

Submission by



to the

Ministry of Business, Innovation and Employment (MBIE)  
and the Ministry of Transport (MoT)

on the

Consultation paper on the Sustainable Biofuels Mandate  
**'Increasing the use of biofuels in transport'**

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# SUSTAINABLE BIOFUELS MANDATE CONSULTATION – SUBMISSION BY BUSINESSNZ ENERGY COUNCIL<sup>1</sup>

## INTRODUCTION

1. The BusinessNZ Energy Council ('BEC') is pleased to have the opportunity to provide a submission to the Ministry of Business, Innovation and Employment and the Ministry of Transport ('the Ministries') on the 'Increasing use of biofuels in transport' public consultation.
2. BEC is a group of New Zealand's energy sector organisations, including businesses, government, and research organisations, taking a leading role in creating a sustainable, affordable, and secure energy future for all New Zealanders. Together we seek to shape the energy agenda for New Zealand. BEC is a division of BusinessNZ, New Zealand's largest business advocacy body and the New Zealand member committee of the World Energy Council (WEC).
3. With transport responsible for almost half of **New Zealand's** total domestic CO<sub>2</sub> emissions, we do not underestimate the challenges ahead and welcome this discussion as it has the goal of accelerating transport emission reductions.
4. This submission provides general as well as detailed comments on some of the consultation questions. Given the diversity of our membership, some members will have specific issues which they may wish to comment on in more detail. We have encouraged individual members to make their own submissions raising issues specific to their areas of expertise. We note specifically that BP and Z Energy will provide valuable contributions to development of this policy.

## GENERAL COMMENTS

5. Role of Business **in achieving a 'net' zero emissions** future: We support the **objective of transitioning New Zealand to a 'net' zero emissions** future and do not see emission reduction targets as solely government targets, but rather as the basis for a **partnership between government and all society's actors who**, to achieve those targets, will need to commit capital, take risks, and change how they behave.
6. An overarching strategic approach required: We believe that a holistic and strategic long-term view approach to decarbonising the transport sector is important. This should involve making the most of existing assets and infrastructure. However, **we must be wary of 'betting the house' on any one technology**. The Government should be careful about picking winners. Robust trialling, piloting, and clear policy

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<sup>1</sup> Background information on BusinessNZ Energy Council (BEC) is attached as Appendix One.

frameworks will level the playing field for technology development and adoption and help increase our options in the face of uncertainty. The ETS should be allowed to do its job and other interventions should follow only where there is a clearly articulated positive net benefit. The market must be allowed to operate freely to have the capacity to find and implement the most cost-effective solutions. Regulation that is too prescriptive and/or restrictive on the activities of business risks stifling economic growth, in turn making reaching overall policy goals more difficult.

7. Flexibility and stability can be friends: **There is no 'one-size-fits-all'** policy solution for the transport system as it cuts across the entire economy and effective change may require multiple, unique means of transition. Nevertheless, stable market frameworks create a good place for business to invest. Unfortunately, growing uncertainty and rapidly evolving technology in the drive to decarbonise, bring not just opportunities but also risks, with implications across the whole transport value chain. Now more than ever, long-term policy coherence, which allows for flexibility on our way to carbon zero, will be crucial for a clean and resilient transport system.
8. Collaboration between government and the private sector: The Government should create an outcome-based regulatory environment that enables the private sector to innovate and forge a market-led path to 2050. The prospect of increasing complexity suggests caution in designing policy frameworks. More transparency is required. To address this increased complexity, for some time now, the BEC has collaborated with businesses, academia, and government on a continuous basis to further develop and improve the New Zealand Energy Scenarios – TIMES-NZ 2.0.<sup>2</sup>
9. The purpose of this ongoing project is to provide the public and private sectors with a robust but explorative analysis to get a better idea of how our future energy supply and use might look and test the range of trade-offs and choices we might make along the way. While most modelling defines a destination, indicating what needs to change **to get there, our scenarios explore the 'what-if stories' rather than the 'what-musts'.**
10. Throughout the project we have been grateful for the input of organisations across the sector, including input from the Ministries. This continuous collaboration is important to us.
11. The model reflects the New Zealand energy system, incorporating both technical engineering and economic considerations (e.g., carbon price, GDP, technology cost curves, discount rates). The bottom-up model selects from available technologies to produce a least-cost energy system. It does not consider taxes, charges, or levies in the total cost of ownership. It provides two contrasted, plausible, and coherent stories **about New Zealand's energy future:**

