



22 March 2021

OC210221

Hon Michael Wood
Minister of Transport

Action required by:
Monday, 29 March 2021

Readiness of the Clean Car Discount policy

Purpose

Elaborate on the implementation readiness of the Clean Car Discount and inform decisions on its inclusion as a key policy in the Budget 2021 emissions reduction package.

Key points

- The Clean Car Discount has been extensively modelled, consulted on and tested with industry since 2019. It will be a key mechanism to make progress on transport decarbonisation in the first emissions budget period. It has a positive Benefit Cost Ratio and Net Present Value and is expected to abate up to 9.2mt of CO₂ to 2050.
- The Ministry of Transport (the Ministry) considers the policy is implementation ready, with the outstanding design questions contingent on funding decisions. The Ministry has provided updated advice recently primarily to give Ministers further options to phase-in or redistribute the costs of the policy.
- The target embedded in the recently-announced Clean Car Standard is not achievable without a strong discount mechanism, and the Clean Car Discount is attractive as it is a proven mechanism internationally that can be operated to be revenue neutral.
- There is considerable flexibility built into the policy mechanism to allow phasing in of the policy from mid 2021 to gain immediate results, and to tweak it over time to respond to changing consumer behaviour, changing vehicle supply and price.
- The initial level of fees and rebates, and any exemptions to them, would be finalised by Cabinet. Annual review and recalibration of rebates and fees, along with reducing rebates and increasing fees over time, will ensure the scheme stays on track to repay the loan to the Crown (DMO) in full within a ten year period.
- Temporary concessions to vehicles such as utes for farm use are possible, but add complexity and risk.

Recommendations

We recommend you:

- 1 **note** that subject to confirmation of funding for a loan, the first phase of the Clean Car Discount policy can commence from July 2021, enabling rebates to begin, with Cabinet decisions and legislation enabling fees to follow later in 2021
- 2 **forward** this briefing to the Minister of Finance Yes / No
- 3 **confirm** with officials any direction on design and funding preferences emerging from discussions with Budget Ministers and Climate Response Ministers. Yes / No

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Ewan Delany
Manager, Environment, Emissions and Adaptation, Ministry of Transport

22/03/2021

[Signature]
Hon Michael Wood
Minister of Transport

23/3/21

- Minister's office to complete:**
- Approved
 - Declined
 - Seen by Minister
 - Not seen by Minister
 - Overtaken by events

Comments

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Readiness of the Clean Car Discount policy

