Transport and Infrastructure Net Zero Consultation Roadmap

Take the survey

Department of Climate Change, Energy, Environment and Water

Response received at:
August 6, 2024 at 10:37 AM GMT+10

Response ID:
sbm2fbb373b1048929ce810d

1 Confirm that you have read and understand this privacy notice.
Yes

2 Please indicate how and if you want your submission published.
Public

3 Published name
ExxonMobil Australia

4 Confirm that you have read and understand this declaration.
Yes

5 First name
Melanie

6 Last name
Saliba

7 Email
[redacted]

8 Phone

[redacted]

9 Who are you answering on behalf of?

Organisation

10 Organisation name

ExxonMobil Australia

11 What best describes you or your organisation?

Industry

12 What sector do you represent?

Energy

13 What state or territory do you live in?

Victoria

14 Postcode

3008

15 What area best describes where you live?

City

16 1. Do you support the proposed guiding principles?

Not answered

17 1.1 Please add details to your response.

Not answered

18 2. Do you support the use of the avoid-shift-improve framework as a tool to identify opportunities for abatement?

Not answered

19 2.1 Please add details to your response.

Not answered

20 3. Do you agree the development of a national policy framework for active and public transport will support emissions reduction?

Not answered

21 3.1 Please add details to your response.

Not answered

22 4. What should be included in a national policy framework for active and public transport and how should it be developed?

Not answered

23 5. What additional actions by governments, communities, industry and other stakeholders need to be taken now and in the future to ensure the movement of people contributes to transport emissions reduction?

Not answered

24 6.1 What additional actions by governments, communities, industry and other stakeholders need to be taken now and in the future to ensure that the movement of goods contributes to transport emissions reduction?

Not answered

25 6.2. How would these actions address the identified challenges and opportunities for emissions reduction in the movement of goods?

Not answered

26 7. Do you agree with the proposed net zero pathway for light road vehicles?

Not answered

27 7.1 Please add details to your response.

Not answered

28 8. The Australian Government is currently developing an Australian New Vehicle Efficiency Standard and has already begun to implement actions in the National Electric Vehicle Strategy.8.1 What additional actions by governments, communities, industry and other stakeholders need to be taken now and in the future to reduce light vehicle emissions?

Not answered

29 8.2 How would these actions address the identified challenges and opportunities to reduce light vehicle emissions?

Not answered

30 9. Do you agree with the proposed net zero pathway for heavy road vehicles?

Not answered

31 9.1 Please add details to your response

Not answered

32 10. The proposed pathway for heavy road vehicles relies on a mix of battery electric, hydrogen fuel-cell and low carbon liquid fuels.Rank from 1 to 3, the order in which these should be prioritised for emissions reduction.

Not answered

33 10.1 Please add details to your response. Why did you rank them in that order?

Not answered

34 11. What role should low carbon liquid fuels play in the heavy vehicle

decarbonisation?

Not answered

35 12. What additional actions by governments, communities, industry and other stakeholders need to be taken now and in the future to reduce heavy vehicle emissions?

Not answered

36 13. Do you agree with the proposed net zero pathway for rail?

Not answered

37 13.1 Please add details to your response.

Not answered

38 14. The proposed pathway for rail relies on a mix of battery electric, hydrogen fuel-cell and low carbon liquid fuels.Rank from 1 to 3, the order in which these should be prioritised for emissions reduction.

Not answered

39 14.1 Please add details to your response. Why did you rank them in that order?

Not answered

40 15. What role should low carbon liquid fuels play in rail decarbonisation?

Not answered

41 16. What additional actions by governments, communities, industry and other stakeholders need to be taken now and in the future to reduce rail emissions?

Not answered

42 16.1 How would these actions address the identified challenges and

opportunities to reduce rail emissions?

Not answered

43 17. Do you agree with the proposed net zero pathway for maritime?

Not answered

44 17.1 Please add details to your response.

Not answered

45 18. The Australian Government is engaging in consultation as part of the development of the Maritime Emissions Reduction National Action Plan and those consultations will also inform the final Roadmap and Action Plan. 18.1 What additional actions by governments, communities, industry and other stakeholders need to be taken now and in the future to reduce maritime emissions?

Not answered

46 18.2 How would these actions address the identified challenges and opportunities to reduce maritime emissions?

Not answered

47 19. Do you agree with the proposed net zero pathway for aviation?

Not answered

48 19.1 Please add details to your response.

Not answered

49 20. The Australian Government has already engaged in consultation on aviation decarbonisation through the development of the Aviation White Paper and those consultations will also inform final Roadmap and Action Plan.

Not answered

50 20.1 What additional actions by governments, communities, industry and other stakeholders need to be taken now and in the future to reduce aviation emissions?

Not answered

51 21. Do you agree with the proposed net zero pathway for transport infrastructure?

Not answered

52 21.1 Please add details to your response.

Not answered

53 22. What additional actions by governments, communities, industry and other stakeholders need to be taken now and in the future to reduce transport infrastructure emissions and ensure that transport infrastructure is ready for and enables low-emission transport modes?

Not answered

54 22.1 How would these actions address the identified challenges and opportunities to reduce transport infrastructure emissions?

Not answered

55 23. What additional actions by governments, communities, industry and other stakeholders need to be taken now and in the future to ensure the energy mix is ready to support transport emissions reduction?

