



## BRIEFING

### Fuel Specifications: Advice on changes

|                                 |               |                         |                      |
|---------------------------------|---------------|-------------------------|----------------------|
| <b>Date:</b>                    | 17 March 2026 | <b>Priority:</b>        | High                 |
| <b>Security classification:</b> | In Confidence | <b>Tracking number:</b> | BRIEFING-REQ-0029495 |

| Action sought                                                                                 |                                                                        |               |
|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------|---------------|
|                                                                                               | Action sought                                                          | Deadline      |
| Hon Nicola Willis<br><b>Minister for Finance</b>                                              | <b>Agree</b> to fuel specification changes in recommendations b and c. | 20 March 2026 |
| Hon Chris Bishop<br><b>Minister of Transport</b>                                              | <b>Agree</b> to fuel specification changes in recommendations b and c. | 20 March 2026 |
| Hon Todd McClay<br><b>Minister for Trade and Investment</b><br><b>Minister of Agriculture</b> | <b>Agree</b> to fuel specification changes in recommendations b and c. | 20 March 2026 |
| Hon Simon Watts<br><b>Minister for Energy</b>                                                 | <b>Agree</b> to fuel specification changes in recommendations b and c. | 20 March 2026 |
| Hon Shane Jones<br><b>Associate Minister for Energy</b>                                       | <b>Agree</b> to fuel specification changes in recommendations b and c. | 20 March 2026 |
| Hon Brooke van Velden<br><b>Minister of Internal Affairs</b>                                  | <b>Agree</b> to fuel specification changes in recommendations b and c. | 20 March 2026 |
| Hon Scott Simpson<br><b>Minister of Commerce and Consumer Affairs</b>                         | <b>Agree</b> to fuel specification changes in recommendations b and c. | 20 March 2026 |

| Contact for telephone discussion (if required) |                          |                            |             |
|------------------------------------------------|--------------------------|----------------------------|-------------|
| Name                                           | Position                 | Telephone                  | 1st contact |
| Sharon Corbett                                 | Policy Director          | Privacy of natural persons | ✓           |
| Caroline Ryder                                 | Principal Policy Advisor |                            |             |

| The following departments/agencies have been consulted |
|--------------------------------------------------------|
|                                                        |

Minister's office to complete:

☐ Approved

☐ Declined

☐ Noted

☐ Needs change

☐ Seen

☐ Overtaken by Events

☐ See Minister's Notes

☐ Withdrawn

Comments



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### Purpose

To summarise our advice on aligning with Australia's fuel specifications and provide initial advice on further fuel specifications that could be relaxed, and the implications of doing so, based on detail received to date from the fuel companies and our technical experts.

### Recommended action

The Ministry of Business, Innovation and Employment recommends that you:

- a **Note** that relaxing some fuel specifications could increase optionality for fuel importers. *Noted*
- b **Agree** to temporarily allow fuel that meets the Australian fuel specification to be sold in New Zealand, with the exception of Australia's recent change to sulphur limits. *Agree / Disagree*
- c **Agree** to seek Cabinet's agreement to draft amendments to the *Engine Fuel Regulations Specifications 2011* to give effect to Recommendation b. *Agree / Disagree*
- d **Note** MBIE's initial advice is not to make further changes to New Zealand's fuel specifications at this time, but we will update Ministers by Friday 20 March 2026 if evidence emerges that supports further changes. *Noted*

Privacy of natural persons

Sharon Corbett  
Policy Director, Energy Markets  
MBIE

17 March 2026

Hon Shane Jones  
Associate Minister for Energy

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Hon Nicola Willis  
Minister for Finance

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Hon Simon Watts  
Minister for Energy

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Hon Todd McClay  
**Minister for Trade and Investment**  
**Minister of Agriculture**

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Hon Chris Bishop  
**Minister for Transport**

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Hon Brooke van Velden  
**Minister of Internal Affairs**

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Hon Scott Simpson  
**Minister of Commerce and Consumer**  
**Affairs**

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## Background

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1. Fuel specifications set the minimum technical and environmental requirements that petrol, diesel and other transport fuels must meet before they can be supplied in New Zealand. This ensures fuel quality, vehicle compatibility, emissions performance and consumer protection. Our fuel specifications are set through the *Engine Fuel Specifications Regulations 2011*.
2. Each jurisdiction has its own fuel specifications. Fuel specifications can vary depending on climatic conditions or how stringent their vehicle emissions standards are. Not all refineries have the infrastructure in place to produce fuel that can meet the latest specifications.
3. Fuel importers have asked us to consider relaxing our fuel specifications while there are supply constraints. Potentially, this could allow our fuel importers to source fuel from more refineries and lowers the risk that fuel orders that specify New Zealand fuel specifications are declined purely for technical reasons.
4. This briefing:
  - a. summarises our advice to align with Australia's fuel specifications
  - b. provides initial advice on further fuel specifications that could be relaxed and the implications of doing so, based on information received to date from the fuel companies and our technical experts.
5. We will provide further advice later this week together with a short Cabinet paper for consideration by Cabinet on Monday 23 March 2026.

