MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT
HĪKINA WHAKATUTUKI

COVERSHEET

Minister	Hon Dr Megan Woods	**Portfolio**	Energy and Resources
Title of Cabinet paper	Sustainable Biofuels Mandate: final policy design	**Date to be published**	15 December 2021

List of documents that have been proactively released		
Date	**Title**	**Author**
October 2021	Sustainable Biofuels Mandate: final policy design	Office of the Minister of Energy and Resources
28 October 2021	Sustainable biofuels mandate: final policy design ENV-21-MIN-0058 Minute	Cabinet Office
August 2021	Regulatory Impact Statement: Sustainable biofuels mandate: final policy design	MBIE

Information redacted **YES / NO**

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Some information has been withheld for the reason of free and frank opinions.

In Confidence

Office of the Minister of Energy and Resources

Office of the Minister of Transport

Cabinet Environment and Climate Change Committee

Sustainable biofuels mandate: final policy design

Proposal

1 This paper seeks Cabinet's agreement to the final design of a sustainable transport biofuels mandate following public consultation during June and July 2021.

Relation to government priorities

2 The proposed sustainable transport biofuels mandate (the mandate) will be one of the many actions taken in response to Parliament's declaration of a climate change emergency, and aligns with the Government's focus on intergenerational wellbeing as set out in the 2020 Speech from the Throne.

3 The mandate will support the Government's commitment to transition to a clean, green and carbon-neutral New Zealand, as outlined in *Our Manifesto to Keep New Zealand Moving*. In particular, the mandate will help to:

- ensure a just transition to a zero carbon and climate-resilient economy and society, which also optimises economic development opportunities;
- continue to support New Zealand's freight network to become more sustainable and efficient; and
- as part of the COVID-19 economy recovery, reshape New Zealand's energy system to be more renewable, affordable and secure, while creating new jobs and developing the high-skill workforce our future economy requires to thrive.

Executive Summary

4 In April 2021, Cabinet agreed to consult on a proposed sustainable biofuels mandate [CAB-21-MIN-0046]. There were 63 submissions. The submissions generally acknowledged that biofuels will play an important role in decarbonising transport, but suggested some refinements to its design.

5 We recommend proceeding with the greenhouse gas (GHG) emissions reduction mandate, with some changes:

- A separate mandate for aviation fuel with the target to be set during 2022, based on consultation with key stakeholders;

- Adopting provisional targets out to 2035, which will be confirmed in 2024 (for 2026-2030) and 2029 (for 2031-2035);
- Changing who must comply with the mandate to those who first import or refine fuels (fuel wholesalers);
- Increasing the maximum penalty from $300 to $800 per tonne of carbon dioxide equivalent emissions not achieved, to incentivise compliance.

6 We are seeking Cabinet's views on whether the mandate should take effect from:

- 1 January 2023 with a target in the first year of 1.2 percent (the consultation proposal);
- 1 January 2024, but with a higher target in the first year (effectively skipping the first year's target to begin with a target of 2.4 percent);
- 1 January 2024, with a target in the first year of 1.2 percent.

7 Fuel wholesalers have differing views about how achievable the consultation proposal is; some believe that the mandate starting in 2023 does not give enough time to set up supply chains and develop infrastructure, while others think it is challenging but achievable.

8 We also propose that officials carry out further work on what a suitable threshold is for the use of food and feed-based biofuels in New Zealand. Biofuels produced from food and feed are associated with indirect land use change and lead to less credible emissions reductions. We will report back to Cabinet before the end of the year with options.

9 While it is important that there are strict sustainability criteria in place, if they are too stringent it could limit the availability of biofuels. New Zealand will rely, at least initially, on imports to meet the mandate.

10 The mandate will require primary legislation and regulations. If Cabinet agrees to the recommendations, officials will begin preparing drafting instructions. We intend to submit a bid for the Legislation Programme.

Background

11 In April 2021, Cabinet agreed to consult on a proposed sustainable biofuels mandate [CAB-21-MIN-0046]. The Minister of Energy and Resources and the Minister of Transport were invited to report back to Cabinet on the results of the public consultation and the final design of the sustainable biofuels mandate.

Submissions on the sustainable biofuels mandate consultation document

12 The consultation took place from 13 June to 26 July. 63 submissions were received and analysed by the Ministry of Business, Innovation and

Employment (MBIE) and Te Manatū Waka – Ministry of Transport. The breakdown of submissions from different groups is listed in the table below.

Group	Number of submissions
Biofuel producers	8
Fuel wholesalers	4
Fuel retailers	3
Individuals	9
Industry	9
Industry associations (including fuel industry)	14
Interest groups	5
Iwi	1
Local government	2
Research institutes	4
Transport bodies	3
Universities	1

13 Officials also held five online meetings with stakeholders including fuel suppliers, sector groups, biofuel producers, environmental groups and research bodies, as well as some individual meetings. MBIE's list of iwi partners were provided with the discussion document and invited to meet to discuss the proposal; two iwi accepted the invitation.

The Climate Change Commission's advice

14 In its June 2021 advice to the Government, *Ināia tonu nei: a low emissions future for Aotearoa*, the Climate Change Commission (the Commission) stated that, "in the medium- to long-term, switching to low-carbon fuels such as electricity, biofuels and green hydrogen will be central to reducing emissions from heavy vehicles."

15 Recommendation 19.2 of the Commission's report was to develop low-carbon fuel markets through measures that include a "low-carbon fuel standard or mandate to increase demand for low-carbon fuels".

16 The Government's Emission Reduction Plan included the proposed biofuels mandate in the transport chapter. It recently began consultation on the proposed Emission Reduction Plan; the final will be tabled in Parliament in May 2022.

17 The mandate will increase the demand for low-carbon biofuels.

Objectives

18 The objectives of the mandate are to:

- enable a just transition to a zero carbon and climate-resilient economy and society through increasing the supply and use of green fuels for transport, particularly for hard to abate transport modes

- ensure that New Zealand's energy and transport systems are sustainable, affordable and secure.

Analysis

19 The main themes from the consultation were:

- Biofuels will play an important role in decarbonising transport, particularly for the hard-to-abate areas of shipping, aviation, and heavy freight.
- A greenhouse gas (GHG) emissions reduction mandate is preferable to a volumetric mandate.
- There should be a separate mandate for aviation fuel; without one it is unlikely that sustainable aviation fuel (SAF) will be supplied because of the large price differential between SAF and fossil aviation fuel.
- There were differing views about whether to have separate targets for each fuel or a single target.
- Only biofuels that are sustainable and offer credible GHG emissions reductions should be allowed under the mandate.
- There were differing views about the proposed level of the targets for 2023–2025: some considered them too ambitious, while others thought they do not go far enough. This also applies to when the mandate should first take effect.
- Fuel suppliers need certainty about the longer-term reduction targets out to 2035 to facilitate their planning, particularly infrastructure investment.
- The 'point of obligation' (who has to comply with the mandate) should be moved further up the supply chain to reduce compliance costs.
- There was mixed support for the level at which penalties were set, and wide support for the flexibility mechanisms.
- The mandate should be expanded to include other fuels, including electricity and hydrogen.