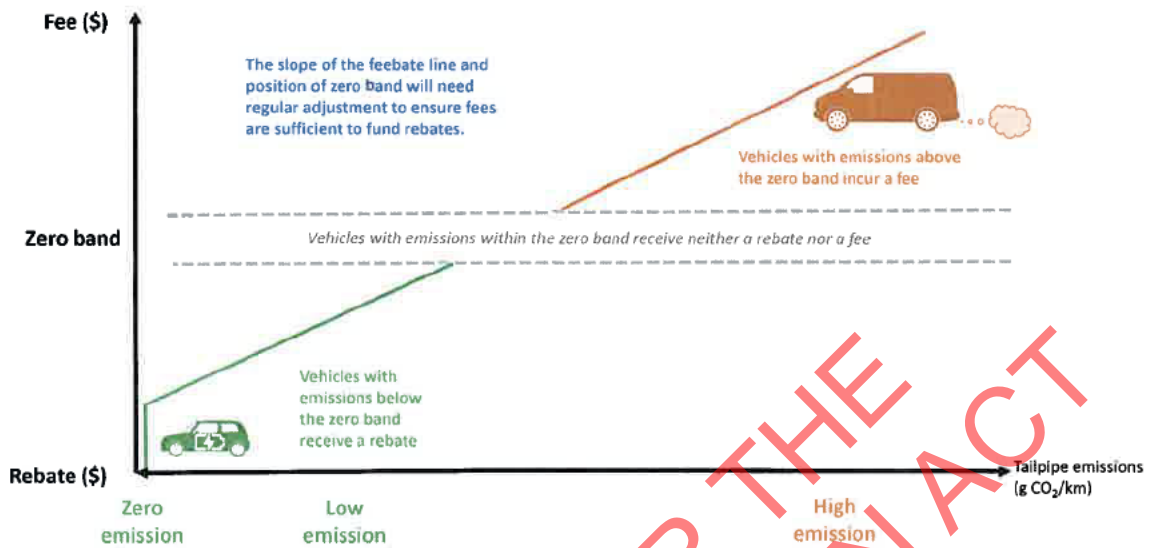
Background

- 1 On 16 March 2021, Ministers discussed the Clean Car Discount as part of assessing high priority emissions Budget 2021 bids. This briefing addresses questions that arose from the meeting –
 - whether this policy is ready for implementation now;
 - its funding profile and funding options; and
 - the alternatives that have been ruled out, and why.
- 2 That same week, you agreed to take a paper to Cabinet in April 2021 to consider and approve the overall proposed policy design for the Clean Car Discount. This includes that it be progressed via a stand-alone Bill. Additionally, you supported the proposal that Waka Kotahi could begin manually issuing rebates for electric vehicles from July 2021 as a first phase of policy implementation, with the second phase, including fees on high-emitting vehicles, to follow in 2022 [briefing OC210131 refers].
- 3 This briefing responds to questions posed in the 16 March meeting and in your feedback on briefing OC210131.

The Clean Car Discount is a demand-side policy to influence purchasing behaviour

- 4 The Clean Car reforms have two central components, designed to work together;
 - The Clean Car *Standard*, agreed by Cabinet in January 2021, stimulates supply of zero/low emission vehicles by regulating importers to sell more of them.
 - The Clean Car *Discount*, discussed here, is designed to increase *demand* for zero/low emission vehicles, and, reduce demand for high emission vehicles.
- 5 The Clean Car Discount works by placing a fee at point of first registration in New Zealand on high emitting vehicles, and uses those fees to fund rebates on zero and low emission vehicles. This so-called 'feebate' model has the attraction of being revenue-neutral, with Waka Kotahi using a 'specific reserve' and a Crown loan appropriation to manage cash flow overs and unders month-to-month and year-to-year. The policy adheres to the 'polluter pays' principle, and avoids imposing costs on New Zealanders who are not importing vehicles. Each year, both the revenue position of the scheme and the composition of the incoming vehicle fleet would be analysed in order to recalibrate the next year's schedule of rebates and fees, ensure the scheme operates in a financially prudent fashion, and to minimise fiscal risk to the Crown.
- 6 The dollar value of a rebate or fee will be based on a formula that can be plotted as a line relating to the level of emissions for a vehicle. This ensures consumers are motivated to source the cleanest vehicle that meets their need. Unlike most international schemes, in our case used imports would be included, because they comprise half of the vehicles entering New Zealand. Both rebates and fees on used vehicles would lower.

Feebate Overview



7 Exceptions and scope of the discount:

- Vehicles of social and historic value would be excluded.
- Unsafe vehicles¹ can be excluded from discounts, to prevent their proliferation.
- Vehicles above a price cap (proposed to be set to \$80,000) would be excluded from discounts, to avoid subsidy of luxury vehicles, though such vehicles would still be subject to fees if they produce CO₂ emissions.

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The Clean Car Discount is the Ministry's preferred policy approach

8 A Clean Car Discount is the Ministry's preferred intervention in preference to straight subsidies of low emissions vehicles or no action, and is a specific recommendation of the Climate Change Commission in its 2021 draft advice. It is also supported by the vehicle industry.

9 Ministry of Transport modelling shows that the Clean Car Discount is a compelling investment in reducing transport emissions.

9.1 **The Net Present Value** of the Discount (incremental/additional to the Clean Car Standard) is forecast to be \$35m to \$995m, or with the larger loan facility and higher level of rebates, \$180m to 1,830m.

