



Neste Submission: Consultation Paper on the Sustainable Biofuels Mandate

Thank you for the opportunity to submit to the consultation on the Sustainable Biofuels Mandate. Neste believes that getting this mandate right is crucial to the future of a significant biofuels market in New Zealand, which will enable the more rapid decarbonisation of New Zealand's transport sectors.

Introduction

Neste, the world's leading [renewable diesel](#) and [sustainable aviation fuel](#) producer, welcomes the New Zealand Government's announcement of increasing support for biofuels through the Low Emissions Transport Fund and the opportunity to submit to the consultation on the Government's biofuels mandate.

Neste is the world's leading producer of renewable diesel and sustainable aviation fuel. Neste MY Renewable Diesel, made from 100% renewable raw materials, can reduce net emissions by up to 90% when compared to fossil diesel. Our product can be used as a "drop-in" fuel, or a complete replacement for fossil diesel, that, unlike first generation biofuels, has the same chemical composition as fossil diesel. Neste MY Renewable Diesel is fully compatible with all diesel engines and the diesel fuel distribution infrastructure – from the refinery to service stations and end users. (more information about the difference between renewable diesel and biodiesel can be found [here](#))

Neste MY Sustainable Aviation Fuel is made from sustainably sourced, renewable waste and residue raw materials. Neste MY Sustainable Aviation Fuel, in its neat form, reduces lifecycle greenhouse gas emissions by up to 80% compared to fossil jet fuel use (calculated with established life cycle assessment {LCA} methodologies, among which EU RED and CORSIA). Neste MY Sustainable Aviation Fuel can be used as a drop-in fuel as it is compatible with existing aircraft engines and airport infrastructure, requiring no extra investment into these.

At the outset, Neste's view is that the proposed biofuels mandates, 1.2% for 2023, 2.3% for 2024 and 3.5% for 2025, will see New Zealand fall behind international best practice in combating transport GHG emissions through biofuels.

It's encouraging to see the New Zealand Government recognises the opportunities that come with biofuels usage across the transport sector, but there is still more that can be done. The proposed levels for the Government's biofuels mandate of 3.5% is low by international standards. All EU member states have a minimum 14% renewable target in transport for 2030 whereby biofuels currently contribute the overwhelming share (89%). With its "Fit for 55 package", the EU is currently looking to further increase this target. Germany and the Netherlands have already increased their target to 25% (GHG reduction target) and 33% with the expectations of other member states to follow suit. California is already around 7% and aiming much higher by 2030.

Ambition level to reduce transport emissions remains high in both Europe and North America

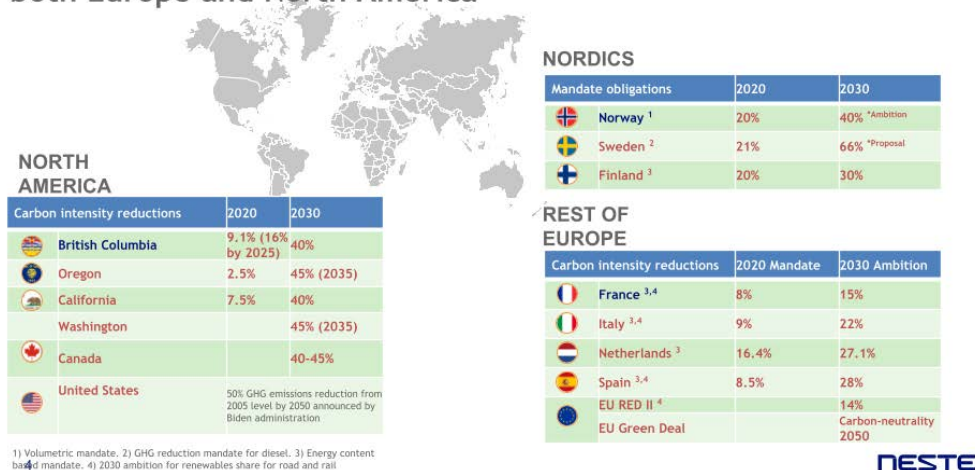


FIGURE 1

A higher mandate would incentivise a more robust market for both domestically produced and imported biofuels which would deliver significant emissions reductions. This can happen alongside the establishment of domestic manufacturing capability and enable faster and larger emissions reductions.

