

11 March 2021

OC210131

Hon Michael Wood
Minister of Transport
Action required by:
 Friday, 19 March 2021

ADVANCING A CLEAN CAR DISCOUNT

Purpose

This paper reviews options for a Clean Car Discount, work to date, and decisions needed to progress this policy.

Key points

- In order to meet necessary reductions in transport emissions, in January 2021 Cabinet agreed to an ambitious Clean Car Standard regulating a target of a 40% reduction to the average CO₂ of light vehicles entering New Zealand by 2025. For this to be achievable, prices on zero and low emission vehicles need to reduce through government intervention.

The Ministry's preferred mechanism to achieve this is a "feebate"; there are a number of design options for you to consider to tailor this policy

- A feebate means placing a fee at point of first registration in New Zealand to disincentivise the purchase of high emitting vehicles, and using those fees to fund rebates on zero and low emission vehicles. There is considerable flexibility around exact dollar amounts of rebates or fees that zero, low, and high emission vehicles would attract and when. Cost-neutrality to the Crown over time makes the policy durable and sustainable.
- Feebates are proven internationally to increase the demand for low and zero emission vehicles. It is a specific key recommendation made by the Climate Change Commission, the Productivity Commission and Transpower, and has support of the motor vehicle industry and public.
- In mid-2020, policy design was largely settled with Waka Kotahi having started on implementation and was approximately 6 months away from completion. This work was paused, but if resumed in April 2021, would enable the policy to be in full effect at the start of 2022. Implementation of an incentive later than this timeframe would jeopardise New Zealand reaching its 2025 CO₂ Clean Car target and make subsequent tougher targets harder.
- A Bill to advance the Clean Car Standard is being drafted, targeting introduction to the house in June of this year. Provisions to enable a Clean Car Discount could potentially be attached to this Bill, if a decision to do so is made by April of this year.

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However, there is a risk that including a Clean Car Discount policy within the Clean Car Standard Bill would delay the implementation of that Bill, and jeopardise its passing within 2021.

You can seek agreement to bring in a discount now, and resolve questions of fees, rebates and exemptions later

- Providing rebates to clean cars does not require legislative change and could begin as soon as a Budget funding is approved, from July 2021. Doing so would mean the scheme runs at a loss prior to a neutral position or surplus in a later year. The purpose of doing this would be to limit a potential large drop off in clean car sales once a scheme is announced and before it is implemented.
- Decisions on levels of rebates and fees will need to consider carbon abatement and the intent of cost neutrality over time, and issues of real or perceived fairness. These options are described in this briefing. Further analysis and subsequent agreement by Cabinet will be required. While decisions on exact rebates and fees will be recorded in secondary legislation, decisions on an approach are needed to inform the high level design of the empowering legislation.
- This briefing sets out a range of options for a Discount. Our preferred approach would mean:

The Ministry's preferred discount design:

- Rebates of \$7500 or more on new electric vehicles
- Rebates commencing soon after Budget decisions
- Large revolving fund (the extra \$250m) to enable immediate rebates and to avoid scheme running out of cash if demand is high
- Later introduction of fees on all high emissions vehicles, including utes, once legislation and policy implementation is completed in 2022.
- Exclusion of low safety rating cars and the most expensive cars from rebates
- [REDACTED]

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Recommendations

We recommend you:

- 1 **note** the ambitious Clean Car Standard of 105g by 2025 requires strong financial demand measures from next year in order to be achievable and that a Clean Car Discount as described by this paper is the Ministry's recommended intervention.
- 2 **agree** to take a paper to Cabinet in April to seek:
 - approval to progress the Clean Car Discount policy (with decisions on fee/rebate levels to follow later this year)
 - agreement to include a Bill to implement a Clean Car Discount on the 2021 Legislation Programme, with approval to either:
 - (a) amalgamate the Clean Car Discount policy within the Clean Car Standard

Yes / No

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Bill, noting that this has a possibility of delaying the implementation of the Clean Car Standard Bill; or

Yes / No

(b) progress a Clean Car Discount as a stand-alone Bill.