Not answered

56 24. How should the use of low carbon liquid fuels (LCLFs) be prioritised across different transport modes over time to achieve maximum abatement?

Not answered

57 25. What are the best ways for the Australian Government to work collaboratively with industry, business, governments and communities to implement the proposed pathways?

Not answered

58 25.1 What are good domestic or international examples of partnership and collaboration on transport and transport infrastructure emissions reduction that could inform the final Roadmap and Action Plan?

Not answered

59 25.2 What opportunities can Government leverage to show leadership in Australia and internationally?

Not answered

60 26. What measures and metrics should be used to evaluate the final Transport and Infrastructure Net Zero Roadmap and Action Plan?

Not answered

61 26.1 What other data and evidence could governments use and how could this offer further insights on the pace, scale and location of transport emissions reduction pathways?

Not answered

62 27. Do you have any feedback on the proposed review process?

Not answered

63 28. Do you have any further feedback on the Consultation Roadmap and proposed pathways?

Not answered

64 28.1 Is there anything missing? Are the sections appropriately integrated? Is the Roadmap appropriately ambitious?

Not answered

65 29. Is there any further information or documentation that you wish to be considered with your submission?

Not answered

66 Would you like to upload a document?

Yes

67 Have you removed any identifying information from your submission?

Yes

68 Upload a submission

ExxonMobil_Australia_submission_to_Transport_and_Infrastructure_Net_Zero_Consultation_Roadmap_6_August_2024.bda62aa9.pdf

69 Upload a submission

Not answered

70 Upload supporting file

Not answered

71 Upload supporting file

Not answered

ExxonMobil

ExxonMobil Australia submission to Australian Government's Transport and Infrastructure Net Zero Consultation Roadmap

26 July 2024

ExxonMobil Australia welcomes the opportunity to participate in the Australian Government's consultation on the potential pathways for transport and transport infrastructure to support Australia's net zero goals.

Contents

Executive Summary

ExxonMobil has a long history of reliably supplying energy to Australia, supporting Australian communities and industries for more than 125 years.

We support Australia's ambition to achieve net zero emissions by 2050 and believe the move to a lower-emission future requires multiple solutions that can be implemented at scale to address some of the highest-emitting sectors of the economy. For the transport sector, these solutions should include lower emission fuels, biofuels, low carbon hydrogen, and carbon capture and storage, as all of these can contribute to emissions reduction goals.

We note that low carbon liquid fuels form an important part of the abatement pathway for many transport modes, including aviation, heavy vehicles, maritime and rail. We welcome the government's commitment to supporting the supply of low carbon fuels into Australia through the complementary consultation on Low Carbon Liquid Fuels which is also underway. We agree that low emissions fuels could significantly contribute to Australia's emissions reductions goals, especially in the aviation, heavy transport, industrial and agricultural sectors.

This submission should be read in conjunction with our submission to the Australian Government's recent Low Carbon Liquid Fuels consultation, as attached, as well as our submission to the Electricity and Energy Sector Plan. In both of these submissions we share our extensive views on how policy can best support emissions reductions in the transport sector.

We have provided some limited complementary information specific to the Transport and Infrastructure Net Zero Consultation Roadmap in this submission.

Approach to the roadmap

A demand measure, such as a low carbon fuel standard or mandate, based on carbon intensity measured across a fuel's life-cycle, is the policy lever Australia needs to reduce emissions across all transport modes.

A clear and certain demand signal is the policy lever that will enable industry to make investment decisions that can help achieve all of the government's objectives, while also reducing the greenhouse gas emissions from transport, including from the existing fleet.

While production or supply side incentives may help to support the local production of low carbon liquid fuels in the short-term, demand side measures are essential for production at scale to be economically viable over the longer term.

We are particularly pleased that the government has committed to completing a Regulatory Impact Assessment to consider demand side measures, such as mandates or a low carbon fuel standard.

The principles that will be used to guide the development of the final Roadmap and Action Plan align very closely with ExxonMobil's policy principles, as outlined below. These principles can form the basis of an effective low carbon fuel standard or mandate.

Roadmap Guiding Principles	ExxonMobil Policy Principles
Maximise emission reductions	**Technology-neutral** – allowing all solutions to contribute to reduction goals **Lifecycle-based** – examining potential environmental benefits at all phases of production and use **Flexible** - to allow for developments in science and technology
Value for money	**Market-based** – leveraging market mechanisms like carbon credit trading
Maximise economic opportunity	**Provide an adequate carbon pricing mechanism** – high enough and certain enough to support investment
Inclusive and equitable	**Holistic** - encompassing the supply, demand and infrastructure **Aligned with global standards** – to ensure Australians are not disadvantaged

Net zero pathways for each transport mode

We agree that low carbon liquid fuels form an important part of the abatement pathway for many transport modes, including aviation, heavy vehicles, maritime and rail. However, we also believe there is a role for low carbon liquid fuels in supporting emissions reductions for those who cannot afford, or do not want to, purchase an electric vehicle. Further, Australia's light vehicle fleet is also expected to take some time to turn over, and there is an immense opportunity for low carbon liquid fuels to help reduce emissions from light vehicles during this transition.