9.2 **CO₂ emissions reductions** (incremental to the CCS) – cumulative 2022 to 2050 – are forecast to be 1.7 to 6.1 mega tonnes, or with the larger loan facility and higher level of rebates, 2.6 to 9.2 mega tonnes.

¹ For example those with a low safety rating.

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- 9.3 **The Benefit Cost Ratio** is 1.2 to 2.5 with the smaller loan, and 1.8 to 3.5 with the larger loan.
- 9.4 **The expected Marginal Abatement Cost** is between -\$19 and -\$199.
- 10 Feebates have proven to be successful at multiplying the effect of a CO₂ standard, as illustrated by the European Union experience. All EU member states are subject to a consistent CO₂ regulation that achieved about 10% market-share of electric vehicles across Europe during 2020. In countries that *also* placed financial incentives and disincentives on vehicles, electric vehicle market-share is much higher – 20% to 80% electric vehicle market-share – with studies citing reduced upfront price as the key factor in purchase decisions.²
- 11 A number of policy alternatives to the feebate model have been ruled out:
- **Inaction is insufficient.** We forecast that the Clean Car Standard by itself will not deliver on the 105g by 2025 target Cabinet has committed to. The motor vehicle industry has reiterated this view.
 - **Policies that reduce ongoing motoring costs are not enough.** The exemption from Road User Charges (RUCs) on electric vehicles contributes, but, does not overcome the initial upfront price barrier. While low and zero emission vehicles save motorists thousands of dollars in petrol or diesel costs, this is only the case if consumers can afford the vehicles in the first place. Relatively few consumers will make purchasing decisions accounting for whole of life costs.
 - **The Emissions Trading Scheme (ETS)** is limited in its effectiveness in this domain, as are increasing diesel RUC rates or petrol excise costs. Increasing these would make driving a high emission vehicle more expensive. However, they don't overcome the primary barrier to clean car adoption, which is the upfront purchase cost premium.
 - **A rebate funded through general taxation** is not recommended because that places no disincentive effect on purchasing high emission vehicles; externalises the costs of purchasing high-emission vehicles and unfairly distributes the costs of rebates to all taxpayers. Our modelling shows the disincentive effect of fees to provide as significant a role in reducing emissions as the incentive effect of discounts. A subsidy also risks being considered expensive to the Crown and the public, and thus prone to being terminated as soon as the volume of vehicles it supports rises, reducing its ability to transition the market from fossil fuel to zero emission vehicles.

The Clean Car Discount is well developed and ready to implement

- 12 The policy has been worked on extensively in detail since 2019, progressed by Hon Julie Anne Genter as Associate Minister of Transport in the last term of Parliament:
- **Relevant policy analysis has been carried out in detail**, including a Regulatory Impact Analysis, full Cost Benefit Assessment and Social Impact

² www.elbil.no

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Assessment. A Cabinet Paper was completed in early 2020 and approved by the Associate Minister of Transport at that time (but never lodged with Cabinet);

- **Further analysis and modelling informs our assumptions.** EV uptake modelling and elasticity modelling has been carried out. The role of the credit facility and management of fiscal risk was tested by looking at different feebate schedules subject to cost neutrality constraints and the ability to influence vehicle choices, through the use of different price elasticity of demand levels. Insights from the motor vehicle industry have since been used to refine the policy
- **Public and industry consultation** means both groups are aware of the policy and have had an appropriate forum to supply feedback. A 2019 consultation provided 860 survey responses (87% support for the Clean Car Discount) and 196 email responses (70% support), together with 1,644 template emails from an email address set up by the New Zealand National Party that opposed placing fees on high emission vehicles. .
- **Implementation work was begun by Waka Kotahi last year.** In its estimate, about six months of work remains to complete rollout of the discount. (The legislative timetable may take longer than this). For this reason and its role as the regulator of vehicles and operator of the land transport system, Waka Kotahi is the obvious choice to operate the scheme.