## Aligning with Australia's fuel specifications

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6. We recommend allowing fuel that meets the Australian specifications to be supplied in New Zealand, with the exception of Australia's recently relaxed sulphur limit:
  - a. New Zealand and Australian fuel specifications are already very similar. The differences are not safety critical and do not reflect material differences in fuel quality.
  - b. This is a low regret measure that improves access to available cargoes. It increases optionality at minimal cost and risk.
  - c. Our technical experts Envisory advise that the New Zealand and Australian fuel specifications are almost identical for most of the key specifications.

*Allowing Australian specification fuel could improve flexibility, eg for large shipments from the US*

7. Temporarily relaxing our fuel specifications to allow Australian specification fuel to be sold here could widen the pool of cargoes that could be sent here.
8. Refineries need to change their configuration between orders involving different fuel specifications. Instead of us waiting for a 'perfect spec' cargo, we could accept fuel already available in regional markets.
9. Both Envisory and Mobil noted that alignment with Australia could improve supply from the US. In particular, if Australia ordered fuel from the US, the extra sailing time means this would need to be a very large shipment to be economic. If New Zealand could accept Australian fuel, such a shipment could discharge a portion of its fuel to Marsden Point before carrying on to Australia.

*At this stage, we do not recommend relaxing the sulphur limits*

10. Australia has recently announced it will increase its sulphur specification to temporarily allow high sulphur fuel produced in its Brisbane refinery to be sold domestically while the refinery undergoes upgrades (currently it is exported).
11. We do not recommend adopting the revised sulphur level at this stage. New Zealand's existing suppliers, including in South Korea, Singapore and Japan, have already moved to 10ppm as their standard. There are also some significant downsides of relaxing our sulphur level (discussed further below in paragraph 19(a)).

*What are the main differences between New Zealand and Australian specifications?*

12. The major difference between the two countries' specifications is aromatics in petrol, with the Australian specifications being stricter.
13. There are some differences that reflect different climatic conditions. However, this would be dealt with by the requirement that fuel sold in New Zealand must still be 'fit for common purpose'. This means, for example, that diesel for hot climates cannot be used in very cold ones. In practice, it might mean that a shipment of diesel can be used in the Upper North Island but not distributed further south.
14. There are some other differences, but Envisory advise these are very technical and are not considered significant (e.g. Australia does not set intermediate distillation limits – just a final boiling point limit).

## **What further changes have fuel companies recommended?**

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15. We have also asked the fuel companies to provide further detail on:
  - a. Any further changes to fuel specifications that would improve supply
  - b. What they expect the relaxation of specifications would get us in terms of extra optionality/supply.
16. As at 4pm on 17 March 2026, we received information from Mobil and Z Energy as set out below and are expecting information from bp imminently.

### **Mobil**

17. Mobil has advised MBIE that a relaxation of fuel specifications is not needed from Mobil's perspective. They noted that the ExxonMobil Singapore refinery is one of the largest in Asia and that it has the capabilities to meet the New Zealand fuel specifications. Mobil noted they would not oppose a change to fuel specifications if other companies needed this given different supply situations.

### **Z Energy**

18. Z Energy has recommended detailed amendments to the New Zealand fuel specification. These amendments could be made in conjunction with an amendment allowing Australian specification fuel or separately. Unlike the vertically integrated supply chains that ExxonMobil has, Z relies on third party refineries to supply its fuel.
19. Envisory has done an initial line-by-line assessment of the changes recommended by Z Energy. Z Energy's proposals and Envisory's response, are set out in Annex 1, which shows many of the requested changes could be delivered without much or any impact. However, two of the requested changes would come with more significant downsides:

- a. Sulphur level in petrol: Z requested an increase in the maximum allowed level from 10ppm to 50ppm. New Zealand's petrol has had a 10ppm sulphur limit since 2017. Enviroly noted that increasing the sulphur level directly increases SO<sub>2</sub> emissions, reduces the effectiveness of catalytic converters, and leads to higher NO<sub>x</sub>, volatile organic compounds and particulate emissions from the fleet. The Ministry of Transport has advised us that:
    - i. Newer vehicles would be most at risk from moving to 50ppm. Newer vehicles, particularly those that meet the Euro 6 exhaust emissions standard (Euro 6), are optimised for 10ppm and are likely to have more noticeable engine degradation over time. Low sulphur levels are essential for the advanced exhaust after-treatment systems in these vehicles.
    - ii. Some brands sold in New Zealand are already Euro 6 compliant, with 35 per cent of Ford's light passenger vehicle registrations being compliant in 2023 (we expect this percentage will have increased since).
    - iii. Most new cars in New Zealand came with a manufacturer warranty, usually lasting 3-5 years and these usually specify approved fuels. Damage caused by incorrect or non-compliant fuel is typically excluded from warranty coverage. Further consultation with the sector would be required to understand warranty implications and any possible mitigations.
20. Benzene level in petrol: Z requested an increase in the maximum Benzene level from 1 per cent to 2 per cent. Enviroly notes that Benzene is a carcinogenic and the 1 per cent maximum is standard in any good quality petrol, with New Zealand having set its standard at 1 per cent in 2007. Any change would need to be carefully considered due to its potential health impact.

### **How much difference could the proposed changes make to New Zealand's fuel supply?**

21. We note that fuel importers have not been able to quantify the impact that having more flexible fuel specifications might bring. Z told us that relaxing the fuel specifications is unlikely to result in an immediate increase in fuel imports into New Zealand, as suppliers already have existing commitments for the near term. Instead, Z sees the value in optionality – allowing Z and other fuel importers to act quickly and take advantage of any supply opportunities should they arise.
22. We asked Enviroly to advise on which, if any, of the changes requested by Z Energy could materially improve supply optionality for New Zealand.

#### *Relaxing sulphur levels could improve petrol supply optionality but comes with downsides*

23. Enviroly advised that the only material change for opening up petrol supply is to relax the sulphur level in petrol to 50ppm. This is because some smaller refineries in Asia cannot produce petrol with 10ppm sulphur levels and so relaxing this specification could expand the range of Asian refineries where New Zealand could source its fuel. As in paragraph 19(a) above, this change would come with significant downsides that need further consideration.
24. Our initial advice is to revisit sulphur levels if we get further evidence that it is necessary to ensure fuel supply to New Zealand. We will work with the fuel companies to ensure they provide any such evidence. In the meantime, we will consult with vehicle manufacturers to understand the implications of the sulphur specification being relaxed.

#### *Relaxing the cetane index could improve diesel supply*

25. Enviroly advise that Z's only recommendation for diesel that might make a material change is to drop the cetane index to 47 (cetane measures how quickly and smoothly diesel ignites

under compression). Australia's cetane index is 47, so allowing Australian specification fuel to be sold in New Zealand would give effect to Z's recommendation.

## Next steps

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26. We are drafting a Cabinet paper that seeks agreement to allow fuel that meets the Australian specification to be sold here, with the exception of Australia's recently relaxed sulphur standard. The change would require an amendment to the *Engine Fuel Specification Regulations 2011*.
27. This paper would be considered by Cabinet on Monday 23 March 2026. Following Cabinet's consideration, PCO would draft amendment regulations to be considered on Monday 30 March.
28. We are working with our consultants to gain a full understanding of potential fuel specification changes. Envisory will provide us with a report by the end of Thursday 19 March.

## Annexes

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Annex One: Envisory advice on Z's recommendations for amendments to New Zealand fuel specifications

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Envisory 17/3/2026

### General comments.

We compare the Z proposed changes to various other specifications including the Platts Singapore Gasoline assessment grade. Platts keep their specifications used for reporting in line with the most commonly traded volumes in Asia so these are useful comparison for what might increase flexibility. They also have a non oxy specification (reflects grades that cannot use oxygenates like MTBE) that is more reflective of the Australian and New Zealand petrol.