It is our view that a low carbon fuel standard could deliver faster and cheaper emissions reductions, with more choices for customers, by enabling investment in the supply of lower emission fuels for use across Australia's transport sector.

Sector	ExxonMobil
Light vehicles	A low carbon fuel standard that recognises all solutions and technologies (including electricity) can help reduce emissions from the existing fleet of internal combustion engine vehicles, as well as encourage the provision of electric vehicle charging infrastructure.
Heavy vehicles	We agree that low carbon liquid fuels will continue to provide transportation energy for heavy vehicles out to 2050 and beyond. A low carbon fuel standard would provide the clear and certain demand signal to support the investment decisions that can deliver the low carbon liquid fuels this sector will continue to rely on.
Rail	We agree that low carbon liquid fuels will continue to provide transportation energy for the rail sector out to 2050 and beyond. A low carbon fuel standard would provide the clear and certain demand signal to support the investment decisions that can deliver the low carbon liquid fuels this sector will continue to rely on.
Maritime	We agree that low carbon liquid fuels will continue to provide transportation energy for the maritime sector out to 2050 and beyond. A low carbon fuel standard would provide the clear and certain demand signal to support the investment decisions that can deliver the low carbon liquid fuels this sector will continue to rely on. Given maritime is an international sector, we note that the International Maritime Organisation is working on a suite of measure, including a Marine Fuel Standard which considers Well-to-Wake greenhouse gas emissions.
Aviation	We agree that low carbon liquid fuels will continue to provide transportation energy for the aviation sector out to 2050 and beyond. A low carbon fuel standard would provide the clear and certain demand signal to support the investment decisions that can deliver the low carbon liquid fuels this sector will continue to rely on. In our submission to the recent Low Carbon Liquid Fuels consultation, we discuss options for encouraging the use of Sustainable Aviation Fuel through various policy levers.

Achieving net zero together

ExxonMobil Australia welcomes the Government's commitment to supporting the supply of low carbon fuels into Australia and agree that low emissions fuels could significantly contribute to Australia's emissions reductions goals, especially in the aviation, heavy transport, industrial and agricultural sectors.

We are particularly pleased that the government has committed to completing a Regulatory Impact Assessment to consider demand side measures, such as mandates or a low carbon fuel standard. We consider such policy measures as essential for creating the demand certainty required to enable investment in the production and supply of low carbon liquid fuels.

While production or supply side incentives may help to support the local production of low carbon liquid fuels in the short-term, demand side measures are essential for production at scale to be economically viable over the longer term, as well as ensuring low carbon liquid fuels contribute to the decarbonisation of Australia's transport.

We acknowledge the government is seeking to balance several objectives including reducing transport emissions, while also seeking to develop a local renewable fuels industry that leverages Australia's potential feedstock advantages today, and supports the acceleration of new technologies, to deliver even greater emissions reductions and economic opportunities tomorrow.

A demand measure, such as a low carbon fuel standard or mandate, based on carbon intensity measured across a fuel's life-cycle, is the policy lever Australia needs.

A clear and certain demand signal is the policy lever that will enable industry to make the investment decisions needed to achieve all of the government's objectives, while also reducing the greenhouse gas emissions from transport, including from the existing fleet.

We support the Government's commitment to supporting the supply of lower emission fuels to Australia and welcome the opportunity to discuss how low emissions fuels could support Australia to achieve its emissions reductions goals.

Please contact our Product Solutions Public and Government Affairs Manager, [redacted] on [redacted] or [redacted], for any queries with respect to this submission.

Enclosed.

ExxonMobil Australia submission to Australian Government's Low Carbon Liquid Fuels Discussion Paper

18 July 2024

ExxonMobil Australia welcomes the opportunity to participate in the Australian Government's consultation on the opportunities for Low Carbon Liquid Fuels to contribute to Australia's emission reduction goals.

Contents

Executive Summary

ExxonMobil has a long history of reliably supplying energy to Australia, supporting Australian communities and industries for more than 125 years.

We support Australia's ambition to achieve net zero emissions by 2050 and believe the move to a lower-emission future requires multiple solutions that can be implemented at scale to address some of the highest-emitting sectors of the economy. These solutions should include lower emission fuels, biofuels, low carbon hydrogen, and carbon capture and storage, as all of these can contribute to emissions reduction goals.

We welcome the government's commitment to supporting the supply of low carbon fuels into Australia and agree that low emissions fuels could significantly contribute to Australia's emissions reductions goals, especially in the aviation, heavy transport, industrial and agricultural sectors.

We are particularly pleased that the government has committed to completing a Regulatory Impact Assessment to consider demand side measures, such as mandates or a Low Carbon Fuel Standard.

A demand measure, such as a low carbon fuel standard or mandate, based on carbon intensity measured across a fuel's life-cycle, is the policy lever Australia needs.

A clear and certain demand signal is the policy lever that will enable industry to make investment decisions that can help achieve all of the government's objectives, while also reducing the greenhouse gas emissions from transport, including from the existing fleet.

While production or supply side incentives may help to support the local production of low carbon liquid fuels in the short-term, demand side measures are essential for production at scale to be economically viable over the longer term.

A tax credit or incentive tied to the supply of eligible fuels, which rewards reductions in carbon intensity, could help to accelerate the growth of Australia's low carbon liquid fuels market while avoiding unintended consequences.

