MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT
HĪKINA WHAKATUTUKI

McGuinness Institute title: [DEV-22-SUB-0241] Sustainable Biofuels Obligation: Final Policy for Regulations

COVERSHEET

Minister	Hon Dr Megan Woods	**Portfolio**	Energy and Resources
Title of Cabinet paper	Sustainable Biofuels Obligation: Final Policy for Regulations Sustainable Biofuels Obligation Bill: Approval for Introduction	**Date to be published**	9 November 2022

List of documents that have been proactively released		
Date	**Title**	**Author**
October 2022	Sustainable Biofuels Obligation: Final Policy for Regulations	Office of the Minister of Energy and Resources
19 October 2022	Sustainable Biofuels Obligation: Final Policy for Regulations DEV-22-MIN-0241 Minute	Cabinet Office
October 2022	Sustainable Biofuels Obligation Bill: Approval for Introduction	Office of the Minister of Energy and Resources
19 October 2022	Sustainable Biofuels Obligation Bill: Approval for Introduction DEV-22-MIN-0242 Minute	Cabinet Office

Information redacted **NO**

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In Confidence

Office of the Minister for Energy and Resources

Office of the Minister for Transport

Cabinet Economic Development and Infrastructure Committee

Sustainable Biofuels Obligation: Final Policy for Regulations

Proposal

1 This paper seeks agreement to the final policy for regulations to enable the implementation and administration of the Sustainable Biofuels Obligation.

Relation to government priorities

2 The proposed Sustainable Biofuels Obligation (the Obligation) will be one of the many actions taken in response to Parliament's declaration of a climate change emergency. It aligns with the Government's focus on intergenerational wellbeing as set out in the 2020 Speech from the Throne.

3 The Obligation makes a significant contribution to the quantified emissions reductions set out in the Government's Emissions Reduction Plan (ERP). Within the first emissions budget period (2022 – 2025), the Obligation is expected to result in a reduction of around 1 $MtCO_2e$, with reductions of approximately 3 $MtCO_2e$ and 4.4 $MtCO_2e$ for the second (2026 – 2030) and third (2031 – 2035) emissions budget periods respectively.

Executive Summary

4 This paper provides recommendations on the final policy design for the regulations to support the implementation of the Obligation. Most of these recommendations mirror the proposed options contained in the consultation document - *Sustainable Biofuels Obligation: Proposals for regulations.*

5 The discussion document proposed that the lifecycle GHG emissions of biofuels be calculated as the sum of the disaggregated emissions of each supply chain component (i.e., transport and distribution). The regulations should provide for:

5.1 Default emissions intensity factors (default values) for different types of biofuels and their disaggregated supply chain components. These values would mirror the European Union default values contained in the Renewable Energy Directive II.

5.2 Individual emissions intensity factors (actual values) for biofuels or their supply chain components to be allowed. Actual values must be calculated according to the methodology the European Union Renewable Energy Directive II and verified by one of the approved certification schemes.

5.3 A single lifecycle emissions intensity factor for all fossil fuels of 94 gCO_2e/MJ.

6 The regulations will also provide for methodologies for determining the sustainability of biofuels and their eligibility under the Obligation.

7 Initially, most biofuels used to meet the Obligation will be sourced from global markets. Selection of the International Sustainability and Carbon Certification (ISCC) and the Roundtable on Sustainable Biomaterials (RSB) standards as the approved sustainability certification schemes will enable the obliged persons to rapidly procure biofuels to meet the initial targets.

8 The ISCC and RBS are widely used and well-regarded international biofuels sustainability standards. If a biofuel is certified under either of these standards, it can be considered to have met the sustainability criteria in the legislation for biodiversity, impact on carbon stocks, and water quality and availability. To address the risks of indirect land use change and impacts on food security however, we propose the following additional measures:

8.1 An exclusion of feedstocks that have historically resulted in significant emissions from indirect land use change (palm and soybean).

