

Submission by



to the

Environment Select Committee

on the

Sustainable Biofuel Obligation Bill

12 January 2023

SUSTAINABLE BIOFUEL OBLIGATION BILL – SUBMISSION BY BUSINESSNZ ENERGY COUNCIL

INTRODUCTION & GENERAL COMMENTS

1. The BusinessNZ Energy Council ('BEC')¹ welcomes the opportunity to provide feedback to the Environment Select Committee on the Sustainable Biofuel Obligation Bill. BEC believes biofuels are undoubtedly one piece of an intricate puzzle in reducing transport emissions and meeting New Zealand's climate targets.
2. In BEC's last submission on, at the time, the proposed Sustainable Biofuel Obligation, it was reiterated that sufficient time should be allowed before the obligation came into force. It was extremely challenging for the industry to abide by the 1.2%-3.5% reduction target for the initial years, without facing a penalty for non-compliance. At the time of writing BEC's last submission, in July 2022, it remained impractical for the necessary biofuel infrastructure to be ready by the start date April 1 2023. The initial timeline also provided inadequate time to inform motorists about the safety and reliability of biofuels, and gave insufficient time to source imported product. Since July 2022, the obligation's start date has been pushed back to April 1 2024. BEC is pleased with this decision. Among many other factors, BEC believes in workable and durable policy. A potential obligation cannot be implemented successfully if it is too impractical to abide by.
3. However, BEC is concerned with the Sustainable Biofuel Obligation in its current form. Despite the one-year delay, the time given to comply with the obligation and its amended reduction target of 1.2% to 2.4% for year one is still insufficient. In July 2022, BEC outlined in its submission that it would take a minimum of two years for the relevant infrastructure to be built and operating smoothly. The one-year delay provides more time. However, the increase in the reduction target from 1.2% to 2.4% in year one imposes significant pressure on parties obliged to comply.
4. This submission outlines several concerns about the implementation and feasibility of the Sustainable Biofuel Obligation — most notably the obligation's timeframe and reduction targets for the year 2024 and beyond. There are several constraints facing the industry, risking the ability of obligated parties to act accordingly, at scale, to reach a 2.4% reduction by April 2024.
5. On the flipside, BEC is pleased to see that existing standards, the Roundtable on Sustainable Biomaterials (RBS), will be used, and an existing sustainability certification scheme, the International Sustainability and Carbon Certification (ISCC), will certify the sustainability of biofuels imported to New Zealand. The ISCC and RBS are both credible in and transferable to a New Zealand context. However, Greater flexibility could be achieved by allowing the tracking and trading of these biofuel certificates within New Zealand by a local registry, such as the New Zealand Energy Certificate System (NZECS). The NZECS is an existing system for energy attribute tracking and has the ability to support attribute tracing of imported products, such as biofuel. Local purchase tracking through a registry that recognises the attributes of biofuel products can support efficient compliance with regulations and provide credibility to biofuel purchases and reporting.

¹ Background information on the BusinessNZ Energy Council is attached as Appendix One.