In order to ensure the reliable, affordable supply of fuel that meets the needs of users, while also meeting the government's objectives of supporting the development of a local industry, it will be important for any supply side incentives to avoid market distortion. This can be achieved by maintaining a level playing field for imports and exports of low carbon liquid fuels and feedstocks, as well as locally produced low carbon liquid fuels.

Introduction

ExxonMobil Australia: Leveraging our global lower emission fuels experience and our role as one of Australia's oldest, and most reliable fuel suppliers.

ExxonMobil has a long history of reliably supplying energy to Australia, supporting Australian communities and industries for more than 125 years.

We have operated in Australia since 1895, have invested $41 billion in Australia and for over 50 years have supplied 100% of ExxonMobil's east coast gas production exclusively to the domestic market. We are also a major supplier of liquid fuels to Australia, primarily sourced from our world-class refinery in Singapore.

We support Australia's ambition to achieve net zero emissions by 2050 and believe the move to a lower-emission future requires multiple solutions that can be implemented at scale to address some of the highest-emitting sectors of the economy. These solutions should include lower emission fuels, biofuels, low carbon hydrogen, and carbon capture and storage, as all of these can contribute to emissions reduction goals.

At ExxonMobil, we're focused on meeting society's evolving needs for energy and essential products *and* reducing greenhouse gas emissions.

From 2022 through 2027, ExxonMobil is pursuing more than $20 billion in lower-emission investments that include carbon capture and storage, hydrogen, biofuels, and lithium. As part of this, we intend to do our part in the supply of low emissions fuels including Sustainable Aviation Fuel (SAF) and Renewable Diesel to meet the industry's demand.

This includes through 12 biofuels projects ExxonMobil and/or its affiliates are pursuing across the globe, including co-processing, bio-blending, and asset reconfigurations. We continue to focus investments on markets where well-designed policies support technologies that reduce life-cycle emissions; pace is contingent on supportive policy. For example:

- ExxonMobil's majority-owned affiliate, Imperial Oil Ltd, is investing about $560 million to move forward with construction of the largest renewable diesel facility in Canada, expected to produce 20,000 barrels of renewable diesel per day with the startup planned for 2025.
- We are marketing branded lower-emissions fuels (biodiesel blends, renewable diesel and renewable diesel blends) for land transport and select off-road applications in Canada, the United States, the United Kingdom, France, Netherlands, Belgium, Norway, Germany, Luxembourg, Singapore, and Indonesia.

Having supplied fuels for the aviation industry for 120 years, we're uniquely positioned to grow SAF supplies and are already active in this space:

- In 2023, we produced the first batch of SAF via co-processing at our Gravenchon refinery in France.

- We're providing SAF to customers in France, Singapore, the United Kingdom and New Zealand.

We're looking at other opportunities around the world as policy develops and markets grow. Closer to home, ExxonMobil is evaluating the potential of the South-East Australia Carbon Capture and Storage Project in the Gippsland Basin to provide permanent CO2 sequestration services to hard-to-decarbonise sectors such as manufacturing and heavy industry, to enable scaled development of biomethane and bioenergy, as well as to provide opportunity for net negative emissions technology such as direct air capture.

Experts agree that a net-zero future will require innovation and collaboration across governments and the private sector. We embrace this challenge – beyond the US$20 billion investment in lower-emission initiatives through 2027, we are open to doing more as technology evolves and if we have the support of durable, predicable, market-driven policies.

Australia's low carbon liquid fuels opportunity

ExxonMobil Australia welcomes the Government's commitment to supporting the supply of low carbon fuels into Australia and agree that low emissions fuels could significantly contribute to Australia's emissions reductions goals, especially in the aviation, heavy transport, industrial and agricultural sectors.

We are particularly pleased that the government has committed to completing a Regulatory Impact Assessment to consider demand side measures, such as mandates or a low carbon fuel standard. We consider such policy measures as essential for creating the demand certainty required to enable investment in the production and supply of low carbon liquid fuels.

In addition to this submission, we have attached answers to some of the questions posed in the consultation paper.

While production or supply side incentives may help to support the local production of low carbon liquid fuels in the short-term, demand side measures are essential for production at scale to be economically viable over the longer term, as well as ensuring low carbon liquid fuels contribute to the decarbonisation of Australia's transport.

We acknowledge the government is seeking to balance several objectives including reducing transport emissions, while also seeking to develop a local renewable fuels industry that leverages Australia's potential feedstock advantages today, and supports the acceleration of new technologies, to deliver even greater emissions reductions and economic opportunities tomorrow.

A demand measure, such as a low carbon fuel standard or mandate, based on carbon intensity measured across a fuel's life-cycle, is the policy lever Australia needs.

A clear and certain demand signal is the policy lever that will enable industry to make the investment decisions needed to achieve all of the government's objectives, while also reducing the greenhouse gas emissions from transport, including from the existing fleet.

Any such measure aimed at reducing emissions should have the following attributes:

- Holistic - encompassing the supply, demand and infrastructure
- Technology-neutral – allowing all solutions to contribute to reduction goals
- Lifecycle-based – examining potential environmental benefits at all phases of production and use
- Market-based – leveraging market mechanisms like carbon credit trading
- Flexible - to allow for developments in science and technology
- Provide an adequate carbon pricing mechanism – high enough and certain enough to support investment.
- Aligned with global standards.

