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bp Australia submission in response to the A Future Made in Australia: Unlocking Australia's low carbon liquid fuel opportunity consultation paper.

bp Australia welcomes the opportunity to provide a submission to the Australian Government's consultation paper discussing the appropriate policy settings to accelerate investment and efficient production of low carbon liquid fuels in Australia. bp provides this feedback with reference to our experience developing renewable fuels projects in Australia and beyond, including Sustainable Aviation Fuels (SAF), renewable diesel, and e-fuels.

Key messages

With the right policy settings Australia can be an advantaged producer of LCLFs. It has access to the sustainable feedstocks needed to produce LCLFs at scale. It also has potential for material demand for LCLFs over the medium to long-term from hard to abate fuel users like aviation, mining, long distance freight and shipping to the economy.

Australian LCLF producers will compete for capital, feedstocks and demand with production in other countries. To secure investments in a domestic industry and unlock Australia's potential, both a production incentive as well as a regulated demand mechanism are needed.

bp's preference is for the production incentive to be provided as a production tax credit from 2027 to 2040. We recommend the production tax credit is provided to the eligible litres produced of neat renewable diesel or SPK for SAF, with SPK receiving a slightly higher rate reflecting relative costs of production. The rate of incentive could be higher initially and decline over time. Producers should receive the incentive for 10 years. Fuel should achieve at least a 50% reduction in LCA carbon intensity compared to their fossil fuel, with additional incentives provided for further improvements in carbon intensity.

Regulated demand is needed to drive uptake and secure investments. A demand mechanism should be implemented from 2027 to reduce the life-cycle carbon intensity of Australia's fuel use. bp's preference is for a LCFS that is technology agnostic, allowing different abatement technologies and production pathways to compete. Broad coverage would be most efficient, with sub-targets for both aviation and marine given their relative costs of abatement. The obligation should sit with fuel suppliers (or alternatively shipping operators or airlines/ airports), with costs of the mechanism passed on to end consumers. It should allow trade between obligated entities to enhance efficiency, incentivise the most cost-effective action and lower costs for end consumers.

About bp

bp's purpose is to reimagine energy. Our ambition is to become a net zero company by 2050 or sooner. Globally, bp aims to be net zero across our operations (scope 1 & 2), in our oil and gas production (scope 3) and in the energy products we sell (life-cycle emissions intensity). For each of these we have also set short-term (2025) and medium-term targets (2030). You can read more about our net zero plans and progress in our Net zero ambition report.

Our strategy is to transition from an International Oil Company to an Integrated Energy Company. That transition is underway – between 2019 and 2023 the share of our annual capital investment going into what we call our transition growth engines (bioenergy, convenience, EV charging, renewables and power, and hydrogen) grew from 3% to 23%. We also continue to invest in oil and gas – investing in meeting the needs of today's energy system alongside investing to help scale lower carbon alternatives.

In Australia, bp is in action to:

- Service some of the country's largest commercial fleets and partners with around 1000 independent business owners and dealers to deliver a premium fuel offering.
- Serve Australian industry by safely delivering energy where it is needed, working in partnership with bp's global trading and shipping teams.
- Build a convenient EV charging network through roll out of up to 600 bp pulse charge points.
- Grow our partnership with Lightsource bp with 1GWp of solar generation in operation and under construction. Subject to regulatory approvals, we plan to take full ownership of Lightsource bp by 2024.
- Advance three green hydrogen projects - Project GERI which is 100% owned by bp with up to 14GW of integrated renewables, The Australian
- Renewable Energy Hub (operated by bp as part of a joint venture) which has potential to be one of the largest green hydrogen projects in the world; and H2Kwinana which could produce hydrogen as part of the Kwinana Energy Hub.
- Transform our former refinery at Kwinana into an integrated energy hub (Kwinana Energy Hub) to produce low carbon liquid fuels such as sustainable aviation fuel and renewable diesel.

We believe that it will take a mix of technologies including electrification, hydrogen and low carbon liquid fuels to decarbonise Australia's energy system. In the medium to long term, our modelling shows low carbon liquid fuels are an essential decarbonisation solution for critical sectors such as mining, heavy transport and aviation.

bp aims to materially grow our global production volumes to around 100,000 barrels per day by 2030, focused on sustainable aviation fuel (SAF), where we aim to be a sector leader. We are building on our production footprint by investing in several major biofuels projects globally, including our planned transformation of the Kwinana Energy Hub.

The Kwinana Renewable Fuels (KRF) project at the Kwinana Energy Hub would leverage existing infrastructure and asserts to produce 10 thousand bpd of Sustainable Aviation Fuel,

Renewable Diesel and bio-Naphtha. This project is currently in front end engineering design to support a final investment decision later this year. Should the project proceed, it is planned to produce renewable fuels from 2027.

The low carbon liquid fuels opportunity

What do you think are Australia's comparative advantages as an LCLF producer?