We propose proceeding with a greenhouse gas emissions reduction mandate for biofuels

20 We recommend proceeding with the biofuels mandate. The mandate would require fuel suppliers that first purchase or import fuel for use in New Zealand to reduce the total GHG emissions of the fuels they sell by a set percentage each year by deploying biofuels in the fuel supply.

21 A GHG emissions reduction mandate creates ongoing incentives to use lower emission biofuels. Both domestically produced and imported biofuels could be used to meet the percentage reduction provided they meet set sustainability criteria.

22 There was largely positive feedback on the decision to pursue a GHG emissions reduction mandate, rather than a volume-based blending mandate. Submitters noted that this approach focuses the mandate around the desired goal (i.e. GHG emissions reductions) and would allow the most efficient solutions to emerge. Many submitters noted that decarbonising transport will require significant effort and multiple pathways, and that sustainable biofuels are part of the solution.

23 There was also positive feedback on the proposal to apply the mandate across all liquid fossil fuels for transport.

24 Others opposed the mandate on the grounds of its costs to consumers, while a few questioned the legitimacy of biofuels to reduce carbon emissions.

A separate mandate for sustainable aviation fuels

25 We propose that there should be a separate mandate for sustainable aviation fuels. We intend to report back to Cabinet on this by the end of 2022 in consultation with the New Zealand aviation and fuels industry. A separate SAF mandate should take effect from the beginning of 2025.

26 Under the consultation proposal, SAF could be used to meet fuel suppliers' emissions reduction targets, but a specific aviation sector target was not set.

27 Given aviation's limited options to decarbonise long-haul flights, many submitters, including the Sustainable Aviation Fuel Consortium[1], called for a separate aviation mandate. Establishing SAF production in New Zealand, or even securing reliable imported supply, requires extensive infrastructure investment (on average, around $1 billion). Competition for SAF is steadily increasing overseas; several governments across the European Union are proposing SAF-specific mandates or already have them in effect.

28 Because of the critical importance of aviation to New Zealand's economy and social wellbeing, and the limited options to decarbonise, we propose that there should be a separate mandate for aviation emissions. However, there is presently not enough certainty about the specific design of a separate SAF mandate, including its targets and point of obligation.

29 We propose that officials carry out further work on the design of the SAF mandate in consultation with the aviation and fuels industry (including the SAF Consortium). This will be informed by the feasibility study on domestic SAF production, which Air New Zealand and MBIE are in the process of jointly developing.

[1] The members of the Sustainable Aviation Fuel Consortium are Air New Zealand, Z Energy, Scion, LanzaTech and LanzaJet

30 MBIE and Te Manatū Waka will also examine whether the point of obligation for the SAF-specific mandate needs customisation, taking into consideration how the fuel price increases associated with SAF use may be passed through to road fuel consumers.

31 The SAF Consortium also argues that a SAF-specific mandate needs to apply to all fuel uplifted in New Zealand (including fuel used in international flights, which is considered an export, and any GHG emission reductions are not part of New Zealand's nationally determined contribution).

32 The Commission will consider whether international aviation and marine emissions should be included in New Zealand's emission budgets by 2024. If the Commission recommend that international emissions should be included in the emissions budgets, Ministers will be asked to consider how the mandate should accommodate this change.

A single target for petrol and diesel

33 We propose retaining the single target for all biofuels that fuel suppliers would have to meet, except for aviation fuels. Fuel suppliers would have flexibility in determining where and what type of biofuels to deploy, allowing fuel suppliers to make commercial decisions. Biofuels could therefore be distributed and used across the transport sector, as long as they meet the relevant fuel specifications.

34 A single target provides the most flexibility for fuel suppliers to reduce the overall costs of the mandate. This flexibility would make it easier for them to respond to short-term supply disruptions. It would also help them manage any seasonality in biofuel supply and climatic conditions that can restrict where biofuels are used.

35 There were mixed views about having a single target versus targets for specific fuels. Some of the major fuel companies favour a single target because it provides flexibility and minimises the costs to achieve the required emissions reductions.

36 Other submitters preferred separate targets, particularly for diesel, because they would:

36.1 result in greater use of biofuels in hard-to-abate sectors, e.g. road freight, rail freight and coastal shipping

36.2 incentivise development of emerging biofuel technologies and the development and use of advanced biofuels

36.3 avoid the risk that the targets are achieved with a high proportion of bioethanol. While bioethanol is less expensive than other biofuels, a greater reliance on it over the long-term could result in stranded blending and distribution assets, as electrification is seen as the decarbonisation route for the light vehicle fleet

37 However, as the targets begin to increase over the long term, particularly once the targets increase above the 'blend wall' limit of conventional biofuels, advanced biofuels will need to be brought into the fuel supply mix. It would also be difficult for some fuel wholesalers to implement separate targets because they currently supply a low proportion of diesel.

38 On balance, although implementing separate targets would have some benefits, a single target will be easier to implement. However, we propose that officials review this setting two years after the mandate comes into effect.

Only biofuels that are sustainable should be allowed under the mandate

39 We propose that, to be counted against the mandate's obligations, all biofuels must meet sustainability criteria. There was strong support for ensuring that biofuels are sustainable and achieve credible GHG emissions reductions. The criteria would apply equally to both imported and domestically produced biofuels.

40 International sustainability certification schemes will be selected to certify biofuels against the sustainability criteria. These will be chosen based on their ability to work with New Zealand sustainability criteria, their robustness - including standards of transparency and good governance - and the accessibility of the scheme for obligated parties and auditing bodies.

The sustainability criteria

41 We propose retaining the other sustainability criteria included in the consultation document and adding a criterion on water quality and quantity and taking into account waste use. These revised criteria would apply both inside and outside of New Zealand. They would cover relevant matters, including:

i. **Biodiversity:** feedstocks should not have a significant adverse effect on biodiversity.

ii. **Impact on carbon stocks:** avoiding deforestation of native forests, closed canopy forests or the destruction of wetlands or peatland to plant biofuel crops. The impact of biofuel crops on soil carbon should also be considered.

iii. **Food and feed security:** feedstocks should not have a significant adverse effect on food and feed security.

iv. **Water quality and availability:** biofuels crops should not have a significant adverse effect on water quality or significantly restrict its availability in an area.

v. **Use of waste**: it will be important that the mandate supports the principles of the waste hierarchy[2] and does not create perverse incentives such as increasing the production of waste or moving materials to a lower use in the hierarchy.