Demand side options to enable a low carbon liquid fuels market in Australia

Demand side measures, such as a low caron fuel standard or mandates, are the critical key to unlocking Australia's low carbon liquid fuels future.

Demand side measures are the most effective policy lever to provide a certain and sustainable demand outlook for the benefit of everyone involved in the low carbon liquid fuels chain, from feedstock producers and aggregators, to manufacturers and suppliers, right through to customers.

They work by encouraging investment to meet the regulated demand, with the aim of reducing the price premium of low carbon liquid fuels over time, as more supply comes online to meet demand.

We are pleased the government is considering demand side measures such as mandates or a low carbon fuel standard, and has committed to undertaking a Regulatory Impact Assessment to consider the best option for Australia.

It is our view that a low carbon fuel standard could deliver faster and cheaper emissions reductions, with more choices for customers, by enabling investment in the supply of lower emission fuels to Australia.

We acknowledge that low carbon fuel standard is complex and will take time to develop.

Should the government want to move more quickly, it is possible to stack policies, such as introducing a simpler demand side measure, such as a mandate, which can be further simplified to target a specific sector, such as aviation.

Whether a full low carbon fuel standard, or a mandate is introduced first, we believe the policy should be based on carbon intensity (measured across the life-cycle), allow all solutions and leverage market-based mechanisms to provide flexibility.

A SAF mandate could be a good first step that provides a bridge to a more holistic policy.

A long-term (10+ year) SAF mandate for example, which requires suppliers to incrementally reduce the carbon intensity of the aviation fuel supplied, could be a good first step towards developing a low carbon fuel standard which could then be extended to land transport.

A volume-based mandate can send a demand-signal and support market growth. However, basing the mandate on reducing carbon intensity, which is measured on a life-cycle basis, rather than volume, will encourage suppliers to identify the most cost-effective solutions to deliver the required emissions reductions.

This preserves competition by allowing suppliers to compete using the most cost-effective technologies existing today.

Importantly, a carbon-intensity based mandate will also encourage investment in the development of newer, more efficient technologies over time, which can both help achieve greenhouse gas emissions reduction goals and support the government's Future Made in Australia objectives.

Such a mandate would also support compliance with global programs, such as the agreement by ICAO member states (which includes Australia) to strive to achieve a collective global aspirational vision to reduce greenhouse gas emissions in international aviation by 5 per cent by 2030, compared to zero cleaner energy use.

Some flexibility to reflect the emerging nature of the SAF production industry is also required.

Demand side measures that are clearly linked to carbon-intensity can provide that flexibility while also encouraging investment, by valuing the reduction at a level that drives the right behaviour. For example, the United Kingdom's SAF mandate offers a buy-out option at a price tier that is on-par with, or more expensive than, the relative cost of supplying SAF. This mechanism acknowledges the emerging nature of the SAF production industry. While offering flexibility to suppliers in the case that they cannot source SAF , it is high enough to make investment and compliance an attractive option.

Designed in the right way, a mandate can send a strong signal that Australia will need an ongoing supply of SAF, with clear pathways for producers and suppliers on the increasing volumes that will be required over time.

Supply side options to enable a low carbon liquid fuels market in Australia

We note that the government is looking to support the development of a local low carbon liquid fuels industry through the provision of production or supply side incentives.

We acknowledge that there are financial barriers such as high up-front capital costs requiring concessional financing, or the cost difference between a low emissions product and its incumbent emissions-intensive competitor, which may require temporary production support.

However, the investment needed to support the supply of lower emission fuels at the required scale must be viable over the longer term.

While production or supply side incentives may help to support the local production of low carbon liquid fuels in the short-term, demand side measures are essential for production at scale to be economically viable over the longer term, as well as ensuring low carbon liquid fuels contribute to the decarbonisation of Australia's transport.

A tax credit or incentive tied to the supply of eligible fuels, which rewards reductions in carbon intensity, could accelerate the growth of Australia's low carbon liquid fuels market while avoiding unintended consequences.

Such a tax credit or incentive should be:

- Accessible to all market participants, including imports
- Based on clear, carbon-intensity reduction targets
- Encourage multiple solutions, so not be tied to one-fuel type or technology
- Durable so that it supports a sustainable market over the long-term.

In order to ensure the reliable, affordable supply of fuel that meets the needs of users, while also meeting the government's objectives of supporting the development of a local industry, it will be important for any supply side incentives to avoid market distortion. This can be achieved by maintaining a level playing field for imports and exports of low carbon liquid fuels and feedstocks, as well as locally produced low carbon liquid fuels.

This is how Australia's current liquid fuels ecosystem operates to deliver a reliable, affordable supply of fuel for Australian conditions, where and when Australians need it.

As per traditional fuels, low carbon liquid fuels are also traded on a global market. Therefore, policy should allow market participants including producers, suppliers and customers, to have access to the most cost-effective solution, rather than create artificial market conditions which may restrict participants to more expensive options.

To achieve this, a tax credit that applies to all eligible fuels, whether produced locally or imported, and tied to carbon intensity reduction, will encourage industry to invest in, and deliver, the most efficient solutions.