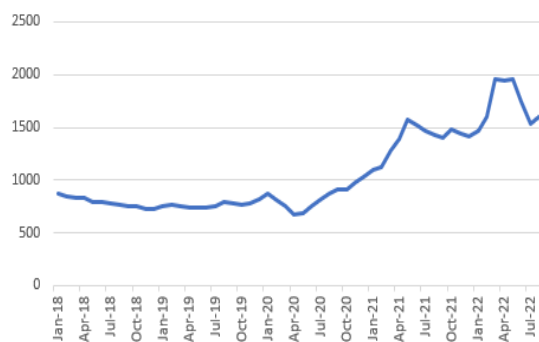
Supply and price concerns

1. Attached to this Bill, in the cabinet paper titled 'Policy for the final regulations,' the biofuels needed to meet the obligation will be supplied predominantly, or entirely, from overseas markets until local supply chains develop. In overseas markets, biofuels receive support, mostly through subsidies and tax incentives. The purpose of such policies is to reduce dependency on fossil fuels, subsequently reducing emissions. Consequently, these subsidised markets retain supply for domestic consumption, and trade small quantities overseas. Domestic demand within large producer countries is expected to grow, reducing the already small available supply for New Zealand to import the product. Biofuel trade is projected to drop by 25% from current levels out to 2030.² Global biodiesel trade is projected to decrease from 7.1bn liters to 5.3bn liters by 2030. This gives obligated parties in New Zealand less choice, while increasing the final cost of blended fuel at the pump.
2. Compared with traditional fossil fuels, biofuels are materially more expensive. The production and cultivation of feedstocks, including the processing and distribution of biofuels are not cost competitive with fossil fuels. BEC acknowledges fossil fuels have an 'incumbent advantage,' with lower costs of production. However, even in countries that produce sizeable quantities of biofuel feedstock, like the United States, the cost differential of ethanol and petrol, and biodiesel and diesel is still notably large. In Europe, where mandates apply, biodiesel is still 70% to 130% more expensive than fossil diesel – despite the associated gains from increased economies of scale over the last two decades.³
3. Globally, the average price of ethanol and biodiesel fell substantially from 2010 to 2015.⁴ Currently at a global level, about 60% of ethanol is produced from maize and 25% is sourced from sugar cane.⁵ The remainder is derived from wheat, grains, cassava, and sugar beets. About 75% of all biodiesel is sourced from rapeseed oil, soybean oil and palm oil, with the remainder coming from used cooking oils.⁶ Since 2015, prices have risen, and spiked in 2021 and 2022 due to higher feedstock prices resulting from COVID-19 disruptions and the war in Ukraine (as shown in figure 1 - 3). More advanced biofuels sourced from crop residuals, energy crops and wood are still limited and more expensive than traditional generation 1 biofuels. As a result, they represent a small portion of total production. Even as total production is set to increase globally, and innovation provides for better processing, the cost of producing biofuels is still set to increase.⁷

Figure 1: Price of maize (tonne, USD)⁸



Figure 2: Price of soybean oil (tonne, USD)⁹



² OECD, biofuels, [Outlook for 2021 - 2030](#)

³ Energy Monitor (2022), Biofuels now up [130%](#) more expensive than fossil fuels

⁴ OECD, biofuels, [Outlook for 2021 - 2030](#)

⁵ Ibid,

⁶ Ibid,

⁷ Ibid,

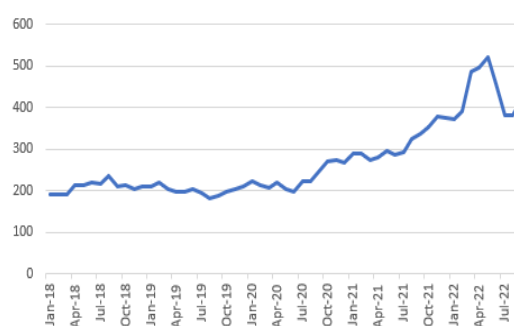
⁸ Index mundi – [commodity prices](#)

⁹ Ibid,

Figure 3: Price of rapeseed oil (tonne, USD)¹⁰



Figure 4: Price of wheat (tonne, USD)¹¹



4. BEC recognises that this obligation is set to create an incentive to develop domestic supply of generation 1 biofuels to reduce the need to import expensive product from overseas markets – that will increasingly have limited supply out to 2030. However, the economics of producing generation 1 biofuels in New Zealand are still doubtful. In July 2022, Z Energy confirmed it would permanently close its mothballed Te Kora Hou biofuels plant. The decision was largely driven by the unfavourable economics of producing biofuels domestically. If producing biofuels in New Zealand does become commercially viable at scale, it will require extensive capital expenditure to develop production facilities and form domestic supply chains – not to mention the considerable time it will take to have such supply chains running smoothly, providing security of supply.
5. If biofuels are produced in New Zealand at scale – most likely over the medium to long-term – due to this obligation, domestic bio-feedstock could potentially be diverted away from other uses, for instance, biogas. The alternative uses could be of higher value, reducing more emissions by displacing other fuel sources, compared to mandated biofuels for combustion engine vehicles. Evidently, all resources are scarce. Therefore, it is important that these scarce resources, like bio-feedstock, flow to their most valued ends. Decision-makers should acknowledge this possible unintended consequence. BEC believes the energy strategy holds the scope to confront this uncertainty. However, BEC also realises that the Bill is likely to be implemented well before the release of the energy strategy.
6. As indicated in BEC's previous submission, the obligation, and its implications for the importation of biofuels, at least in the short to medium term, will increase the fuelling costs motorists face. Budget constrained households will be disproportionately affected. Such households are more likely to already experience higher fuelling costs as they predominantly own older, less fuel-efficient vehicles compared with the average age of New Zealand's fleet.
7. The obligation is estimated to increase fuel prices by 5 to 10 cents per litre – adding further strain to budget constrained households. However, the price impact is only an estimation. The actual price increase could be higher or lower. Initially, options to deliver the obligation may revolve around renewable diesel. This will impact the price of diesel for consumers. Applied under the current context of inflationary pressures, this strain should not be forgotten. Energy affordability is one important limb of the trilemma. Reduced energy affordability diminishes the public's ability, more specifically the ability of low-income and budget constrained households, to participate in society, for instance, their ability to commute to work and school affordably.
8. Notwithstanding the current inflationary environment, the ETS component of fuel prices is likely to increase – depending on the trajectory of carbon prices. BEC supports the ETS, as in this case, it ensures motorists internalise the public externality of emitting carbon dioxide when driving internal combustion engine vehicles (ICEs). According to data provided to BEC by the Automobile Association (AA), the ETS component of petrol, at current carbon prices, is 18.3c per litre and 20.7c for diesel. This is an important signal – which will strengthen overtime – that encourages motorists