42 While it is important that there are strict sustainability criteria in place, if they are too stringent it could limit the availability of biofuels. New Zealand will rely, at least initially, on imports to meet the mandate. Globally, our buying power is relatively small and therefore the standards New Zealand sets are unlikely to have a significant effect on international biofuels standards.

43 We propose that the detailed methodologies relating to the sustainability criteria will be included in the regulations to be developed during 2022.

Some biofuels can cause land use change which limits their carbon emission reductions

44 Internationally, there is evidence that increased demand for biofuels has led to negative environmental impacts and in some cases rising GHG emissions. Land use change (both direct and indirect[3]) caused by biofuel feedstocks can contribute to deforestation (therefore increasing net emissions rather than reducing them), loss of soil carbon, biodiversity loss, and competition for food – potentially increasing food prices and reducing food security.

45 Direct land use change is observable and will be accounted for in the life cycle analysis of biofuels. Indirect land use change however, cannot be measured directly[4] and this creates challenges for verifying the credibility of GHG emissions reductions from certain biofuels (usually food and feed-based biofuels). As a result, there is a risk that the GHG emissions benefits of these biofuels are overstated, and in the worst cases are causing net GHG emissions increases.

46 Based on historical observations, certain food and feed-based biofuels, such as those derived from palm oil or soy, are the most likely to create significant indirect land use change emissions (and therefore most likely to cause net GHG emissions increases). If indirect land use change was underestimated, a GHG emissions reduction based mandate would likely lead to less credible emissions reductions.

There are options for addressing the risks posed by indirect land use change

[2] The waste hierarchy is a framework for establishing the order of preference for different waste management options. It is based on the cradle-to-grave principle - where the product is followed from its production to its 'grave' or final disposal.

[3] Direct land use change is the conversion of a piece of land from one use to another, which may lead to GHG emissions. Indirect land use change refers to the impacts occurring on other (non-observed) lands due to the displacement of demand. For example, if a farm producing food crops starts growing crops for biofuel, the demand for food crops is displaced elsewhere which may result in land use change (and associated GHG emissions).

[4] Indirect land use change can be estimated in life-cycle analysis using economic models. The results can vary significantly based on which model is used and what assumptions are made.

47 Excluding all food and feed-based biofuels from the mandate is the most effective approach for ensuring the risks of indirect land change are mitigated. Global food production is one of the least resilient industries to the effects of climate change. The potential for food and feed-based biofuels to increase competition for food and land should be carefully considered.

48 However, this approach would lock obligated parties out of the majority of the international biofuels market (currently about 70 percent of the market[5]).

49 Alternatively, New Zealand could limit the amount of food and feed-based biofuels that can be used to meet the mandated targets. For example, in the European Union, only up to 50 percent of a member state's mandate can be met via food and feed-based biofuels. As well as the total cap on food and feed-based biofuels, measures could be included to limit the use of feedstocks that have been observed to have significant *indirect* land use change impacts by setting a threshold for their use[6].

50 The right GHG target levels in the future will partially depend on which biofuel feedstocks are eligible. For example, if food and feed-based biofuels are excluded, the mandate's future GHG targets would need to be less ambitious for obligated parties to feasibly meet them. At face value, this could be seen as lowering overall ambition. However, because high risk feedstocks are avoided, the risk of unintended consequences or locking in the use of undesirable biofuels is reduced, and actual GHG emissions reductions are likely to be more reliable.

51 We propose that further work is undertaken on this option to identify what is a suitable threshold for the use of food and feed-based biofuels in New Zealand. We will report back to Cabinet before the end of the year with options.

When the mandate should come into effect

52 We are seeking the view of Cabinet on whether the mandate should come into effect from 2023 (the consultation proposal) or 2024, or from 2024 but with a higher target in the first year.

53 In the consultation proposal, the first emission reduction target that fuel suppliers have to meet would be for the calendar year 2023. This would mean that obligated parties would have to begin importing biofuels to meet the target during 2023 and provide evidence of compliance no later than March 2024.

Fuel wholesalers have differing views on the start date

54 Fuel wholesalers have differing views on how achievable it is for the mandate to come into effect on 1 January 2023.

[5] Note this is an estimate based on a non-comprehensive 2018 database.
[6] EU report

55 Mobil prefers a start date of 1 January 2026. In its submission, Mobil commented that "the timing for the implementation of the proposed mandate is…problematic, with 2023 less than 18 months away. Development of commercial arrangements and logistics for introduction of biofuels at scale into New Zealand fuels is complex, and would require significant investment across the whole biofuels value chain. Typical biofuels such as ethanol and biodiesel must be blended into trucks at each fuel terminal, which would require significant engineering efforts, and extensive design and construction activities. These projects generally take two years to complete from concept to commissioning."

56 Z Energy has indicated to officials that the proposed 2023 start date is challenging but achievable. It notes that if there is a period of at least one year between when the long-term (to 2035) mandate targets and sustainability criteria are published and the date the mandate comes into effect, it should be able to implement the mandate. Free and frank opinions

57 BP commented that: "Currently, there is low capability to manufacture biofuels in NZ and it will take more than two years to build this capability", and that there is currently no storage or distribution infrastructure. BP noted that it could be built but it "will likely take more than two years to design, seek planning approvals, construct, and commission", especially given that fuel importers could all be attempting to build in the same timeframes.

58 Gull believed it could achieve the targets and the 2023 start date, as long as there was certainty, but noted that the industry is not well set up to make the transition in supply.

59 All four fuel wholesalers stressed the importance of long-term policy certainty in establishing a viable biofuels industry in New Zealand.

The advantages and disadvantages of mandate start dates

60 The advantages and disadvantages of the mandate start dates are set out in Table 1.

Table 1 – advantages and disadvantages of mandate start dates

Option	Advantages	Disadvantages	Risks
1 – mandate comes into effect on 1 January 2023	- It will achieve emission reductions beginning in 2023 – about 0.2 Mt for that year	- It will be very challenging for obligated parties to develop the infrastructure - It will also be challenging for the EPA to prepare its regulatory systems in one year	- This would only be achievable if this were given an extremely high priority in the Legislation Programme. Even then, any delay to the legislation or regulations would make this

			timeframe unachievable.
2 – mandate comes into effect on 1 January 2024, with higher starting target	- This achieves emissions reductions on the same trajectory as option 1, 0.4 Mt in 2024 (effectively skipping the 0.2 Mt in the first year) - This provides adequate time for obligated parties and the regulator to prepare - It provides more time to prepare consumers for the change	- It will be challenging for fuel wholesalers to step up to 2.4 percent from zero	- There is a risk that there will be a slightly steeper jump in consumer fuel prices.
3 – mandate comes into effect on 1 January 2024	- All of the advantages of option 2, other than the same emissions reductions	- It will not achieve emissions reductions until 2024 and reductions will lag options 1 and 2 by one year.	