8.2 A cap on the maximum amount of biofuels derived from food and feed-based feedstocks.

9 The marginal abatement cost of introducing the ban and cap is \$122/tCO_2e compared to \$91/tCO_2e if no additional action was taken (this abatement cost assumes ethanol and biodiesel infrastructure in New Zealand is already developed). This ban and cap could add around 1 cent per litre to the cost of diesel in 2023. Ethanol prices are unlikely to be significantly impacted as neither the ban nor cap would significantly reduce the available supply of ethanol.

10 Submissions and agency feedback has identified that the RSB Standard may not be suitable for certifying biofuels that could be produced from certain types of woody biomass (i.e. roundwood). We propose that Cabinet direct the Minister for Energy and Resources and the Minister of Forestry to report back to Cabinet by June 2023 with options to provide assurance on sustainability of roundwood as a feedstock.

11 We propose using the definitions for waste, co-product and residue proposed in the discussion document, as well as how the GHG emissions and sustainability characteristics of these feedstocks are measured and attributed.

Background

12 Cabinet agreed to the final policy design of the Sustainable Biofuel Obligation (the Obligation) in November 2021 [ENV-21-MIN-0058].

13 The Obligation requires importers or producers of liquid transport fossil fuels to reduce the greenhouse gas (GHG) emissions intensity of those fuels by a set percentage each year by supplying biofuels (in blended or in neat form). It applies to all liquid fossil fuel for transport produced in, or imported to, New Zealand, excluding aviation fuels. In October 2021, Cabinet agreed that aviation fuels will be addressed by a separate Sustainable Aviation Fuel (SAF) obligation.

14 The required emissions intensity reduction for the first two years are 2.4 and 3.5 percent respectively. Provisional targets are set for 2026 and beyond, increasing up to 9.0 percent by 2035. The Environmental Protection Authority will regulate the Obligation.

15 The Obligation will require regulations for its implementation. In May 2022, Cabinet approved the release of a discussion document *Sustainable Biofuels Obligation: Proposals for regulations* which set out proposed options for the regulations [CAB-21-MIN-0185]. This included:

15.1 A methodology for calculating the greenhouse gas emissions intensity of biofuels used to meet the Obligation, based on a lifecycle emissions analysis;

15.2 Rules to apply the sustainability criteria to determine the eligibility of different biofuels; and

15.3 The selection of international sustainability certification schemes.

16 There were 25 submissions on the discussion document on regulations. Feedback on the key proposals in the discussion document is included in the analysis section of this paper.

17 Cabinet also invited us to report back on the preferred option for addressing the risk of indirect land use change (ILUC). ILUC and its associated emissions is one of the major concerns about the credibility of the emissions mitigation of conventional crop-based biofuels. ILUC is the impact on other land when demand for land to grow biofuel crops displaces demand for other goods such as food and feed commodities.

Analysis - Calculating the obligation

18 Cabinet has agreed that the approach to calculating an obligated party's progress towards meeting the mandated targets in a simplified form would be:

$$Emissions\ intensity\ reduction = 100 \times \frac{E_{fossil\ fuels} - E_{supplied}}{E_{fossil\ fuels}}$$

19 Where:

19.1 $E_{fossil\ fuel}$ = the emissions in tonnes of carbon dioxide equivalent if all the supplier's fuels were fossil fuels.

19.2 $E_{Supplied}$ = the emissions in tonnes of carbon dioxide equivalent of the supplier's actual fuel supply, including fossil fuels and biofuel blends.

20 To determine $E_{Supplied}$ and $E_{fossil\ fuels}$ the regulations will need to set out how the following values are determined:

20.1 The emissions intensity of each type of fuel (in kilograms of carbon dioxide equivalent per megajoule).

20.2 The energy content of each type of fuel (megajoules per litre).

The emissions intensity of biofuels

21 The discussion document proposed that the lifecycle GHG emissions of biofuels be calculated as the sum of the disaggregated emissions of each biofuels supply chain component. The supply chain includes the net emissions from production and cultivation of the feedstocks, refining and processing, and transport and distribution.