Under the right policy framework, Australia could be advantaged for LCLF production given its to access competitive and sustainable feedstocks. Australia is already a major feedstock producer, selling a material volume of agriculture-based feedstocks into global markets (exporting 400 kt of tallow and approximately 3.4 Mt of canola seed in 2022). Australia's large landmass, temperate climates, and world class farming, position it well to expand on existing feedstock supplies. Australia also has advantaged renewable energy potential which will be important for production pathways such as power-to-liquid (e-fuels).

Australia's vast geography means the transport of goods, people and services over long distances plays an essential role in the Australian economy and demand for liquid fuels will remain high in the medium to long-term. Around 95% of medium and heavy-duty trucks are fuelled by diesel. More than 99% of flights are fuelled using traditional jet fuel, and the current marine fleet relies almost entirely on oil products. These industries are hard to abate and are forecast to grow.

To achieve Australia's legislated emissions reductions targets and meet growing demand, material volumes of LCLFs are needed - now and as we look towards medium to long-term abatement options. However, significant LCLF demand uncertainty remains, necessitating the implementation of demand-side LCLF policy to enable transport decarbonisation at scale.

Australia's landscape and limited existing infrastructure means adopting alternative ground modes of transport or exploring alternate decarbonisation pathways like electrification are not feasible for some of our liquid fuel needs. Renewable fuels, like SAF for aviation and renewable diesel for mining, are the most near-term accessible abatement solutions available today with potential to be produced domestically given demand. As noted in the discussion paper, the Australian liquid fuel demand is large enough to underpin commercial-scale refineries, provided there is broad adoption of LCLFs.

Where does Australia face international competition?

Australian LCLF producers will compete for capital, feedstocks and demand with production in other countries. bp expects the Australian LCLF industry to be integrated within the growing global market – competing with potential imports for domestic demand, and where competitive, winning export demand.

Relative costs of production, distance from feedstocks and end demand will be key drivers. Australian producers using domestic feedstocks and supplying domestic demand potentially having an advantage based on proximity compared to foreign producers.

bp also expects Australian feedstock producers will continue to seek the best price for their product, including from export markets, as well as compete with feedstocks produced in other countries. Therefore, feedstock prices are likely to continue to be determined by global supply and demand dynamics.

Currently, these global markets are largely driven by policy of foreign governments. This would tend to favour those producers that are located closer to those demand centres and/or have advantaged access to feedstocks that are eligible or preferred under those foreign policies.

Based on the current policy and market environment, to what extent will Australia rely on imports of LCLF, as opposed to domestic production?

Under current policy settings, attracting investments in domestic LCLF production is challenging.

Markets and production capacity are rapidly expanding in other countries with strong policy settings. These foreign producers are already contracting their feedstocks, including sourcing from Australia. As the competition for capital, feedstocks and supply agreements increases in our region, there is a risk the window for Australia to produce LCLFs domestically will close, leaving Australia limited as an import market only when future demand develops.

While some domestic demand for LCLFs can be expected under the Safeguard Mechanism, this is currently too uncertain to underpin investment decisions (SGM market is not yet mature, SGM policy settings beyond 2030 are subject to review and covered entities are still working through their medium-long term compliance strategies). In addition, there remains a material proportion of Australia's liquid fuel use that faces no emission reduction policy or incentive to decarbonise. In our experience, voluntary uptake of LCLFs has been limited and insufficient to underpin investment in any material domestic production capacity. Without additional policy, Australia would likely rely on imports to meet any domestic demand that does eventuate. Even with the development of a domestic industry, bp expects the domestically produced feedstock and LCLFs to be traded in international markets and to be import competing. This could benefit Australia's industry, helping to ensure it is globally competitive and sustainable over the long term. It also reinforces the standing of LCLF as a priority industry with comparative advantage under *The Future Made in Australia Act* currently in the parliament.

The design of a production incentive scheme

What mechanism do you think would best support a production credit scheme – through the tax system, contract for difference or grant based funding?

It is our view that the best option is to provide a production credit via the tax system.

The primary benefit of a tax credit is that as soon as the policy is finalised, different project developers that intend to produce eligible LCLFs will immediately be able to reflect the value of the tax credit within their investment cases, regardless of where they are in the project development cycle. Timeliness is essential if the production incentive is to influence decisions that would see LCLFs produced in Australia before 2030.

For projects like bp's KRF that are well progressed in their project development, the tax incentive can support the final investment decision. For other projects that are in earlier stages

of development, the tax credit can assist in securing the significant project development finance needed to move the project into detailed design to then underpin a final investment decision.

bp expects a competitive process, such as a contract for difference or a grant-based production subsidy, would take some time to execute. With projects typically only able to reflect the value of the production subsidy within their investment case once it is confident it would be awarded the incentive, there is a risk the process is not timely enough to influence investment decisions for early movers. Furthermore, projects would need to be well progressed in their development to credibly participate in these competitive processes. This would tend to favour more progressed projects over those that are less developed. The number of LCLF projects in Australia's pipeline and the different stages of development would also tend to limit the benefits of a competitive process.