61 The sooner action is taken to reduce transport emissions, the easier it will be to achieve our 2050 net-zero emissions target.

62 However, New Zealand would essentially be starting from a baseline of very minimal biofuel supply, and most (if not all) of the biofuel is to be imported in the first years of the mandate. Independent fuel industry experts have indicated to officials that it would take about two years for fuel companies to plan, design and construct the necessary infrastructure to supply biofuels into the market. This timeframe could also be affected by the impacts of Covid-19. It would be challenging for fuel wholesalers to achieve this by 2023.

63 The date that the biofuels mandate is implemented could also impact on the emissions budgets. However, due to the gradual increase in the emissions intensity targets proposed under the mandate, the mandate is not considered to make a major impact on meeting the emissions budgets until the third budget period (2031 – 2035) and onwards. Whether the biofuels mandate begins in 2023 or 2024 is unlikely to have a strong impact on the achievability of meeting the third budget, and there is an advantage to giving obligated parties adequate time to prepare. Also, to start the mandate in 2023 would only be achievable if this were given an extremely high priority in the Legislation Programme.

64 Officials have recommended option 2.

The targets are proposed to increase to 2035

65 In the consultation document, it was proposed that the initial emission reduction targets would be followed by higher ones to support the transition to a net-zero emissions economy. The initial targets were 1.2 percent in 2023, 2.3 percent in 2024 and 3.5 percent in 2025.

66 There was very strong support for setting provisional targets to 2035 as early as possible to provide predictability and stability which are essential to encourage biofuel planning and investments. Long-term targets will be especially important to help spur investment in domestic production.

67 One submitter noted the risk that without definite long-term targets, fuel companies may lock in technologies that cannot contribute to achieving New Zealand's 2050 net-zero carbon target (or the mandate targets for future years).

68 The key issue in setting future targets is to achieve the right balance between facilitating growth in biofuel supply from sustainable sources, ensuring fuel security, and access to fuels at reasonable costs.

The rate the targets can rise is affected by several factors

69 Beyond 2025, a number of factors will influence the rate at which the percentage targets can rise. These factors are:

- the 'blend walls' of conventional biofuels. Under fuel specifications, biodiesel blends are limited to 7 percent and ethanol blends to 10 percent. if all petrol and diesel for transport were blended to the maximum blend level, the total GHG emission reductions could be approximately 4.6 percent[7]
- the rate at which advanced biofuels will be introduced into the fuel supply. The key constraints are:
    - cost, with international prices for advanced biofuels expected to be 2–4 times higher than petroleum-based equivalents. This level of price premium makes it likely that these fuels will be introduced cautiously; in volumes that suppliers assess will result in fuel price increases that will be tolerated by the market
    - the amount available internationally to be imported. As many of the conversion technologies are still being proven at scale, available volumes to be imported can be expected to be small with countries focusing on domestic supply
    - the long lead times to begin domestically produced advanced biofuels. Research commissioned by the Ministry of Primary Industries has found that production could start from 2028 at the earliest.
- the commitment to avoid biofuels that cause emission increases due to indirect land use change, which will limit the biofuels that will be imported (this is discussed in the sustainability criteria)

[7] This estimates assumes sugar cane ethanol is used with an emissions reduction of 54 percent and used-cooking oil biodiesel with an emissions reduction of 86 percent.

- the limited availability of sustainable feedstocks for biofuels, with increasing demands for them from other sectors.

70 To begin with, it is likely that mainly conventional biofuels will be used to meet the target. It is likely that 2028 is the earliest that domestically produced advanced biofuels could become available.

71 Considering this alongside the emissions reduction potential for conventional biofuels suggests an emissions reduction of approximately 8–9 percent for 2035.

72 Therefore, we propose the following targets for 2023-2025 (depending on which option Cabinet prefers about when the mandate should start).

Year	**Target percentage**		
	Option described in recommendation 17.1	*Option described in recommendation 17.2*	*Option described in recommendation 17.3*
2023	1.2	-	-
2024	2.4	2.4	1.2
2025	3.5	3.5	2.4

73 We propose the following provisional targets for the long-term i.e. 2026-2035 (depending on which option Cabinet prefers about when the mandate should start).

Year	**Target percentage**		
	Option described in recommendation 17.1	*Option described in recommendation 17.2*	*Option described in recommendation 17.3*
2026	3.8	-	-
2027	4.1	4.1	3.8
2028	4.4	4.4	4.1
2029	4.7	4.7	4.4
2030	5.0	5.0	4.7
2031	5.8	5.8	5.0
2032	6.6	6.6	5.8
2033	7.4	7.4	6.6
2034	8.2	8.2	7.4
2035	9.0	9.0	8.2

The long-term targets may need to change if conditions alter

74 Long-term targets are desirable to create certainty for biofuel producers, fuel suppliers and customers. At the same time, technological advances, market demand and supply become more uncertain the further into the future. Setting long-term targets risks locking in a future level of biofuel production and supply that could be detrimental to the climate, the environment or the economy.

75 To mitigate this risk, we propose that the provisional targets be reassessed against a defined set of criteria before they come into effect. The criteria would be set in the primary legislation and the provisional targets would be included in regulations. The Minister of Energy and Resources would take criteria into account, and make a recommendation to Cabinet to confirm or amend the targets in the regulations.

76 The criteria would enable the Minister to assess whether the provisional targets will still be of net benefit to New Zealand and the global effort to reduce GHG emissions. They would contain relevant considerations, including:

- The targets are consistent with the scale of emission reductions needed from transport to achieve the emissions budgets for 2026–30 and 2031–2035 and to reach net-zero carbon emissions by 2050.
- The targets help to facilitate the supply of advanced biofuels into the New Zealand market and support domestic production.
- New Zealand can be confident that the volume of biofuels needed to meet the targets can be sourced without the sustainability criteria being breached.
- The target's trajectory allows fuel suppliers and domestic biofuel producers a reasonable period of time in which to have the requisite biofuels infrastructure in place.
- Any resultant increase in fuel prices as a result of the targets can be absorbed by the economy without undue detriment to economic activity, and measures are in place to address any distributional impacts arising from fuel price rises.
- The targets recognise the limits of New Zealand's light and heavy road fleets in the use of conventional biofuels, taking into account the blend walls.

77 The Ministry of Business, Innovation and Employment and te Manatū Waka would manage the process, supporting the Minister and Cabinet to reassess the targets. This would include stakeholder consultation. The targets would be confirmed by Cabinet at the same time as the Government's response to the recommendations of the Climate Change Commission.

We propose a change to which fuel suppliers must comply with the mandate

78 We propose that the 'point of obligation' (who must comply with the mandate) is set at all those who first import transport fuels to New Zealand or refine them[8]. This is a change to the consultation proposal, which required all fuel suppliers (fuel wholesalers and fuel resellers) that sell more than 10 million

[8] Under this definition Z Energy, Mobil, bp and Gull would need to comply with the mandate.

litres of transport fuel in New Zealand per year to comply with the mandate. The intent of this was to ensure that biofuels penetrated as much of the retail market as possible, and did not leave wholesale suppliers having to meet a larger proportion of the obligation.

