

11 November 2020

OC200770

**Hon Michael Wood**  
**Minister of Transport**
**Action required by:**  
 Friday, 20 November 2020

## Prioritising policies to move to a low carbon light vehicle fleet

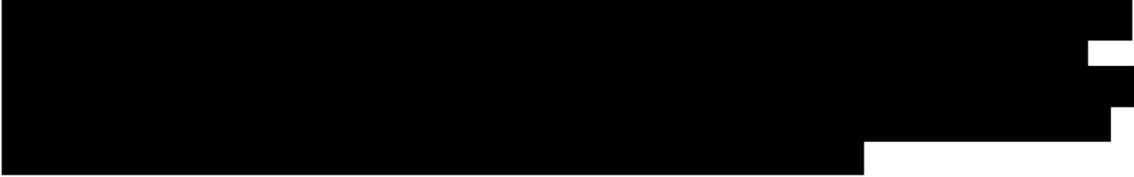
### Purpose

To seek your agreement to prioritise policies to decarbonise our light vehicle fleet within the first 100 days of this term, including a Clean Car Standard and complementary measures.

### Key points

- Transport is responsible for 47 percent of New Zealand's carbon dioxide (CO<sub>2</sub>) emissions and light vehicles (cars, SUVs, utes and vans) are the largest source. At the same time one of our best opportunities to deliver emissions reductions is to decarbonise light vehicles.
- If we do not decarbonise the light vehicle fleet quickly we will not achieve our climate change goals. The level and trajectory of transport emissions is well off-track from supporting a target of net zero CO<sub>2</sub> emissions by 2050.
- In order to achieve the emissions reductions required from transport, you will need to prioritise a package of complementary interventions to clean up our light vehicle fleet and reduce its size.
- This should begin with the Clean Car Standard (the Standard), outlined in the Labour Party's 2020 Clean Energy policy. We recommend the timeframe for the target in the Clean Energy policy be extended from 2025 to 2028. This is because it will take time for New Zealand suppliers to adjust to the requirements of the Standard and to secure the volumes of vehicles needed to meet a fleet target of 105 grams of CO<sub>2</sub> per kilometre.
- We can progress the Standard prior to Christmas. We have already prepared a cabinet paper seeking policy approval from Ministers, and a regulatory impact statement.
- Along with the Standard it would be desirable to progress a Clean Car Discount. The Standard alone would increase supply of low emission vehicles but the increased supply is unlikely to be enough to lower their price sufficiently for consumers. This job would fall to a Discount scheme, which would make low emission vehicles more affordable for New Zealanders by providing a discount on the retail price. An ambitious Standard will only be achievable if implemented alongside targeted policies to address the price of vehicles.
- This is why almost all developed countries have a CO<sub>2</sub> vehicle standard in place, coupled with policies to reduce low emissions vehicle purchase price and to support their use. We recognise that the fee element of a Discount could be seen as a tax, although as people can avoid paying a fee by opting to buy a low emissions or used vehicle, this is not

technically true. A Colmar Brunton poll also showed a majority of people support a Discount and that those who support it like the idea that fees on high emitting vehicles are used to help more New Zealanders afford low emitting vehicles.

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- The Standard and complementary policies should be progressed within the first 100 days of the Government's term, as vehicles stay in the fleet for a long time and reforms will take 18 months to implement. Without further intervention, every high-emitting vehicle that enters our fleet today will be driven until it is, on average, 20 years old. For new vehicles, this means it may not be until 2040 that there is another opportunity to switch these vehicles for low carbon ones.
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**Recommendations**

We recommend you:

- 1 **agree** to prioritise progressing the Clean Car Standard within the first 100 days with a view to securing Cabinet policy approval by 15 March 2021 Yes / No
- 2 **agree** to have a target for the Clean Car Standard of 105 grams CO<sub>2</sub> per kilometre in 2028 Yes / No
- 3 **note** that to progress the Clean Car Standard we would: Yes / No
  - i. forward a cabinet paper for your consideration that seeks policy approval and design decisions sufficient to draft legislation
  - ii. prepare a legislative bid for the 2021 Legislative Programme seeking a priority of Category 2 for an amendment bill, which means it must be passed in 2021
  - iii. [REDACTED]
- 4 **discuss** with officials the complementary Clean Car measures you would like progressed, including to increase consumer demand for low emission vehicles Yes / No




