18 July 2024

Department of Infrastructure, Transport, Regional Development, Communications and the Arts, and Department of Climate Change, Energy, the Environment and Water.

Submitted online: https://www.infrastructure.gov.au/have-your-say/consultation-future-made-australia-unlocking-australias-low-carbon-liquid-fuel-opportunity Public Submission

Dear Sir/Madam,

RE: A Future Made in Australia: Unlocking Australia's low carbon liquid fuel opportunity

Origin Energy Limited (Origin) welcomes the opportunity to provide comments on the Department of Infrastructure, Transport, Regional Development, Communications and the Arts and Department of Climate Change, Energy, the Environment and Water's (DCCEEW) A Future Made in Australia: Unlocking Australia's low carbon liquid fuel opportunity.

Origin is a large Australian integrated energy company with activities in energy retailing, power generation, natural gas production and LNG export. Origin has experience in exploring new product offerings and is focused on areas such as solar & storage, connected homes, electric vehicles (EVs) and Low Carbon Liquid Fuels (LCLFs).

We unequivocally support the Paris Agreement and actions to limit the global temperature increase to 1.5°C above pre-industrial levels. Origin notes that the Department has recently sought initial views on the current state of Australia's LCLF market through its consultation on the Electricity and Energy Sector Plan.

Origin considers that any approach to developing an industry for LCLFs ought to be technology agnostic. Confining Australia's LCLF opportunity to renewable diesel and sustainable aviation fuels is not a technology agnostic approach. Consideration should be given to expanding the opportunity to all LCLF's within the target market. This includes methanol and ammonia (which are emerging as a key decarbonisation option in the maritime sector), Dimethyl Ether (DME), Renewable Liquified Petroleum Gas (RLPG), propane, and butane.

Origin has provided more detailed responses to specific consultation paper questions in the attached appendix. [redacted]

Yours sincerely

Matthew Kaspura
Manager Green and Future Energy Policy
Origin Energy Limited
[redacted]

Appendix: Responses to specific consultation paper questions

Consultation Question	Origin's Response
The low carbon liquid fuels opportunity Based on the current policy and market environment, to what extent will Australia rely on imports of LCLF, as opposed to domestic production?	For context, there is an important opportunity for Low Carbon Liquid Fuels (LCLF). As stated in the consultation paper (p.15), Australia currently imports 90 per cent of its liquid fuels (via direct and indirect imports). Further, Australia relies on liquid fuels for more than half of our final energy demand. Within this, transport accounts for around 70 per cent of Australia's consumption of refined liquid fuel products. Heavy vehicles are generally considered a hard-to-abate sector and their decarbonisation is a long-term prospect. Origin considers that a mix of battery electric, hydrogen fuel cell and LCLFs is the most appropriate approach to the decarbonisation of heavy vehicles as these technologies are the most likely to develop over time. Long haul rail freight is likely to need a different technological solution, given the vast distances between major ports and cities across the country. It is likely that LCLFs would be most useful fuel replacement in this case. Currently feedstocks produced locally, including tallow and oilseeds, are exported to international markets to produce LCLF. Australia's LCLF production industry has remained nascent, driven primarily by the need to treat waste products rather than demand for low carbon alternative. This indicates that the current policy and market environment is not conducive to a suitably de-risked business case for the large-scale production of LCLFs. Origin welcomes the inclusion of LCLFs as part of the Future Made in Australia Act to support the expansion of Australia's domestic LCLF industry. For instance, for many non-grid customers LCLFs represents the best value and a critical pathway to decarbonise their industrial processes. This would cover high energy users for industrial heat who require liquid fuels today and into the future. Origin considers a domestic LCLFs industry critical in reducing emissions for non-grid (electricity or natural gas) customers. By diverting the current exported feedstock into domestically produced LCLFs reduces ship/transport emissions, as well as supports fuels security and economic development.
Options to support an Australian domestic low carbon liquid fuel production: What mechanism do you think would best support a production credit scheme – through the tax system, contract for difference or grant based funding?	Origin considers that a combination of grant funding, Contract for Difference (CFD), and tax incentives will be required to ensure the uptake of LCLFs. Grant funding should be used to support first movers and those who take technology risk in the commercialisation of new production pathways. A CFD could remain in place to address ongoing commercial and market risk. Once the industry is expanded, a tax credit can remain as uniform support for producers that would underscore the ongoing efficiency of producers. Any production scheme incentive should enable innovation and encourage efficient and orderly transition to LCLFs. This approach should be technology and fuel agnostic. Origin would welcome the expansion of the scheme to all LCLFs that could be utilised within the target sectors of aviation, rail, maritime and heavy road transport including methanol, ammonia, Dimethyl Ether (DME), and Renewable Liquified Petroleum Gas (RLPG).