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<sup>2</sup> New Zealand Energy Scenarios - TIMES-NZ 2.0 [<https://times.bec.org.nz/>]

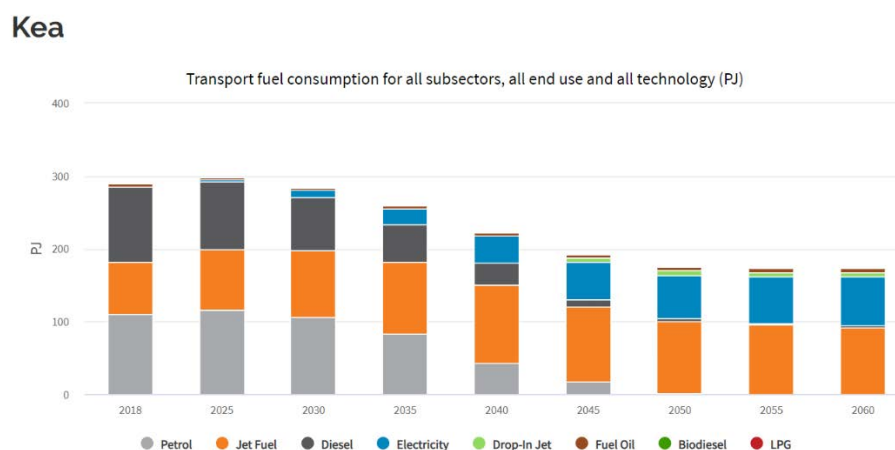
- (a) The Kea story represents a future where climate change is the most pressing issue. Kiwis want to get ahead of the rest of the world and the government transforms the economy quickly to match. The carbon price is higher than the global price (120 \$/tCO<sub>2</sub> by 2035; 170 \$/tCO<sub>2</sub> by 2050); governments make it easier for consumers to take up new energy technologies; business aggressively trials and invests in more energy-efficient solutions; public transport is preferred.
- (b) **By contrast, under Tūi, economic growth is not constrained by efforts to decarbonise.** Kiwis are willing to follow other countries in using market mechanisms. Carbon prices are lower than the global price (60 \$/tCO<sub>2</sub> by 2035; 95 \$/tCO<sub>2</sub> by 2050); **the government's light hand means new energy technologies are adopted when they become price competitive;** business favours the lowest-cost energy sources and private car ownership dominates the passenger fleet.

12. Biofuel is available in three forms for the transport sector: biodiesel (blended with fossil or drop-in diesel), drop-in diesel, drop-in jet. The model shows the production and blending of biodiesel is happening in both scenarios with biodiesel able to be blended up to 7%. However, the amount of usage varies over time, and never reaches the full 7%. Drop-in Jet is produced as a by-product and does not appear to be the driver of production.

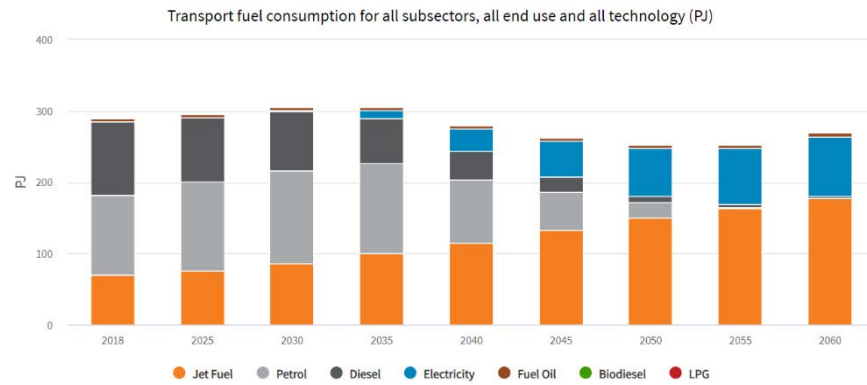
13. Kea builds local drop-in diesel facilities but finds EVs more cost effective in most transport instances. Drop-in diesel is primarily used in industrial machinery, such as mining vehicles, where an electrification option has not been provided for the model. Drop-in jet is produced as a by-product, which is then used in aviation. Interestingly neither scenario imports any biofuels – these will either be produced locally, or not used at all.