A tax credit can be designed to target similar outcomes to what can be achieved via the competitive production grant or CfD processes. For example, eligibility criteria and duration of support can be the same for a tax credit as other options. A tax credit can also be designed to incentivise carbon intensity improvements in the fuel produced. The benefit of the tax credit is these are well defined, understood up front and simpler to implement than a private law contract and associated tendering process.

Are there other mechanisms Government could consider to deliver production support, other than a production tax incentive or competitive grant-based payment? What do you think is the highest priority form of support?

The Government has already committed to additional mechanisms that can support LCLF production. For example, bp understand the FMIA Innovation Fund is intended to provide project development support, support for innovation, research and development, and demonstration, as well as potential capital grants for priority investments. Support for projects that are in early stages of development and for production pathways that are less developed plays an important role in building the necessary technology pipeline to deliver deeper transport decarbonisation in the long-term.

We also advocate for funding to support expansion and competitiveness of Australian feedstocks.

The Clean Energy Finance Corporation and the National Reconstruction Fund can already provide concessional finance. This can help to reduce the cost of capital for projects and help to meet investment hurdles.

Government could also extend the current fuel security payments to producers of LCLFs in recognition LCLF production capacity would also help to meet the objectives of that policy.

bp considers the highest priority should be given to finalising the design of the production incentive and confirming the specific design of the regulated demand mechanism.

What are expected production costs of LCLF in Australia?

Each producer will have different production costs, and these will adjust over time:

- Capital costs – each plant will have a unique capital build associated with it. This can vary widely depending on the production pathway, whether the site is brown or green

fields, the cost of capital available to the project, construction costs faced in that location and time, and particular regulatory requirements.

- Operating costs – these will reflect specific plant design & efficiency, different approaches to operational flexibility/ resilience to market dynamics, energy costs, labour costs, material costs etc.
- Feedstock costs – feedstocks will continue to be traded, so costs will reflect global demand/supply for the specific feedstock. Domestic producers will compete with foreign producers for Australian feedstocks, and Australian feedstocks will compete with imported feedstocks.
- Freight costs – the distance from feedstocks as well as distance from demand will also be relevant. This should see an advantage for Australian producers, using Australian feedstock, supplying Australian customers.
- Product yields – those producers that can minimise value loss through product downgrade will have lower costs than those that achieve lower yields.

Expected costs of production are only part of an investors consideration when deciding to invest in new or expanded production capacity. Investors will consider the return on their investment, so margin, and therefore price of the LCLFs is very important. Since these fuels and feedstocks are globally traded, investors will be looking for their margin to be at least as good for Australian investments as they would be from similar investments in other locations.

Exposure to international markets can be reduced to some extent with policy settings under both the production credit and demand side mechanism that provide incentives to use Australia's advantaged sustainable feedstocks. Careful selection of relevant sustainability criteria and feedstocks can advantage domestic production to service domestic demand due to natural competitive advantages of proximity.

How would you design production incentives to make production competitive in Australia?

The primary objective of the production credit scheme is to encourage investment in new/expanded domestic production capacity for renewable diesel and SAF. To do this the production incentive will need to make investments in Australia more attractive than similar or competing investments in other countries. Such a policy works best when combined with policies to create demand such as mandate or low carbon fuels scheme to ensure incentivised production is used in Australia.

bp's preference is for a tax credit. This can provide a stable, equitable and effective support mechanism for the production credit scheme, aligning with investment, sustainability, and domestic production goals. Our views on how it could be designed to make production competitive are outlined in the table below.

The incentive	Provide a tax credit per litre of LCLF produced, provided as a refundable tax offset. Since SAF is a blended product by definition, the production incentive should be provided on the SPK. Base rate for SPK incentive 1.2 times that provided for renewable diesel.

	Provide a higher rate of assistance early in the period, and reduce over time.
Duration	Assuming a demand measure is implemented from 2027, provide the incentive for eligible renewable diesel or SPK that is produced from 2027 until 2040. Each producer can receive the incentive for 10 years.
Emissions intensity	Life-cycle emissions intensity of the renewable diesel or SPK produced must be at least 50% lower than the fossil alternative to receive the tax credit. Each additional percentage improvement in emissions intensity is provided an additional supplementary amount. Verification of the emissions intensity via the Guarantee of Origin for LCLFs under development.
Eligible producers	All renewable diesel or SPK that is produced in Australia is eligible whether from an existing or new refinery. All production pathways for renewable diesel and SPK that meet the >50% lifecycle GHG emissions reduction threshold should be eligible. To bring forward investment and underpin the demand mechanism, final investment decision for new or expanded capacity could be required before 30 June 2030.
End uses/ offtake	LCLF produced for either domestic use or export.
Eligible feedstock	Either domestic or imported feedstocks that meet requirements established under sustainability framework expected to be developed as part of the LCLF Guarantee of Origin and also expected to be eligible under the demand side mechanism
Community benefit	Additional requirements consistent with the FMIA community benefit principles.