The design of production incentives to appropriately incentivise the production of SAF and renewable diesel and different pathways to produce LCLF: Would production support need to offer a different rate of incentive for SAF and renewable diesel? Would production support need to provide different levels of support for emerging and established production pathways? What are some of the design considerations Government should consider?	Emerging production methods may not be able to compete with established pathways on a purely price-based approach in the shorter term. Australia's bioenergy resource is vast, however not all feedstocks are suitable for production of LCLFs through the lowest cost pathway. Consideration should be given to what technologies would be necessary to decarbonise Australia's transport sector and what energy feedstocks will be utilised. All high-power applications are expected to be decarbonised by LCLFs, including large forklifts, large cranes, industrial applications, heat and processes where carbon is used as a process element. Projects looking to commercialise necessary, yet higher cost, production pathways should be provided additional support. Origin views the production of both biofuels and synthetic fuels as necessary to achieve efficient transition within the transport sector. These solutions are complementary as excess carbon from biological sources are likely to be a key input into synthetic fuels into the future. Consideration should be given to how facilities that are capable of utilising various forms of bioenergy and power-to-gas technologies concurrently to produce multiple LCLFs are given additional support, particularly as these facilities will contribute to the decarbonisation of multiple transport use cases.
The Government is seeking your views on the following considerations regarding emissions and sustainability criteria: What are the community benefits associated with LCLF production in Australia? Do you support an emissions reduction threshold being included as part of eligibility criteria for fuels to receive support under a production incentive program?	A regulatory framework that provides for a consistent approach to engagement from all parties should consider best practice guidelines rather than be prescriptive. With the establishment of any new industry, the requisite impact assessments should be carried out by government in consultation with industry to determine impacted communities and community benefits. Any emissions reduction threshold should not fetter the ability to book and claim environmental benefits from LCLFs blended within the supply chain. The ability to aggregate these environmental benefits allows these to be efficiently marketed, helping to incentivise both the supply and demand sides of the market. Any emissions reduction threshold should be set as low as possible to incentivise uptake while still maintaining the credibility of scheme. For example, a 0.1% reduction in emissions via a process efficiency improvement of fossil based liquid fuels should not be eligible under any scheme. Origin suggests there be a minimum of 10% reduction initially for credibility.
The Government is seeking your views on the design of demand-side mechanisms: What options should the Government consider in its regulatory impact analysis, such as a mandate introduced	The disparate nature of the transport industry has meant most large transport operators have not been included as safeguard liable entities to date. Generally, transport use cases have been included as a minority component of heavy emitters who have large industrial process emissions as their largest decarbonisation lever. Ideally safeguard liable entities would remain focussed on these process emissions where their expertise will have the greatest impact. Efficient policy should look at how the large but dispersed transport industry can be mobilised to address emissions from transport use cases in a unified and efficient manner.

over time, low carbon fuel standard connected with a trading scheme, a non-binding target or other demand options? How might demand measures interact with the Safeguard Mechanism for covered facilities? How would the application of a mandate affect your business/operations? Should demand-side interventions be designed to only apply to some areas of the market and not others?	Allowing wider variety of LCLFs use in the domestic market will assist some large safeguard mechanism facilities to manage their declining baseline requirements by lowering their emissions, and/or create opportunities to claim safeguard mechanism credits. LCLFs could also help businesses take up projects under the Emission Reduction Fund. Origin suggests that demand side targets be placed on large scale heavy vehicle fleet operators. We consider a more general approach to extending the Safeguard Mechanism would be through taking a fairer approach to targeting larger emitters, independent of fuel application. Broader coverage under the Safeguard Mechanism will drive demand side for LCLFs.