To support the goal of kick-starting a local industry in Australia, the tax credit could be tiered to reward locally produced fuel, while still encouraging the supply of low carbon liquid fuels to meet gaps in demand that can't be met by local production. Further, one-off grants or project specific funding via ARENA may be the most appropriate mechanism to help de-risk first-movers or investment in nascent technologies.

Recognising imports as well as locally produced fuel will accelerate the growth of Australia's low carbon liquid fuels market and maintain the competitive and reliable liquid fuels landscape Australia currently enjoys.

Enabling policy architecture

Clear and consistent accounting of emissions reductions, aligned with global and regional policies is essential.

The success of any carbon-intensity based mechanism relies on a consistent and certain methodology to calculate the greenhouse gas emission reductions, as recognised by the government's commitment to developing a Guarantee of Origin for SAF and Renewable Diesel.

To support an interim carbon-intensity based SAF mandate, the government could consider fast-tracking the development of the Guarantee of Origin for SAF as a priority.

As previously mentioned, lower emission fuels are traded on a regional and global scale. Therefore, policies that align with existing global standards will encourage local producers, importers and exporters to invest in the delivery of lower emission fuels to Australian consumers, by providing open access to potential feedstocks, products and markets.

For example, aligning sustainability criteria within the Guarantee of Origin scheme with other recognised standards, such as CORSIA criteria for SAF, will allow local market participants to leverage global voluntary sustainability certification schemes, providing Australia with access to more sources of SAF. It would also provide confidence to international users that they can access SAF in Australia that meets their certification requirements, helping to spur demand for Australian SAF.

It will also be important for Australia to align rules and standards for accounting emissions reductions with regional and global policies.

A significant benefit of drop-in lower emission fuels is that they can be co-mingled with traditional fuels, reducing cost and supporting fuel security by negating the need to duplicate infrastructure and supply chains.

Accounting frameworks work to encourage the use of drop-in lower emission fuels that can be co-mingled with traditional fuels by ensuring that environmental attributes and credits for emissions reductions from the lower emission fuels can be tracked and applied to the appropriate party (which should be the party paying for the fuel).

For example, book-and-claim systems allow users to track and transfer environmental attributes (or credits/certificates) associated with the use of SAF to end consumers.

Such a system, with strong governance, transparency with clear accounting practices, can complement and enhance the market for SAF and help underpin the case for investing in SAF production.

To ensure credibility, such mechanisms should be transparent, have clear accounting practices, with robust tracking and traceability to ensure that attributes are not counted more than once. It is also essential that products generating attributes have physical connection with the feed or process where the attribute originates.

At the third conference on Aviation Alternative Fuels, the Committee on Aviation Environmental Protection was assigned to undertake a study of fuel accounting systems for international aviation and taking into account relevant developments in other UN bodies, including the Article 6 of the Paris agreement.

Developing a system that is aligned with regional and global rules and standards will be critical to enabling Australian fuel users to achieve the most efficient and effective emissions reductions from lower emission fuels.

Recognition of low carbon liquid fuels under complementary policies, such as the Safeguarding Mechanism can also support the development of a market and a local production industry.

In the absence of a holistic low carbon fuel standard, emission reduction credits achieved through the use of SAF and Renewable Diesel, as calculated by the Guarantee of Origin, could be counted towards meeting other obligations. The ability to claim or use the emission reduction credits, such as towards the Safeguard Mechanism obligation, can incentivise the purchase and use of lower emission liquid fuels, helping to spur demand and accelerate market growth.

An immense opportunity for Australia's Net Zero ambitions

We believe lower emissions fuels could make a significant contribution to Australia's net zero ambitions. Around the world, governments are recognising the value of lower emission fuels in delivering emissions reductions and are developing and implementing policies to encourage their use and supply.

We support the Government's commitment to supporting the supply of lower emission fuels to Australia and welcome the opportunity to discuss how low emissions fuels could help decarbonise the electricity and energy sectors and support Australia to achieve its emissions reductions goals.

Please contact our Product Solutions Public and Government Affairs Manager, [redacted] on [redacted] or [redacted], for any queries with respect to this submission.

Attachment A

Answers to consultation questions

Supply side options to enable a low carbon liquid fuels market in Australia

Q: How could the introduction of a production incentive scheme affect competition in fuel production and supply markets, and also amongst fuel users?

It is well-understood that low carbon liquid fuels will not achieve cost parity with current conventional fuels in the near term. This is due to several factors including the significant investment required to develop a new industry required to aggregate, pre-treat and process new types of materials from new sources.

In addition, Australia's renewable fuels industry will face same challenges currently faced by Australia's conventional fuel producers and other local manufacturers, including the fact that Australia is a high-cost manufacturing environment.

Therefore, any policy mechanism, whether supply or demand side, should maintain a level playing field for domestically produced fuels as well as imports and exports. Allowing local producers right across the renewable fuels value chain to participate in the global market will support the growth of a local industry and ensure a robust and reliable supply of affordable renewable fuels for Australia.

As outlined in our submission, a tax credit that applies to all eligible fuels, whether produced locally or imported, and tied to clear carbon intensity reduction objectives will encourage industry to invest in, and deliver, the most efficient solutions.

Demand side options to enable a low carbon liquid fuels market in Australia

Q: What options should the Government consider in its regulatory impact analysis, such as a mandate introduced over time, low carbon fuel standard connected with a trading scheme, a non-binding target or other demand options?
Q: What demand-signals would best drive confidence and certainty for a domestic LCLF production industry?

