Environment Select Committee submission on the Sustainable Biofuels Obligation Bill

low carbon kāpiti

Prepared by Don't Burn Our Future for Low Carbon Kāpiti Inc.

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Summary

We are calling on the Government to drop plans for the proposed biofuels obligation because of the overwhelming evidence that:

🌍 Similar biofuel directives around the world have caused massive net increases in greenhouse gas emissions compared to using regular fuel, most notably in the European Union, on which the NZ Biofuels Obligation is closely modelled on. Attempts to reform and improve the EU obligation to prevent these harms have failed. We can expect the same outcome in New Zealand.

Biofuel obligations drive up food prices, as the majority of biofuels are made from food and feed crops. Food price increases worsen living conditions for the most vulnerable people around the world. It is morally wrong to grow food crops to fuel vehicles when we are on the brink of climate-change induced famines in parts of the world.

Growing the feedstocks for biofuel drives tropical deforestation, destroys biodiversity, increases emissions and deprives indigenous people of their land and livelihoods.

Fuel prices would also rise as a result of this policy, diverting billions of dollars overseas, impacting the poor disproportionately while reinforcing fossil fuel dependence. This money could be used for climate change initiatives that actually reduce global CO_2 emissions and have fewer unwanted side effects.

Liquid biofuels derived from genuine food waste represent a small fraction of the requirements of existing biofuels mandates, so cannot be relied upon as a way for NZ fuel suppliers to meet the NZ Biofuels Obligation.

Non-food 'second generation' liquid biofuels are not commercially available anywhere. Introducing a biofuels obligation will not change this, as such policies motivate fuel suppliers to meet their obligations at the lowest possible cost and risk i.e. by using conventional food-based biofuels.

🌍 The most likely outcome of enacting and implementing this bill is that unsustainable biofuels will be used by fuel suppliers to meet their obligations, resulting in increases in emissions compared to if it had not been implemented and contrary to the draft bill's stated purpose.

If the government will not drop the obligation, we recommend these changes to minimise the harms it would cause:

- Set the amount of food and feed based biofuels allowed under the Obligation to zero and enshrine this in the primary legislation.
- References to 'residue products' should be removed from the bill.
- The definition of 'waste' should be included in the primary legislation and be defined as 'material that has no market value or uses other than for making biofuel'.
- Set a cap on the amount of biofuel made from used cooking oil that can be used to meet the obligation commensurate with the amount of used cooking oil available from sources within Aotearoa NZ.

About Us

We are a group of concerned New Zealanders pushing for the NZ government to drop the proposed biofuels obligation before it's too late. We are doing our best to get this issue front and centre with politicians and the New Zealand public, as it has flown almost completely under their radar so far.

Don't Burn Our Future is a campaign of Low Carbon Kāpiti, an incorporated society devoted to advocating for real, local solutions to the climate crisis. The campaign's core group includes:

- Jake Roos, a climate change mitigation expert and professional consultant with 20 years experience in the field. He has a Masters of Applied Science from the University of Otago.
- David Keat, an engineer and was formerly a senior executive in the NZ and International oil industry. He lived for five years in Borneo and West Malaysia and witnessed first hand massive rain forest clear felling for palm oil and the annual dry season burning.
- Dr Paul Callister, an economist whose research focuses on low emission transport options for New Zealand. Paul has undertaken research on alternative fuels for aviation.
- Robert McLachlan, a Distinguished Professor in Applied Mathematics at Massey University. Robert writes on climate and environmental issues at planetaryecology.org.

Low Carbon Kāpiti has over 200 members and our petition calling on the Government to drop its plans for a biofuels obligation attracted over 3,000 signatures from supporters[1]. Messages for the committee from some of these supporters are included at the end of this document.

This submission is also supported by Greenpeace Aotearoa, who hosted our petition.