¹⁰ Index mundi – [commodity prices](#)

¹¹ Ibid,.

to purchase lower-emitting vehicles or battery electric vehicles (BEVs). This is necessary for New Zealand to meet its climate targets and reduces the cost motorists experience in the long term, with electricity being far cheaper than fossil fuels. However, in the short to medium term, motorists will 'pay twice' for their emissions – with the ETS and the costs associated with this obligation.

9. With all policies, trade-offs apply. This obligation is no different. BEC is pleased to see the trade-off between price, supply and sustainability has been acknowledged in the regulatory impact statement attached to the Bill. BEC recognises that action on climate change inevitably creates cost along the way to net-zero, and a degree of cost is to be expected and necessary to reduce emissions. However, BEC cautions policymakers and decisionmakers to weigh this trade-off between price, supply, and sustainability by considering whether the obligation's potential benefits outweigh its costs, especially compared with other interventions with lower abatement costs.

Time consideration for required infrastructure

10. BEC is pleased the Bill provides several mechanisms that give obligated parties a degree of flexibility in complying with the emissions intensity reductions. Obligated parties can apply to defer the reductions in the obligation's first two years to the following year; they can trade with other obligated parties to comply with the reduction; they can carry forward 10% of the reduction to the following year, and apply to carry forward up to 20%, depending on the Minister's discretion.
11. Notwithstanding these mechanisms, the introduction date of 1 April 2024 still provides inadequate time for parties to comply with the obligation. BEC notes that clause 11(3)(b) outlines the considerations the Minister must take into account when reviewing the obligation – to the extent that they appear relevant to the Minister. Clause (3)(b)(iv) notes the Minister must consider the extent percentage trajectories allow a reasonable time to build necessary biofuel infrastructure. This is a positive consideration. The obligation can only be met if suppliers can realistically build the necessary biofuel infrastructure in the given time. The BEC agrees. However, this applies to the obligation's review periods in 2024 and 2029.
12. Despite the obligation's one-year delay before coming into effect, there is insufficient time to have the necessary infrastructure in place to meet the obligated emissions intensity reductions. BEC believes there is a disconnect between 'considering reasonable time' in future review periods and the insufficient time currently given to ensure the obligation can be successfully implemented. In July 2022, BEC's submission outlined that it would take a minimum of two years for the biofuel infrastructure to be built and running smoothly.
13. BEC notes that the penalty for obligated parties that do not comply with the obligation has increased from \$300 to \$800/per ton of CO₂ equivalents, not abated. The purpose of increasing the penalty was to reduce the risk that obligated parties would absorb the penalty, rather than comply with the obligation. Obligated parties want to be compliant rather than face the penalty. However, there are many forces beyond the control of fuel suppliers that influence their ability to comply with the obligation. As mentioned, global biofuel supply remains constrained. Securing sufficient supply internationally to meet the 2.4% reduction in 2024 will be challenging. Developing supply chains that ensure security of supply at the right price requires adequate time.
14. Putting in place the relevant infrastructure will be costly and take longer than one year (e.g., terminals, storage tanks, gantry injection, slops management, retail site grade introduction etc.) The process of mixing biofuels involves further complications and additional costs. The capital to fund the infrastructure must be sourced and allocated – which again takes time. Consenting is required. Materials must be sourced. Combining these realities, it is unlikely obligated parties will meet the emissions intensity reductions of 2.4% in year one (2024). Even with a deferral – depending on the Minister's discretion – the shortfall will only put further pressure on obligated parties for the following year, making it less likely they will meet their obligated reduction beyond year two. This increases the risk that penalties end up flowing through to motorists in the form of higher prices.