We strongly support a more ambitious biofuels mandate that brings New Zealand closer to the European benchmark. The suggested mandates in the draft “Sustainable Biofuel Mandate” consultation paper are too low to make a meaningful difference and can easily be exceeded, especially with the use of drop-in renewable fuels. We also strongly support having separate mandates for different transport sectors: land (road and rail), aviation, and maritime, so that adoption of biofuels is broad-based and doesn’t simply flow to the lowest cost fuels (maritime).

A biofuels mandate and use of biofuels, particularly renewable diesel, are important actions the government could take to accelerate transition. Just focusing on the adoption of new motor types, such as EVs, overlooks that ICE vehicles will be part of the fleet for decades to come. Today, around 97% of vehicles entering the fleet are ICE vehicles and they are expected to continue to constitute the majority of fleet additions for years to come. The Climate Change Commission’s [modelling](#) assumes only a quarter of heavy trucks entering the fleet in 2030 will be EVs. Most of these vehicles will be in the fleet well into the 2030s or 2040s (the Climate Change Commission forecasts only 53% of the truck fleet will be EVs by 2050), contributing large amounts of emissions, unless action is taken to decarbonise them through the use of biofuels.

Renewable diesel and sustainable aviation fuel is particularly useful in this regard because it is a drop-in fuel that can replace fossil diesel entirely and reduces net emissions by 70-90%.

Related to the mandate issues, we believe all solutions that result in GHG savings should be treated equally in New Zealand and the RUC waiver that is offered to Electric Vehicles should also extend to HFC and vehicles that are running on a 100% Biofuel blend. This could be in the form of a tax credit against legitimate proof of purchase or as an incentive for higher blends. For example, Sweden has an ambitious GHG-based mandate system in place while maintaining separately a tax break for all sustainable biofuels used in neat form

beyond the mandate. Such a hybrid system is ideal for the uptake of low-carbon technologies and helps drive innovation.

Responses to consultation questions

1. Do you support having a GHG emissions reduction mandate? If not, why?

Neste supports New Zealand's intention for a GHG emissions reduction mandate as a crucial component alongside other measures to decarbonise the transport fleet. A holistic approach to tackle GHG and CO2 emissions from the transport sector will support New Zealand achieve its climate change objectives.

We support the Government's recognition that the achievement of zero transport emissions will require multiple pathways and recommend that actions start immediately with low-emission solutions like renewable diesel and sustainable aviation fuels.

2. Do you support the proposal to require certification of lifecycle emissions of biofuels sold in New Zealand using international standards? If not, why?

Neste supports the proposal to require certification of lifecycle emissions of biofuels sold in New Zealand using international standards. It is vital that reductions are real and that the different levels of reduction achieved by various biofuels are differentiated in the policy.

We comply with the strictest standards and Neste is constantly looking to further improve the ecological footprint of its waste and residue sourcing. Our production and raw material sourcing comply with the European Union's Renewable Energy Directive (EU RED) and the requirements of EPA, and meet the environmental obligations in the EU Member States and the United States.

All of Neste's refineries producing renewable products such as Neste MY renewable Diesel and Neste MY Sustainable Aviation Fuel, have ISCC and [RSPO](#) certificates, and they have been approved by the U.S. Environmental Protection Agency (EPA).

3. Do you support applying the Sustainable Biofuels Mandate to all liquid transport fuel? If not, why?

Neste supports applying the mandate across all liquid transport fuels. There are no technical barriers to this and all sectors need to begin decarbonising their ICE fleets. But we recommend **separate sector specific mandates**. Sector specific mandates for land (road and rail) transport, aviation and maritime, will help avoid the situation experienced in other countries, where the mandates were initially met in the maritime sector.

International experience has shown that when mandates are set for liquid fuel users as a whole, fulfilment is achieved by skewing towards the lowest quality fuel users, such as the marine sector using the cheapest 1st generation conventional biofuels (ethanol, biodiesel). This frustrates the objective of pushing biofuel adoption across the whole transport sector and the development of higher quality biofuels markets.