14. Under Kea, biofuels play a modest role, with drop-in diesel reducing emissions up to 1.5 Mt CO<sub>2</sub> by 2050. This is because of the high production costs for biofuels, resulting in the model preferring electricity for road transport. Figure 1 refers to the transport fuel consumption in Kea and Tūi.

Figure 1 – Transport fuel consumption in Kea and Tūi



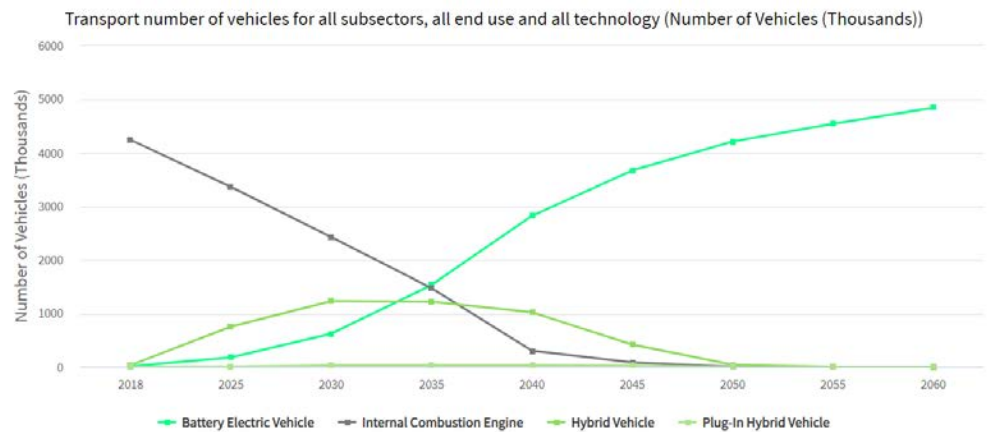
## Tūi



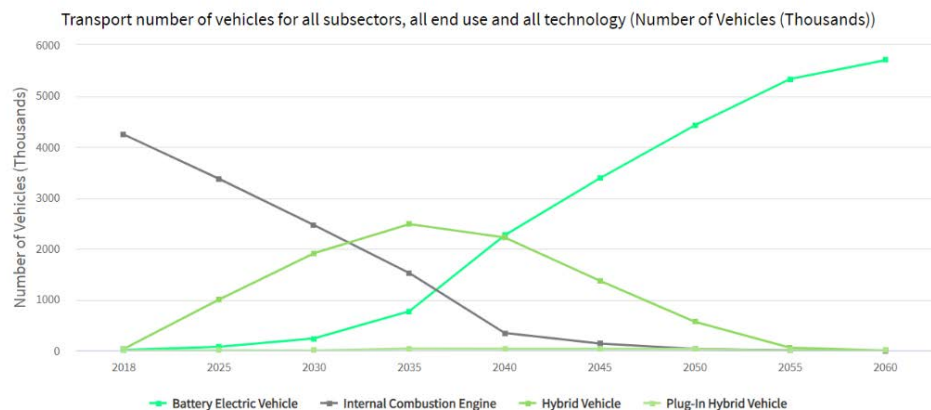
15. A slower uptake of EVs might increase the need for biofuels and hybrid vehicles in the short-medium term. This might result in a change in the biofuel supply environment and there should be **mechanisms at the regulator's disposal to deal with** such a possibility. Figure 2 shows the potential for the New Zealand transport fleet makeup under two scenarios Kea and Tūi.<sup>3</sup>