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Ewan Delany  
**Manager, Environment, Emissions and Adaptation**  
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Hon Michael Wood  
**Minister of Transport**  
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**Minister's office to complete:**

- Approved  Declined
- Seen by Minister  Not seen by Minister
- Overtaken by events

**Contacts**

Name	[REDACTED]
Gayelene Wright, Principal Adviser	[REDACTED]
Ewan Delany, Manager	[REDACTED]

## PRIORITISING POLICIES TO MOVE TO A LOW CARBON LIGHT VEHICLE FLEET

### Light vehicles are the largest source of transport emissions but they also offer the greatest immediate opportunity to decarbonise

- 1 The Climate Change Response (Zero Carbon) Amendment Act 2019 requires CO<sub>2</sub> emissions to be reduced to net zero by 2050. As transport is responsible for nearly half of New Zealand's domestic CO<sub>2</sub> emissions<sup>1</sup>, this target cannot be achieved without largely decarbonising transport.
- 2 Two-thirds of transport emissions come from our light vehicles, which are cars, SUVs, vans, utes and light trucks all under 3.5 tonnes. Fortunately, low emission light vehicles offer a substantial, do-able and cost-effective opportunity to decarbonise. Decarbonising light vehicles will also generate significant health benefits and fuel savings for New Zealanders.
- 3 It is critical to take immediate action to realise this opportunity and ideally within the first 100 days of this term. Vehicles that enter our fleet today will be driven until they are on average 20 years old. This means that if we are to achieve a low emissions fleet by 2050, nearly all the vehicles entering the fleet need to be low emissions by 2030.

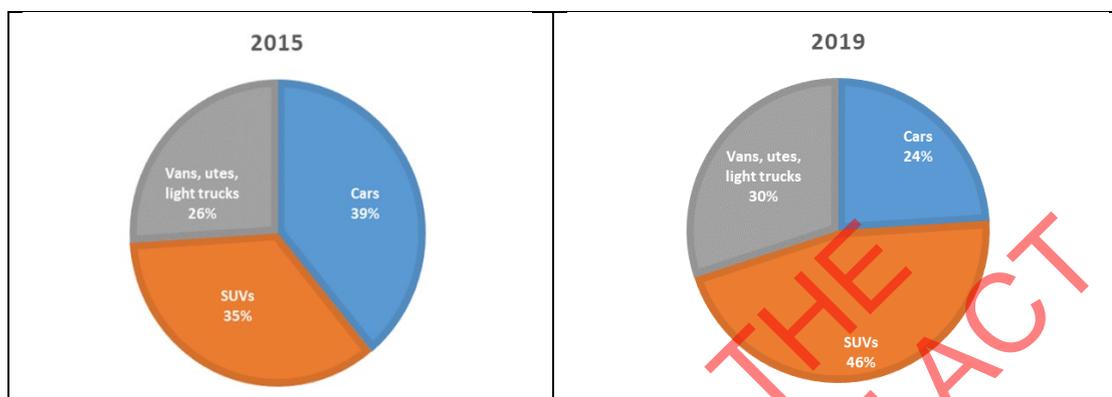
### We are a dumping ground for dirty, unsafe cars and this unnecessarily imposes high costs for households and businesses

- 4 Currently, the light vehicles coming into this country are among the most fuel inefficient, and emission intensive, of any OECD country. By being indifferent to vehicle CO<sub>2</sub> emissions we have become a dumping ground for high emission vehicles. Without new standards and incentives, this problem will worsen over time. The average vehicle coming into New Zealand has CO<sub>2</sub> emissions per kilometre more than 40 percent higher than the average one in Europe.
- 5 Developed countries have largely imposed stringent standards and many have set dates after which petrol and diesel vehicles will be banned, from as early as 2025-2030.
- 6 Our average vehicle has higher emissions because of the following supply and demand factors.
  - 6.1 **Manufacturers do not supply us with their most efficient vehicle models.** When they do it is often with a delay of several years. In 2017, the most efficient vehicle models on our market had, on average, 21 percent higher emissions than their counterpart models in the United Kingdom. Vehicle manufacturers are able to supply less efficient vehicles because we have no regulations, or meaningful incentives, to lower vehicle CO<sub>2</sub> emissions. This allows manufacturers to minimise their costs by providing vehicles with older and cheaper technologies.
  - 6.2 **Consumers are buying heavier new vehicles with higher emissions.** The graphs on page 5 show the shift in consumers' buying patterns for new vehicles

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<sup>1</sup> For all greenhouse gases transport accounts for 21% of total domestic emissions. The other major emitting sectors are agriculture (47.8%), energy (19.6%), industrial processes (6.5%) and waste (5.1%).

over the last 5-years. Another way to appreciate this shift, is that in 2011 small vehicles<sup>2</sup> were 16.6 percent of new vehicle sales. By 2019 their share of sales halved to 8.5 percent.