22 We propose that default values for each component of the supply chain are set in regulations. Default values should be conservative estimates so that potential emissions reductions are not overstated. We propose that default values set out in Annex V of the European Union (EU) Renewable Energy Directive II (RED II) are used initially to enable the obligation to be come into effect from 1 April 2023. Independent analysis undertaken by Hale and Twomey[1] has shown that the differences between the emissions intensity of biofuels used in the EU and those used in New Zealand is likely to be minimal, even when differences in transportation are accounted for.

23 We also propose prescribing a methodology to enable fuel suppliers or biofuels producers to determine and use actual values. The methodology would mirror that set out in Annex V of the RED II. Actual values would need to be verified by one of the sustainability certification schemes (covered in paragraph 34-35) before their use in the Obligation.

24 The use of actual values will incentivise emissions improvements along the biofuels supply chain due to the ability to deliver greater GHG emissions returns. The use of default values can support the robustness of supply chains and reduce compliance costs.

25 Nearly all submitters supported the proposed use of either default or actual values (if calculated under a prescribed methodology), or a combination of both for different parts of the biofuels supply chain. Many submitters considered the EU's RED II to be an internationally accepted and recognised

[1] https://www.mbie.govt.nz/dmsdocument/22485-emissions-intensity-calculations-for-the-biofuels-mandate-pdf

system, and that mirroring RED II would help support the Obligation's implementation.

The emissions intensity of fossil fuels

26 For calculating the lifecycle emissions intensity of fossil fuels, we propose to use a single default value of 94g CO_2e/MJ. Using a single factor for fossil fuels would simplify the calculation, reduce compliance costs and complexity, and prevent any changes in the supply and mix of liquid fossil fuels from changing the emissions intensity reduction target that is set by the Obligation.

27 There was mixed feedback on this proposal, with most of the obliged persons in opposition. Opposing submitters considered the approach overly simplistic and contrary to the Government's broader emissions reduction objectives (because the fuel industry would have less incentive to achieve emissions reductions through efficiency improvements in fossil fuel supply chains). The obliged persons who supported this approach considered it would incentivise the use of biofuels rather than drive efficiency improvements in the fossil fuel supply chain.

The energy content of each type of fuel

28 Energy content measures the amount of energy (megajoules) in a volume (litres) of fuel. This is a key metric to enable the calculation of the annual emissions reduction target set under the Obligation. Each fuel type's energy content value will be set out in the regulations. These will mirror the values contained in Annex III of the EU's RED II.

29 Independent analysis undertaken by Hale and Twomey has shown that there are minimal differences between the energy content and emissions intensity of fuels used in Europe and fuels used in New Zealand.

Analysis - determining the sustainability of biofuels

30 Only biofuels that are classified as sustainable under the regulations will be eligible for use towards meeting the Obligations targets. The regulations may provide for methodologies, standards or certification requirements to determine the sustainability of biofuels, this could include limits or exclusions of certain feedstocks. In proposing these regulations, we are satisfied that eligible biofuels:

30.1.1 are not likely to have a significant adverse effect on biodiversity;

30.1.2 are not likely to lead to the deforestation of native forests or canopy forests or the destruction of wetlands or peatland;

30.1.3 are not likely to adversely impact food and feed security;

30.1.4 are not likely to have a significant adverse impact on water quality or significantly restrict its availability in an area;

30.1.5 are not likely to be associated with a high risk of indirect land use change.

31 We have also had regard to the impact of biofuels and their feedstocks on carbon stocks, including soil carbon, and whether the increasing use of biofuels will erode the waste hierarchy.

The use of existing international sustainability standards

32 The proposed methodologies aim to strike a balance between international and domestic sustainability considerations, recognising the potential for domestic biofuels production to increase over time.

33 Most of the feedstocks and biofuels used in the short-term will be cultivated, collected, and produced overseas. Using existing international sustainability schemes will therefore enable obligated persons to easily identify and procure sustainable biofuels for importation.