This submission has the following sections:

[1] https://community.greenpeace.org.nz/petitions/don-t-burn-our-future-stop-the-nz-biofuels-obligation

Our arguments:

1. **This bill will result in food being burnt as fuel and will increase greenhouse gas (GHG) emissions compared to doing nothing**. As biofuels are made from food crops which are globally traded commodities, which to a large extent are interchangeable (like palm, soyabean and oilseed oils and many of their by-products or sugar cane based ethanol) the extra demand artificially created by the obligation cannot avoid creating additional pressure for land conversion. **The resulting land conversion destroys biodiversity and livelihoods of indigenous peoples and releases massive amounts of carbon stored in forests, peatlands and soils.** We further note that the GHG accounting rules allow New Zealand to ignore CO_2 emissions from biofuels production outside our territorial limits, as well as the emissions of burning the biofuels themselves. Real world climate change impacts cannot be avoided with accounting rules.

2. **The bill Section 13 (4) negates any requirement for materials designated as 'waste' or 'residue products' by the minister from scrutiny against the bill's sustainability criteria** and means their 'upstream' greenhouse gas emissions are assumed to be zero. **This loophole could be easily exploited to support unsustainable biofuels to be used under the obligation.** Residues and by-products are not waste, they have market value. Hence exceptions from sustainability criteria for 'residue products' should be removed from the bill.

3. **Regardless, there is very little genuinely unwanted waste material that is suitable and available to make biofuel from, such as used cooking oil.** Many materials deemed 'waste' under the EU's biofuels criteria (that the government plans to adopt wholesale) are not waste at all, they are used for a variety of purposes such as making soaps, cosmetics and animal feed. If they are instead burnt as fuel, their lack of availability for making these other products must be made up for with 'virgin' material – like palm oil. **The amount of used cooking oil available in NZ is miniscule in relation to our petrol and diesel consumption.**

4. **The bill will create large financial incentives for suppliers to commit fraud and it will be very difficult if not impossible to detect.** Used cooking oil, which by being admissible under the Obligation will fetch a premium price compared to palm oil and soya oil, which officially will not. However used cooking oil is often made from those oils. Diluting used cooking oil with bulk unused oils or adulterating unused oils in some other way will become very profitable. Given the lack of genuine sustainable material, and the bill's strong sustainability criteria, using fraudulently-labelled biofuel is likely to be the only way to meet its targets.

5. **Biofuel certification schemes such as ISCC and RSB are not fit for purpose for ensuring biofuels are sustainable**, but the government plans to rely on them for that purpose. The scheme operators check written information provided by fuel suppliers who opt to use them, but have no way of checking that this information has not been falsified. As these schemes are being funded by the applicants, the operators have little motivation to challenge the information provided. As the supply chains stretch around the world, the certification schemes (and indeed, NZ's and the EU's regulatory enforcement arms) have no means or jurisdiction to independently audit where biofuels have really come from, for example by performing random inspections. **Regardless of the quality of these schemes, they cannot compensate for the huge shortfall of genuinely sustainable feedstocks in the required volumes.**

6. **Biofuels obligations create subsidy-dependent industries that then lobby against reform, change or government U-turns on those obligations.** There is no market for liquid biofuels without government mandates, and these mandates do not make biofuels more affordable in the long run – their price is locked to global commodity prices for the crops they are made from. So once fuel suppliers invest in infrastructure for biofuels (e.g. tanks and pipes), they expect a return on their investment, and the only way to get that is if governments keep the legal mandates in place. The EU, Brazil and the USA are already locked into this trap. **This makes avoiding establishing biofuels obligations or mandates, rather than trying to reform them once they are in place, critical.**

7. **There is no prospect of this bill spurring the creation of a supply chain for 'second generation' liquid biofuels made from wood waste or other tough, inedible plant material.** A biofuels obligation creates an incentive for fuel suppliers to use biofuels, but at the lowest possible cost to them. Not only is there no supply of second gen biofuels available in the world, to create it would be phenomenally expensive, carry a high level of technical risk, have a negative rate of return and take many years to establish. No private company would undertake this just to comply with a biofuels mandate. **Domestically, Aotearoa NZ now has no oil refinery, which would be needed to turn 'bio-oil' made from wood into usable transport fuel.**

8. **The Climate Change Commission suggested using biofuels as a short-term transition measure specifically for heavy vehicles**. Their assumptions about the availability of sustainable biofuel with which to do this were fundamentally flawed. But regardless, **the proposed bill does not target heavy vehicles**, and it is impossible to do so without a separate fuel supply chain and fuelling infrastructure being established for them. This would be prohibitively expensive and impractical.