79 However, many fuel resellers, who purchase fuel from one of the wholesalers, recommended setting the 'point of obligation' as close to the top of the supply chain as possible on the grounds that it would reduce compliance costs. It would also be easier for fuel wholesalers to meet the mandate as they deal with larger volumes.

80 This would also align the mandate with the approach taken in the Emissions Trading Scheme and the general scheme at which excise and excise-equivalent duties are charged.

Increasing the penalty for non-compliance

81 We propose increasing the maximum pecuniary penalty for non-compliance to $800 for every tonne of CO_2 equivalent emissions not achieved under the mandate, and retaining the proposed maximum fines for providing false or incomplete information.

82 Under the proposed mandate, the EPA would apply to the High Court to impose a maximum penalty of $800 per tonne of CO_2 equivalent where suppliers fail to achieve the minimum percentage emissions reduction. The High Court would have the ability to reduce the penalty. It would take relevant information into account when making that assessment, including where the High Court was satisfied that the fuel wholesaler took all reasonable steps to meet the target GHG emission reduction.

83 Some submitters commented that the penalty was too low, and there was a risk that fuel suppliers could elect to simply pay the penalty instead of participating in the mandate. The penalty needs to be set at a level high enough to deter this; it needs to be higher than the cost of complying with the mandate. Therefore, we propose that the maximum penalty is increased to $800 per tonne of CO_2 equivalent. However, we propose that it is maintained at $300 per tonne of CO_2 equivalent for the first year of the mandate to recognise the long lead times to secure sufficient emissions-reducing biofuels.

84 The consultation document included a proposal that anyone providing knowingly providing information that is false or incomplete to satisfy compliance with the mandate could attract fines of:

84.1 for an individual, a fine not exceeding $100,000 for a person

84.2 for an organisation, a fine not exceeding $500,000.

Expanding the mandate to include other low-emission fuels

85 We recommend that the mandate is reviewed after it has been in operation for two years to determine whether it should be expanded to include other low-emissions fuels, such as hydrogen and electricity. While that might decrease

incentives for biofuels supply and use, it could support additional transport decarbonisation initiatives, such as electrification of the light vehicle fleet. If the mandate was expanded, the targets would also need to be revised.

86 Low-emissions transport fuel mandates are already in practice internationally. For example, California's Low Carbon Fuel Standard currently requires liable fuel suppliers to reduce their total GHG emissions from transport fuel through a mix of qualifying low-carbon intensity[9] (low-emissions) fuels.

The regulator

87 The regulator would monitor compliance and take enforcement action where necessary. The Environmental Protection Authority (EPA) administers the Emissions Trading Scheme, which has some synergies with how the mandate would work in practice, e.g. the obligated parties under the mandate must also surrender New Zealand Units under the Emissions Trading Scheme.

88 As the regulator, the EPA would be responsible for:

- Verifying that biofuels supplied under the mandate comply with the sustainability criteria
- Verifying that obligated parties are meeting the GHG emission reduction targets, and administering the flexibility mechanisms described below
- Carrying out compliance and enforcement

Elements of the mandate which remain unchanged

89 There are several elements of the mandate which we propose remain unchanged from the consultation proposal.

Annual reporting

90 To enable compliance against the emissions reduction percentage to be assessed, obligated parties must submit annual reports which have been subject to independent assurance as to their accuracy, to the EPA within three months after the end of each calendar year i.e. by 31 March each year (ETS reporting must also be completed by this date).

91 In the annual return, fuel suppliers would set out the emissions reductions they have achieved through the supply of biofuels relative to the mandated percentages. Each year the EPA would verify and publicly report, at a high level, the performance of the obligated parties in meeting the target emissions reduction to increase transparency and public accountability.

[9] **Carbon intensity** is the measure of GHG emissions associated with producing and consuming a transportation fuel, measured in grams of carbon dioxide equivalent per megajoule of energy (gCO_2e/MJ).

Deferral available to fuel suppliers in the first two years

92 To minimise any risk that fuel suppliers are unable to source adequate levels of biofuels, fuel suppliers would be able to partially or fully defer meeting their mandated emissions reductions for the first two years into the third year. However, approval to defer would need to be gained from the Minister of Energy and Resources, and an emissions penalty of 0.1 percent would be applied for deferral in the second year of operation of the mandate.

Retaining the flexibility mechanisms

93 The flexibility mechanisms, which are designed to reduce compliance costs and reward suppliers that move early, would be retained. These are:

- **Banking any surplus emission reductions**: A fuel supplier could carry-forward a surplus of the required percentage emissions reduction from one year to use to meet their percentage emissions reduction in the following years.
- **Borrowing for up to a 10 percent shortfall in emissions reductions**: If a fuel supplier was short in meeting their percentage emissions reductions in a year, it could make up that shortfall the following year. Borrowing would be limited to 10 percent of the required emissions reduction.
- **Trading**: Fuel suppliers would be able to trade with others to meet the mandated percentages. Trading would be conducted through entitlement agreements between fuel suppliers, or between fuel suppliers and biofuel producers/owners.

Calculation of the obligation under the mandate

94 Obligated parties must reduce the GHG emissions of the fuels they sell by a set percentage each year by deploying biofuels in the fuel supply.

95 The carbon intensity of each biofuel (obtained from the life cycle analysis, expressed in grams of carbon dioxide equivalent per mega joule) must include GHG emissions from each part of the production and supply chain (from raw material to end product). This will include but is not limited to:

- direct land use change
- cultivation and harvesting
- any production or refining processes
- transport

96 The regulations will provide a more detailed methodology for calculating the GHG emissions of biofuels. The regulations will also set out a standard carbon intensity for each fossil fuel to be used in the calculation of the

required emissions reduction including GHG emissions from each part of the production and supply chain.

Promoting domestic production of advanced biofuels

97 While the mandate could create a stable platform for a domestic biofuels industry to develop, on its own it is unlikely to incentivise domestic production. To incentivise domestic production there would likely need to be other government support. This could take different forms including co-investment in an advanced biofuels plant or supply chain infrastructure, a per litre production incentive or facilitating access to feedstocks.

98 The Wood Fibre Futures project, run by the Ministry of Primary Industries, is nearing completion on a feasibility study into the production of four priority products from wood fibre, including advanced biofuels and biocrude[10]. The study indicates that scale will be critical to making the production of SAF or other advanced liquid biofuels from woody biomass commercially viable. However, it recommended waiting for 3–5 years to allow other first movers to prove that the technology pathway is commercially viable, technical problems are ironed out and the cost of the plant is lower.