34 We propose that the International Sustainability and Carbon Certification (ISCC) and the Roundtable on Sustainable Biomaterials (RSB) sustainability schemes are used initially. The ISCC and RSB are the largest, most globally recognised international sustainability certification schemes, each with robust and independent governance. Feedstocks or biofuels certified under the ISCC-Plus standard or the RSB standard can be considered to be sustainable.

Determining sustainability and domestic production

35 In May 2022, we noted that as a domestic biofuel market is established over the medium to long-term, the regulations that determine the sustainability of biofuels would need to be assessed to ensure they align with New Zealand's opportunities for domestic biofuel production.

36 Submissions and agency feedback have identified that the RSB standard may not be suitable for certifying some biofuels that could be produced from New Zealand's woody biomass. Specifically, the RSB standard excludes the use of roundwood (logs) from the production of biofuels and limits land use for short rotation biomass crops to 20 years. However, the ISCC standard enables the use of roundwood as a feedstock if the forestry plantation meets certain requirements.

37 Unlike woody residues or by-products, roundwood can be a controversial feedstock for bioenergy due to its potential impact on gross emissions. Most of the carbon sequestered by a tree as it grows is stored in the trunk. Roundwood is less energy dense than fossil fuels, so when it is combusted, it can emit more CO_2 emissions per unit of energy than fossil fuels. However, net emissions from the use of roundwood are lower than fossil fuels if the feedstock is replanted, although the net emissions impact depends on the timeframe over which it is measured.

38 The time it takes for bioenergy to reach parity with fossil fuels on a net emissions basis is known as the carbon debt. This can range from less than

one year to over 100 years depending on the feedstock, land use change, and harvesting and cultivation methods. Balancing what an acceptable carbon debt would be with the achievability of a 1.5-degree target should be an important consideration. Further work is needed to understand what types of New Zealand roundwood can be viably used as a climate mitigation opportunity, and to ensure its potential use results in credible GHG emissions reductions.

39 We propose that Cabinet direct the Minister for Energy and Resources and the Minister of Forestry to report back to Cabinet in mid-2023 with options to ensure woody biomass used in New Zealand supports to provide assurance on its sustainability as a feedstock. This could be through the development of a standard and corresponding certification scheme, or an assessment and possible expansion of existing standards, or some other mechanism. Once developed this standard could be included in the list of accepted schemes contained in the regulations.

The risk of indirect land use change

40 We propose to ban the use of feedstocks (palm and soybean) that have historically resulted in significant indirect land use change (ILUC) emissions and place a cap on the total amount of food and feed-based biofuels that can be used to meet the Obligation.

41 Failure to address the risk of indirect land use change (ILUC) could result in a net GHG emissions increase from the Obligation and broader adverse environmental and social impacts. Internationally, ILUC has happened when pasture or agricultural land previously used for food markets is diverted to the production of biofuels. The displaced demand will still need to be met, and this can only be done through increasing the yields of current food production, substitution away from land-intensive food production, or by converting non-agricultural land into production elsewhere (i.e., ILUC). When agricultural land expands in to high-carbon stock lands, such as through the clearing of forests, ILUC emissions from biofuels can be significant.

42 ILUC and its associated emissions are inherently difficult to observe, and consequently very difficult to accurately measure and attribute. Therefore, we do not propose to quantify ILUC emission to include them in the emissions intensity of biofuels (discussed in paragraph 22). Instead, we propose two regulatory options.

43 We propose to ban the use of feedstocks that have historically caused significant ILUC emissions. These feedstocks are palm and soybean, which have contributed to significant deforestation in Southeast Asia and South America, partially driven by growing demand for biofuels.

44 To achieve this, we propose to modify the definition that the European Union uses for high-ILUC feedstocks. Most submitters agreed that feedstocks which have been observed to cause high levels of indirect land use change should not be accepted under the Obligation, and that the threshold for which feedstocks should be excluded (i.e. palm and soybean) had been set at the

right level. Some argued the threshold should reflect the figure used by the EU which only excludes the use of palm.

