SUBMISSION

NEW SOUTH WALES RENEWABLE FUEL SCHEME DISCUSSION PAPER

4 December 2023

INTRODUCTION

The Energy Users' Association of Australia (EUAA) is the peak body representing Australian commercial and industrial energy users. Our membership covers a broad cross section of the Australian economy including significant retail, manufacturing, building materials and food processing industries. Combined our members employ over 1 million Australians, pay billions in energy bills every year and in many cases are exposed to the fluctuations and challenges of international trade.

Thank you for the opportunity to make a submission under New South Wales Renewable Fuel Scheme Discussion Paper. The EUAA supports further investigation of renewable sources of gas as a replacement and/or supplement to traditional sources of methane.

The EUAA notes that Australia is limited to supplying only 22.5% of the current natural gas consumption from biomethane,[1] with most currently operating biogas plants supplying small electricity generation units or being flared. There are currently few projects either operating, in construction or planned to supply biogas to industry or the existing natural gas network. This lack of access to commercial quantities of biomethane presents a barrier to industry trying to decarbonise, as does the geographic distance between biomass resources and industrial plant locations for some businesses.

Similarly, green hydrogen faces difficulties in being rolled out and scaled up to meet governments emissions targets. One EUAA member has run tests operating on 100% hydrogen, and had difficulties with the high moisture flue gas, embrittlement of the boiler and different steam pressures for use in existing plant operations, however others have had relative success with hydrogen trials. It seems clear that the success or otherwise of hydrogen will be on a case by case basis. Given the production of a MWh equivalent of hydrogen requires 1.2 MWh of electricity, the EUAA considers that there is a risk of undue strain on electricity infrastructure, during a time when Australia is undergoing its biggest transformation in the electricity sector. The additional electricity infrastructure requirements are in addition to the NEM upgrades identified in AEMO's 2022 Integrated System Plan.

It is from this perspective that the EUAA strongly believes that in the immediate future, the parts of the economy that can electrify, should be encouraged to electrify (i.e. residential, commercial buildings, personal vehicles, light commercial vehicles and some industrial heating), and that the limited biomethane and initial tranche of green hydrogen production should be reserved for the industries that cannot electrify. Further, biomethane should have enhanced protections to ensure that the limited supplies go to those industries that cannot electrify and cannot utilise hydrogen.

[1] RACE for 2030, B5: Opportunity Assessment – Anaerobic digestion for electricity, transport and gas Final Report, May 2023

It must be recognised that in the case of either electrification or production of meaningful quantities of hydrogen we will be faced with significant increases in the volume of electrical energy and associated energy infrastructure (i.e. transmission, storage, system strength) and that these costs must be considered as part of an overall green energy economy.

Therefore, in addition to significant increase in energy system costs the transition away from natural gas needs to be considered and implemented by the government in an orchestrated manner, to ensure that those that transition away from the natural gas do not leave increased costs for the remaining natural gas consumers, and that sufficient volumes of renewable fuels and natural gas are available at all times during the fuel transition to meet the total fuel demand.

To resolve some of the issues around utilisation of renewable fuels, including collection of feedstocks for biomethane, the EUAA strongly urges the NSW government to orchestrate the transition, identifying industry that requires biomethane and assisting in co-locating biomethane production either onsite or nearby. EUAA considers that food harvesting and processing regions make ideal early candidates for biomethane production and consumption.

Similar orchestration could also be performed for the green hydrogen industry, and any green hydrogen production facility built for export should have a domestic reservation applied to its production levels to avoid a repeat of the Queensland LNG export program's impact on domestic fossil gas prices.

Globally, the bioenergy sector is far more mature with many countries already possessing biomethane manufacture and distribution, reduction of emissions and lower cost than green hydrogen. The green hydrogen industry by comparison has relatively few operational large-scale plants globally, requires additional investment in electricity generation and networks, and is currently much higher in cost. Further, to distribute green hydrogen, existing gas pipelines may need to be upgraded and/or new transport mechanisms established (i.e. tankers).

With maturity of the biomethane sector globally, the EUAA considers that the immediate concern (to 2035) is replacing the methane molecule for the hard to abate sector and industries that rely on the methane molecule in their production process (e.g. industry that utilise methane as a feedstock or the particular properties of methane combustion).

EUAA also urges the NSW government to consider geographic barriers to emissions reductions by industry, noting that many industries located close to feedstocks, energy inputs and/or ports which now places them at a disadvantage for supply of appropriate renewable fuel volumes and/or space restrictions due to encroaching industry or residential zones.