4. Are the proposed initial emission reduction percentages for 2023–2025 appropriate for New Zealand? If not, what should they be?

With the proposed biofuels mandates, 1.2% for 2023, 2.3% for 2024 and 3.5% for 2025, New Zealand will fall behind international best practice in combating transport GHG emissions. A low ambition approach to biofuels is going to mean much higher transport emissions, especially from aviation and heavy vehicles, for years to come and make it more difficult for New Zealand to achieve its emissions targets.

To support this view, Neste has modelled the proposed mandate levels and identified three scenarios. From the chart below (FIG2), one sees a low GHG reduction ambition as currently proposed, leading to a steeper future compliance curve in future. (See Appendix 1 for chart).

Proposed low GHG reduction ambition for early years makes future compliance curve much steeper

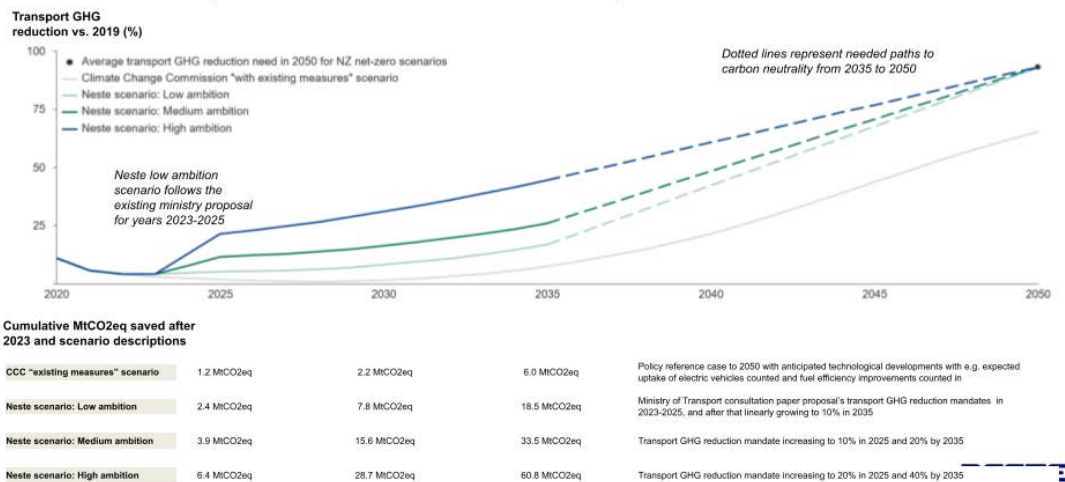


FIGURE 2

Taking into account New Zealand’s ambition to electrify light vehicles, we have identified that even if the targets set out are achieved, more ambitious targets are still needed to reduce emissions in heavy vehicles.

Even if passenger cars would electrify, ambitious biofuel specific policies are needed to reduce emissions in heavy vehicles/transport