13 This year's decision to progress the Clean Car Standard ensures importers are now preparing to supply more vehicles to meet the demand this policy could generate.

14 The motor industry has specifically asked that the Clean Car Discount policy be adopted soon, in order to meet the Government's ambitious 105g by 2025 Clean Car Standard. The Motor Industry Association (MIA), which represents new vehicle distributors, suggests the rebate level be set between \$7000 and \$10,000, and is comfortable with our proposal that a maximum fee of around \$3000 apply to the highest emitting vehicles.

The fiscal parameters Cabinet agrees will dictate remaining design decisions

15 Cabinet would need to either agree to funding the Clean Car Discount with;

- A Repayable Crown Loan of \$36.6m, or
- A Repayable Crown Loan of \$265m (**recommended**), or
- A Repayable Crown Loan of between \$36.6m and \$265m (with subsequent analysis needed to inform the next round of Cabinet decisions on the level of fees and rebates this would support).

16 **The smaller loan amount** (of \$36.6m) is the minimum needed to implement and operate the discount, but carries several associated risks:

- 'Lolly-scramble' effect: \$6.6m is needed by Waka Kotahi to implement and operate the policy. This leaves just \$30m for cash flow to absorb timing and volume differences when issuing rebates and fees. Rebates could easily exhaust all funding; consumers would be subject to lolly-scramble effect where rebates are not available throughout the year (The Netherlands, exhausted its rebate pool within 8 days last year, because it was too small).

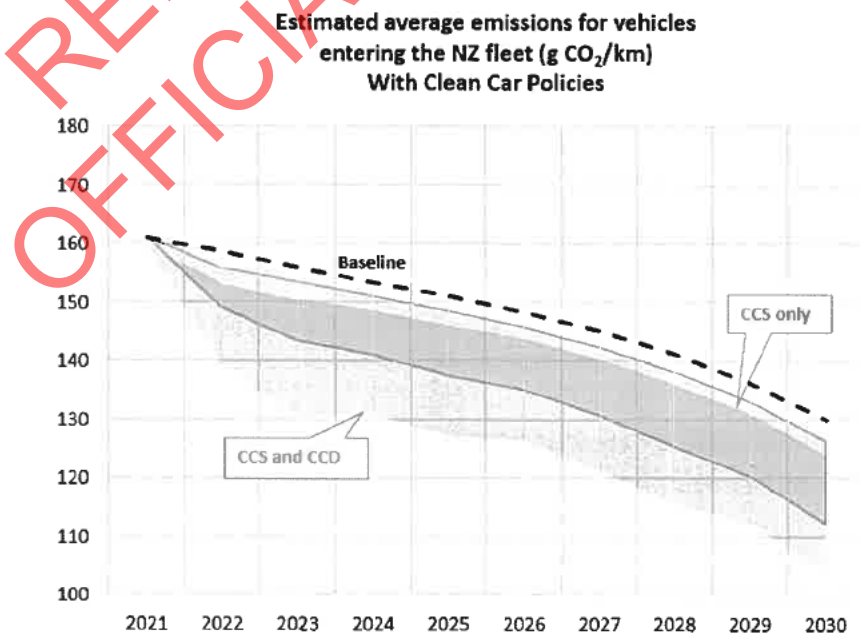
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- Rebates on clean vehicles will be more limited, and have lesser effect, leading to lower CO₂ abatement. Less consistent with 2030 and longer-term emissions targets.
- Requires income from fees from day one to prevent exhausting rebate funding. Rebates therefore should not commence earlier than fees, meaning they could only start when legislation is ready (early 2022) and not sooner, and, fees should remain universal (eg. concessions to farm buyers of utes are not recommended.)
- Given rebates will begin at least six months after the policy is announced, electric vehicle sales are predicted to stagnate for the rest of 2021, which could put financial pressure on companies that specialise in selling low and zero emission vehicles. (Refer Annex 1)