99 Air New Zealand has signed a memorandum of understanding to partner with MBIE on a feasibility study for domestic production of SAF[11]. Free and frank opinions The feasibility study will look at the potential for domestic SAF production, and what government support might be needed to make that commercially feasible.

100 Should the feasibility study support the case for developing SAF production in New Zealand and identify government incentives to facilitate such development, officials will work with key industry players in New Zealand to develop the policy options.

Implementation

101 The Environmental Protection Authority, together with the Ministry of Business, Innovation and Employment and Te Manatū Waka, will be responsible for implementing the mandate. This will include:

- developing the information technology to record and monitor compliance by obligated parties.
- providing guidance to obligated parties on annual reporting.

[10] Biocrude is a thick black liquid, produced from wood fibre, that can be used to substitute coal used in boilers in the process heat sector. Biocrude can be converted to biodiesel but needs to be processed in a refinery first. This biodiesel can be blended with diesel, but only to about 7 percent. There are emerging technologies that can convert biocrude to SAF and renewable 'drop in' diesel but commercialisation of these technologies is still some way off.

[11] The production process for SAF, an advanced biofuel, also yields renewable diesel and renewable petrol in different ratios, depending on the production process.

- confirming the amount of biofuels that must be supplied by obligated parties.

Review of the mandate

102 The Ministry of Business, Innovation and Employment and Te Manatū Waka will review the mandate after it has been in effect for two years to:

- evaluate the GHG emission reductions achieved as a result of the mandate, including the impact of the sustainability criteria.
- assess its impacts on fuel security, fuel availability and choice and fuel prices.
- review the maximum penalty levels.
- evaluate whether a single target for petrol and diesel is appropriate.
- determine whether the mandate should be expanded to include other fuels such as electricity and hydrogen.

103 If there are changes to be made to the mandate to better give effect to its objectives, we will report back to Cabinet to seek approval.

Financial Implications

104 The costs to implement the mandate will primarily rest with the EPA and will be made up of:

- Staff costs, which would cover engagement with obligated parties, verification of compliance with obligations, and any compliance and enforcement activities
- Costs of information technology to record and monitor compliance with the mandate

105 A tagged contingency was included in Vote Business, Science and Innovation in Budget 2021 for the costs of implementing the biofuels mandate. The EPA will prepare a more detailed implementation plan, including costs of implementation. The tagged contingency may need to be revised, depending on Cabinet's decision on the start date and a more detailed estimate of the implementation costs. If this is the case, we will bring a separate paper to Cabinet or seek more funding through Budget 2023.

	$m – increase/(decrease)				
	2020/21	**2021/22**	**2022/23**	**2023/24**	**2024/25 & Outyears**
Operating Contingency	-	-	1.500	1.500	3.000
Total	**-**	**-**	**1.500**	**1.500**	**3.000**

Legislative Implications

106 The sustainable biofuels mandate will require both primary legislation and regulations. We will put in a proposal to include a bill on the Legislation Programme to implement the mandate. Depending on the outcome of the legislative bid, drafting instructions are likely to be provided to the Parliamentary Counsel Office by early 2022.

107 The following elements of the policy framework will be included in the regulations:

- The provisional targets for the mandate, and a separate provisional target for aviation, once developed. Because of possible technological advances or changes in market conditions, we propose that the provisional targets are confirmed two years before they come into effect, using the criteria set out in paragraph 76.
- Specific definitions for how the sustainability criteria set out in legislation must be evaluated.
- The international sustainability certification scheme or schemes which must be used to certify that biofuels meet the sustainability criteria, and evaluate the carbon intensity of a biofuel.
- A standard carbon intensity for each class of fossil fuel, to be used in calculating whether they have achieved the required emission reductions.
- Specific details on how obligated parties should calculate their obligation.
- The penalty levels for different situations (the maximum penalty will be set in the legislation).

108 MBIE has also started a review of the Engine Fuel Specifications Regulations in light of developments in the fuel sector, and also to include drop-in biofuels which are not currently regulated. Subject to Cabinet agreement, the exposure draft of the amendments (if any) to the Engine Fuel Specifications Regulations is expected to be released for consultation by mid-2022.

Impact Analysis

109 The impact of the mandate depends, at least partially, on the speed at which and how the transport sector decarbonises over the coming decades. As the proposed mandate is an emissions intensity target based on the use of liquid fossil fuels – the pace at which New Zealand transitions away from these fuels will be a determining factor for the magnitude of the impact. For example, if New Zealand is slow at adopting electric vehicles (EVs) the mandate would

have a greater impact on emissions reduction and a greater economic cost, and vice versa.

110 Because of this there are significant uncertainties in the underlying modelling assumptions about a range of factors, including carbon prices, future technological advancements for both biofuels and competing transport technologies (i.e. EVs), feedstock costs, and their implications for the relative prices of biofuels and fossil fuels. The further into the future, the less certainty there is about the modelling results.

111 The quantitative emissions reduction and likely economic impacts of the mandate (described below) have been assessed through modelling.[12] The baseline used to compare results contains assumes significant progress is made towards meeting the emissions budgets in the transport sector[13].

Emissions reduction impacts

112 The mandate is expected to reduce emissions by around 10 $MtCO_2$-e by 2035; contributing about 1.2 – 1.3 $MtCO_2$-e for the first emissions budget, 3.3 to 3.6 $MtCO_2$-e for the second, and 4.6 – 5.8 $MtCO_2$-e for the third.

Economic impacts of the biofuels mandate

113 The modelling results indicate introducing a sustainable biofuels mandate could come at an economic cost. The economy will continue to grow, however real GDP could be up to 0.3 per cent lower than the baseline in 2025, 0.6 per cent lower than the baseline in 2030, and 0.8 per cent lower than the baseline in 2035.

114 Although the mandate will have an economic impact, there would also be a significant cost from not meeting the emissions budgets and this cost has not been fully accounted for in our modelling. For example, the baseline scenario is about 5 $MtCO_2$-e short of the expected reductions from the transport sector shown in the Climate Change Commission's demonstration path.

Where the costs will fall

115 The costs of the mandate will fall on:

- Fuel wholesalers, who will need to invest in new infrastructure, change the way they manage their supply chains, and face additional compliance costs, and some costs on fuel retailers. The fuel sector is expected to pass on at least some of the costs associated with the implementation of the biofuels mandate to fuel users.

[12] Officials have a high degree of confidence in the direction of the impacts (i.e. positive or negative), however there are significant uncertainties regarding the magnitude of the impact.
[13] Under this baseline, there is accelerated adoption of EVs, the electrification of buses and rail, and a significant amount of mode shift towards active and public transport. However, policy to incentivise a faster uptake of biofuels (i.e. the mandate) is not included. For the baseline, transport emissions reduce fast enough to meet our first emissions budget and possibly our second, however emissions reductions would be short of meeting the third budget.

