees that there is a role for government in facilitating the most economic form of decarbonisation and this needs to be well planned, and that any substitution policy for natural gas needs to be practical and realistic and this will require trials at least. However as of today, when the proposed rule changes are still just that, there are already trials, already domestic projects testing hydrogen and biomethane in Gas Powered Generation (GPG) applications⁵. And there are also trials for small customers to be supplied a blend of up to five per cent renewable hydrogen⁶. From these we can conclude safely that there is nothing in the current frameworks that has prevented these projects proceeding⁷. And given that these projects have proceeded there remains no apparent urgency to extend the regulatory frameworks for hydrogen and renewable gases that is applicable to immediate or medium-term small consumer outcomes. There are however potential harms in the AEMC’s proposed changes, in particular surrounding customer communication and notification.

Prior to examining the detailed changes, the first thing to address in this discussion is its semantics. Hydrogen is not a natural gas equivalent (NGE). If it were, it would be directly substitutable at or close to 1:1 as natural gas. Given it cannot be blended at anything much above single figure percentages with natural gas, it is not true that it is a natural gas equivalent either for customer appliances, nor is it true for substantial parts of the low pressure gas distribution system. Clarity around this point would assist consumer comprehension as to the true value and risk associated with blended hydrogen, along with setting aside understandable assumptions in the community currently that natural gas is simply replaced with hydrogen in existing pipelines with existing appliances. For decarbonisation, gas users should be educated as to the alternatives that best suit them.

In its Final Report the AEMC notes that:⁸

The purpose of this change is to notify consumers of a change of gas type to *enhance transparency* and help to *alleviate any safety concerns* (emphasis added) consumers may have about being supplied with a gas other than natural gas. This will provide an avenue for consumers to access information and raise concerns with their retailer or distributor.....Notices will not be required where the change of gas type is from natural gas to biomethane or a biomethane/natural gas⁹ blend.

The AEC agrees with the AEMC’s treatment of biomethane. The AEMC’s Final Report then generates requirements for customer notification of blended hydrogen to *enhance transparency* and help to *alleviate any safety concerns* to require:

- a distributor to notify retailers and AEMO prior to a change to the type of gas that may be supplied to customers in a pipeline or part of a pipeline;
- a retailer, following receipt of a transition notice from a distributor, to notify their small customers in the relevant pipeline that the type of gas that may be supplied to those customers is changing;

⁵ Energy Australia’s 300MW Tallawarra B power station expansion commits the purchase of 200,000kg of hydrogen per year from 2025 to offset emissions.

⁶ Energy Retailers have partnered, for example, with AGIG in its HyP SA project.

⁷ The Australian Energy Regulators Trial Waiver and Sandboxing advice providing more than sufficient accommodation.

⁸ Review into extending the regulatory framework to hydrogen and renewable gases, Final Report, p.161, <https://www.aemc.gov.au/sites/default/files/2022-09/Review%20into%20extending%20the%20regulatory%20frameworks%20to%20hydrogen%20and%20renewable%20gases%20-%20Final%20Report%20%281%29.pdf>

⁹ Being actual NGE’s.

- amending the model terms and conditions for standard retail contracts and market retail contracts to require retailers to specify the type of gas that may be sold and supplied by retailers under the contract; and,
- retailers to indicate, in historical billing information provided to a customer in relation to gas, whether the gas sold and supplied to the customer has changed in the historical billing period.

How the primary purposes of *enhancing transparency* and helping to *alleviate any safety concerns* concerns consumers may have about being supplied with blended hydrogen rather than natural gas (or actual NGE) occurs in practice through these notification obligations is not entirely clear, and it should be clear if it is the justification for change. The AEC supports a customer's general right to information about the product they are being supplied with in any blended gas future, and in particular any safety or appliance performance information being provided. But the AEC does not support the notification requirements in the Final Report for the following reasons:

1. As with biomethane or a biomethane/natural gas blending, if hydrogen blending is restricted to levels suitable for existing appliances and gas networks, (ie there is no safety concerns nor changes to appliance life) then why is there need for this notification at all? In this case, noting that no functional specification has been developed or sought to appreciate its costs, notification is not a no cost/no regrets option and will require retailers (and possibly AEMO) to build systems that are likely to be comparable in scope and costs to something like an outage notification system (identifying local injections, and commencement and end times and providing notice to individual customers). There are also apparent internal inconsistencies in the AEMC's views about what *does not* need to change, such as heating values, settlement, unaccounted for gas, and metering requirements, all of which do actually change. The AEC notes the AEMC did not believe these needed to change based on the premise of low concentrations of blended hydrogen being an NGE, and existing margins for error.