The EUAA is also aware of several industry consumers looking to expand production to (among other markets) assist with Australia's energy transition. These increase in production will likely necessitate increased natural gas (and electricity) consumption. Government would be advised to consider this issue as part of its Renewable Fuel Scheme.

Both of these issues could be resolved through the government creating fungible certificates for renewable fuels.

Although NSW already has a market-based certificate scheme legislated for renewable fuels, it is the EUAA's position that certificate schemes are best implemented Federally with fungible certificates, rather than state based, allowing for industry to apply one rule across all jurisdictions and to transfer the benefits to plant that are geographically or technically difficult decarbonise.

However, a certificate-based scheme is not the only policy option available to government. EUAA considers that a combination of policy mechanisms is required to stimulate the deployment and uptake of renewable fuels in Australia. The first policy mechanism is orchestration and facilitation, where government identifies the consumer with the specific renewable fuel requirement, e.g. identifying industry that requires biomethane and facilitating the co-location of biomethane production either onsite or nearby. Another example is for government to identify regions with co-located resource (biomass) from food harvesting with food processing located nearby. The second component of the policy would allow for grants to either or both the production facility (to reduce the cost of the renewable fuel) and the consumer (to reduce the cost of implementation, particularly where the business is transitioning to green hydrogen).

A market-based approach for renewable fuel increases the cost for consumers, in addition to the increased cost from transitioning to renewable fuel (it is known that biomethane costs more than fossil gas and green hydrogen is even more expensive). Should government continue with its market-based certificate scheme, government should be alleviating these additional costs during the early years of implementation, incentivising the transition and attracting new investment to the country through cheaper renewable fuel implementation costs than elsewhere.

The EUAA is not opposed to a market-based certificates scheme for renewable fuels, however does oppose the cross-subsidisation of new renewable fuel consumers by existing fossil gas consumers that is currently present in the NSW Renewable Fuels Scheme. Given that in the next decade it is highly likely that the majority of biomethane will be used for industrial heating and feedstocks, while green hydrogen is likely to be used to replace diesel, the EUAA may support a single renewable fuel target with separate certificate schemes for green hydrogen and biomethane (similar to the RET having Large Scale Certificates and Small Generation Certificates).

However, government needs to analyse the costs of the transition with the impact to large energy consumers that should be considered being the magnitude of the increase in fuel costs (inclusive of renewable fuel purchase price, supply charges, plant conversion costs and the cost of policy implementation) and the impact these have on competitiveness, both domestically (interstate) and internationally.

We also urge further discussion on the evolving intergenerational equity challenges of gas pipelines that may face a dwindling group of at risk (can't afford to change) or high value/hard to abate customers who may end up paying disproportionate network fees.

RESPONSE CONSULTATION QUESTIONS

1. What renewable fuels do we need to produce at scale to achieve net zero?

Globally, the bioenergy sector is far more mature with many countries already possessing biomethane manufacture and distribution, reduction of emissions and lower cost than green hydrogen. The green hydrogen industry by comparison has relatively few operational large-scale plants globally, requires additional investment in

electricity generation and networks and is currently much higher in cost. Further, to distribute green hydrogen, existing gas pipelines need to be upgraded and/or new transport mechanisms established (i.e. tankers). Additionally, there are existing renewable fuels (e.g. ethanol) and developing renewable fuels such as ammonia, methanol and biodiesel to be considered.

At an industrial level, the immediate concern (in the next decade) is replacing the methane molecule for hard to abate sectors and industries that rely on the methane molecule in their production process (e.g. brick kilns and industry that utilise methane as a feedstock).

From these perspectives, the EUAA advises the NSW government to keep the policy direction of the Renewable Fuel Scheme technology neutral, to allow the development of renewable fuels that are required by industry and other participants, while also allowing new renewable fuels. Attempting to "design" the renewable fuel distribution through specificity will create a barrier to some participants transitioning by having an effective "penalty" for not using the renewable fuels defined in the Renewable Fuel Scheme.

2. Of these fuels, which need incentives under the scheme to be commercially viable and for how long?

Applying the right policy response to the stage of industry evolution will be important. It would appear to us that both green hydrogen and to a lesser extent biomethane, still require a level of early-stage deployment funding. In the case of biomethane, incentivising (funding for trials etc) feedstock orchestration will also be critical as we build the total value chain.