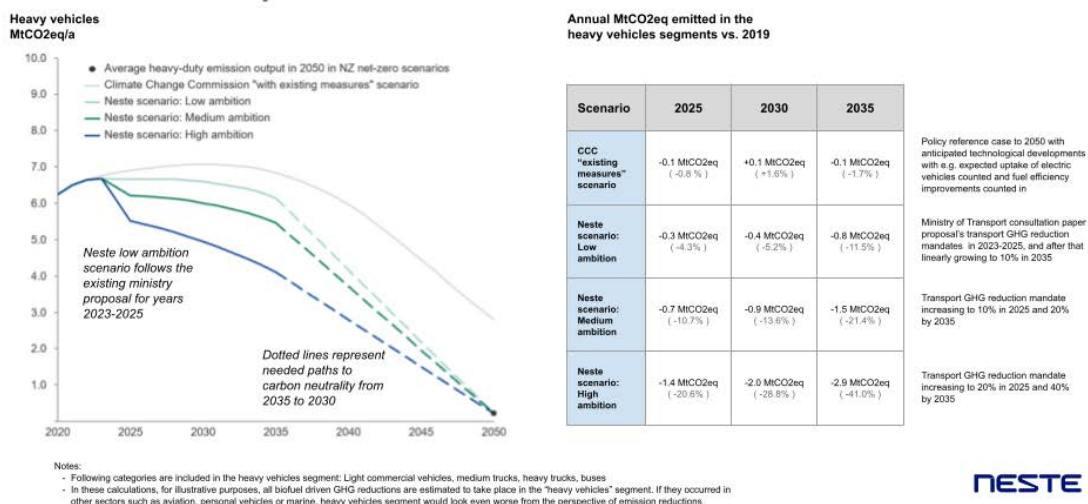


FIGURE 3

Over 20% of New Zealand’s emissions currently come from transport. There are 144,000 trucks on New Zealand roads, nearly all of them running on fossil fuels. Large parts of the country’s rail network are not electrified, and many city buses are still running on fossil fuels. Drop-in biofuels, such as 100% renewable diesel that works as a direct replacement for fossil diesel, could reduce emissions much more than what is proposed in the draft biofuels mandate.

Neste would recommend that as a starting point, New Zealand consider a 10% mandate by 2025 for road transport which is slightly higher than the 7% mandate suggested in the 2020 Green Freight Paper.

For aviation, Neste would recommend a 5% mandate by 2025, including all jet fuel used in New Zealand (jet fuel used both for domestic and international aviation). A 5% mandate level in 2025 would be aligned with Paris Climate goals / CORSIA, and comparable to the level Sweden has decided on for its SAF mandate in 2025. All international precedents of SAF mandates include jet fuel use for both domestic and international aviation (Norway, Sweden, ReFuelEU proposal of the European Commission).

This suggested mandate level is suitable provided that separate mandates are made across different transport sectors, that future levels (beyond 2025) are clearly indicated to guarantee future supply chain and imports, and that such a mandate should apply to aircraft departing New Zealand. The impact on ticket prices is reasonable, as shown by these examples

From the perspective of the consumer, the influence on ticket prices is reasonable. Examples for 5%, 14% or 30% SAF blending, respectively:

- For Helsinki - Singapore 12 €, 33 € or 71 €
- For Helsinki - Munich 3 €, 9 € or 20 €
- For Helsinki - Stockholm 1 €, 4 € or 8 €

Source: AFRY Analysis for the Finnish Government 14.12.2020

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FIGURE 4

Such mandates need to be applied separately across fuel types (see response to question 5).

This would put New Zealand on target to work towards higher mandates in 2030 and beyond and be more aligned with global mandates such as the 30% mandate by Finland, the 20% mandate by California or the 40% (ambition) mandate target by Norway for 2030.

5. Do you support having single GHG emissions reduction percentages across all fuel types, or do you favour separate reduction percentages? Why and how many separate percentages would you suggest we have?

Neste believes there is a need for separate sector specific mandates. We would recommend sector specific mandates for road transport, aviation and shipping, which would help ensure ability to reach emission reduction targets in all transport sectors. The problem with the single GHG emission reductions across all fuel types, especially when it is so low, is that there is a risk all demand flows to the cheapest first generation conventional biofuels (ethanol, biodiesel) and specific sectors. For example in the Netherlands, due to an initial low mandate, the biofuels were opted-in mainly by the shipping sector, and thus not achieving its intended target across all transport sectors.

Neste recommends separating and having different mandates for the different transport sectors. International experience has shown that when mandates are set for liquid fuel users as a whole, fulfilment is achieved by skewing towards the lowest quality fuel users, such as the marine sector. This frustrates the objective of pushing biofuel adoption across the whole transport sector. This can be resolved by setting separate mandates for different sectors, like aviation, marine, road, and non-road.

Sector specific mandates are important. For example if we look at aviation, the consultation paper, recognises the air quality benefits of biofuels (p.10), but it does not mention the additional climate benefits of SAF (particularly the reduction of contrail cirrus due to reduction in soot particles as SAF does not contain aromatics); according to European Union Aviation Safety Agency (EASA) two-thirds of aviation's total climate impact is related to non-

CO2 effects¹, and SAF has a significant double benefit of reducing both CO2 and contrail cirrus. A sector specific mandate for aviation would ensure not only reduction in GHG emissions from aviation but also a reduction in non-CO2 climate impacts of aviation.