What would be an expected rate of support?

We assume the objective is to encourage investment in Australian production capacity. Given any Australian investments will compete internationally, the domestic credit scheme should seek to make investments in domestic production capacity more attractive than investments in new or expanded production capacity in other countries.

Considering the level of incentive provided to producers in other countries could be useful in determining an appropriate rate of support in Australia. For example, the level of assistance provided under the US IRA.

Thought could be given to providing a higher rate of assistance initially and reducing this over time. This could encourage earlier production providing early movers – who may be taking-on more technology and market nascency risk - a higher rate of assistance. Typically, shifting the

value of the incentive earlier will also have a bigger impact on the investment case. For example, the rate of assistance could gradually decline once the demand mechanism is stable, say after its first 5 years of implementation.

bp considers the demand side mechanism will be the primary policy to drive the uptake of LCLFs in Australia, so the production incentive doesn't necessarily need to cover the full green premium. But will need to be levied at a rate that makes Australian investments competitive with competing investments that can benefit from demand and supply side policies in other jurisdictions.

Once the demand side mechanism is in place and is stable, the need for the production incentive to underpin investment decisions in new or expanded production capacity will be reduced. Producers would be able to base their investment decisions on the market dynamics established under that mechanism. The value of the production incentive would in this case cover some of the green premium that would otherwise be fully passed on to end fuel users under the demand mechanism.

The level of support needed will also depend on other design choices. For example, if Australian producers are required to not just produce but also sell the LCLF in Australia to receive the production incentive, then the production incentive would need to cover the gap between the willingness to pay for the LCLF in Australia and the price the producer could receive in the international market. Without a demand side mechanism, this would likely be the difference between the net back price and the price of the fossil alternative plus the Safeguard Mechanism compliance price. If instead the domestic producers can compete for export markets, the production incentive could be somewhat lower, focused on making the investment globally competitive. Any domestic demand under this design would face prices consistent with international markets.

How many producers would you expect a production incentive scheme to support in Australia?

It's the overall capacity of domestic production that is most relevant to the success of the Australian industry, rather than the number of producers. In the long run we would expect the size of production capacity in Australia to be driven by the depth of domestic demand as well as export demand. This will be driven by the ambition of demand side mechanism and similar policy in other markets..

A key benefit of the production incentive is to unlock investment decisions in new or expanded production capacity of LCLFs in the short-term, to give more confidence to policy makers and fuel users that product will be available when a demand side mechanism is implemented.

bp is not aware of any production of renewable diesel or SAF currently in Australia. There is current production of biofuels such as e10 and biodiesel. It is also possible for existing refineries to adjust their operations to co-process bio-feedstocks to produce LCLFs. bp expects to scale the domestic industry, investment in new capacity to produce renewable diesel and SAF will be needed.

It is not necessary to set a target number of producers or even an aggregate production capacity for a tax incentive. Like the hydrogen tax incentive, the LCLF incentive could be made available to any producer who meets the criteria. Only LCLF that is produced in Australia should be eligible. Product that is simply blended in Australia using imported fuel should not be eligible.

To give a sense of the scale of production that could be unlocked, KRF is planned to be able to produce 10 000 bpd of LCLFs. It has been designed to optimise its production between RD and SPK to respond to market dynamics. It has also been designed to be flexible in the types of feedstocks it can use. The actual volume of SPK or RD will depend on the specific feedstocks used and the operation mode. For example, we estimate that in its maximum SPK production settings it would be able to produce enough SPK to displace between 4 to 5 per cent of Australia's total jet fuel demand today (including fuel used for international departing flights).

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

The production incentive should unlock investment in new or expanded RD and SAF production capacity in Australia, diversifying current fuel supply and supporting increased competition. It should also increase access to supply of these LCLFs for Australian fuel users, allowing domestic producers to compete with imported LCLFs for domestic demand.

Designing both the production incentive and the demand mechanism to be agnostic to the production pathway should also encourage competition, innovation and efficiency. Allowing a range of sustainable feedstocks, both sourced domestically and imported, will also increase competition and encourage further efficiencies within Australia's feedstock industry. A well-designed policy framework may stimulate growth of domestic feedstock cultivation and the associated economic benefits of a robust agriculture sector.

What are the expected timeframes for when an industry would be sustainable without support from Government?

Like many other abatement options, LCLFs face a green premium compared to their fossil alternatives. Even though we can expect the cost of producing LCLFs to reduce over time as the industry scales, becomes more efficient and technology improves, it is unlikely that LCLFs will ever be cheaper than their fossil fuel alternatives today. This highlights the need for ongoing policy to support the uptake of these fuels and other abatement options to reduce emissions from Australia's current liquid fuel use.