Figure 2 – Number of vehicles in Kea and Tūi

## Kea



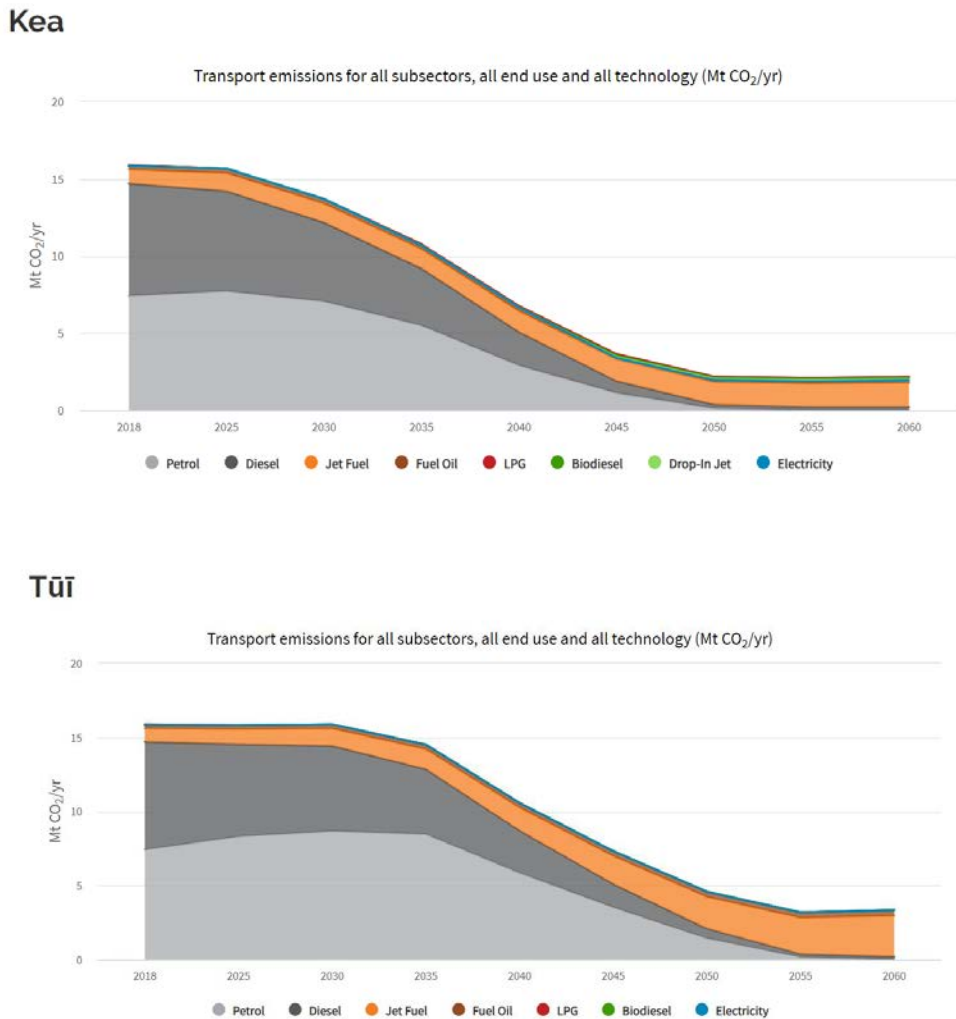
## Tūi



<sup>3</sup> For more details refer to Consultation question 6, reduction percentage setting