6. Do you support provisional emission reduction percentages being set for 2026–2030 and 2031–2035 with the percentages being finalised in 2024 and 2029 respectively? If not, why?

The more certainty that producers and market participants can have regarding future mandate levels and the longer the timeframes, the better. The 2023-2025 percentages provided are both too low and over too short a timeframe to give producers (both domestic and international) the confidence to invest in supplying to New Zealand. If these could be added to through including specific emission reductions percentages in outyears through to 2035, which continue to rise from the 2025 level, that will enable more investment to occur.

Neste supports provisional emission reduction percentages being set for 2026 - 2030 and 2031 - 2035. Such percentages being set in 2024 and 2029 would be positive from a biofuel producer point of view to give a longer view on market growth trajectory and support investments in the sector. We see this approach e.g. being taken by Sweden (2030 trajectory for SAF mandate) and EU (ReFuelEU outlook for European SAF mandate).

The New Zealand Government can foster demand for innovative transport products, such as renewable diesel, to encourage more investments in such technologies both domestically and internationally. It can do this through policies such as an ambitious biofuels mandate, adopting biofuels in public transport, and removing road user charges for vehicles using biofuels. In isolation, New Zealand's demand is small but, added to the similar policies in other countries, it contributes to a global market signal for companies to expand their investment in biofuels R&D and production capacity.

A higher mandate would incentivise a more robust market for both domestically produced and imported biofuels which would deliver significant emissions reductions. This can happen alongside the establishment of domestic manufacturing capability, but it would mean faster and larger emissions reduction.

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7. Do you support the proposal that biofuel producers must be certified against an established sustainability standard to count towards achievement of the emissions reduction percentage? If not, why?

Neste supports this proposal. It is vital for the integrity of the system that biofuels are certified against an established standard so that there can be confidence real net emissions

¹ EASA, Updated analysis of the non-CO2 climate impacts of aviation and potential policy measures pursuant to the EU Emissions Trading System Directive Article 30(4), September 2020



reductions are being achieved and the differing levels of net emissions reductions from different biofuel products are appropriately recognised.

All of Neste's refineries producing renewable products such as Neste MY renewable Diesel and Neste MY Sustainable Aviation Fuel, have ISCC and [RSPO](#) certificates, and they have been approved by the U.S. Environmental Protection Agency (EPA). This proves that our production and raw material sourcing comply with the European Union's Renewable Energy Directive (EU RED) and the requirements of EPA, and meet the environmental obligations in the EU Member States and the United States

8.a. Do you support having a joint fuel industry/government information campaign to inform New Zealanders about biofuels and the Sustainable Biofuels Mandate? If not, why?

Neste supports a joint fuel industry/government information campaign. New Zealanders should be given the opportunity to understand how the Sustainable Biofuels Mandate can support the country's greenhouse gas reduction ambitions. It is also vital that a clear distinction is made between first-generation biofuels like biodiesel and advanced biofuels such as renewable diesel and sustainable aviation fuels.

8.b. Do you support the labelling proposal that informs consumers about specific biofuels at the point of sale? If not, why?

Neste supports the proposed labelling scheme. Providing consumers with this important information has the potential to drive them towards making more sustainable choices.

9. Should New Zealand try to overcome the challenges that domestic biofuel producers face in maintaining access to affordable supplies of domestically produced feedstocks? Do you have any suggestions for how this challenge could be overcome?

Biofuels is not the only market where New Zealand exports feedstock and imports processed product. This can be economically efficient where the overseas manufacturing plant is able to achieve economies of scale that small domestic processors couldn't, and nothing precludes domestic producers that can operate profitably at the international price for feedstock from competing. An example is baby formula – New Zealand milk powder is exported to Singapore, used to make baby formula, which is then imported by New Zealand. However, domestic producers also make baby formula, paying the international price for milk powder.

It is not clear what, if any, trade-agreement compliant measures could be taken. Furthermore, it's not clear that they would have desirable outcomes. An export ban, for example, would mean feedstock producers get much lower prices and feedstock would go to waste as there is not the domestic capacity to process it. A subsidy for domestic producers would be highly costly to taxpayers. Neither of these options would actually reduce global

emissions relative to exporting feedstock and importing processed biofuels. This is the key point – the climate does not care where the emissions reductions take place. Imposing large costs on feedstock producers or taxpayers to make a shift that does not affect global emissions appears to be a poor use of funds.