Once the demand mechanism is implemented and stable, it will be the primary driver of investment in new or expanded production capacity over time. The need for the production incentive could therefore be reduced over time. It is feasible to have some form of regulated demand for LCLFs starting from 2027 and so it would be ideal to implement domestic production at least from 2027.

With the stable demand mechanism in place, providing production incentives from 2027 to 2040 should give sufficient time for industry to be economically sustainable. This also means that the costs passed through to the end fuel users under the demand mechanism in the initial years are reduced by the production incentive. Most analysts estimate the cost of producing LCLFs may also be reduced over this timescale.

The duration of support for an individual production project will need to be long enough to influence the investment case, which will typically consider the project economics over the life of the asset. For bp, this would be 20 years for a biorefining asset. On the other hand, projects supported will need to be self-sustaining after a period. Like the HPTI, 10 years of support would be reasonable.

How should production support be funded, and how could this best be aligned with the beneficiaries of the production support?

It is our view the production incentive should be funded from consolidated revenue. Economic analysis undertaken by bp indicates new production capacity such as planned for KRF has a net positive impact across the economy. There are many beneficiaries of a domestic LCLFs industry, for example: feedstock providers, those employed in the construction of projects and in the production and distribution of the fuels, flow on benefits to the communities they live in, an expanded tax base and of course fuel users benefit right across the economy, with access to lower cost abatement and improved fuel security.

bp assumes that any revenue generated from the demand side mechanism (for example if there is a cost containment buy out) would also go to consolidated revenue and offset to a degree the cost of the production incentive.

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?

New production capacity could be used to either produce renewable diesel or SPK for SAF. Some refineries will have more flexibility than others to shift between the two LCLFs. Since Australia's decarbonisation will likely need both RD and SAF, careful alignment of incentives under both the production subsidy as well as the demand mechanism will be needed to avoid unintentionally preferencing production of one over the other.

The production incentive could justifiably offer different rates of incentive to SPK compared to renewable diesel given the higher operating costs, carbon intensity and lower yields when making SPK compared to RD.

One of the critical factors is that the volume yield of RD is significantly higher than that of SPK. Consequently, to account for this yield disparity, we believe the base incentive rate for SPK could be approximately 20 per cent higher than that for RD. This adjustment ensures that the

production of both fuels is economically viable and reflects their respective production efficiencies accurately.

When it comes to providing the additional supplementary incentive for additional improvements in carbon intensity beyond the minimum required, the same rate could be used.

Would a potential production support program need to prescribe certain proportions of production volumes towards SAF or renewable diesel?

Given the need for both renewable diesel and SAF across the Australian economy and potential for these fuels to compete for the same feedstocks, it is understandable policy makers don't want to unduly preference the production of one over the other.

To encourage the development of an efficient domestic industry, it will be important for LCLF producers to optimise their production of RD and SPK consistent with the efficient operation of their plants. bp does not consider it appropriate for the production incentive to prescribe that a certain proportion of overall production from a given producer should be directed towards a particular LCLF.

Rather policy objectives can be achieved by carefully aligning incentives for uptake under the demand mechanism, as well as, setting different rates of assistance as discussed above.

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?

The priority of the production incentives should be to rapidly expand Australia's production capacity to underpin uptake. Leveraging technologies that are proven and scalable should be an immediate priority.

We do not believe that different levels of production incentive should be provided for emerging and established production pathways. Rather the production incentive should be designed to allow multiple pathways to compete, innovate and prove their viability with the same basis for support.

bp expects emerging production pathways could receive more targeted additional support under the FMIA Innovation fund, particularly when the technology is less developed.

Providing the additional incentive for additional carbon intensity improvement beyond the minimum required should also preference those emerging technologies that look to be less emissions intensive.

What policy approaches are technology agnostic, applying efficiently to new technologies as they emerge?

bp recommends that all production pathways for renewable diesel and SPK for SAF should be eligible for the production incentive, provided the LCLF meets the eligibility criteria.

Providing additional incentives to reduce the carbon intensity of the fuel beyond the minimum required will see the industry prioritise the reduction of carbon intensity when they are investing in new or expanded capacity. This approach ensures that any technology capable of reducing carbon intensity can benefit, promoting innovation and the development of various solutions.

Considerations regarding emissions and sustainability criteria

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)?

Experience in other markets demonstrates that the life-cycle carbon intensity of renewable diesel and SAF can vary significantly depending on the production process and feedstocks used. bp considers the production incentive should be designed to incentivise Australian producers and feedstock providers to reduce the carbon intensity along the supply chain as much as possible. This should support the Australian industry to remain sustainable and competitive as the world decarbonises.

bp considers a structure that establishes a minimum life-cycle carbon intensity improvement compared to the fossil alternative for eligibility (at least 50% lower carbon intensity), with an increase in incentive for incremental improvements to carbon intensity would be preferential. A similar structure has been adopted under the US IRA (USD1.25/US gallon at 50%, rising by USD0.01 to USD1.75/US gallon at 100%).