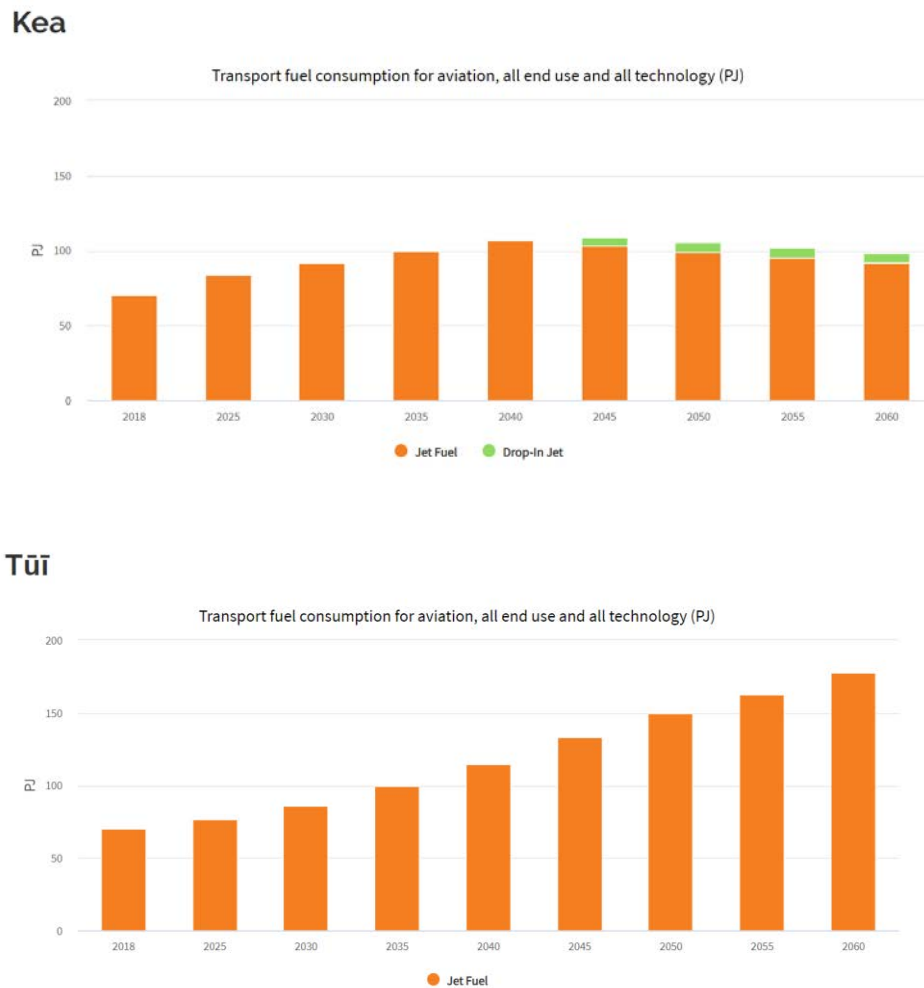
16. Transport emissions fall dramatically in line with the fall in road transport fossil-fuel use. Figure 3 shows in both scenarios the residual transport emissions from marine and aviation. **The steeper reduction in Kea's transport emissions** is from the more rapid uptake of EVs and the lower growth in vehicle numbers compared with **Tūi**.

Figure 3 – Transport emissions in Kea and Tūi



17. Decarbonising the aviation industry appears challenging. There are currently no economically viable alternatives to jet fuel for aviation, with biofuels and forms of hydrogen being currently researched for future introduction. The only decarbonisation option available for aviation in the model is drop in bio-jet. The model can either provide for bio-jet to be produced along with biodiesel or imported in any quantity. However, as this is not considered to be economic on a large scale, instead, the model **in Tūi** chooses to import fossil jet entirely and in Kea only uses a relatively small amount of biojet, as shown under Figure 4.

Figure 4 – Aviation fuel consumption in Kea and Tūi



18. In Kea, consumption continues to grow from 2018 levels to peak in 2040 and falls slightly to 99.2 PJ in 2050. This is the consequence of a reduction in demand for air travel and the encouragement of lower emissions travel. This differs from **Tūi** where demand for jet travel continues to increase at a steady rate, resulting in 50% more fuel consumption at 150 PJ by 2050.
19. The cost and speed with which a mandate meets transport relevant objectives will depend on the rate of innovation in the transport biofuels sector. There will be components that go beyond the capability of an industry to fund, i.e., longer-term, applied, directed, public good research.
20. The current ability of the energy, transport and/or research funding mechanisms to address this is limited, as has been recognised by several recent reports (e.g., Climate Change Commission on emissions reduction 2022-25; MoT Transport Emissions: Pathways to Net Zero by 2050 e.g., Chapter 4).

## CONSULTATION QUESTION 1: A GHG EMISSIONS REDUCTION MANDATE

21. We favour a mandate focusing on a reduction in GHG emissions over one focusing on volume as the latter does not ensure substantive emissions benefit. New Zealand fuel suppliers are responsible organisations committed to working with government to address climate change.
22. There are several places where we believe there are opportunities for further development with the goal of maximising policy effectiveness as well as producing more desirable and equitable outcomes for New Zealanders. There must be maximum flexibility to allow for a market-led approach.
23. However, any mandate should apply to the aviation sector, i.e., domestic, and **international flights (classified as “exported” fuel in the consultation document)**. It is important to note that 80% of aviation related emissions are derived from long haul flights. An inability to address GHG reductions for long haul flights might pose an economic risk for New Zealand tourism and export industries as long-haul flights connect New Zealand to the world and vice versa. For example, there is a risk that the public will make decisions on leisure destinations based, in part, on carbon emissions.
24. Currently, there are two types of engines used in the New Zealand aircraft fleet – turbine engines and piston engines. However, sustainable aviation fuels (SAF) seem to be predominantly in developed for turbine engine aircrafts and there are issues to be considered around the economics and availability of these fuels (see our TIMES-NZ 2.0 model results in the general comment section of this document).
25. Furthermore, there seems to be issues with the use of SAF in piston engines. The global market for Avgas appears small compared to JetA1 and engine manufacturers look to focus less on this area. We therefore caution the Ministries to requiring this group to use SAF when it is not specified for their engines by engine manufacturers as this could be safety risk.