There is plenty of evidence in academic literature that when government interventions (subsidies and tariffs) are applied incorrectly to established technologies, they can often stifle the innovation of new technologies ([ref](#)).

An examination of US and EU Government support to biofuels: early lessons (2007/[link](#))

The rising trend of green protectionism: Biofuels and the European Union (2012/[link](#))

The Status of Palm Oil under the European Union's Renewable Energy Directive: Sustainability or Protectionism? (2020/[link](#))

New Zealand would do well to learn from these first movers.

10. Do you think the minimum threshold for compliance of 10 million litres of transport fuel in a calendar year in New Zealand is appropriate? If not, what level would you change it to?

We support the minimum threshold of 10 million litres for compliance as appropriate.

11. Do you agree with the method for calculating a supplier's GHG emission reduction? If not, why?

We have no specific comment on the calculation method.

12. Do you think the annual reporting regime, including its offences and fines, is practical and appropriate? If not, why?

Neste supports an annual reporting regime to make the mandate effective. An annual reporting regime can have its complexities and put additional administrative costs on suppliers, so we would want the report to be as simple as possible. An annual reporting regime can also help identify suppliers who are working to meet their obligations and could lead to rewards such as customer loyalty for such players.

13. Do you support the performance of fuel suppliers being published to enable consumers to reward the industry leaders in reducing GHG emissions? If not, why?

Yes.

14. Will the proposed penalties encourage fuel suppliers to achieve the required emission reductions? If not, would level should they be?

We suggest that the proposed penalty levels may not encourage suppliers to achieve the required emission reductions. We calculate that the penalty would cost only 3c a litre of diesel sold by a completely non-compliant diesel supplier with a 3.5% mandate and \$300/t CO2 penalty. As this is likely to be less than the additional cost of the biofuel needed to meet the mandate, the proposed level of penalties will not provide sufficient market incentive for fuel suppliers to utilise biofuels with a high GHG reduction potential.

Strict penalties would bring a potential to drive forward the innovative low carbon technologies, such as what we see in Germany. Based on our calculations, for the first year (of not meeting reduction levels), the draft is discussing a level of around NZD\$300. In comparison, in the German GHG mandate, the penalty level is NZD\$1000 from the following year onwards.