9. **There are effective ways to decarbonise transport in New Zealand that should be pursued with greater vigor instead of this biofuels policy.** These include pushing harder to electrify the car fleet, build more safe cycling infrastructure, improving and expanding public transport in cities, shifting more freight to rail and speeding up the construction of wind, solar and geothermal power generation. In particular, using Contract for Difference strategies to de-risk new entrants in wind or solar farms is being used in Europe, North America and is being considered in Australia. This seems a very obvious strategy to apply in New Zealand.

Evidence for our arguments:

1. **This bill will result in food being burnt as fuel and will increase GHG emissions compared to doing nothing**.

   Analysis of the first ten years of the European Union's biofuels obligation found that it resulted in the destruction of 10% of the remaining wild orangutan habitat, clearance of 4M Ha of tropical rainforest, an area the size of the entire country of the Netherlands, and caused emissions of 381 million tonnes of CO_2e, three times more than burning the volume of fossil fuel that their biofuels obligation displaced[2].

   The EU have resolved to ban the use of palm and soyabean oil in their obligation from 2023. As figure 1 shows, this is likely to mean other oilseed crops are used instead, as the amount of used cooking oil that can be used has now been capped by legislators at 1.7% of transport fuel. This is a tacit acknowledgement that further encouragement of used cooking oil will just cause more fraud (see point 4)[3]. Critically, oilseeds have lifecycle emissions as high as fossil diesel and their shortfall for use as food is likely to be made up for by increased use of palm and soyabean oil, meaning these reforms are not likely to achieve anything in terms of reducing biofuels' climate-related, environmental and social impacts. See Table 1.

   Analysis by the International Coalition for Clean Transport showed the Sustainable Biofuels Obligation would increase net emissions if it was met 100% from food and feed crops[4]. This shows that biofuels made from food and feed crops have higher emissions than the fossil fuels they replace on average. Small net GHG emissions benefits that may accrue from use of ethanol (used in petrol) are negated by biodiesel crops – palm oil, soyabean oil and oilseed.

   Table 1 - GHG emissions per unit of energy for different fuels. Biodiesel from food crops of all types has higher emissions than fossil diesel.