The sustainability framework and carbon intensity estimation methodologies that bp expects to be developed as part of the announced Guarantee of Origin system for LCLFs would underpin the production incentive as well as the demand mechanism.

Do you think any threshold should increase over time?

Increasing the minimum carbon intensity improvement threshold over time would encourage the domestic industry to invest in emission reductions along their supply chains and give an incentive for continuous improvement. However, this needs to be balanced with providing some investment certainty. It would be important for investors to have visibility on how the threshold will change over time at the time of making their investment decisions. This would require establishing the thresholds for the tax incentive at the time the design is finalized. Care would be needed to set thresholds that create incentives for continuous improvement but are also assessed as being achievable at the time of investment.

Do you think incentives should be included to encourage emissions reduction in addition to a minimum eligibility threshold?

We believe incentives should be included in addition to a minimum eligibility threshold. While a minimum threshold sets a baseline for acceptable performance, additional incentives based on

additional carbon intensity improvements can drive investments in emissions reductions along the supply chain.

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?

Experience in other markets indicates establishing a credible and widely accepted sustainability framework for LCLFs produced and used in Australia will be essential for the development of an Australian LCLF market. bp's expectation is that the sustainability framework will be established as part of the Guarantee of Origin scheme to be developed for LCLF.

The sustainability framework should consider the broader impact of the product and its supply chain including the greenhouse gas emissions impact, along with other environmental and social sustainability elements. bp recommends that the same sustainability framework is adopted for all LCLFs across production and demand-side policies.

Australia can learn from established global certification schemes, pathway approval processes and various sustainability standards that have been in place for more than a decade. Like these other markets, Australia should develop a sustainability framework that reflects its own circumstances, its related domestic laws and the expectations of its society.

It is bp's view that the LCLF GO should be based on the life-cycle greenhouse gas emissions associated with producing, supplying and using the fuels. Australia can draw on LCA models that have been developed for use in other markets and update these to incorporate Australian relevant data.

The Australian sustainability framework should consider potentially adverse impacts on the food and fibre system. This includes the important environmental impact of land use change (both direct and indirect) that occurs as a result in the shift of demand for agricultural commodities because of an increase in demand for feedstocks. There are modelling approaches that Australia can leverage to incorporate direct land use change into the LCA assessment. However, care needs to be taken when assessing the risk of indirect land use change because current modelling tools vary widely in their outputs and are not yet ready to be the basis of incentives. Setting a suitable minimum carbon intensity threshold will help to ensure that any indirect land use change impacts do not risk creating perverse incentives whilst avoiding too heavy a reliance on modelling data. This threshold should be kept under review to ensure it keeps managing these risks.

It is bp's view that the Australian sustainability framework should include other environmental and social criteria such as implications for water, biodiversity, soil, human and labour rights, land rights, water rights, and food security. Many of these matters are subject to other laws and regulations in Australia so careful alignment would be needed with a risk-based approach as to which criteria are specifically required for LCLFs and which are well-protected by existing laws. Specific thought would be needed for establishing requirements for imported fuel and feedstock. A risk based approach can also have a view to minimising the opportunity for fraud in the LCLF and feedstock supply chain.

What are the community benefits associated with LCLF production in Australia?

bp supports the community benefit principles as set out in the FMIA Bill. We agree it is important that the community benefit from the development of an Australian LCLF industry and recent local stakeholder engagements tell us that communities are eager to participate in opportunities presented by LCLFs.

We anticipate LCLF production could bring about substantial community benefits, particularly for those communities in regional and remote areas of Australia.

Economic analysis undertaken by bp indicates that investments in local LCLF production capacity will have a positive impact on the economy overall. These investments can also be expected to unlock further investments along the domestic supply chain. For example, in infrastructure such as crushing and aggregation facilities to value add to Australia's feedstock. It can also provide incentives for farmers to invest in infrastructure and operations that can reduce on farm emissions. It can unlock investments in research, development in new and novel feedstocks.

The development of LCLF industry can generate new safe and secure jobs in sectors including agriculture, manufacturing, research and development, and transportation. Many of these jobs are skilled and located in regional and remote Australia.

Domestic LCLF refining capacity will also add to Australia's sovereign capability and improve its fuel security. Producing liquid fuels from local feedstocks can reduce the reliance on imported fuel. It can reduce the risk of supply disruptions, shortages and reduce the need for stock holding.

The design of the demand-side mechanism

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?

In bp's view, some form of regulated demand either via a low carbon fuel standard (LCFS) or a mandate is necessary to give the domestic industry the certainty it needs to invest. It also provides fuel users certainty on the policy settings they will face in planning their decarbonization.