45 We propose to cap the total amount of food and feed-based biofuels that can be used to meet the Obligation. The cap will enable ethanol to be maximised up to E10 (10 percent ethanol in petrol) but will be set as an absolute value based on energy content. This would limit the risk of ILUC from any potential expansion of food- and feed-based biofuels that could be driven by the Obligation. It would also encourage the use of food and feed-based biofuels with the highest emissions reductions per unit of energy delivered such as sugar beet.

46 There was strong support for a cap on food- and feed-based feedstocks. However, several submitters also thought that feedstocks which would otherwise be excluded should be permitted if they can be certified as low-ILUC risk. At this stage we do not propose an exception to the cap due to concerns with the low-ILUC risk certification process that stems from the inherent challenges in measuring ILUC and its impacts.

47 The marginal cost for abatement of this option is 91$/t$CO_2$e if no action is taken to limit indirect land use change, and $112/t$CO_2$e if such action is taken. This abatement cost assumes ethanol and biodiesel infrastructure in New Zealand is already developed. The ban and cap could add around 1 cent per litre to the cost of diesel in 2023. Ethanol prices are unlikely to be significantly impacted as neither the ban nor cap would significantly reduce the available supply of ethanol.

Food security and biofuels

48 Global food security faces challenges in the coming decades, particularly when considering the impacts of climate change and geo-political actions. It is important that any increased demand for biofuels does not heighten risks to food security. While the use of crops for biofuels can reduce the availability of food, it can also support local agricultural production if managed well.

49 The food security implications of biofuels production are closely linked to land use change and the sustainability criterion on ILUC. The options proposed in the section above would help to mitigate the risk that biofuels production could displace crops from food and feed markets. In particular, a cap on food and feed-based biofuels would provide the most certainty that biofuel demand driven by the Obligation will have a limited, if any, impact on food security.

The classification of wastes and residues and the waste hierarchy

50 Subject to Cabinet's approval to include an empowering provision in the legislation to define waste-based feedstocks, we propose to carry over the classifications from the RED II regarding wastes, residues and co-products. These classifications may need to be updated in the future to align with the development of New Zealand's waste reduction policy and legislation. The classifications are:

50.1 **Waste** is “any substance or object which the holder discards or intends or is required to discard”. It excludes “substances that have been intentionally modified or contaminated in order to meet this definition”. Under the Obligation, only fuels derived from biological waste would be eligible.

50.2 **Residue** means “a substance that is not the end product that a production process directly seeks to produce; it is not a primary aim of the production process, and the process has not been deliberately modified to produce it”.

50.3 **A co-product** is different from a residue, as it is one of multiple products which are the primary aim of the production process. In many cases a production process results in other materials not being the (single) primary aim of the process, but which are still of significant economic value for the producer.

51 We propose the following treatment for each classification regarding the allocation of GHG emissions for the lifecycle emissions analysis and whether the sustainability criteria should apply to the feedstock:

Classification	GHG emissions	Sustainability criteria
Waste (biological wastes only[2])	Considered to have zero GHG emissions at the collection point	Not required to meet sustainability criteria
Residue – processing	Considered to have zero GHG emissions at the collection point	Not required to meet sustainability criteria
Residue – agriculture, aquaculture, fisheries and forestry	Considered to have zero GHG emissions at the collection point	Required to meet sustainability criteria
Co-product	Attributed upstream GHG emissions from the beginning of the supply chain (proportionate to its share of the energy content)	Required to meet sustainability criteria

52 Residues or co-products which are derived from a primary product which is excluded (i.e. palm) from the Obligation through other sustainability criteria should also be excluded. This will avoid creating an indirect demand for feedstocks that are a high-ILUC risk.