The composition of the blend of hydrogen with gases in the distribution network will change frequently, daily in fact. Given the injection points of hydrogen vary in location, leading to various concentrations via dispersal, a gas blend at a specific site level may not be uniform at distribution level. As such requiring retailers to update terms and conditions to notify customers regarding the type of gas and the primary gas in a composition of blended gases is impractical.

2. The AEMC contends that retailers are best placed to communicate with customers as they manage the customer relationship. Retailers are well placed to manage the customer relationship for those matters *within their control*, but do not, for example, manage outage notifications. The AEC supports retailer's being a party to information provision to customers who may be concerned about the safety of hydrogen blending but the AEC does not support the proposed notification requirements that provide customers with information that they cannot use nor meaningfully deduct any assurances about safety from. The AEMC's view that networks are not best placed to provide these notifications to users is at best inconsistent with existing requirements for networks to communicate outage notifications to users, and at worst enabling networks in avoiding their obligation to explain and bear the costs of their own activity.¹⁰
3. There will be costs to retailers for changes to systems, and further operational expenses from notifications that will inevitably increase customer enquiry as well as complaints. It is unlikely that the material benefit of blended hydrogen prior to 2030¹¹ will exceed the material costs to customers of gas distribution networks exploring a new business model at the retailers (and ultimately the customers) expense. Gas distribution businesses sought to lump "hydrogen readiness" costs into their regulatory

¹⁰ Communicating bad news to customers requires special focus. Handled poorly it will inevitably make a situation worse and there should be no place for avoidance. Notifying customers regarding the inclusion of hydrogen must be the responsibility of the party conducting the trial for the inclusion of blended hydrogen. In these early stages that is the network.

¹¹ By which time trials will be sufficiently mature, hydrogen prices better understood and whether or not hydrogen readiness costs make it competitive with electrification will be more apparent.

proposals, largely to have them rejected by consumer representatives. This should not be a back door to that outcome. Gas network business development should be funded by the asset owner, not the consumer.

4. It is concerning that AEMC's proposed commencement date of the rules allows only three months from the effective date for what is a technically complex and functionally sketchy scope before operational implementation is expected. Nor is it useful that a timeframe was determined without information of substance being sought from retailers on what implementation timeframe was possible.

In seeking advice from the retailers on the timeframe, the AEMC may have made itself aware that existing regulatory reforms (such as CDR, Better Bills, ESB 2025, etc) has meant that there are serious capacity constraints on the sectors IT and project management workforce.

5. Retailers anticipate that further unnecessary and increased concerns and complaints will be generated by having the blend recorded in historical billing information, and short of providing evidence in support of customer claims for damaged appliances or those with shortened lives (which is not used in any justification) it represents no apparent value to customers along with being costly to implement.

If customers need any notification at all, it will be that they are receiving or about to be receiving a hydrogen blend. And that notification requirement (and its costs) should be borne directly from the distribution network exploring their new business model. Whilst customers may still pay ultimately given the opaque nature of regulated business, at least the charge is explicit to the party generating the cost, and the notification requirements rationalised to a single party¹² and a single development cost.¹³

The AEC supports a sensible transition as decarbonisation of the economy progresses, along with pursuing the alternatives that best meet the long-term interests of gas consumers with respect to price, quality, and reliability and that are the most cost-effective permanent solutions to decarbonisation. Unfortunately, the scope of the review has presupposed that for households and businesses using reticulated gas that the overall economic benefit of hydrogen and renewable gases will be positive. The AEC is of the view that this remains speculation. The review also presupposes that waiver and sandboxing trial opportunities will not suffice in the early stages of hydrogen. The AEC maintains this also is not borne out, with trials underway.

The AEC does not support resources being expended on future proofing regulation for hydrogen at this time, nor has the case been made that these changes are a prerequisite for its business development. Sadly, if it proceeds in its current form the costs to supporting this network business development type of activity in the unavoidable infrastructure and operating costs will be borne by retailers and will ultimately be passed to consumers, who will see no concomitant benefit.

Please contact the undersigned at David.Markham@energycouncil.com.au should you wish to discuss.

Yours sincerely,

David Markham
Australian Energy Council

¹² As opposed to every gas retailer.

¹³ For which no regulatory or revenue allowance should be made.