Non-binding targets that rely on voluntary uptake of LCLFs should not be considered further. Although there are many fuel users who would welcome the opportunity to reduce their emissions, there are risks associated with moving before their competitors and typically additional costs associated with more bespoke supply arrangements. Regulated demand options avoid these risks by creating an even playing field.

A low carbon fuel standard or a mandate can be designed to have very similar traits. The key difference in our view is that a LCFS allows for different abatement options to compete, where a mandate typically applies to a single fuel type or category of fuel. For example, under an LCFS

different LCLFs, hydrogen and electrification could all compete. Where a mandate might focus on SAF and/or RD alone.

We recommend that the regulatory impact assessment consider the following important design choices:

- Coverage: what parts of Australia's liquid fuel demand will be subject to the demand mechanism. This would also include consideration of any ring-fencing or sub-targets. In our view, broad coverage of all fuel users, with sub targets to support the development of specific sectors such as aviation and maritime would be preferable. For aviation and maritime ideally the mechanism will also cover fuel supplied from Australia used in international flights and bunker fuels.
- Abatement/target: how will the demand mechanism define the abatement or target to be achieved. In our view the demand mechanism should set the abatement task based on the reduction required in life-cycle carbon intensity of the relevant fuel pool. Ideally a target will be set for each year, at least five years in advance, with periodic reviews to extend. This holds whether it is a LCFS or a mandate. We don't believe a volumetric mandate will deliver the same level of economic and environmental benefits sought by the implementation of this policy.
- Ambition: how quickly will the demand mechanism reduce the carbon intensity of Australia's fuel. Ambition will need to be set in the context of Australia's economy wide targets for 2030 and 2035 once determined. While we expect over the medium terms supply to respond to demand, initially some consideration of Australia's potential to produce or access renewable fuels in the period to 2030 would also be relevant.
- Point of obligation: what entity within the fuel supply chain will be responsible for meeting the obligations established by the demand mechanism. In our view the point of obligation should sit with fuel suppliers (or alternatively shipping operators for maritime and airlines/airports for aviation) with the costs of the scheme passed on to end consumers.
- Compliance flexibility: what kind of compliance flexibility will the obligated entities have. A primary consideration will be whether they can trade compliance certificates. In our view the ability to trade over compliance between entities is essential to the overall efficiency of the policy and to incentivise participants to take all cost effective action possible.
- Cost containment: whether the policy should be designed to protect fuel users from unexpected/ excessive costs from the scheme. For example, the demand mechanism could include a compliance buyout to protect consumers yet still set at a level that incentivises uptake. Experience in other markets illustrates these design settings can improve the acceptance of these mechanisms with end consumers. If implemented, they can have a material impact in the function of the demand mechanism.
- Timing: how quickly will the demand mechanism be implemented. It is our view a regulated demand mechanism should be in place prior to 2030, ideally from 2027. Some

lead time will be needed between when the legislation is passed and when the mechanism commences.

What demand-signals would best drive confidence and certainty for a domestic LCLF production industry?

Regulated demand, provided by either a LCFS or mandate, is needed to underpin investments in new or expanded production capacity. It provides investors visibility and confidence in the uptake of LCLFs expected in Australia and the end user with more certainty as they plan their decarbonisation. It also sets out clearly the contribution fuel user are expected to make toward Australia's economy wide emissions reduction targets.

How might demand measures interact with the Safeguard Mechanism for covered facilities?

It is bp's view that the demand mechanism should target a reduction in the life-cycle carbon intensity of Australia's fuel use. Some of the emissions that are captured within the LCA of fuel used under the demand mechanism would also be covered by the Safeguard Mechanism.

For example, emissions from burning fossil fuel used by Safeguard entities such as miners or airlines. Biogenic LCLFs used by these entities are also covered but would have a zero rating for CO2 under the Safeguard Mechanism. Australia's two remaining fossil fuel refineries are covered under the Safeguard Mechanism for their scope 1 emissions and some new LCLF producers may also be covered by the Safeguard Mechanism for scope 1 emissions associated with fuel production.

While there are overlaps in coverage, it is not absolute. Imported fuel currently does not face an equivalent to the Safeguard Mechanism carbon price for its production emissions but these would be reflected in the LCA for the demand mechanism. There is also a significant proportion of Australia's liquid fuel demand that is not covered by the Safeguard Mechanism that can be covered by the demand mechanism.

bp considers it is possible to design the demand mechanism to operate alongside the Safeguard Mechanism. This has been achieved in other markets. For example, California has both an ETS as well as a LCFS and the EU ETS includes aviation emissions and is to operate alongside the EU SAF mandate.

Three potential options bp has considered include:

1. Emissions from liquid fuels production and use could be exempt from the Safeguard Mechanism. This would reduce the coverage of the Safeguard Mechanism and may require reconsideration of its policy settings.
2. The overall emissions intensity improvement to Australia's fuel pool under the demand mechanism could be reflected in the emissions intensity for fuel used by Safeguard entities. Should a safeguard entity wish to reduce their fuel emissions faster than the average, they would need to purchase LCLFs in addition to what is required under the LCLF demand mechanism.