53 We do not propose any additional measures in the regulations to ensure the Obligation supports the principles of the waste hierarchy, as the reduction of waste and the move towards a circular economy is an evolving policy area.[3] However, it will be important that officials monitor the use of waste feedstocks and report to ministers if potential problems arise. Potential problems could

[2] Under the proposed Sustainable Biofuel Obligation Bill non-biological waste feedstocks are not eligible.
[3] The waste hierarchy is a framework for establishing the order of preference for different waste management options.

include the Obligation creating perverse incentives such as increasing the production of waste or moving limited materials to a lower use in the hierarchy.

54 For example, the International Council on Clean Transportation commented that the high value of waste feedstocks has resulted in strong demand that exceeds the available supply. There is some evidence to suggest that virgin vegetable oil has been falsely labelled as biodiesel produced from used cooking oil, however there is limited evidence on the extent and scale of the fraudulent waste issue.

Interaction with the Fuel Industry Act 2020

55 There were mixed views on how the Obligation would interact with the Fuel Industry Act 2020. The purpose of the Fuel Industry Act is to promote greater competition in the wholesale and retail fuel markets, including through a terminal gate pricing regime.

56 The terminal gate pricing regime excludes any fuel which contains more than one percent biofuel by volume. The intent of this was to focus the terminal gate pricing regime on the fuels which new entrants to the market would need access to for a competitive offering.

57 The consultation document identified two possible impacts:

- A situation may arise where resellers request high volumes of fuel with less than one percent biofuel. This could make it difficult for fuel wholesalers to meet their mandated emissions reduction percentage under the Obligation, especially as targets increase over time.
- Over time, the terminal gate pricing regime might also become less effective at providing a transparent wholesale fuel price.

58 We do not propose making any changes at this time to the Fuel Industry Act or regulations because of interactions with the Obligation. Instead, we propose that officials should monitor how the Obligation might affect whether the Fuel Industry Act achieves its purpose.

59 At this stage, we do not recommend adding specified biofuel blends (e.g. E10) to the terminal gate pricing requirements. Doing so could reduce the flexibility for obligated persons in choosing which biofuels to supply to meet the GHG emissions reduction. Also, obligated persons are likely to gradually introduce biofuels to fuel terminals around the country, initially focusing on the largest population centres. Introducing specified biofuel blends into the terminal gate pricing regime could mean that obligated persons must supply biofuel blends at any terminal. This would require obligated persons to significantly accelerate their capital investment for biofuels storage and blending infrastructure.

60 Officials from MBIE will monitor the impacts of the biofuel industry. If there are any changes required to the Fuel Industry Act or regulations, these could be made at a later stage.

Financial Implications

61 Budget 2021 included a tagged contingency in Vote Business, Science and Innovation for the regulating agency to implement the Sustainable Biofuel Obligation, and to monitor and verify annual reports [CAB-21-MIN-0116.04]. It was initially due to expire on 1 February 2022, but that was subsequently extended to 30 June 2023.

62 The current tagged contingency is contained in Table 1.

Vote Business, Science and Innovation	**2022/23**	**2023/24**	**2024/25 & outyears**
Operating contingency	(1.500)	(1.500)	(3.000)
Total	**(1.500)**	**(1.500)**	**(3.000)**

63 We are seeking approval from Cabinet to draw down the first two years of the tagged contingency into Vote Environment to be allocated to the Environmental Protection Authority (EPA). Having access to the first two years funding will allow the EPA to set up the systems it will need in the early days of the Obligation and get more certainty about the ongoing cost of administering the Obligation. It is more efficient to allocate the funding into Vote Environment as this is where the EPA receives its other funding.

64 We are also seeking Cabinet's approval to delegate to the Minister of Finance, the Minister for Energy and Resources and the Minister for the Environment the ability to draw down the tagged contingency for 2024/25 and subsequent out-years.

Legislative Implications

65 Regulations will be necessary to implement the proposals in this paper. The Parliamentary Counsel Office has been consulted on the proposals.