6.3 **Half of the vehicles entering New Zealand each year are used-imports.** In 2000 the average age of used-imports coming in was around 7 years. In 2019 the average age had increased to around 10 years. Generally, for the same vehicle model, newer versions tend to be more energy efficient and thus have lower emissions.

- 7 New Zealand is an outlier among developed countries, along with Australia and Russia, in not regulating vehicle CO<sub>2</sub> emissions/fuel efficiency. Many other states also ban or strictly regulate the age of used imports.
- 8 The poor fuel efficiency and higher emissions of our vehicles comes at a significant cost to households and businesses. On average, New Zealanders pay 65 percent more in annual vehicle fuel costs than people in the European Union, even though Europe's petrol prices are higher.
- 9 By having no vehicle CO<sub>2</sub> policy we are forgoing a cost effective way to decarbonise as the resultant fuel savings are significant. Research from the United States, over the period 1984-2014, suggests that low-income households benefit the most from vehicle CO<sub>2</sub>/fuel efficiency standards.<sup>3</sup> This is because as a percentage of income, savings from improved fuel efficiency are highest for households with lower incomes.

**To overcome these challenges we recommend pushing ahead with clean car policies in your first 100 days**

- 10 The Labour Party's 2020 Clean Energy policy includes some important initiatives to speed the uptake of low emissions vehicles through:
  - the Clean Car Standard (the Standard) for new and used light vehicles entering New Zealand with a fleet target of 105 grams CO<sub>2</sub> per kilometre in 2025
  - progressively increasing the annual funding provided through the Low Emission Vehicles Contestable Fund from the current \$6 million. The scope of the fund

<sup>2</sup> For this statistic small vehicles are light vehicles with a tare weight up to 1,200 kilograms.

<sup>3</sup> [http://bakercenter.utk.edu/wp-content/uploads/2016/09/Equity-Impacts-of-Fuel-Economy-Report\\_final.pdf](http://bakercenter.utk.edu/wp-content/uploads/2016/09/Equity-Impacts-of-Fuel-Economy-Report_final.pdf)

would be expanded to support the wider diffusion of low emission vehicles. As well, the fund would be able to support infrastructure for biofuels and hydrogen

- the decarbonisation of bus fleets. The Low Emission Vehicles Contestable Fund may also be able to support the replacement of existing older high emitting diesel buses with new zero emission electric ones and relevant infrastructure.

11 Internationally, CO<sub>2</sub> standards, like the one Labour has outlined, have been effective in driving emission reductions in light vehicles<sup>4</sup>. However, overseas experience also shows that more substantial progress is made when standards are combined with measures that directly target the issues that inhibit consumer demand for low emission vehicles<sup>5</sup>. The key demand issues are that:

11.1 consumers significantly discount future fuel costs when buying a vehicle, which favours the purchase of high emitting vehicles. Although consumers value fuel efficiency, the factors that matter more, in order of importance, are vehicle: functionality, purchase price, safety, condition and brand<sup>6</sup>

11.2 consumers are increasingly moving away from cars and instead are buying SUVs and utes which tend to be heavier and use more fuel

11.3 EV uptake is limited by: their higher purchase price, the limited range of models available, concern about the availability of public charging infrastructure and travel range anxiety.

12 Labour's Clean Energy policy initiative to expand the Low Emissions Vehicle Contestable Fund (LEVCF) will help to overcome these demand issues to a small degree. For instance, it will ensure funding is available to continue the expansion of EV charging infrastructure. However, its impact on vehicle purchases will be limited because only a small number of businesses apply to access the Fund and individuals buy around 80 percent of new-to-the-fleet vehicles. We will provide further advice on the LEVCF.