15. However, BEC notes that a smaller reduction that ramps up overtime is still challenging, but more achievable than the current reductions set out in the Bill. As mentioned in BEC's previous submission, the obligated reductions are higher than the initial targets recommended by the Climate Change Commission. There remains a lack of clarity as to why this decision to increase the target trajectory was taken.
16. A slower ramp up of the reduction target to 2.4% in the year 2025 will give more certainty for obligated parties in sourcing adequate supply and building the infrastructure needed to deliver first generation biofuels.
17. BEC believes that a more practical alternative reduction target of 1.8% for 2024 over 12 months provides the same greenhouse gas savings as 2.4% for 2024 over the 9-month period. A 1.8% target for the year 2024 over 12 months will allow obligated parties to maximize summer fuel specification periods, when fuel specifications are less constraining for biofuels. As a result, suppliers could potentially source product at a lower price, minimizing the cost faced by motorists. However, uncertainties and issues regarding changes to fuel specification need to be reviewed. BEC believes this review should take place before the obligation comes into force. This will ensure that the blending of biofuels is managed safely and efficiently across all fuels.

Uncertainties prevail

18. Political uncertainty complicates matters further. BEC acknowledges that policy decisions, like this obligation, do not occur in isolation. Electoral cycles provide uncertainty for the direction and durability of decisions made today. The 2023 General Election, and the subsequent outcome of the election, complicate the decision-making process for obligated parties when deciding the extent to which they will build the necessary infrastructure needed to comply with the Bill. BEC acknowledges that a degree of political uncertainty is expected when operating in a democracy with changing policy priorities. However, obligated parties need a degree of certainty, especially when this obligation requires the commitment of large capital expenditure for building relevant infrastructure. A reversal increases the risk of the infrastructure becoming stranded, and investments becoming sunken costs.
19. As outlined in BEC's previous submission, a consumer awareness campaign is crucial. The original start date of April 1 2023 did not provide enough time to inform consumers about biofuels and their impact on ICEs. BEC reiterated the importance of a successful awareness campaign, providing reassurance to consumers that blended biofuels are safe and dependable. A lack of confidence with biofuels would risk the obligation's durability. BEC is pleased with the one-year delay, as it provides additional time to inform motorists. However, at the time of writing this submission, there is a lack of clarity about the direction of the consumer awareness campaign, with no clarity about how it will run, and when it is expected to begin. Further details about the campaign will help reduce the uncertainty over consumers' eventual trust in blended biofuels.
20. The use of imported biofuels also raises uncertainty and concerns about the sustainability of such products. Biofuel producing countries, both large and small, have witnessed unintended consequences in relation to food security and water quality, including a myriad of impacts resulting from indirect land use changes. The latter have increased net emissions in some countries.¹² In the United States, the Renewable Fuel Standard (RFS) specifying the use of biofuels has created suboptimal outcomes. Biofuel production increased corn prices by 30% and other crop prices by 20%.¹³ The resulting price change led to an increase in corn cultivation by 8.7% and fertilizer use by between 3 to 8%.¹⁴ A study analysing the effects of RFS from 2008 to 2016, found the change in land use meant the carbon intensity of corn ethanol was no less than that of fossil fuels and was likely up to 24% higher.¹⁵ As already noted, most of the biofuels produced in overseas markets is

¹² Lark, Tyler J., et al. "Environmental Outcomes of the US Renewable Fuel Standard." *Proceedings of the National Academy of Sciences - PNAS*, vol. 119, no. 9, 2022, p. 1–, <https://doi.org/10.1073/pnas.2101084119>.

¹³ Ibid, p1

¹⁴ Ibid, p1

¹⁵ Ibid, p1

sourced from corn maize. Notwithstanding feedstock sourced from corn, land converted to produce palm oil and soybean oil for biofuels exacerbates concerns about the true sustainability status of biofuels.

21. BEC is pleased the Cabinet Paper released on 9 November, named 'Final policy for regulations,' explores these concerns. To address the risk on food security and indirect land use change, the paper outlines two options to be included in the regulations of biofuels used in New Zealand. First, the exclusion of feedstocks that have historically resulted in significant emissions from indirect land use change (palm and soybean). Second, a cap on the maximum amount of biofuels derived from food and feed-based feedstock.
22. BEC acknowledges the importance of balancing sustainability and price. However, there remains uncertainty about how stringent the biofuel sustainability criteria will be for obligated parties. The two measures could have a significant impact upon the obligated parties' ability to meet their obligation. From a price perspective, this would limit the already constrained available supply of biofuels and thus consequently would increase the price motorists pay at the pump.

APPENDIX ONE – BACKGROUND INFORMATION ON THE BUSINESSNZ ENERGY COUNCIL

The [BusinessNZ Energy Council \(BEC\)](#) is a group of leading energy-sector business, government and research organisations taking a leading role in creating a sustainable, equitable and secure energy future.

BEC is a brand of BusinessNZ and represents the [World Energy Council](#) in New Zealand. Together with its members, BEC is shaping the energy agenda for New Zealand and globally.



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- [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
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