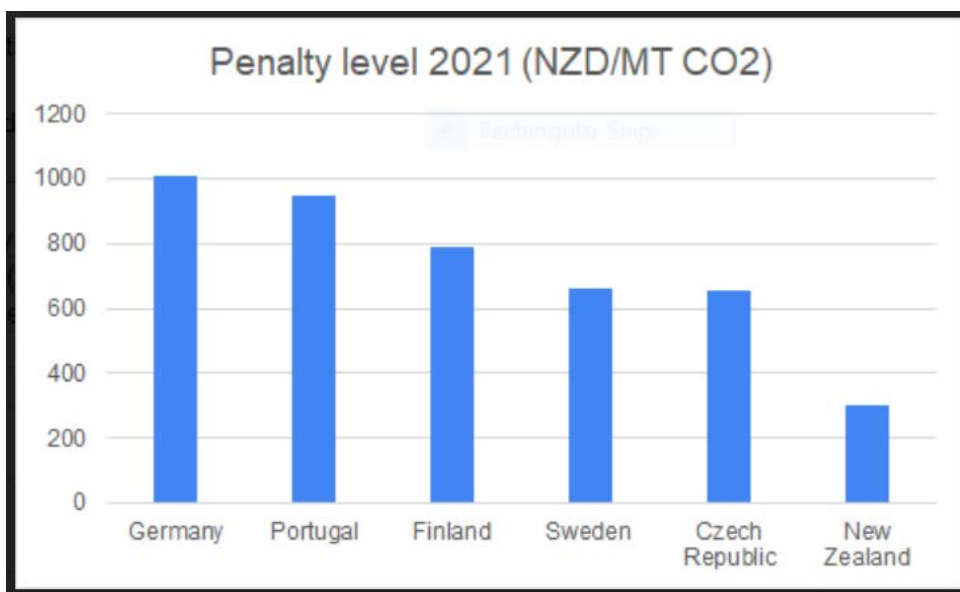


FIGURE 5

Country	Penalty level 2021	Penalty level 2021 (EUR/MT CO2)	Penalty level 2021 (NZD/MT CO2)
Germany (GHG mandate, EUR/MT CO2)	600	600	1011
Sweden (GHG mandate, SEK/MT CO2)	4000	392	660
Czech Republic (GHG mandate, CZK/MT CO2)	10000	390	657
Portugal		564	949
Finland		467	787

In aviation, an example where strict penalties might apply can be found in the ReFuelEU proposal:

To “ensure a level playing field of the aviation internal market and the adherence to the climate ambitions of the Union, this Regulation should introduce effective, proportionate and dissuasive penalties on aviation fuel suppliers and aircraft operators in case of non-compliance. The level of the penalties needs to be proportionate to the environmental damage and to the prejudice to the level-playing field of the internal market inflicted by the non-compliance. When imposing administrative fines, the authorities should take into account the evolution of the price

of aviation fuel and sustainable aviation fuel in the reporting year; The penalties for the suppliers who fail to meet the targets set in this Regulation should be complemented by the obligation to supply the market with the shortfall of meeting the quota in the subsequent year.

Article on Enforcement (11): Member States shall ensure that any aviation fuel supplier failing to comply with the obligations laid down in Article 4 relative to the minimum share of sustainable aviation fuels is liable to an administrative fine. That fine shall be at least twice as high as the multiplication of the difference between the yearly average price of conventional aviation fuel and sustainable aviation fuel per tonne and of the quantity of aviation fuels not complying with the minimum share referred to in Article 4 and Annex I;”

Neste would also like to make the point that for sector specific mandates, the regulator should look to set appropriate penalty levels for each sector where different solutions are relevant.

15. Do you support the proposal for fuel suppliers to defer achieving their emissions reduction for years 1 and/or 2, in full or in part, to the following year? If not, why?

Any deferral or low-level penalty that would encourage delays in complying with the mandate will only push back New Zealand’s ability to meet its emission reduction targets.

A deferral could be justified if it makes the overall proposal more acceptable or gives suppliers time to prepare but, given there is the possibility to opt-out with a minor penalty, the purpose of a deferral would be redundant.

16.a. Do you support fuel suppliers banking any surplus emissions reductions in a year and using it to reduce the percentage needed to be achieved the following year? If not, why?

and

16.b. Do you support fuel suppliers borrowing for shortfalls in emissions reductions in a year, and making the shortfall up the following year? If not, why?

Neste does not support allowing banking of surplus reductions or allowing non-compliant suppliers to borrow against future reductions. The target is an annual GHG emission reduction that ratchets up over time. The bias should be towards over-compliance with the penalty serving to discourage under-compliance. Banking and borrowing allows suppliers to increase their emissions if they have over-complied in the past. This may have an impact on total annual reduction targets being achieved. It also allows for arbitrage.

16.c. Do you agree with the proposal to allow trading through the use of entitlement agreements? If not, why?

This would have the advantage of allowing suppliers to over-comply, for instance by selling a 100% drop-in biofuel, and be rewarded by selling their over-compliance to non-compliant suppliers. Although, logically, the tradeable value of over-compliance entitlements will be less than the penalty non-compliant suppliers would have to pay by simply doing nothing (i.e. less than 3c a litre for a supplier making no reduction, or around 70c a litre for a supplier selling a drop-in biofuel with a 90% reduction in net emissions).

Trading entitlements does raise the risk (which is also raised by the low penalty) that some suppliers simply choose to make no effort to comply and just buy entitlements from other suppliers, which would mean that biofuels remain a niche product, rather than part of the business of all suppliers. We would not support a supplier being able to meet their compliance obligation entirely through entitlement agreements or paying penalties.

We would not support entitlement agreements being able to trade over-compliance between different transport sectors, for the same reasons that we advocate for separate mandates for different sectors.