### Measures are needed to influence consumers to buy low emission vehicles

13 To better target the demand side issues, our advice is that the Standard should be progressed along with the Discount, [REDACTED]

14 The Discount is a fundamental policy because the experience internationally is that up-front reductions in purchase price are the incentives that impact most strongly on purchase decisions<sup>7</sup>. The rebate element of the Discount achieves this by reducing the retail price of low emission vehicles. In so doing it makes these vehicles more affordable for New Zealanders. At the same time, the fee element further narrows the

<sup>4</sup> For example, a 2015 evaluation of the European Union's vehicle fuel efficiency standard for new light vehicles, found that it is likely to have accounted for 65–85 percent of the reductions that occurred in tailpipe emissions over 2009–2014. The standard achieved an estimated rate of annual improvement of 3.4 to 4.8 grams CO<sub>2</sub>/km. This compared to the annual rate of improvement of 1.1 to 1.9 gCO<sub>2</sub>/km previously experienced under a voluntary industry standard.

<sup>5</sup> Vehicle Emissions and Impacts of Taxes and Incentives in the Evolution of Past Emissions, Report to the European Environment Agency. Eionet Report - ETC/ACM 2018/1

<sup>6</sup> EECA Vehicle Research 2015, Report by IPSOS.

<sup>7</sup> Vehicle emissions and the impact of taxes and incentives in the evolution of past emissions. Eionet Report – ETC/ACM 2018/1

price difference between high emitting vehicles and low emission ones. It also dissuades people from buying high emitting vehicles.

- 15 In our view the Discount is a necessary complement to the Standard. These policies would work together to start overcoming the supply and demand challenges to low emission vehicles.
- 16 The Standard's job would be to increase the availability and range of low emission vehicles. Suppliers would have to stock more fuel efficient conventional vehicles, more petrol hybrids and more EVs to meet their CO<sub>2</sub> fleet targets.
- 17 The Standard would not, however, necessarily cause the price of low emission vehicles to reduce and demand to build. This job would fall to the Discount by causing the price of low emission vehicles to fall, and the price of higher emitting vehicles to rise. The rebates would be funded from the fees paid by people who buy high emitting vehicles. The fees would also fund the scheme's costs making it a fiscally neutral initiative.
- 18 The Discount has two short term disadvantages. First, people reliant on affordable utes and light trucks would be unable to avoid a fee until suitable low emissions models are available. Currently, there are no electric utes in our vehicle market. However, Great Lake Motor Distributors have announced that they will supply a pure EV ute to our market from 2021<sup>8</sup>. Toyota New Zealand has announced that it hopes to secure supply of the hybrid version of the Hilux ute at the end of 2021.<sup>9</sup>
- 19 Second, opponents of the Discount see the fee element as a tax. This disadvantage is more a perception than a fact, and could be mitigated through communications emphasising that:
- unlike tax, people can avoid paying a fee by opting to buy a low emissions vehicle, or by buying a vehicle on the second-hand domestic market. The fees only apply to new-to-the- fleet vehicles
  - there was significant support for the Discount from the public and from the new vehicle industry during the Clean Car consultation. A majority of people surveyed in an independent Colmar Brunton poll, also supported the Discount. Supporters like that fee revenue from high emitting vehicles funds people to buy low emitting ones.
- 20 [REDACTED]

### **Countries with low emission fleets have used subsidies and fees to influence consumers**

- 21 If New Zealand wants to stop lagging behind other countries in reducing its vehicle emissions, then it needs to adopt the measures that successful countries have. The Standard is one of these policies. Internationally, it is also common for subsidies and fees based on CO<sub>2</sub> emissions to be used to influence people's vehicle decisions. This is exactly what the Discount would do.

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<sup>8</sup><https://www.stuff.co.nz/motoring/evs/122349983/allelectric-ldv-ute-coming-next-year>

<sup>9</sup><https://www.driven.co.nz/news/a-hybrid-version-of-the-toyota-hilux-ute-is-on-its-way/>

22 For example, all European countries with the exception of Poland are using subsidies and fees to steer consumers towards low emission vehicles. Norway has done this to the point of achieving purchase price parity between EVs and conventional vehicles. To do this Norway:

- has a one-off registration fee for new vehicles based on CO<sub>2</sub> emissions and vehicle weight. If the average vehicle entering our fleet were to enter the Norwegian fleet, it would attract a registration fee of around €20,000<sup>10</sup> (NZ\$35,000)
- exempts EVs from import tax and its 25 percent sales tax.

23 Norway's aggressive use of subsidies and fees has made it the world leader in EV uptake. As at 31 August 2020, 69 percent of the new vehicles entering the Norwegian fleet were EVs<sup>11</sup>. This compares with 2 percent in New Zealand.