- The transport sector (e.g. airlines, freight operators) and businesses using diesel (such as farming, heavy construction and fishing) will face higher fuel costs, as biofuels are more expensive than their fossil fuel equivalents.

- Households using transport fuels in their internal combustion engine (ICE) vehicles will also face higher fuel costs. The estimated impact on fuel prices could be up to 5 cents per litre for petrol and up to 10 cents per litre for diesel in 2025.

116 Biofuels are 'zero-rated' under the Emissions Trading Scheme (importers are not liable to surrender New Zealand Units for biofuels), the price of biofuels will not be directly affected by a rising carbon price.

Regulatory Impact Statement

117 The regulatory impact analysis requirements apply to this proposal. A regulatory impact statement has been prepared and is appended to this paper.

118 MBIE's Regulatory Impact Analysis Review Panel has reviewed the attached Impact Statement prepared by MBIE. The Panel considers that the Impact Statement meets the criteria necessary for Ministers to make informed decisions on the proposals in this paper.

Climate Implications of Policy Assessment

119 The Climate Implications of Policy Assessment (CIPA) team has been consulted and confirms that the CIPA requirements apply to this proposal. A CIPA disclosure sheet is appended to this paper.

120 The sustainable biofuels mandate will have a substantial impact on emissions, resulting in a reduction of around 1.2 Mt CO_2-e within the first emissions budget period (2022-2025), and around 9 to 10.6 Mt CO_2-e within the first three emissions budget periods (2022-2035).

121 If the mandate comes into effect in 2024 rather than 2023, the emissions reductions from the mandate within the first year will not be fully realised. The emissions savings within each budget period will be less, and the impact delayed by one year. The emissions savings lost in the first year equate to around 0.1 to 0.2 Mt CO_2-e depending on the mandated target in 2024.

122 The CIPA team has assessed the emissions impact calculations and consider them to be robust in terms of measuring the direct domestic emissions impact. Potential flow on impacts from the mandate's impact on fuel demand and associated emissions have not been considered in the emission impact calculations but are consider small in comparison. The economic modelling is subject to high levels of uncertainty and there is a risk it could potentially overstate the impact on GDP.

123 It in order to ensure emissions reductions to atmosphere to the levels estimated are achieved, it is critical that the carbon intensity of each biofuel used is calculated for its full lifecycle (including emissions resulting from direct land use change, cultivation and harvesting, production, transport), and only biofuels with relatively low life cycle emissions are imported.

Population Implications

124 Increased fuel prices from the sustainable biofuels mandate will negatively impact on people with few viable low-emissions transport alternatives, such as disabled people or low-income New Zealanders, including Māori and Pacific communities, and rural communities. Low-income households will be especially affected as transport consumes a larger share of their household expenditure.

125 To offset these distributional impacts in urban areas, greater investment will be made in public transport and walking and cycling infrastructure, especially in low-income areas. Additional initiatives are also being investigated, such as making low-emissions vehicles affordable for low-income New Zealanders through an equity-oriented vehicle scrap and replace scheme.

126 There are no significant gender implications arising from this proposal at present. However, women are over-represented in low-income single-parent households.

Human Rights

127 The proposals in this paper are consistent with the New Zealand Bill of Rights Act 1990 and the Human Rights Act 1993 at this stage. A final view on the consistency of the proposals contained in this paper with the rights and freedoms affirmed in the New Zealand Bill of Rights Act 1990 and the Human Rights Act 1993 will only be possible once the legislation has been drafted.

Consultation

128 The following agencies were consulted in the development of this paper: the Civil Aviation Authority, the Environmental Protection Authority, Waka Kotahi New Zealand Transport Agency, the Ministry of Business, Innovation and Employment, the New Zealand Customs Service, the Energy Efficiency and Conservation Authority, the Ministry for Primary Industries, the Ministry of Social Development, Te Puni Kōkiri, the Department of Conservation, the Ministry of Justice, the Ministry for the Environment, Maritime New Zealand, the Ministry of Foreign Affairs and Trade, the Treasury, and the Inland Revenue Department. The Department of Prime Minister and Cabinet has been informed.

Communications

129 Our offices will work with the Prime Minister’s Office on the approach to and timing of public announcements on the biofuels mandate.

130 Before the mandate comes into effect, there will need to be a public communications campaign to inform people about what impacts the introduction of biofuels into the fuel supply might have on different vehicles.

Proactive Release

131 The paper will be proactively released with any necessary redactions, no later than 30 working days after Cabinet's decisions are confirmed.

Recommendations

The Minister of Energy and Resources and the Minister of Transport recommend that the Committee:

1 note that in April 2021, Cabinet:

1.1 agreed to the release of a consultation document *Increasing the Use of Biofuels in Transport: Consultation Paper on the Sustainable Biofuels Mandate* which sought feedback on the preferred design of the Sustainable Biofuels Mandate;

1.2 invited the Minister of Energy and Resources and the Minister of Transport to report back on the outcome of the consultation;

[CAB-21-MIN-0046]

Greenhouse gas emissions reduction mandate for all liquid transport fuels

2 agree to proceed with a sustainable biofuels mandate based on greenhouse gas (GHG) emissions reductions, which would require obligated fuel suppliers to reduce the total GHG emissions of the fuels they sell by a set percentage each year through the supply of biofuels;

3 agree that the mandate apply to all liquid fossil fuel for transport produced in New Zealand or imported into New Zealand;

4 agree that fuel suppliers should have flexibility to deploy any type of biofuels in any location in New Zealand, as long as they meet the sustainability criteria;

A separate mandate for aviation

5 note that MBIE is collaborating with Air New Zealand on a feasibility study on the potential for domestic production of sustainable aviation fuel;

6 invite the Minister of Energy and Resources and the Minister of Transport to report back on the proposed settings of the SAF-specific mandate by December 2022, once the findings of Air New Zealand's SAF feasibility study are available;

7 note that the Climate Change Commission is due to consider whether international aviation and marine emissions should be included in New Zealand's emission budgets by 2024;

8 agree that once the Climate Change Commission has completed this, the mandate will be reviewed to decide whether to include international aviation and marine emissions;

A single mandate target for road-based transport

9 agree that there should be a single mandate target for fossil petrol and diesel for road-based transport;

Ensuring that only sustainable biofuels are used to fulfil the mandate

10 agree that the bill will provide for high-level sustainability criteria including:

10.1 **Biodiversity:** feedstocks should not have a significant adverse effect on biodiversity.

10.2 **Impact on carbon stocks:** feedstocks should not lead to deforestation of native forests, canopy forests or the destruction of wetlands or peatland to plant biofuel crops. The impact of biofuel crops on soil carbon should also be considered.

10.3 **Food and feed security:** feedstocks should not adversely impact food and feed security.