When contemplating market-based approaches, we would consider it appropriate to be applied once technology risk has subsided and investor confidence in scalability is beginning to grow. We recognise this can be something of a chicken and egg conversation but to try and force deployment through a market-based mechanism too soon will add risk and costs to the program that will have to be recovered from consumers.

Obviously, a market-based approach for renewable fuel will increase the cost for consumers, in addition to the increased cost from transitioning to renewable fuel (it is known that biomethane costs more than fossil gas and green hydrogen is even more expensive). Government should be alleviating these additional costs during the early years of implementing a renewable fuel policy wherever possible, incentivising the transition and attracting new investment to the state through cheaper renewable fuel implementation costs than elsewhere.

As a general rule we prefer a consolidated Federal approach rather than one that is state based, allowing for industry to apply one rule across all jurisdictions. The Renewable Energy Target (RET) and coinciding certificate scheme is a good example of a Federal market-based approach that met or exceeded its targets throughout its active life allowing for efficient allocation of resources.

We are supportive of the least cost renewable fuels being able to participate on merit so while hydrogen is more expensive than biomethane it shouldn't be given special treatment in a market-based response, as this would increase total costs for consumers. We are also wary of including transport energy in a mechanism that includes stationary energy use as we fear that stationary energy users would end up cross subsidising transport energy users. These two end use applications are likely to be on different deployment and cost trajectories so should be treated separately in a market-based approach.

We note there is a trend to move toward a form of government backed CFD style arrangement, such that we have seen with the NSW Energy Infrastructure Road Map LTESA arrangements. In these circumstances it is the state that takes the risk, not energy users, which would reduce negative bill impacts and dilutes any potential cross subsidisation risks between stationary energy and transport energy users of renewable fuel.

Therefore, at this point in time the EUAA's strong preference is to have a government funded renewable fuel policy as the next step.

3. Which fuels or production pathways should not receive incentives under the scheme? For example, should methane generated from landfill be excluded?

The NSW government needs to ensure that incentives under the Renewable Fuel Scheme are consistent with the maturity of the sector and also consistent with Federal Government policy.

From this perspective, the EUAA recommends that ethanol production and landfill gas should not receive incentives as these industries are mature.

Likewise, the EUAA views heavy duty vehicles as a "difficult to abate" sector, as electrification reduces the overall payload and will result in additional heavy-duty vehicle on the roads. Fuelling heavy-duty vehicles with hydrogen has the least impact on payload of the technologies available today (and assuming biomethane is reserved for the hard to abate sector). However, inclusion in the renewable fuel target will not see the consumption of fossil gas reduce, but rather diesel consumption will reduce. To avoid biomethane being used in vehicles, to avoid cross subsidisation and to ensure there is a net reduction of fossil gas from any domestic renewable fuel production site being built, the EUAA does not support the inclusion of heavy-duty vehicles in the NSW Renewable Fuel Scheme unless the NSW government splits the certificates akin to the Federal RET with Large Generation Certificates and Small-Scale Certificates.

GPG is a relatively small consumer of fossil gas in NSW and is a relatively small contributor to the emissions profile of the electricity network. However, GPG plays an essential role in the transition to 100% renewable energy by providing firming and system security services.

The EUAA supports the inclusion of GPG in the NSW Renewable Fuel Scheme in the out years (i.e. post-2035), unless a new facility is listed in AEMO's ISP as required prior to 2035 for firming or system security. This approach is to ensure that industry can decarbonise quickly, electricity system security and reliability is maintained, and allows for any new-build GPG post-2035 to be powered from renewable fuels.

4. If biogenic fuels are included in the scheme, what controls should be in place to safeguard environmental outcomes and avoid competing with food production?

The EUAA has chosen not to respond to this question.

5. **If the scheme is expanded to include other renewable fuels, who should be the liable parties and why?**

Currently, the NSW Renewable Fuels Scheme has been auspiced with the liable entities completely delinked from the end user of the renewable fuel. The current legislation has certificates created at the point of production of renewable fuels, and liable entities being only the gas retailers and wholesale gas industrial facilities. Given it is likely that the heavy-transport sector will use hydrogen in its decarbonisation efforts, the current approach creates a cross-subsidisation from stationary energy users to the transport sector and needs to be changed.

With the NSW government's proposal to include the mining industry as a liable entity due to the use of explosives that will be created from biomethane and/or hydrogen, the EUAA can see a scenario where the mining industry certificates are accounted twice for the NSW Renewable Fuel Scheme, once when the explosives manufacturer purchases the renewable fuel, and again when the mining industry use the explosives. The EUAA considers this an over-complication of the Renewable Fuel Scheme.