## CONSULTATION QUESTION 4: REDUCTION PERCENTAGE LEVELS

26. We suggest that frequent and meaningful consultation with affected suppliers should be undertaken to determine the adequacy of the proposed percentages.
27. It is important to note that consumer demand for biofuels is influenced by the makeup of the fleet and the capacity of vehicles to utilise said biofuels.

## CONSULTATION QUESTION 5: SEPARATE REDUCTION PERCENTAGES

28. We support having a single GHG emissions reduction percentage across all fuel types. This decreases compliance costs to suppliers and ensures fuel prices see a comparatively lower increase, while still contributing to a reduction in GHG emissions. Obligated parties should therefore find the most efficient way to meet the mandate.



**29.** A single reduction percentage also means that suppliers will have greater flexibility to react to market conditions in what will be a volatile and uncertain area. The government could use the previous year's GHG emissions as a starting point. This way parties would know exactly what they had to deliver in the year ahead.

#### CONSULTATION QUESTION 6: REDUCTION PERCENTAGE SETTING

**30.** We are not confident about the proposed timeframes for GHG reduction percentage setting. There are several issues which it will become increasingly important to consider. Putting relevant infrastructure in place can be expected to be costly and take longer than a year (e.g., terminals, pipelines, tanks, gantry injection, slops management, retail site grade introduction, etc). It will also be prudent to provide for a regulatory mechanism capable of pausing or decreasing percentage increases as a reaction to market conditions.

**31.** A global shift towards biofuels as a GHG reducing measure will not necessarily lead to lower costs for New Zealand fuel suppliers. Except for a few nations (the USA, Brazil, Singapore, and some EU members), biofuels produced tend to be used within their country of production.

**32.** An independent report prepared for EECA found that over the next decade, securing a reliable international supply of biodiesel produced from non-vegetable oil feedstock will be challenging. This is due to increased demand for such feedstock from the EU, which has been the main exporter of biodiesel. Exports of biodiesel from Australia over the next decade are projected to continue to be small at around 1.8 PJ p.a.<sup>4</sup> While Australia has the advantage of geographical proximity, the OECD projects that biodiesel exports from Australia will be close to zero through to 2029.<sup>5</sup>

**33.** Competition for cellulosic feedstock used in the production of advanced biofuels will rapidly increase as global policy shifts more in line with what has been proposed by the Ministries (a focus on GHG emission reduction as opposed to biofuel volume). This will likely increase the cost of feedstock – which already accounts for 40-70% of production costs.<sup>6</sup> Long-term costs are expected to fall, however, at the same time, alternative technology will be developed and utilised.

**34.** The combination of these two likelihoods could lead to significantly increased costs for consumers in the short to medium term if percentage settings cannot be reviewed in response to extreme market-altering events. Failure to include such a measure has

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<sup>4</sup> Sapere, 'Biofuel Insights – An independent report prepared for EECA', p.30.

<sup>5</sup> Sapere, p.34.

<sup>6</sup> Sapere, p.37.

the potential to lead to sudden price increases for suppliers and consumers and undermine the success of the policy.

35. For example, a drought in Brazil – the second highest exporter of ethanol – would decrease the global supply of both feedstock (sugar cane in the case of Brazil) and other products. In addition to potentially impacting agreements with New Zealand suppliers, the global market price for ethanol would increase substantially. This same logic can be applied to the wide range of existing biofuels.
36. We suggest providing the regulator with a framework within which to consider (1) applications from individual suppliers where there is significant disruption; and (2) overall biofuel market conditions and in what situation(s) an overall pause would be justified/necessary.