### Petrol

| Suggested Change                                 | Current New Zealand spec | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Envisory recommendation                                                                                                                                                |
|--------------------------------------------------|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Final Boiling Point – relax to 220 deg C maximum | 210 deg C maximum        | End Point controls the amount of heavy hydrocarbon components that can be blended into gasoline. Greater amounts of heavier components can lead to vehicle catalyst needing to regenerate more often (loss of efficiency) and possible damage in the longer term. Tailpipe emissions will be worse. 210 deg C is common in all better quality petrol (NZ, Aus, EU) although Platts standard Asian specification is 215 deg C.                                               | Consider a relaxation to 215 deg C maximum in line with Platts assessment. That should be enough to give more supply flexibility without pushing the change too far.   |
| Olefins – increase to 20% volume                 | 18% maximum              | Olefins are a type of hydrocarbon that includes double bonds (not fully saturated with hydrogen like paraffins). They are common in cracked gasoline and have quite good octane properties. They are limited in petrol as they do not burn as cleanly so can form deposits in fuel systems. 18% maximum is common in all better quality petrol (NZ, Aus, EU) although Platts standard Asian specification is 25% maximum whereas the non oxy grade is 18% like Aus/NZ spec. | A relaxation to 20% seems reasonable in that it provides some flexibility against the Singapore standard without being too much shock to the fleet.                    |
| Sulphur – increase to 50ppm maximum              | 10 ppm maximum           | New Zealand's petrol has been 10ppm maximum sulphur petrol since 2017. To an extent we have not taken full advantage of that as we have not set an equivalent Euro 6 requirement on the vehicle fleet. However, some vehicles (particularly European) may be fully Euro 6 compliant which means higher sulphur levels can damage (poison) exhaust catalysts. This means they will not work to manufacturers warranties leading to more regeneration required                | We agree with Z that vehicle manufacturers will not be keen on this change (even on a temporary basis) and would need to be consulted. However it is likely to have to |

|                                                                                     |                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                      |
|-------------------------------------------------------------------------------------|------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                     |                                          | (loss of efficiency) and possibly long-term damage leading to more toxic gas emissions (NOx, HC and CO <sup>1</sup> ). Given most of our fleet is supplied to a similar standard as Australia and its fuel has been 50ppm sulphur until the end of 2025, it might be that a change could be made without too much long-term damage, but it would need to be carefully considered. The standard Singapore grades are 50ppm maximum although the non-oxy grade is now 10ppm (from this year) reflecting Australia's change late last year.                                                          | be considered if supplies get very tight in the long run.                                                                                            |
| FVI – remove from specification as parameter controlled by Vapour pressure and E70. | 115 maximum                              | Flexible Volatility Index (FVI) is not used in all specifications (some use Vapour Lock Index which is similar) and as Z notes can be controlled with E70 and Vapour pressure. The results in the last Fuel Quality Monitoring report (2023/24 page 28 & 29) would support Z position as no petrol has been close to the limit (expect fuel with ethanol which is no longer used).                                                                                                                                                                                                                | Could be removed without impact.                                                                                                                     |
| Total Aromatics – increase to 48% maximum                                           | Max 45% with pool average of 42%         | New Zealand already has one of the higher aromatic limits in various petrol specifications. This is historic as the refinery produced high aromatic petrol. Since the refinery closed the average aromatic level has dropped substantial as most petrol has lower levels than Refining NZ produced. High levels of aromatics can damage fuel components and damage exhaust catalysts. Singapore grades have a maximum of 40% aromatics (now 17-35% non oxy in line with the AU spec change, was 42%).                                                                                             | We are not sure why Z has asked for this as NZ already has higher levels allowed than virtually all comparable petrol. We would reject this request. |
| Benzene – increase maximum to 2%                                                    | 1% maximum                               | Benzene is a carcinogenic and therefore limited in most petrol. 1% maximum is standard in any good quality petrol and has been the case in New Zealand since 2007. The standard Platts specification is 2.5% reflecting that much of Asia (e.g. Indonesia) has been slower to improve their specifications, although the non-oxy is a 1% maximum. The US grades are 3.8% maximum benzene. A relaxation would lead to some health impacts (would need to go back to the justification for improving it to look at the costs) so would need to be carefully considered but it could free up supply. | Would need to be carefully considered due to public health impact.                                                                                   |
| E70 – possible reduction to 18% minimum                                             | 22% min but reduced to 20% min in summer | E70 specification provides a maximum and minimum for blending. This controls blending in light components and can be restrictive (at the minimum end) when blending higher octane petrol where it can be difficult to get enough lighter components (which can be lower octane) while still being with the vapour pressure limit. Many petrol specifications control distillation the other way (temperature range at a specific % evaporated) so it can be difficult to compare. EU is the same and its lower oxy grade has either a 20 or 22 deg                                                | Consider relaxing to 20% minimum year-round rather than 18%. That should provide flexibility without too much change.                                |