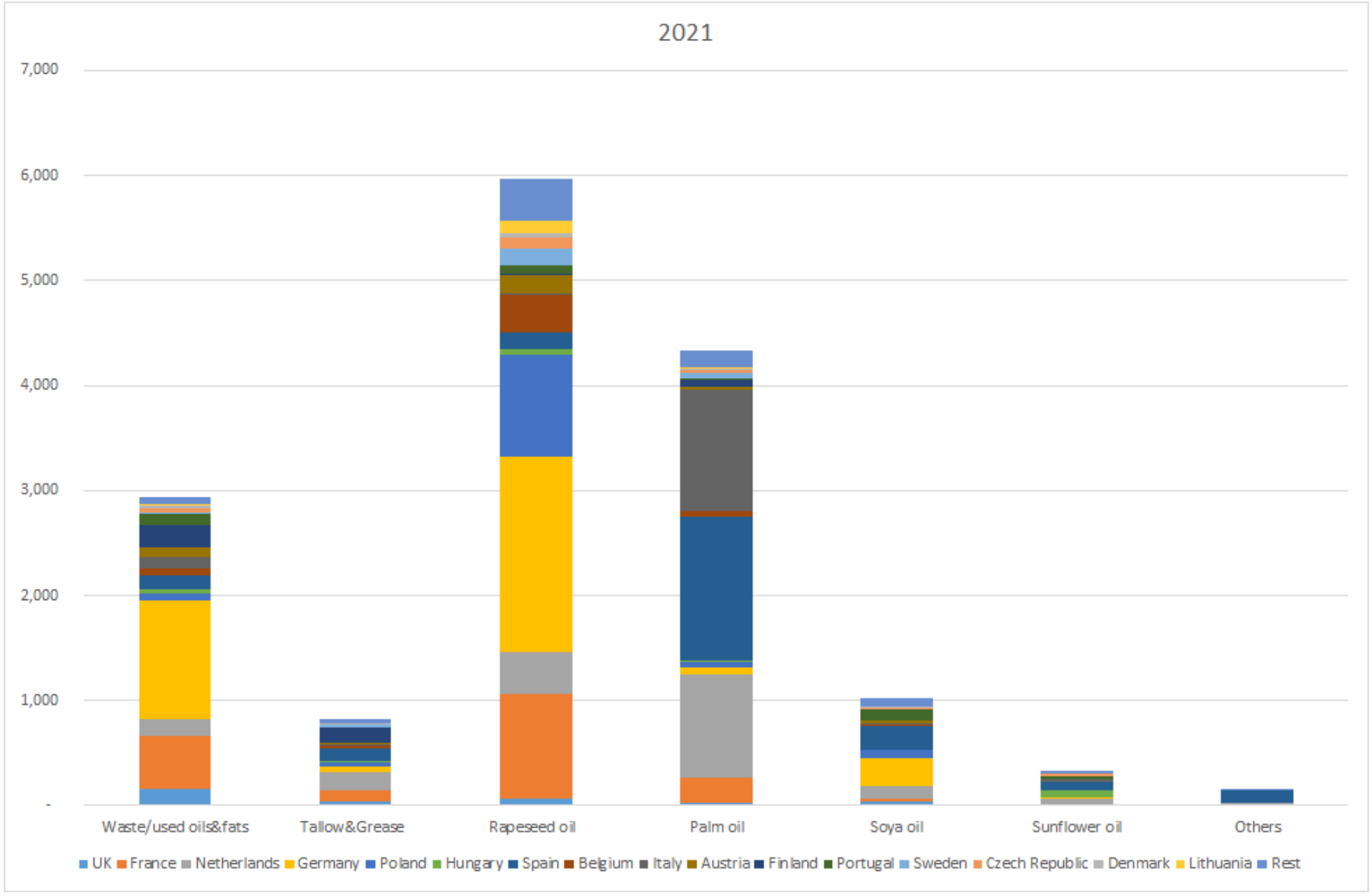
Fuel type	Feedstock	GHG intensity with induced land use change [gCO2e/MJ]
Gasoline	fossil	93
Ethanol	maize	47
Ethanol	sugarcane	45
Ethanol	sugarbeet	46
Ethanol	wheat	67
Diesel	fossil	95
Biodiesel	palm	264
Biodiesel	rapeseed	98
Biodiesel	soy	183
Biodiesel	tallow	15
Biodiesel	UCO	11

[2] https://www.transportenvironment.org/wp-content/uploads/2021/07/Biofuels-briefing-072021.pdf

[3] https://www.euractiv.com/section/agriculture-food/news/revealed-how-ireland-found-itself-breaching-eu-rules-on-biofuels/

[4] https://theicct.org/publication/market-modeling-of-a-sustainable-biofuels-mandate-in-new-zealand/

Figure 1: Biodiesel production in all EU27 countries in 2021. Figures are in 1000 tonnes of feedstock used



Compiled from purchased OilWorld data by Transport&Environment. Note: biodiesel represents ~80% of biofuel used by the EU27

2. **The bill Section 13 (4) negates any requirement for materials designated as 'waste' or 'residue products' by the minister from scrutiny against the bill's sustainability criteria. This is a loophole that needs to be closed.**

   Residues and by-products are obviously not wastes. Yet in the EU, these definitions have been exploited by some countries. For example, the use of the palm oil by-product Palm Fatty Acid Distillate (PFAD) has been excluded from special treatment under their biofuels scheme rules by many EU countries, but not by Finland, whose government happens to own one third of Neste[5], a large biofuels producer that makes extensive use of PFAD[6].