The EUAA recommends that the NSW government expands the current list of liable entities to include all potential wholesale purchasers of the primary renewable fuel, that is gas retailers and wholesale customers for gaseous renewable fuels and fuel retailers for liquid fuels. Where a renewable fuel is utilised as an input to create another product, as is the case for ammonia and explosives, the entity who purchased the renewable fuel at the wholesale level is the liable entity.

6. **Are there any other liable parties or principles for choosing liable parties that we should consider?**

Per response in Q5.

7. **If there are multiple categories of liable parties, how should liability be apportioned between them?**

We are wary of including transport energy in a mechanism that includes stationary energy use as we fear that stationary energy users would end up cross subsidising transport energy users. These two end use applications are likely to be on different deployment and cost trajectories so should be treated separately in a market-based approach.

Given that in the next decade it is highly likely that the majority of biomethane will be used for industrial heating and feedstocks, while green hydrogen is likely to be used to replace diesel, the EUAA may support a single renewable fuel target with separate certificate schemes for green hydrogen and biomethane and/or stationary fuels versus transport fuels (similar to the RET having Large Scale Certificates and Small Generation Certificates).

8. **What target levels are appropriate beyond 2030 to develop the scale of renewable fuel production needed for net zero in NSW by 2050?**

In reviewing the target design presented by NSW government, EUAA gets the impression that the NSW government is thinking of direct injection and blending of renewable fuels in the short term to meet the quantum

of the target. EUAA considers that this approach may lead to locking-in residential gas loads and locking-out large industrial sites from conversion to 100% renewable fuel earlier.

The EUAA considers that, in setting targets, the NSW government should consider which industrial loads can convert quickly to renewable fuel in a reasonable timeframe (note, to date medium scale biogas facilities have taken a minimum of 2 years to reach financial close, if they ever achieve financial close), while encouraging (through financial assistance) electrification of those gas loads who can electrify easily. The target for each period could be identified as the difference between the two groups. This approach keeps with sectorial abatement approach being pursued by the federal government as part of the revised safeguard mechanism.

Given the NSW target of net zero by 2050, the government needs to consider a sufficiently rapid target trajectory recognising that the first major renewable fuel plant with significant volumes may be 1-3 years away under a best-case-scenario. On this basis, the EUAA recommends an exponential target curve rather than the ordinary linear curve, applying to the whole state and set as a percentage of total volume sold (which takes into account falls in gas consumption through electrification).

9. How can the scheme best provide targeted support for hydrogen and e-fuels until these fuels are commercially mature? Is it more effective to have a separate target for hydrogen or a certificate multiplier, and why?

The EUAA does not support separate targets, or sub-targets for renewable fuels within a single market-based mechanism. The EUAA recognises that this may delay green hydrogen production plants for purely domestic consumption, however this will not hinder the investment of export green hydrogen production plants as there exist different drivers economically, technically and politically for the export of green hydrogen (i.e. Japan and Korea require the import of energy and do not want to invest in countries with high sovereign risk).

Setting a domestic reservation as part of the approvals process for export focussed green hydrogen production facilities will ensure some amount of green hydrogen is available to meet any renewable fuel target. Additionally, the cost of green hydrogen production is expected to fall over the coming decade which will also reduce the cost of the green hydrogen. Not having invested in large domestically focussed green hydrogen production facilities would allow Victoria to adopt a fast-follower approach to domestic green hydrogen production, and take full advantage of cheaper green hydrogen should that occur.

10. If hydrogen and e-fuels do not have targeted support under the scheme, what support outside of the scheme should Government provide to help establish supply chains now?

EUAA considers that a combination of policy mechanisms is required to stimulate the deployment and uptake of renewable fuels in NSW. The first policy mechanism is orchestration and facilitation, where government identifies the consumer with the specific renewable fuel requirement, e.g. identifying industry that requires biomethane and facilitating the co-location of biomethane production either onsite or nearby. Another example is for government to identify regions with co-located resource (biomass) from food harvesting with food processing located nearby. These make an ideal candidate for biomethane production and consumption with government providing orchestration and facilitation services.

The second component of the policy would allow for grants to either or both the production facility (to reduce the cost of the renewable fuel) and the consumer (to reduce the cost of implementation, particularly where they business is transitioning to green hydrogen).