There are three options which provide varying degrees of confidence and certainty for low carbon liquid fuels demand:

- A low carbon fuel standard. This provides a market-based framework and allows all solutions to participate offers the best abatement potential and supports investment by creating a clear and certain demand outlook.
- A long-term mandate based on reducing carbon intensity, which is measured on a life-cycle basis, rather than volume. This will encourage suppliers to identify the most cost-effective solutions to deliver the required emissions reductions
- A long-term volume-based mandate. This can send a demand-signal and support market growth but may not be as effective at reducing emissions.

A low carbon fuel standard and a carbon intensity based mandate, which require suppliers to reduce the carbon intensity of the fuel provided over time, both preserve competition by allowing producers to best leverage existing technologies, and encourage investment in the development of newer, more efficient technologies over time by rewarding fuels which achieve greater abatement. These policy levers can also be designed to provide flexibility to suppliers to ensure that Australian consumers are not disadvantaged by higher prices or constrained supply.

Q: Should design of a mandate, low carbon fuel standard, target or other demand option create requirements for a certain proportion of fuel use be drawn from Australian produced LCLF?

Maintaining open-market access and international pricing parity for Australia's liquid fuels industry will help to accelerate the development of a viable, local production industry.

As is the case for conventional fuels, renewable fuels will be traded on the global market. Allowing imports and exports will ensure a robust, competitive and viable Australian production industry, from feedstocks to finished fuels.

Requiring local production to be used within Australia, even for a certain proportion, risks artificially constraining the market potential for local producers, making investments more challenged and creating uncertainty for investors, producers, suppliers and customers.

For example, requiring airlines to purchase a proportion of Australian produced SAF could result in them paying a premium compared to international alternatives, which could have flow on impacts to the competitiveness of the Australian aviation industry.

Q: How would the introduction of demand side measures impact the feasibility of domestic production of LCLFs, and what impact would this have on the appropriate design of any production support?

Demand side measures, such as a low carbon fuel standard or mandates, are the critical key to unlocking Australia's low carbon liquid fuels future.

Demand side measures are the most effective policy lever to provide certain and sustainable demand for the benefit of everyone involved in the low carbon liquid fuels chain, from feedstock producers and aggregators, to manufacturers and suppliers, right through to customers.

They work by encouraging investment to meet the regulated demand, with the aim of reducing the price premium over time, as more supply comes online to meet demand.

They do this by incentivising end users and customers to commit to long term offtake agreements by providing certainty of supply. In this way, demand side measures are essential for the ongoing viability and feasibility of any potential domestic production.

Eligibility criteria

Q: Do you support an emissions reduction threshold being included as part of eligibility criteria for fuels to receive support under a production incentive program? What threshold would you seek be included in eligibility criteria (for example 50 per cent emissions reduction relative to conventional fuels, or another emissions reduction ratio)?

Q: Do you think incentives should be included to encourage emissions reduction in addition to a minimum eligibility threshold?
Q: Do you think any threshold should increase over time?
Q: Do you think incentives should be included to encourage emissions reduction in addition to a minimum eligibility threshold?

In order to ensure the reliable, affordable supply of fuel that meets the needs of users, while also meeting the government's objectives of supporting the development of a local industry, it will be important for any supply side incentives to avoid market distortion by maintaining a level playing field for imports and exports of low carbon liquid fuels and feedstocks, as well as locally produced low carbon liquid fuels.

This is how Australia's current liquid fuels ecosystem operates to deliver a reliable, affordable supply of fuel for Australian conditions, where and when Australians need it.

As per traditional fuels, low carbon liquid fuels are traded on a global market. Therefore, policy should allow market participants including producers, suppliers and customers, to have access to the most cost-effective solution, rather than create artificial market conditions which may restrict participants to more expensive options.

To achieve this, a tax credit that applies to all eligible fuels, whether produced locally or imported, and tied to clear carbon intensity reduction objectives will encourage industry to invest in, and deliver, the most efficient solutions.

Such a tax credit or incentive should be:

- Accessible to all market participants, including imports
- Based on clear, carbon-intensity reduction targets
- Encourage multiple solutions, so not be tied to one-fuel type or technology
- Durable so that it supports a sustainable market over the long-term.

Further, emissions reduction goals should be driven by the demand side measure, such as a mandate or low carbon fuel standard, rather than the incentive, and be managed in line with Australia's pursuit of its overall emission reductions goals.

Setting out a long-term, phased pathway that sets out increasing emissions reductions targets over 10+ years, allows producers to best leverage existing technologies while encouraging investment in the development of newer technologies over time.

Setting a high target too early can result in the unintentional exclusion of options which could also contribute to the goal in a scalable way.

Q: Do you have views on the sustainability criteria under consideration as part of the criteria? What additional or alternative criteria would you want to see form part of the criteria?

Determining acceptable sustainability criteria and carbon certification, through the Guarantee of Origin, will be critical to the implementation and success of any carbon-intensity based mandate or low carbon fuel standard.

It is likely that in order to ensure the reliable, affordable supply of fuel that meets the needs of users, Australia will rely on imports of low carbon liquid fuels and feedstocks, as well as locally

produced low carbon liquid fuels and feedstocks, just as it relies on the import and local production of conventional fuels today.