   Research into the feedstocks listed as wastes under Annex IX of the Renewable Energy Directive found that most were not unwanted material: they had market value for other uses and if the waste hierarchy was properly applied to them, many would not be used as fuel[7].

3. **There is very little genuinely unwanted waste material that is suitable and available to make biofuel from, such as used cooking oil.**

   Inedible tallow produced from the meat industry in Aotearoa NZ is all exported for use in other products and to satisfy the biofuels obligations of other countries. It is not available for domestic biofuel production, and clearly is not waste. Even if it was, the total fuel energy value of this tallow equates to about 1.2% of Aotearoa NZ's petrol and diesel use (3.3PJ vs 275.0 PJ[8]) – far lower than the targets of the biofuels bill.

   Current production of biodiesel from used cooking oil in Aotearoa NZ is 500,000 litres per year, a miniscule amount (0.01PJ). Research by Sapere for EECA on biofuels[9] states that *'only small quantities of used cooking oil are available*' and *'available domestic supply of feedstock for conventional biofuels is small or uncertain'*. It also notes the difficulty NZ fuel supplier Gull has had obtaining supplies of used cooking oil from abroad for its 'B5' fuel.

4. **The bill will create large financial incentives for suppliers to commit fraud and it will be very difficult if not impossible to detect.**

   The bill's targets are for lowering the emissions intensity of fuel. Waste and so-called 'residue products' can have all their 'upstream' emissions and sustainability impacts ignored under the bill as drafted. This means they will be very attractive to fuel suppliers as less questions will be asked about them, simplifying compliance, and smaller volumes will be needed to meet the bill's emissions targets, lowering their costs. Similarly in the EU, materials defined as wastes get 'double credit' towards their volume targets. But it is estimated that one third

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[5] https://en.wikipedia.org/wiki/Neste
[6] https://www.biofuelwatch.org.uk/2019/neste-aviation-biofuels/
[7] https://www.transportenvironment.org/wp-content/uploads/2021/06/2020_05_REDII_and_advanced_biofuels_briefing.pdf
[8] https://www.mbie.govt.nz/dmsdocument/16820-energy-in-new-zealand-2021
[9] https://www.eeca.govt.nz/assets/EECA-Resources/Research-papers-guides/Liquid-Biofuel-Research-Report-March-2021.pdf

of used cooking oil used for biodiesel in the EU is fraudulent[10]. Used cooking oil biofuel fraud has been uncovered in the Netherlands[11], but when the fraudulent blending is committed outside the EU it is highly impractical, if not impossible, to detect and police. The same would be true in Aotearoa NZ.

5. **Biofuel certification schemes such as ISCC and RSB are not fit for purpose for ensuring biofuels are sustainable**

The fraudulent biodiesel found in the Netherlands mentioned above was ISCC certified[12], a scheme which the NZ government plans to rely on to show compliance with the bill's sustainability criteria. Private certification schemes for biofuels were reviewed by the European Court of Auditors, working for the European Commission[13]. They found:

> *"that the assessments carried out by the Commission as a basis for the recognition of* ***voluntary schemes did not adequately cover some important aspects necessary to ensure the sustainability of biofuels."***

The regulators at the NZ EPA will likely be in the same position as the Commission, as described by the auditors:

> *"The Commission does not supervise the functioning of recognised voluntary schemes. Since the recognition decision is issued on the basis of a documentary review of the certification procedures,* ***the lack of supervision means that the Commission cannot obtain assurance that voluntary schemes actually apply the certification standards presented for recognition****. Furthermore, the Commission has no means to detect alleged infringements of voluntary schemes' rules as there is no specific complaint system in place and the Commission does not verify whether complaints directly addressed to voluntary schemes are correctly dealt with by them."*

The 'lack of supervision' arises because the production of biofuels is in other countries where the European Commission (and the NZ's EPA for that matter) has no jurisdiction.