The EUAA is not opposed to a certificates-style scheme for renewable fuels, however we remain concerned about costs to consumers and the cross-subsidisation of new renewable fuel consumers (transport) by existing fossil gas consumers. Given that in the next decade it is highly likely that the majority of biomethane will be used for industrial heating and feedstocks, while green hydrogen is likely to be used to replace diesel, the EUAA remain open to this type of market-based mechanism to drive broader deployment.

11. Should the target for an expanded scheme be a production volume in GJ or an increasing percentage of liable fuel sales, and why?

Setting a target based on production volume in GJ will not take into account the variations in future natural gas consumption from fuel switching, whether that be electrification or renewable fuels or from changes in production levels in industry.

The EUAA would prefer the NSW Renewable Fuels Scheme use an increasing percentage of sales as the basis of a target. This would be far simpler to manage for liable entities and will take into account the changing consumption patterns of different fuel mixes into the future.

12. How can we provide assurance of the maximum scheme incentives for hydrogen project developers planning investment decisions before the scheme expansion is finalised in 2024?

As described above, the EUAA strongly recommends an orchestrated approach to the investment, placement and supply of renewable fuels to ensure those industries that require biomethane and green hydrogen have suitable access to these resources. This "partnership" approach has been seen in other jurisdictions to provide assurances to investors.

13. What factors should the Government consider in setting the exemptions framework?

In establishing an exemptions framework, government should consider potential costs, particularly the impact to large energy consumers including the magnitude of the increase in gas costs (inclusive of renewable fuel purchase price, supply charges, plant conversion costs and the cost of policy implementation) and the impact these have on competitiveness, both domestically (interstate) and internationally.

From a policy perspective, the EUAA would support exemptions based on the quantity of gas, e.g. above 0.5PJ per annum, which would maintain domestic and international competitiveness for these large energy consumers and would also capture EITE sites. However, as mentioned above, it is EUAA's strong preference government to have policies that orchestrate, facilitate and provide financial support through grants.

14. Should any exemptions be granted under the RFS?

The EUAA supports NSW's renewable fuel target being complementary to the Safeguard Mechanism. If the NSW Government creates an NSW renewable fuel certificate that is additional to an ACCU, the emissions reduction achieved will be double accounted and double funded, leading to increased costs for all consumers. Orchestration, facilitation and financial support for projects in NSW will eliminate the double accounting and will not increase costs for consumers.

Several Safeguard-regulated companies who are members of the EUAA are considering developing renewable fuel production to reduce their emissions profile. A clear policy environment that does not result in the Safeguard-regulated companies cross-subsidising other industries would assist these companies in their project development. Additionally, orchestration, facilitation and financial support would get these projects built.

15. For the liquid fuel sector, should specific fuels or uses be exempt? For example, should agricultural use be exempt, and why? If so, how could this exemption be effectively regulated and audited, and when should it end?

The EUAA does not see the need to exempt any liquid fuel sector from the NSW Renewable Fuels Scheme. Whether included or excluded, the cost of operating the Renewable Fuels Scheme will be collected from the whole economy. In addition, having a State based exemption framework for agricultural use would be extremely cumbersome to administer. If the exemption was collected by the fuel retailer, the EUAA finds it difficult to perceive that this would be an auditable trail. To provide the exemption directly to farmers would require a duplication of effort that the Federal Government already has established for diesel rebates through the Australian Tax Office.

CONCLUDING REMARKS

The EUAA supports the NSW Government's efforts to reduce emissions to net-zero by 2050. However, care must be taken to ensure that social license is in place for the transition and that the transition occurs in the least-cost for suitable equipment, and not at any-cost (gold plated).

The EUAA firmly believes that policy objectives should be technology neutral.

The EUAA does not support cross-subsidisation from the existing fossil gas consumers (industry, households) to new renewable fuel consumers (transport). We also do not support increasing costs for large fossil gas users that make them uncompetitive either nationally or internationally.

The EUAA will support an NSW renewable fuel policy that supports those who can electrify to electrify, reserves biomethane for those industries that require the methane molecule for either their industrial heating requirements or as a feedstock, and includes a domestic reservation for export oriented green hydrogen projects.

EUAA would also welcome further discussion on the stranded asset risk of gas pipelines and the need to deal with potential intergenerational equity issues that may occur.

It is EUAA's position that the best suited policy position for the renewable fuel industry is orchestration, facilitation and financial support, as has been described throughout this submission.

The EUAA welcomes further discussions with us and our members around the issues raised in this submission.

Do not hesitate to be in contact should you have any questions.

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