And just like with conventional fuels, suppliers and producers will be competing on the global market for renewable fuels and feedstocks.

Therefore, to ensure a successful implementation of the obligation at the lowest cost to consumers, there is an opportunity to align the Guarantee of Origin for SAF and Renewable Diesel with global standards, which will help provide a flexible approach to the range of biofuels and feedstocks that will be accepted in Australia.

Implementing a bespoke set of sustainability criteria that goes beyond global standards may affect implementation within the desired timeframe, and significantly risk suppliers' ability to source compliant fuels, ultimately increasing costs to consumers.

While robust systems are required to ensure the integrity of the sustainability credentials of renewable fuels and feedstocks, any regime that is more restrictive than global standards is likely to make it more difficult, and costly, to find compliant fuels for Australia, and will significantly impact the success of any policy. Producers may also find it more costly and administratively challenging to meet domestic standards and choose to produce for export instead.

Case Study: How Canada's Clean Fuel Regulations supported Imperial Oil's investment in a Renewable Diesel Facility

About Imperial Oil

Imperial Oil is a majority-owned affiliate of ExxonMobil. As an integrated energy company, Imperial Oil explores for, produces, refines and markets products essential to society.

In the company's upstream business, they are contributing to reliable, affordable supplies of oil and gas for Canadians.

The company is also Canada's largest refiner of petroleum products. They refine raw hydrocarbons into about 650 petroleum products essential to consumers and businesses: gasoline, diesel, heating oil, natural gas, lubricants, and chemicals used to make plastics at three facilities across the country,. In total, Imperial Oil manufactures and sells about a quarter of the petroleum products used every day by Canadians.

About the Renewable Diesel Facility at Strathcona refinery

Imperial Oil's Strathcona refinery, near Edmonton, Canada, has been in operation for more than 70 years and processes around 200,000 barrels of crude oil each day to produce a full range of gasoline, diesel, aviation fuels, motor oils and liquid petroleum gases, as well as bitumen.

The facility will soon pave the way to a lower-emission future by using locally sourced feedstock and low-carbon hydrogen to produce renewable fuel that can be used to power existing diesel vehicles.

The team at Strathcona is building the technology and infrastructure to provide renewable diesel to several industries in Western Canada, including Imperial's own mining operations in Northern Alberta.

This lower-emission fuel will help diesel-powered fleets deliver the goods and services people need in their daily lives.

When completed in 2025, the facility is expected to be the largest renewable diesel producer in Canada. Creating more than 6 million barrels of renewable diesel at Strathcona will be the equivalent of taking 650,000 vehicles off the road annually.

Canadian policy enabling investment

Canada's Clean Fuels Regulations, which went into effect in 2023, offer an example of how governments can establish market-based policies that encourage investment and enable society to accelerate emissions reductions.

https://www.canada.ca/en/environment-climate-change/services/managing-pollution/energy-production/fuel-regulations/clean-fuel-regulations/compliance.html

Policy principles that could unlock Australia's low carbon liquid fuels potential if applied here

Allowing all solutions by focusing on reducing carbon intensity
Canada's Clean Fuel Regulations are designed to incentivise innovation and adoption of clean technologies and expand the use of low carbon intensity fuels throughout the economy.

The regulations set progressive standards for fuels that reduce carbon intensity over time, thereby increasing the incentives to produce and supply lower-intensity fuels and enabling investments like the Strathcona renewable diesel facility.

Open to all suppliers and producers and recognising all fuel types, from lower carbon intensity liquid fossil fuels, renewable fuels to electricity or hydrogen, the regulations provide suppliers flexibility to meet the requirements in a cost-effective way that works best for them. They also create an incentive for industries to innovate and adopt cleaner technologies to lower their compliance costs.

Flexibility through credit-trading to support compliance
Canada's Clean Fuel Regulations establish a credit market, where each credit represents a lifecycle emission reduction of one tonne of CO2e. For each compliance period (typically a calendar year), a primary supplier will demonstrate compliance with their reduction requirement by creating credits or acquiring credits from other creators, and then using the required amount of credits for compliance.

Compliance credits can be created in three ways:

1.Undertaking projects that reduce the lifecycle carbon intensity of liquid fossil fuels (e.g., carbon capture and storage, on-site renewable electricity, co-processing);

2.Supplying low carbon intensity fuels (e.g., ethanol, biodiesel); and

3.Supplying fuel or energy to advanced vehicle technology (e.g., electricity or hydrogen in vehicles).

Complementary measures to spur investment with a focus on reducing emissions
The regulations complement other climate policies and investments, including the price on carbon pollution, methane regulations, the forthcoming oil and gas emissions cap, and the recently announced carbon capture, utilization and storage investment tax credit.

The Canadian government has also developed a Fuel Life Cycle Assessment Model to calculate the life cycle carbon intensity of fuels and energy sources used and produced in Canada. Registered creators, foreign suppliers and carbon-intensity contributors may use the Fuel LCA Model for the purpose of creating credits under the Clean Fuel Regulations.

In addition, since 1 January 2024, low-carbon intensity feedstock must comply with a Land Use and Biodiversity criteria to be eligible for compliance credits under the Clean Fuels Regulations.