In the consultation regarding sustainability criteria for the bill, an option presented by MBIE officials to reduce the risk of induced land use change (i.e. tropical deforestation) was to limit the amount of biofuel made from food and feed crops[14]. **Extending this logic, the way to avoid all harm arising from the policy is to reduce the permissible quantity of biofuel from food and feed crops to zero and only allow biofuels from made genuine (otherwise unwanted) waste**. MBIE officials also stated the converse in the cabinet paper of biofuels in

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10 https://www.euractiv.com/section/agrifuels/news/industry-source-one-third-of-used-cooking-oil-in-europe-is-fraudulent/

11 https://www.euractiv.com/section/agriculture-food/news/new-fraud-investigation-casts-doubt-over-used-cooking-oil-origins/

12 https://www.biofuelwatch.org.uk/wp-content/uploads/Biomass-Sustainability-Standards-Briefing.pdf

13 https://www.eca.europa.eu/Lists/ECADocuments/SR16_18/SR_BIOFUELS_EN.pdf

14 https://www.mbie.govt.nz/dmsdocument/21273-the-sustainable-biofuels-obligation-proposals-for-regulations-pdf

2021: that the higher the targets are, the harder it would be to adhere to strict sustainability criteria[15].

6. **Biofuels obligations create subsidy-dependent industries that then lobby against reform, change or government U-turns on those obligations.**

   Ample evidence of this can be found in the USA, where lobby groups the Renewable Fuel Association and the American Coalition for Ethanol campaign hard against any serious rollback of the Renewable Fuel Standard that drives fuel production from maize, or anyone questioning the assumption that bio-ethanol use lowers emissions[16]. No wonder: 33-40% of the US maize crop is made into ethanol, so it is now a major source of income for corn-growers.

   Similarly in the EU, French fuel giant Total has invested in biofuel production from palm oil, including a refinery within France, and has lobbied the European Commission and the French Government to prevent changes to laws that would jeopardise them making the return they expect from that investment[17].

7. **There is no prospect of this bill spurring the creation of a supply chain for 'second generation' liquid biofuels made from wood waste or other inedible plant material.**

   The 'Wood Fibres Futures Stage 2' report produced for MBIE explored the options for development of wood fibre industries in Aotearoa NZ. It found the options of turning wood into liquid fuel were deeply unattractive financially and highly risky from a technical perspective. The authors asserted there were much better options for use of the wood, including producing wood pellets for heat.[18] It makes no commercial sense for fuel suppliers to embark on a large, risky, unprofitable and long-term program of spending purely in response to a biofuels obligation law.

   Regardless of the business case, commercialising a new technology (taking it from a demonstration scale to a higher-volume production scale) takes time, at an absolute minimum three years, usually much longer. As government officials told cabinet[19], the earliest any domestic liquid biofuel from wood or wood waste could be produced would be 3-5 years from now, and cost 2-4 times as much as conventional biofuels, and until such production could be scaled up, New Zealand fuel suppliers will need to import all the biofuel required to meet the planned obligation.

   There are no commercial second-gen liquid biofuels production plants (that utilise wood or other material made of cellulose and/or lignin that cannot be eaten - e.g. corn husks) anywhere in the world. The combined output of all the demonstration/pre-commercial second gen biofuel plants in the world is tiny - around 2% of the former capacity of Marsden Point Refinery. This is despite extra incentives for second gen biofuels under the biofuels obligations in the US and the EU for well over a decade.