<sup>1</sup> There is a section on vehicle technology and catalysts in Envisory's 2022 Fuel Specification Report for MBIE.

|  |  |                             |  |
|--|--|-----------------------------|--|
|  |  | limit (changes seasonally). |  |
|--|--|-----------------------------|--|

### Materiality

The only material change for opening up supply within Asia (and possibly US as well) is to relax the sulphur level to 50ppm. Other changes would then be made in conjunction to more closely align with the Platts Singapore specification. However, if the sulphur change is not made the other changes will not have a material impact.

This is quite a major decision for the country. The government may want to discuss this with vehicle manufactures so they are ready if supply comes an issue. We see this as something for consideration in the medium term rather than an immediate recommendation for this week.

### Diesel

| Suggested Change                                      | Current New Zealand spec         | Comment                                                                                                                                                                                                                                                                                                                                                                                                                              | Envisory recommendation                                                                                            |
|-------------------------------------------------------|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| Cetane Index – 46 min but keep cetane number at 51    | 47 minimum with cetane number 51 | Cetane is a measure of the ignition quality of diesel. A higher cetane number will lead to better performance efficiency. It is difficult to measure which is why cetane index is used as well as number (one is a calculation). This suggested change brings New Zealand's diesel in line with Australia, so we have already recommended that in an earlier paper. Singapore 10ppm Platts grade is cetane index, 51 cetane number.  | Agree                                                                                                              |
| Density range – increase to 0.81-0.86 kg/l            | 0.82-0.85 kg/l                   | Increasing the density range increases the light and heavy components that can go into diesel although other parameters such as distillation and filter blocking tendence generally mean it will be mid-range. New Zealand specification is already more generous than most other grades such as EU, Platts and which have a 0.82-0.845 kg/l range (the 2022 Envisory report recommended bring the NZ spec in line with this range). | Given most Asian grades are tighter not sure why this change would help – reject unless more information supplied. |
| Viscosity – increase range to 1.8-5.0 cst at 40 deg C | 2.0-4.5 cst at 40 deg C          | The New Zealand viscosity range is the same as nearly all diesels including Aus, EU and the Platts specification. Given that, we are not sure how this change would 'free up' supply given 10ppm sulphur limit is not changing (which enforces a good quality diesel is needed which then has a tight viscosity range).                                                                                                              | Not sure why it is needed – reject unless more evidence of benefit supplied.                                       |
| Colour – increase to 3 max                            | 3 max                            | The specification is already 3 maximum so no relaxation needed. This may be an internal industry limit related to clean shipping (product takers set limits on the colour of the product).                                                                                                                                                                                                                                           | Leave for industry to sort.                                                                                        |

|                                                                              |                  |                                                                                                                                                                                                                                    |                                                                                    |
|------------------------------------------------------------------------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| MCR (Carbon residue on 10% distillation residue) – increase to 0.25% maximum | 0.2% maximum     | Carbon residue measures diesel propensity to form carbon deposit in engines when ignited. New Zealand's specification is in line with most other Asian specification (e.g. Aus, Platts) although the EU allows 0.3% maximum.       | Given EU is higher seems reasonable to accept this change without too much impact. |
| Flashpoint – no request as too difficult                                     | 61 deg C minimum | This is a safety issue that keeps lighter (and possibly more flammable components) out of diesel. There is some variation (EU is 55 minimum, Platts Singapore is 66 deg C) but it depends on what the distribution system expects. | No change                                                                          |

### *Materiality*

High quality 10ppm maximum sulphur is already the most commonly traded grade in Asia and is also the standard in Europe. The United States is 15ppm but they regular export to Europe so are used to manufacturing 10ppm. Other than the drop in cetane index (to align with Australia and the Platts specification) we don't see any of the other changes as material for diesel supply.

### *Other points.*

Consider allowing Platts 10ppm non-oxygenated petrol and 10 ppm diesel: Somewhat covered above but fully cover in main report.

Australian standards cetane – covered above for cetane index (alignment) but may need to drop New Zealand cetane number specification which Australia does not have for conventional diesel. Our understanding is a diesel with a 46 minimum cetane index is generally likely to have cetane number around 51 or above. We note the Platts Singapore specification includes a 51 cetane number so this is normal.