#### CONSULTATION QUESTION 8 AND 9: INFORMING CONSUMERS

37. We broadly support this proposal. Z Energy and Gull have already begun work with government to inform New Zealanders about biofuel use.
38. In our view, labelling biofuels and the blend rate should be at the point of the sale. Further details, such as GHG emission reduction of the fuel etc, can be at the discretion of fuel companies. Companies can decide how they will make such information easily accessible to consumers (for example, on the app or website instead of on the pump).

#### CONSULTATION QUESTION 10: DOMESTIC BIOFUEL PRODUCTION

39. It would naturally be desirable for New Zealand fuel suppliers to be able to source enough biofuels domestically. Biofuel producers' ability to maintain secure and sufficient supplies of feedstock is critical to this.
40. While domestic production would bring broad benefits to New Zealand and has the potential to cost less than imported product, imported supply will also be critical for meeting demand and enabling decarbonisation in a shorter timeframe. Therefore, any mandate and/or policies must be supply source agnostic, whether produced domestically or imported.
41. Nevertheless, we encourage the Ministries to consider extending emissions deferrals beyond year two if suppliers are providing substantial capital investment to support the domestic production of biofuels.

#### CONSULTATION QUESTION 14: REDUCTION DATA PUBLICATION

42. An efficient market assumes there is transparency and consumers can make informed choices. We therefore support the further provision of information but do not have strong views on what should be mandatory at the point of sale or pump.

## CONSULTATION QUESTIONS 16-19: FLEXIBILITY FOR SUPPLIERS

- 43.** While we generally support measures that allow for flexibility, we caution the Ministries that the ability to defer obligations at no penalty could result in all fuel retailers choosing to defer, which would mean the mandate does not achieve the GHG emissions reductions that it sets out to achieve. At the very least a hard end date is needed (i.e., only for the first year while supply chains are being established).
- 44.** We encourage the Ministries to consider extending emissions deferrals beyond year two if the supplier is providing capital investment to support the domestic production of biofuels. This has the potential to produce a significant reduction in medium to long-term GHG emissions as well as provide an economic benefit for New Zealand.
- 45.** We support allowing fuel suppliers and biofuel producers to trade via the use of entitlement agreements. This enables industry to work together on the reduction of GHG emissions.
- 46.** The Ministries should also consider the measures proposed under consultation question 6 – Framework/Mechanism to adjust to significant disruption or changing market conditions. Providing the regulator with tools to respond to market conditions will ensure the scheme runs smoothly and does not adversely affect New Zealand consumers.

## APPENDIX ONE - BACKGROUND INFORMATION ON BEC

The [BusinessNZ Energy Council \(BEC\)](#) is a group of New Zealand's peak energy sector organisations taking a leading role in creating a sustainable energy future. BEC is a division of BusinessNZ, New Zealand's largest business advocacy group. BEC is a member of the [World Energy Council \(WEC\)](#). BEC members are a cross-section of leading energy sector businesses, government and research organisations. Together with its members BEC is shaping the energy agenda for New Zealand.

**Our vision is to support New Zealand's economic wellbeing through the active promotion of the sustainable development and use of energy, domestically and globally.** With that goal in mind, BEC is shaping the debate through leadership, influence and advocacy.

**BusinessNZ is New Zealand's largest business advocacy body, representing:**

- Regional business groups [EMA](#), [Business Central](#), [Canterbury Employers' Chamber of Commerce](#), and [Employers Otago Southland](#)
- [Major Companies Group](#) of New Zealand's largest businesses
- [Gold Group](#) of medium sized businesses
- [Affiliated Industries Group](#) of national industry associations
- [ExportNZ](#) representing New Zealand exporting enterprises
- [ManufacturingNZ](#) representing New Zealand manufacturing enterprises
- [Sustainable Business Council](#) of enterprises leading sustainable business practice
- [BusinessNZ Energy Council](#) of enterprises leading sustainable energy production and use
- [Buy NZ Made](#) representing producers, retailers and consumers of New Zealand-made goods

BusinessNZ is able to tap into the views of over 76,000 employers and businesses, ranging from the smallest to the largest and reflecting the make-up of the New Zealand economy.

In addition to advocacy and services for enterprise, BusinessNZ contributes to Government, tripartite working parties and international bodies including the International Labour Organisation ([ILO](#)), the International Organisation of Employers ([IOE](#)) and the Business and Industry Advisory Council ([BIAC](#)) to the Organisation for Economic Cooperation and Development ([OECD](#)).