[REDACTED]

24 [REDACTED]

25 [REDACTED]

26 [REDACTED]

27 [REDACTED]

28 [REDACTED]

<sup>10</sup> [https://theicct.org/sites/default/files/publications/EU\\_vehicle\\_taxation\\_Report\\_20181214\\_0.pdf](https://theicct.org/sites/default/files/publications/EU_vehicle_taxation_Report_20181214_0.pdf)

<sup>11</sup> EVs includes pure EVs and plug-in hybrids.

[REDACTED]

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**The effectiveness of the Standard will largely be determined by its CO<sub>2</sub> target**

31 The CO<sub>2</sub> target in the Labour Party's 2020 Clean Energy policy is 105 grams CO<sub>2</sub> per kilometre in 2025. Last year, the Ministry publically consulted on the Standard, as it is proposed in the Clean Energy policy, and refined its design with the vehicle industry and the Automobile Association.

32 The most significant change we recommended to the previous Associate Minister was to extend the target's timeframe by 3-years to 2028. This advice was accepted by the Associate Minister.

33 Getting the CO<sub>2</sub> target right is critical to the Standard's effectiveness and to mitigating its risks. The target should drive suppliers to source more low emission vehicles without being so aggressive that:

- the range of vehicles in our market reduces. This would occur if suppliers cannot secure the volume of low emission vehicles needed to meet the target. At the extreme it could lead to some vehicle distributors withdrawing from New Zealand
- there are substantial rises in vehicle prices due to:
  - the reduced supply of certain vehicles
  - vehicle suppliers being unable to absorb the higher cost of vehicles with better emission reducing technology
  - vehicle suppliers passing on the cost of their infringement fees for not meeting their CO<sub>2</sub> targets.

34 If these risks eventuate the transition to low emission vehicles would slow. The reduced range of vehicles supplied and increased vehicle prices would cause many people and businesses to hold onto their existing high emitting vehicles for longer.

- 35 The decision on the target is made difficult by the uncertainties about whether and to what extent:
- New Zealand's vehicle suppliers will be able to access sufficient volumes of low emission vehicles to meet the target
  - the cost of low emission vehicles flows through into higher retail prices. This risk will be contained by many factors, especially competition in the vehicle market and exchange rate appreciation
  - there is a fall in consumer demand because of an increase in vehicle prices.
- 36 We sought advice from the International Council on Clean Transportation (the Council)<sup>12</sup> on whether the target of 105 grams CO<sub>2</sub>/kilometre in 2025 would be achievable in New Zealand. The Council advised the Ministry that a target requiring a 40 percent reduction over 6 years (note it will now be around 4 years) in the average emissions of vehicles entering our fleet is:
- too short a period of time to both impose a very ambitious level of CO<sub>2</sub> reduction and give industry sufficient time to adjust to operating in a regulated environment
  - plausible but unlikely to be achievable without extremely strong vehicle policies beyond the Clean Car Standard and the Clean Car Discount. Internationally, only Norway and Sri Lanka have achieved this pace of reduction. Sri Lanka used substantial fees on the registration of new to the fleet vehicles. These fees have since been repealed as they proved unpopular.

**We recommend extending the Standard's timeframe to 2028, which would make reductions more certain and make it easier to set stronger future targets**

- 37 Extending the timeframe for the 105 grams target to 2028 would have the following advantages.
- The target is more likely to be achieved. This is critical as the target is only valuable when its associated CO<sub>2</sub> reductions are achieved.
  - There would be an increased likelihood that the first target would be followed by stronger future targets. For example, a target of 90 grams in 2030 and 60 grams or lower in 2035<sup>13</sup>. In comparison, if the 105 grams CO<sub>2</sub> in 2025 target is set and missed this would make it harder for Ministers to agree to strong future targets.
  - Reduced vehicle supply and increases in vehicle prices are much less likely. This assessment is based on Toyota New Zealand's view that a "target of 130 grams by 2025 would be realistic". This target is equivalent to a target of 105 grams by 2028. These factors make it more likely that businesses and households would replace their vehicles with low emitting ones sooner rather than later.

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<sup>12</sup> The Council is an independent non-profit organisation based in the United States that provides technical and scientific analysis to environmental regulators.

<sup>13</sup> Note that this could be superseded by a commitment to a date for phasing out imports of light vehicles that can only run on petrol and diesel.