3. The right to "claim" the scope 1 emissions benefit from LCLFs supplied under the demand mechanism could be treated separately to the compliance obligation under the mechanism. For example, two certificates could be generated for fuel supplied under the demand mechanism. The first is to support compliance under that mechanism. The second is for the eligible user under the Safeguard Mechanism. This would likely see the value of the second align with the cost of compliance under the Safeguard Mechanism, with that value reducing the cost of compliance under the demand mechanism.

How would the application of a demand mechanism affect your business/operations?

bp's business interests related to the introduction of a regulated demand mechanism are varied.

bp is a major fuel supplier in Australia, with customer facing businesses spanning fuel users right across the economy, including light vehicles, heavy on and off road, mining, aviation, rail and marine. The demand mechanism will drive the uptake of these fuels and change the fuel mix we supply. It will have implications for our negotiations with customers and pricing strategy. Should the point of obligation be on the fuel supplier it would introduce a new legal obligation for bp to manage.

We also have extensive fuel supply infrastructure. The change in the fuel mix driven by the demand mechanism will have implications for how we manage and operate our infrastructure.

We are currently in the late stages of developing a bio-refining project in Kwinana Western Australia (KRF). Confirmation of when the demand mechanism will be implemented, and the specific design will influence the investment decision. Should KRF be developed, the demand mechanism would influence how we operate the plant, including on feedstocks and the products we produce.

bp is also developing several green hydrogen projects. Should the demand mechanism be technology agnostic, it could lead to demand for green hydrogen where it can compete with LCLFs or other options. The demand mechanism would be relevant to the hydrogen project economics and could influence investment decisions.

Similarly, bp is rolling out a network of charges for electric vehicles and with its partner LightSource bp is developing large scale renewable electricity projects. Should electrification be incorporated into the demand mechanism it could benefit these parts of our business.

Finally, bp has a global trading and shipping business that is active in conventional and LCLF markets, including in feedstocks.

Should demand-side interventions be designed to only apply to some areas of the market and not others? Which sectors or sub-sectors should demand-side interventions apply? How would the introduction of a mandate or other demand measures affect competition in your industry?

In our view the demand side mechanism should have broad coverage, with a view to reducing the emissions across Australia's full liquid fuel demand. LCLFs will be needed across a range

of end users. Aviation will need SAF in the long-term, and many of Australia's other fuel users will also need LCLFs well into the 2040s and beyond. For example, in mining, long-distance freight, rail and marine. Even Australia's light vehicle fleet will take many years to fully transition to electric drive trains, and LCLFs can provide a solution to reduce these emissions in the meantime. Ideally the demand mechanism can be designed to align the incentives across these different end users to encourage efficient deployment. A broad-based LCFS has successfully achieved this in other markets.

Given the relative cost of abatement for different segments of Australia's fuel demand, some form of ring-fencing or sub-targets for both aviation and marine are preferred.

Should the mandate option be considered further, we would encourage consideration of mandates for aviation, marine and diesel.

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?

Demand side measures are most effective at determining where the fuel is consumed. To encourage domestic production supply side measures are most effective.

Australia's policy (both the demand and supply side) should be designed to support the development of a globally competitive industry. Consistent with LCLFs priority industry status in the FMIA, we expect a globally competitive domestic industry will have an advantage over imports for domestic demand (this is true for both domestic feedstocks and producers). Keeping the domestic industry import competing under the demand mechanism will encourage efficiency and innovation, giving consumers confidence they are paying internationally competitive prices.

While we recognise there are some fuel security benefits from new or expanded domestic capacity to produce LCLFs, there are also fuel security benefits from being connected with global fuel markets. For example, should there be any supply disruptions from local producers, imports could fill demand.

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?

Confidence in domestic demand will be an important consideration for any investment in new or expanded production capacity. In the absence of domestic demand or where this is considered too uncertain, Australian investments will be assessed based on their competitiveness in export markets only. This makes securing those investments challenging.

A regulated demand side mechanism provides the confidence investors need on the timing and level of domestic demand. It also provides clear settings for sustainability and carbon intensity. It can also help to determine the pathway to end market, for example by settling the degree of tradability in compliance certificates. The specific details of the policy will influence project design and operation and will feed into the investment decision.

Once the demand side mechanism is implemented, producers would be able to base their investment decisions on the market dynamics established under that mechanism.

Conclusion

In closing, bp believes low carbon liquid fuels will play an important role in Australia's energy transition and there is opportunity to develop an advantaged domestic industry. Timely policy implementation is imperative to enable an Australian industry to compete internationally and flourish domestically.

We welcome the opportunity to contribute further to these discussions and collaborate closely with the government to realize Australia's potential as a low carbon liquid fuels producer.