17 The larger loan enables much greater benefit to be realised, and increases flexibility to deal with uncertainties:

- Greater CO₂ reduction due to earlier, larger and more widespread rebates. More consistent with 2030 and future climate goals.
- Enables rebates from 1 July 2021, six months prior to the introduction of fees. We model this could result in around 4000 more electric vehicle sales during 2021 versus the status quo (and larger numbers for 2022 versus the smaller loan scenario), subject to supply. We model the first six months of rebates to cost up to \$80m, following which fees would begin to bring the policy back towards surplus position.
- Enables temporary and limited concession on utes and/or to farm vehicle buyers.
- Rebates on clean vehicles can be larger and have greater behavioural influence.
- Enables greater deficits to occur whether forecast (e.g. to support immediate rebates) or not (due to better than expected uptake of clean cars) and enables a greater level of year one deficit ahead of later surplus position.
- This option was presented in Budget 2021 as one-off operating funding. We now consider that this *could be* in the form of a Crown loan, by setting future fee levels more optimally.

18 The Clean Car Discount will generate a material impact on reducing CO₂ in the transport sector over and above what the Clean Car Standard would do, as shown by Ministry modelling below:



19 A key tool for strengthening the effect of the policy over time will be increasing fees on high emitting vehicles. This both enables a greater disincentive effect on their purchase, and, provides greater funding to be used on rebates.

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An extended gap between policy announcement and rebate introduction should be avoided

21 In 2019, EV sales in New Zealand were around 7000. In 2020, when plans to introduce a Clean Car Discount were trailed widely, this dropped to 5495, in part due to Covid-19. Based on January-March year-to-date figures we expect EV sales of around 7000 in 2021, but forecast that this could drop to 2020 levels if rebates are announced but not implemented, or double to 15,000 if rebates are introduced in July 2021.

22 The Swedish experience (see Annex 1) highlights the disruption likely in the period between announcing rebates and implementing them. This poses particular problems for the cash flow of importers focussing on electric vehicles, and their ability to place the forward orders needed to secure vehicles.

Fee and rebate levels will be managed year-to-year to ensure loan repayment stays on track

23 During the policy development process, a maximum window of 10 years to repay the Crown loan was established to ensure it would be fiscally neutral to the Crown with no impact on allowances. That said:

23.1 Under our \$36.6m loan scenario, we anticipate reaching and maintaining surplus within three years.

23.2 Under our \$265m scenario, we anticipate reaching and maintaining surplus within five to eight years. The longer window is due to rebates being larger, therefore also being more popular, and with them being phased in first.

24 The Minister of Transport, or Cabinet, could set expectations on the management of this loan, such as a desired timeframe to return to surplus. This would then influence how the annual recalibrations of fee/rebate levels are carried out.

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April 2021 Cabinet decisions will allow implementation to occur in concert with the Standard