10.4 **Water quality and availability:** biofuels crops should not negatively affect water quality or significantly restrict its availability in an area.

10.5 **The risk of indirect land use change:** feedstocks should not be associated with a high risk of indirect land use change.

10.6 **Use of waste:** it will be important that the mandate supports the principles of the waste hierarchy.

11 invite the Minister of Energy and Resources and the Minister of Transport to report back to Cabinet in December 2021 on the preferred option for addressing the risk of indirect land use change;

12 agree that the detailed methodologies for determining whether a biofuel meets the sustainability criteria will be included in the regulations;

13 agree that obligated parties must use international sustainability certification schemes to certify that feedstocks and biofuels meet the sustainability criteria and to evaluate the life cycle emissions of biofuels;

14 agree that the sustainability certification scheme or schemes to be used will be prescribed in regulations;

Mandate targets and pathway

15 agree that EITHER

15.1 the mandate should come into effect from 1 January 2023

OR

15.2 the mandate should come into effect from 1 January 2024 but with a higher target in the first year (effectively skipping the first year's target)

OR

15.3 the mandate should come into effect from 1 January 2024

16 note that for the mandate to come into effect from 1 January 2023, the bill would need an extremely high priority on the Legislation Programme, and any delay would make it difficult to achieve this;

17 agree that the targets for the years 2023-2025 will be set out in the regulations at the levels below

Year	**Target percentage**		
	Option described in recommendation 17.1	*Option described in recommendation 17.2*	*Option described in recommendation 17.3*
2023	1.2	-	-
2024	2.4	2.4	1.2
2025	3.5	3.5	2.4

18 agree that the provisional targets for the years 2026-2035 will be set out in regulations at the levels below

Year	**Target percentage**		
	Option described in recommendation 17.1	*Option described in recommendation 17.2*	*Option described in recommendation 17.3*
2026	3.8	-	-
2027	4.1	4.1	3.8
2028	4.4	4.4	4.1
2029	4.7	4.7	4.4
2030	5.0	5.0	4.7
2031	5.8	5.8	5.0
2032	6.6	6.6	5.8
2033	7.4	7.4	6.6
2034	8.2	8.2	7.4
2035	9.0	9.0	8.2

19 agree that the provisional targets for 2026-2030 will be confirmed by Cabinet in 2024 and the provisional targets for 2031-2035 in 2029, based on the recommendation of the Minister for Energy and Resources.

20 agree that in making this recommendation, the Minister must carry out an assessment of relevant considerations, likely including whether:

20.1 They are consistent with the scale of emission reductions needed from transport to achieve the emissions budgets for 2026–30 and 2031–2035 and to reach net-zero carbon emissions by 2050.

20.2 They help to facilitate the supply of advanced biofuels into the New Zealand market and support domestic production.

20.3 New Zealand can be confident that the volume of biofuels needed to meet the targets can be sourced without the sustainability criteria being breached.

20.4 The target's trajectory allows fuel suppliers and domestic biofuel producers a reasonable period of time in which to have the requisite biofuels infrastructure in place.

20.5 Any resultant increase in fuel prices as a result of the targets can be absorbed by the economy without undue detriment to economic activity, and measures are in place to address any distributional impacts arising from fuel price rises.

20.6 The targets recognise the limits of New Zealand's light and heavy road fleets in the use of conventional biofuels, taking into account the blend walls.

Who is obligated under the mandate

21 agree that the obligated parties under the mandate will be any entity that imports into New Zealand or produces liquid fossil fuels for transport;

Calculation of the obligation under the mandate

22 agree that the regulations may prescribe further detail about how the required emission reduction target must be calculated;

23 agree that the GHG emissions of each biofuel must be obtained from a life cycle assessment which covers each part of the production and supply chain (from raw material to end product);

24 agree that the regulations will prescribe a detailed methodology for the life cycle assessment of GHG emissions factors of biofuels;

25 agree that the regulations will prescribe a standard GHG emissions factor for each fossil fuel;

Flexibility mechanisms

26 agree that obligated parties will be able to:

26.1 partially or fully defer their obligation for the first two years of the mandate with permission from the Minister of Energy and Resources;

26.2 bank excess credits into the next year;

26.3 borrow up to 10 percent of the required emission reduction credits from the next year, as long as they are repaid in the next year;

26.4 trade credits between each other;

to meet their obligation under the mandate;

27 agree that the Minister of Energy and Resources, in deciding whether to allow an obligated party to defer, will apply a test set out in the primary legislation;

28 agree that if obligated parties defer their emissions reductions, an emissions penalty of 0.1 percent would be applied for each year that the deferral is taken up;

Implementation of the mandate

29 agree that the Environmental Protection Authority, as the regulator, will:

29.1 verify that biofuels supplied under the mandate comply with the sustainability criteria

29.2 verify that obligated parties are meeting the GHG emission reduction targets, and administering the flexibility mechanisms described below

29.3 carry out compliance and enforcement

29.4 require obligated parties to produce documents and information relevant to its functions as regulator

30 agree that obligated parties must submit annual reports which have been subject to independent assurance as to accuracy to the Environmental Protection Authority within three months after the end of each calendar year i.e. by 31 March each year;

31 agree that the Environmental Protection Authority will publish a summary of the obligated parties' performance in meeting the target emissions reduction;

32 note that there is a tagged contingency in Vote Business, Science and Innovation for the implementation of the sustainable biofuels mandate;

33 invite the Minister of Energy and Resources to report back to Cabinet on the final amount of the funding for the administration of the biofuels mandate in 2022;

Compliance and enforcement

34 agree that for an obligated party who does not comply with the mandate, the primary legislation will provide for the Environmental Protection Authority to apply to the High Court to apply a maximum pecuniary penalty of:

34.1 up to $300 per tonne of carbon dioxide equivalent emissions in the first year of the mandate; or

34.2 up to $800 per tonne of carbon dioxide equivalent emissions in subsequent years;

35 agree that providing information to satisfy compliance with any aspect of the mandate that was knowingly false or incomplete is an offence and could attract fines:

35.1 for an individual, a fine not exceeding $100,000 for a person

35.2 for an organisation, a fine not exceeding $500,000.

Legislative implications

36 note that the mandate will be given effect through:

36.1 a sustainable biofuels mandate bill;

36.2 sustainable biofuels mandate regulations;

37 invite the Minister of Energy and Resources and the Minister of Transport to issue drafting instructions to the Parliamentary Counsel Office to give effect to the recommendations relating to the sustainable biofuels mandate bill;

38 agree that the Minister of Energy and Resources and the Minister of Transport are authorised to further clarify and develop policy matters relating to the proposals in this Cabinet paper in a manner not inconsistent with the policy recommendations contained in the paper.

Authorised for lodgement

Hon Dr Megan Woods

Minister of Energy and Resources

Hon Michael Wood

Minister of Transport