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[15] https://www.mbie.govt.nz/dmsdocument/18366-sustainable-biofuels-mandate-final-policy-design-proactiverelease-pdf (paragraph 9 and 42)

[16] knowablemagazine.org/article/food-environment/2022/how-green-are-biofuels

[17] www.france24.com/en/20191115-total-s-shameful-lobbying-on-french-palm-oil-tax-break-sparks-ire

[18] www.mpi.govt.nz/dmsdocument/51007-NZ-Wood-Fibre-Futures-Project-Stage-Two-Final-Main-Report

[19] www.mbie.govt.nz/dmsdocument/18366-sustainable-biofuels-mandate-final-policy-design-proactiverelease-pdf

Finally, known processes for liquifying cellulose and lignin-based materials make a thick, sticky substance called bio-oil. This cannot be made into transport fuel without being heavily diluted with regular crude oil and put through an oil refinery, which Aotearoa NZ now lacks.

For a more detailed discussion and further evidence/references, see our blog on this topic[20].

8. **The proposed bill does not target heavy vehicles**

This is self-evident in that the obligation bill has emissions abatement targets for petrol and diesel combined, and lacks any provisions specific to heavy vehicles. The Climate Change Commission (CCC) themselves had no suggestions how biofuels could be targeted towards heavy vehicles, despite recommending a low carbon fuel standard to the government under the heading of 'decarbonising heavy transport and freight (Rec 19)'.

In their report to government[21], the CCC said:

> *"259 …To ensure the increase in bioenergy is feasible, we considered how much* ***wood waste*** *would be available in Aotearoa and could be used. However, other feedstocks, such as tallow for biofuels, and imported bioenergy could also be used."*

Subsequently members of our group met with members of the team responsible for these recommendations at the CCC. The analyst who carried out the calculations on wood waste said no consideration was given to the economics or practicality of developing commercial scale production of wood waste to liquid fuel in Aotearoa NZ, only the energy content of estimated wood waste volumes in the country relative to national fuel use. Clearly the implications of recommending a liquid biofuels obligation have been treated in a cursory manner by the CCC - the officials we met had no evidence to counter the issues we raised, which were those given in this submission. Neither did officials from MBIE, who we also met.

9. **There are effective ways to decarbonise transport in New Zealand that should be pursued with greater vigor instead of this biofuels policy**

Officials' estimated financial impact of this policy is to increase fuel costs on average by 5c and 10c per litre for petrol and diesel respectively in 2025, which would mean consumers will collectively spend $500 million on biofuels in 2025, increasing each year as the targets rise to 9% in 2030. Use of biofuels will increase emissions, contrary to the government's stated aims, so clearly there are many other, better uses for this money. The government needs to not only cancel this bill, but take additional actions to meet its emissions budgets.

Those actions we know to reduce emissions effectively include restricting private car use while incentivising alternatives such as walking, cycling and public transport, including intercity coaches and trains. Rail freight and coastal shipping are the heavy road transport alternatives available in the short term. Eventually electric heavy trucks will be available - these and other EVs need to be supported by a rapid upscaling of wind and solar electricity generation and major investment into the electricity distribution network. Additional mitigation action could be taken in other sectors to make up for the transport sector if necessary.

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[20] https://lowcarbonkapiti.org.nz/can-we-use-wood-to-decarbonize-new-zealand-transport-or-not/

[21] www.climatecommission.govt.nz/our-work/advice-to-government-topic/inaia-tonu-nei-a-low-emissions-future-for-aotearoa/

Messages for the Committee from some of our supporters:

Biofuels is out of the frying pan, into the fire! It is a terrible use of land.

Jacky P

In transitioning from fossil fuel to biofuel and thinking all will be OK, I see similarities with the transition from smoking tobacco to vaping. Don't be fooled by the promises of big business interests.

Brad Hayes

I oppose the policy because it goes against the best available scientific evidence in mathematics, physics and economics.

William Bowden

We need to be sourcing energy in renewable sustainable ways which are good for human and planetary wellbeing, and burning food crops for fuel is not that.

Áine Kelly-Costello

Why would we burn food for fuel, when all it's going to do is increase costs for that product.? Why burn food when burning is putting more pollutants in the air?