- 38 The key disadvantage in extending the target's timeframe is that vehicle suppliers face less immediate pressure to prioritise lowering CO<sub>2</sub> emissions. Apart from Toyota New Zealand, and the used-importers who specialise in low emission vehicles, recent industry performance suggests reducing CO<sub>2</sub> is not a key business priority.
- 39 In the new vehicle sector, 8 major vehicle distributors, including Mazda and Mitsubishi increased their average fleet CO<sub>2</sub> emissions over 2015–2019, in the range of 2.2–12.6 percent. The leader in emission reductions was Toyota achieving a 14 percent reduction over this period. The remaining 11 major distributors, including Hyundai and Suzuki, achieved reductions of between 1.5–12 percent in their fleet emissions.
- 40 In the used-vehicle sector, most suppliers tend to wait for regulation before they increase the specifications of the vehicles they import. For instance, since 1 March 2020 all used-imported light vehicles must have electronic stability control. Information from the largest supplier, Nichibo Japan Trading, suggests that this requirement has had the co-benefit of increasing the supply of EVs and petrol hybrids. However, these vehicles could have been imported sooner if suppliers had prioritised either reducing CO<sub>2</sub> in their vehicle selections, or vehicle safety.
- 41 Nevertheless, these disadvantages of the extended timeframe would, in our view, be outweighed by the greater certainty that the CO<sub>2</sub> reductions would be achieved. As well, the former Associate Minister of Transport agreed to mitigate the disadvantages by:
- 41.1 reviewing the suitability of the CO<sub>2</sub> target in 2023. If the target proves too aggressive, or not aggressive enough, it would be reset. To remove any perception that the review could be an opportunity to relitigate having a CO<sub>2</sub> standard, the review would focus on what industry leaders in emission reductions are achieving
  - 41.2 setting stronger future targets for 2030 and 2035, which would be provisionally decided on in 2021 when Ministers consider decisions on New Zealand's emissions budgets.

**There is some support for a Standard and Discount in the motor vehicle industry and the Automobile Association**

- 42 There are a range of views within the vehicle industry about how best to incentivise low emission vehicles. During the consultation process the Motor Industry Association, representing new vehicle distributors, and the Automobile Association expressed a strong preference for a consumer demand-based incentive such as the Clean Car Discount. They opposed the Standard, as consulted on, as they considered the 2025 target to be too aggressive.
- 43 The vehicle industry considers that even with the Standard, overseas manufacturers will not supply sufficient volumes of low emission vehicles to New Zealand for distributors to meet a target of 105 grams in 2025. This would be despite the best endeavours of our local distributors.
- 44 Part of the problem is that New Zealand is not a priority market for vehicle manufacturers. The Standard would increase the leverage distributors have with their parent manufacturers. However, the increasing demand for low emission vehicles in larger markets, like Europe, is currently outpacing supply.
- 45 During the post-consultation workshops the Motor Industry Association indicated that it could support a standard if the headline target was deferred until after 2028 and

changes were made to the design settings. However, since COVID-19 the Association's view has shifted. They have encouraged the Government to instead consider direct subsidies for electric vehicles out to 2023 and to defer the introduction of the Clean Car Standard until later in the decade.

46 The Imported Vehicle Industry Association, representing used importers, has consistently opposed both the Standard and Clean Car Discount. They do not accept the need to be regulated. Nevertheless they were constructive in suggesting a number of modifications to the design of the Standard.

47 In line with the industry feedback, the Cabinet paper for the Standard, which was signed by the previous Associate Minister of Transport, made a number of modifications to the Standard's design, including to its target.

**Next steps**

48 Cabinet papers seeking policy approval for the Standard and the Discount were signed by the former Associate Minister of Transport with associated regulatory impact statements. However, neither policy was able to progress through the coalition pre-Cabinet process in early 2020.

49 If you prioritise progressing the Standard, [REDACTED] ideally within the first 100 days of the Government's term, we will forward Cabinet papers to you for your consideration. To secure legislation, we will prepare a legislative bid for the 2021 Legislative Programme. The bid will seek a priority of Category 2 for an amendment bill, which means it must be passed in 2021. This priority is needed as the Standard will take 18 months to be implemented by Waka Kotahi. [REDACTED]

50 [REDACTED]

51 [REDACTED]

52 [REDACTED]

Appendix withheld as it is under active consideration