Regulatory Impact Statement

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

67 MBIE's Regulatory Impact Analysis Review Panel has reviewed the attached Impact Statement prepared by MBIE. The panel considers that the information

and analysis summarised in the Impact Statement meets the criteria necessary for Ministers to make informed decisions on the proposals in this paper.

Climate Implications of Policy Assessment

68 A Climate Implications of Policy Assessment disclosure sheet was prepared to support Cabinet's decision to the final policy design of the Sustainable Biofuels Obligation in November 2021.

Population Implications

69 The proposal in this paper do not have an impact on specific population groups.

Human Rights

70 There are no inconsistencies with the New Zealand Bill of Rights Act 1990 and the Human Rights Act 1993.

Consultation

71 In June 2022, public consultation occurred on the discussion document the *Sustainable Biofuels Obligation: Proposals for regulations.* There were 25 submissions. Feedback on the key proposals in the discussion document is included in the analysis section of this paper.

Communications

72 We propose that when the Bill is introduced into the House the Minister for Energy and Resources or the Minister for Transport will issue a media release detailing the decisions on the regulations as well as the Bill.

Proactive Release

73 The Minister for Energy and Resources and the Minister for Transport intend to release this Cabinet paper proactively in whole no later than 30 business days after the decisions being confirmed by Cabinet.

Recommendations

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

1 note that in May 2022, Cabinet agreed to release a discussion document on the policy for regulations for the Sustainable Biofuel Obligation [CAB-22-MIN-0185];

2 note that the Ministry of Business, Innovation and Employment and Te Manatū Waka received 25 submissions;

Calculating the obligation

3 agree that the Sustainable Biofuel Obligation regulations will provide:

- 3.1 the analysis of life-cycle emissions intensity for biofuels will follow the methodology set out in Annex V of the European Union (EU) Renewable Energy Directive II (RED II);
- 3.2 the lifecycle emissions intensity factors for biofuels will contain:
  - 3.2.1 the feedstock production and cultivation emissions;
  - 3.2.2 the processing and refining emissions;
  - 3.2.3 transportation and distribution emissions;
  - 3.2.4 emissions from combustion;
- 3.3 each component of the lifecycle emissions intensity factors for biofuels will be obtained from either:
  - 3.3.1 the disaggregated default values from the EU RED II Annex IV;
  - 3.3.2 actual values calculated according to the methodology in Annex V of the EU RED II which are verified by an approved sustainability scheme, which includes an audit of elements of the supply chain where required as determined by the sustainability scheme or its certification bodies;
- 3.4 a single lifecycle emissions intensity factor for all fossil fuels of 94g CO_2eq/MJ;
- 3.5 the energy content of type of liquid fuel in the obligation. The energy content values will mirror the values contained in Annex III of the EU RED II.
- 3.6 an exemption from the Obligation for fuel used for non-transport purposes, including for machinery in agriculture, forestry and industry.

Determining the sustainability of biofuels

4 agree that the Sustainable Biofuel Obligation regulations will provide for:

4.1 feedstocks or biofuels to be certified under approved sustainability certification schemes;

4.2 the approved sustainability certification schemes will be:

4.2.1 the International Sustainability and Carbon Certification (ISCC) ISCC-PLUS standard, or

4.2.2 the Roundtable on Sustainable Biomaterials (RSB)

5 agree that the regulations will allow for additional sustainability certification schemes or standards to be approved;

6 note that the approved sustainability certification schemes may not be appropriate to apply to New Zealand's woody biomass resource - excluding that which is classified as a waste, residue, or by-product;

7 invite the Minister for Energy and Resources and the Minister of Forestry to report back to Cabinet by mid-2023 with options to ensure the sustainability of woody biomass as a feedstock;

Addressing indirect land use change and risks to food security

8 agree that the Sustainable Biofuel Obligation regulations will provide for:

8.1 an absolute cap on the maximum amount of biofuels derived from food and animal feed sources, based on energy content and the ethanol blend-limit;