R Gwillim

Please do not make us complicit with the Global Incineration Event. We need firefighters not arsonists seeing off a good-looking planet!

Susan Chapman

I truly can't believe that MPs don't already see the evidence of how this would increase global and local emissions, environmental harm and increase deprivation. I'm disappointed beyond belief that our MPs would knowingly choose fuel over food, climate and environment.

Penelope Campbell

NZ is not in the same situation as most other countries. We can generate plenty of electricity from renewable sources (solar, wind on land and sea, geothermal). It does not make sense to use our precious land to grow plants for biofuels when there are such admirable alternatives. We need our land for native forests (as carbon sinks), for food growing, and for housing.

Pat van Berkel

This policy is harmful and counterproductive to reducing emissions.

Ingrid Abtibol

It's a no brainer to me (to ditch the biofuels obligation)*. People throughout the world are starving and we're using land to produce biofuels? Don't get me started.*

Geraldine Marston

Visiting NZ, I experienced the cleanest air, the most drinkable tap water, the most delicious fresh produce, and at the time a nuclear free country. Please, please do not spoil it by killing New Zealand, by polluting the land , sea and fresh water.

Emmanuel Fardoulis

It is very important to me that we don't burn food crops for fuel. Land is at a premium, and growing food for consumption a priority. With climate change there will be more desertification, more flooding, more crops destroyed or unable to be grown where they grew before. With a large number of the world's population starving already, it is obvious: to grow crops for fuel will only speed up the end of civilisation, and the extinction of wildlife and natural habitat.

Annelies Pekelharing

Produce has seen one of the highest increases in cost for consumers in the last year. We're building houses on arable land and plan to grow fuel crops on more. Quality of life and health in the near future is set to drop dramatically as fresh, nutritious, local produce becomes inaccessible for the majority. A good decision considers factors beyond a term in office. I encourage the people who make these decisions to fulfil their public service roles; be strong and make choices that truly benefit everyone.

Flynn O'Meara

I fully support the "don't burn our future"campaign because using good land (for biofuels) *that can be used for food production is really a bad idea in my opinion.*

Bruno Gaebler

I just think the planet will be better off without people burning food crops to get fuel, we must evolve past things like burning food crops, and discover & use planet-friendly ways to get what we need.

Jason Worth

Do not burn food as fuel! It is as simple as it can be. Food is produced already causing enough environmental degradation and produces carbon.

Tineke Witteman

I work in Pakistan where at present people affected by recent floods are suffering terribly from hunger. To burn crops etc when people suffer badly now and never have three meals per day is murderously inhuman. I'm praying for common sense to prevail.

Eilish Heaney

I want to see our air cleaner & global warming slowed down It is better to clean our air than to make it worse.

Gillian Manson

It's better to stay home than starve.

Annette Baxendell

I oppose the NZ Biofuels Obligation, supporting the Don't Burn Our Futures submission, mainly because it continues government financial and regulatory assistance for internal combustion engines running on carbon-based fossil fuel at a time when NZ has committed to reducing our production of CO_2.

There may be a small place for carbon-based high energy-per-kilogram fuels, e.g. in long-range aircraft, but for land and water transportation there are an increasing number of viable alternatives.

David MacClement

Burning biofuels is an obsolete answer to the obsolete question: "how do we continue to operate our current transport system more sustainably?" We need to seek new questions and answers which address how we live our lives so we can reduce the mass consumerism and travel which currently require such a transport system and which empower communities to meet their needs more locally.

Kathy Kerr

Diverting valuable arable land to growing biofuels is self-defeating. We need all available growing capacity for productive, low-carbon food production.

Graham Townsend

BIOFUELS is an acronym for:

- ***B**iospherically*
- ***I**rresponsible*
- ***O**ilternatives*
- ***F**uelling*
- ***U**nexpected*
- ***E**missions*
- ***L**eakage*
- ***S**cenarios*

Olli Krollmann