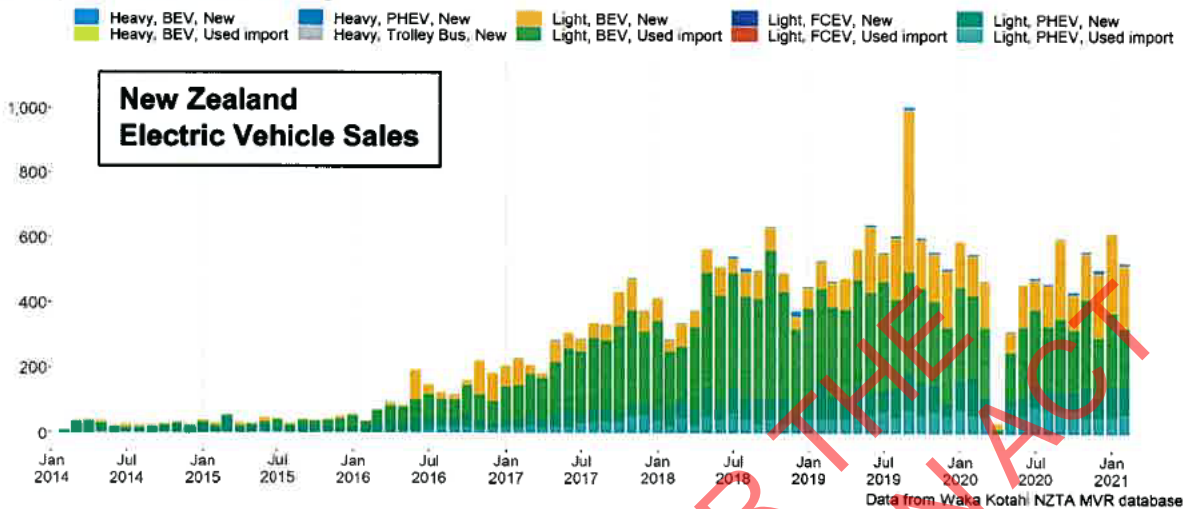
- 25 If Cabinet agrees in April 2021 to progress the Clean Car Discount, its implementation could follow the timeline shown below. This assumes Cabinet agrees to the Clean Car Discount being assigned a Priority 2 on the legislative work programme:

Date	Deliverable
April 2021	Cabinet confirm high-level design of the Discount Parliamentary Counsel Office authorised to work on Stand-Alone Bill Waka Kotahi resume implementation work
May 2021	Funding envelope agreed: Budget 2021 Public announcement made
June 2021	Legislation introduced to the House (to support fees and other necessary elements of the policy) Cabinet agrees further policy detail including fee and rebate schedule
July 2021	Rebates on Electric Vehicles could start (if Budget 2021 provides sufficient Crown Loan). Issuing of rebates does not require legislation
July-Nov 2021	Legislative process continues, including Select Committee stage Rules drafted
November 2021	Waka Kotahi complete implementation
December 2021	Earliest that legislation and Rules could be adopted
January 2022	Earliest that full policy would be in effect, including: Fees on high emitting vehicles phased in Discounts on hybrids and fuel-efficient vehicles
Mid 2022	Waka Kotahi completes implementation of Clean Car Standard (this relies on building an IT system)
2023+	Update fees/rebate levels if necessary (annually)

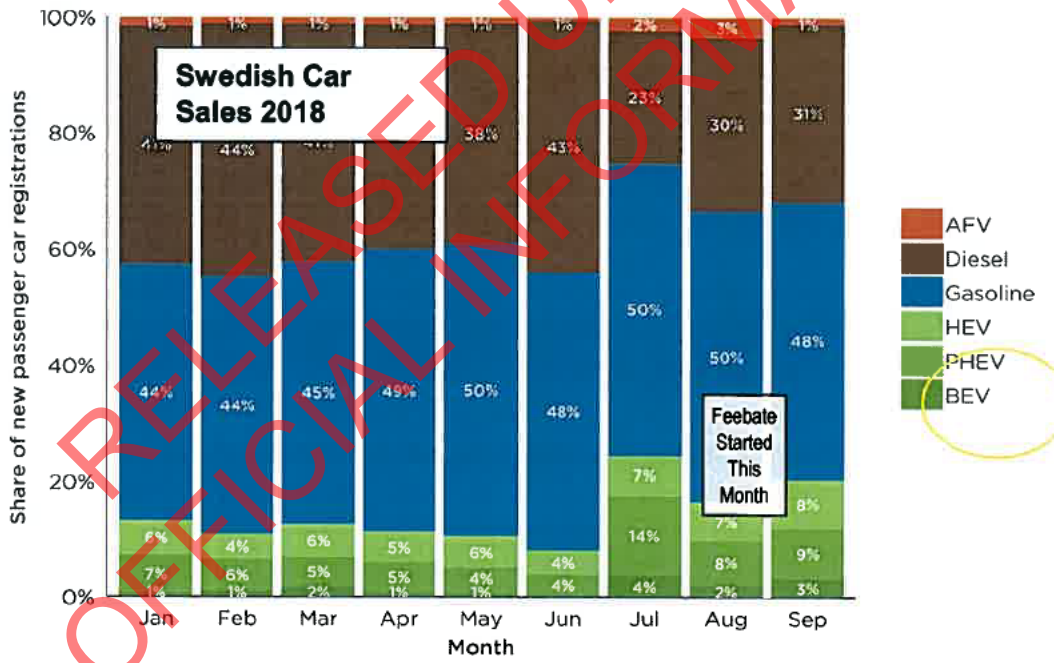
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Annex 1: Pre- and post- policy effect on electric vehicle sales