8.2 exclusion of feedstocks that have historically resulted in significant emissions from indirect land use change which would exclude palm and soyabean;

8.3 a methodology to define feedstocks that have a significant risk of creating indirect land use change;

9 agree that officials from the Ministry of Business, Innovation and Employment should periodically review the measures to address indirect land use change and risks to food security;

Wastes, residues and co-products

10 note only biological wastes, residues and co-products are eligible under the Sustainable Biofuel Obligation;

11 agree that the Sustainable Biofuel Obligation regulations will provide for:

11.1 definitions for wastes, residues, processing residues, and co-products;

11.2 genuine wastes and processing residues to be exempted for requirement to be assed against the sustainability criteria;

11.3 the emissions for wastes, processing residues and residues from agriculture, aquaculture, fisheries or forestry before the point at which they are collected to be excluded from the life-cycle assessment;

11.4 co-products to be allocated greenhouse gas emissions from the beginning of the supply chain in proportion to their share of the energy content of all products from the same supply chain;

11.5 residues or co-products that are excluded or limited under recommendation 8 relating to indirect land use change and food security to also be excluded or limited;

The Obligation's interaction with the Fuel Industry Act

12 agree that the Ministry of Business, Innovation and Employment should monitor how the Sustainable Biofuel Obligation interacts with the Fuel Industry Act 2020;

Financial implications

13 note that on 20 May 2021 via Budget 2022, [CAB-21-MIN-0116.04 refers]:

13.1 agreed to funding for the implementation of a Sustainable Biofuel Obligations and to monitor and verify annual reports, subject to the review of the 2008 Biofuels Sales Obligation on its suitability as a measure to facilitate an increase in the supply and use of sustainable biofuels in transport;

13.2 agreed to establish a tagged operating contingency associated with the Energy and Resources portfolio of up to the following amounts to provide for the regulation agency to implement the Sustainable Biofuel Obligation;

	$m – increase/(decrease)				
	2020/21	**2021/22**	**2022/23**	**2023/24**	**2024/25 & Outyears**
Implementing a Sustainable Biofuels Mandate – Tagged Operating Contingency	**-**	**-**	1.500	1.500	3.000

14 note that the Minister of Finance on 7 November 2021 approved the extension to the expiry date of the above tagged contingency from 1 February 2022 to 30 June 2023, via 2021 October Baseline Update (2122-0802);

15 approve the following changes to appropriations to provide for the costs described in recommendations 13 above, with a corresponding impact on the operating balance and net core crown debt:

	$m – increase/(decrease)				
Vote Environment Minister for the Environment	**2022/23**	**2023/24**	**2024/25**	**2025/26**	**2026/27 & Outyears**
Non-Departmental Output Expenses: Environment Protection Authority functions **(funded by crown revenue)**	1.500	1.500	-	-	-
Total Operating	**1.500**	**1.500**	**-**	**-**	**-**
Total Capital	**-**	**-**	**-**	**-**	**-**

16 agree that the proposed changes to appropriations for 2022/23 above be included in the 2022/23 Supplementary Estimates and that, in the interim, the increases be met from Imprest Supply;

17 agree that the expenditure incurred under recommendation 14 above be charged against the Implementing a Sustainable Biofuels Mandate – Tagged Operating Contingency;

18 agree to extend the expiry date of the 'Implementing a Sustainable Biofuels Mandate' tagged contingency from 30 June 2023 to 30 June 2024;

19 note that, following the adjustment detailed above, the remaining balances and indicative phasing of the operating contingency will be:

	2022/23	**2023/24**	**2024/25 & Outyears**
Implementing a Sustainable Biofuels Mandate – Tagged Operating Contingency	-	-	3.000

20 authorise the Minister for the Environment and the Minister of Finance jointly to draw down the remaining tagged operating contingency funding in recommendation 19 above.

Authorised for lodgement

Hon Dr Megan Woods

Minister for Energy and Resources

Hon Michael Wood

Minister for Transport