Monthly electric motor vehicle registrations



Election campaigns and Government announcements signalled in 2018, 2019, and 2020 that a Clean Car Discount was under development. The motor vehicle industry claims the lack of subsequent implementation had a cooling effect on electric vehicle sales, which is correlated with a lack of growth during those years, other than September 2019, due a large shipment of Tesla electric vehicles.



Sweden offers an insight into the potential slump of electric vehicle sales prior to the introduction of a feebate system. During 2018, electric vehicle (PHEV + BEV) market-share reduced from 8% to 4% in the six months leading up to the policy, then jumped to 18% in July when the policy began. While some of the July sales were likely delayed sales from prior months rather than additional sales for the year, the large increase of market share following the policy introduction shows the benefit to starting such a policy as soon as possible and the disruption caused to vehicle seller cash flow and ability to plan of a delay between announcement and implementation.

For the year ending 2020, the Swedish market-share for electric vehicles rose to 32%.

Annex 2: Temporary concessions to some high-emissions working vehicles

Making concessions for utes purchased for farm use is possible but has complications

- 26 The high sales volumes of utes combined with very high emissions levels of utes contribute to significantly raising New Zealand's average vehicle emissions. Placing a fee on utes is appropriate to reduce this, as in many cases buyers can select other types of vehicles to avoid a fee if they wish. Some buyers – such as farmers – will find it harder than others to avoid a fee until such a time as low and zero emission utes are available. The Ministry, Waka Kotahi, and the Ministry for the Environment all would prefer to see no concession given to utes. However, if a concession is provided, one option is to ring-fence a group of buyers and vehicles that receive a reduced or no fee, until such time as low emission utes are more widely available.
- 27 In 2020, the Ministry discussed options for a limited concession for working farm vehicles with the Ministry for Primary Industries (MPI) and Waka Kotahi and raised these with the Associate Minister of Transport at the time. As there is no suitable national register of farms held by MPI, Inland Revenue or the industry, nor a suitable legal definition of farm, or farmer. The best identified option at the time was to recommend that businesses could avoid paying fees on ute purchases, if they can provide evidence of having produced a *Farm Environmental Plan* (FEP).
- 28 A FEP does not determine whether a farm has poor or strong environmental practices; just that it is documenting what its best practices are. FEP's are not yet mandatory, however last year, approximately 3000 farms had one. A FEP is authored by the farming business and is not externally validated or audited, so is not an independent assertion of the business being a farm. However, this approach could be considered as a pragmatic approach minimising complexity.
- 29 The exclusion should not apply to all utes bought by farmers. This is because very high performance, capable utes can be still purchased in relatively low emission models³, meaning there is no reason to waive fees on the highest emission models. In addition, a mechanism to limit the resale of exempted vehicles will be needed, to limit gaming the system. An exemption mechanism could be removed by Order-In-Council once the Ministry has identified there are suitable low and zero emission utes in the market. **Withheld under Section 9(2)(f)(iv) of the Official Information Act 1982**

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³ A 2020 Ford Ranger double cab turbo diesel ute emits 171g as a 2WD and 195g as a 4WD. Both can tow 3500kg. Toyota and Nissan and other popular brands have similar options. These produce considerably less than the 220 grams that the average ute purchased in New Zealand produced last year. Lower emission utes tend to command a higher purchase price.

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