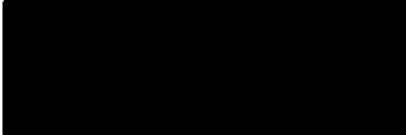
Yes / No

3 agree subject to funding for this work being identified, that Waka Kotahi officials will make preparations to be in a position to manually issue rebates on electric vehicles first registered from 1 July 2021, to avoid a reduction in their sales ahead of full policy implementation.

Yes / No

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4 note the need for a second set of decisions to finalise policy detail for the Clean Car Discount, including the level of rebates and fees that apply to zero, low, and high emission vehicles, and the treatment of utes and unsafe vehicles.



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Ewan Delany
Manager, Environment, Emissions,
Adaptation

Hon Michael Wood
Minister of Transport

11/3/21

11/3/21

Minister's office to complete:

Approved

Declined

Seen by Minister

Not seen by Minister

Overtaken by events

Comments

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Contacts

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ADVANCING THE CLEAN CAR DISCOUNT

This paper seeks agreement on a number of matters relating to a Clean Car Discount

1. This paper:
 - seeks agreement to progress a vehicle import carbon dioxide (CO₂) fee/rebate ("feebate") intervention called the Clean Car Discount (the Discount)
 - discusses and seeks agreement on the Discount's key design features, which have been improved following consultation with the public and the vehicle industry
 - seeks agreement to initial policy design and legislative approach so that implementation work can commence.

A Clean Car Discount responds to the key Government priority of climate change

2. This proposal is intended to be one of a number of actions taken in response to Parliament's declaration of a climate change emergency. It would also give effect to the commitment in the Labour Party's Clean Energy Policy 2020 and to the Cooperation Agreement between the Labour and Green parties of "increasing the uptake of zero-emission vehicles".
3. The Discount would be one of a number of transport policies included in the Government's first Emission Reduction Plan, which must be published by 31 December 2021. This Plan, led by the Minister for Climate Change, will outline the strategies and policies that will be used to achieve the first emissions budget for 2022–2025 and will be built on to deliver the second and third budgets (over the 2025–2030 and 2030–2035 periods).

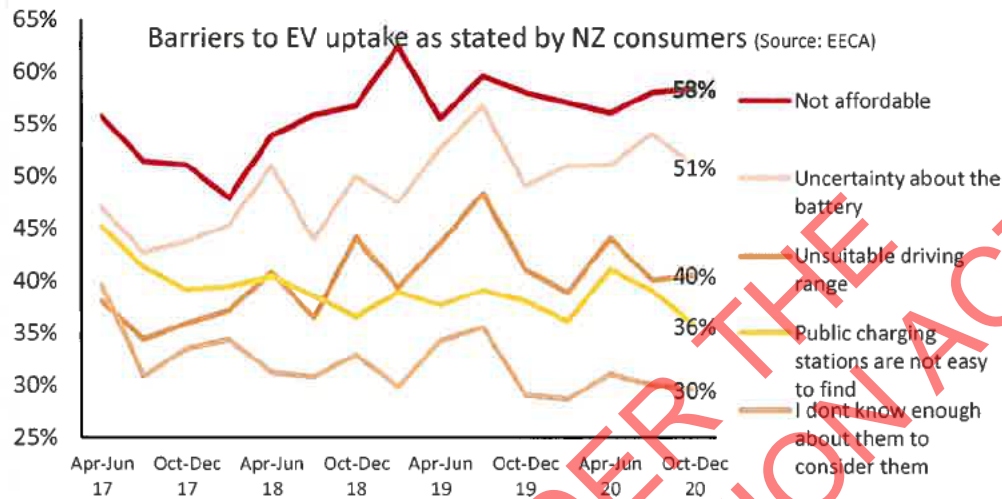
Policy has been developed under previous government

4. Two-thirds of transport emissions come from our light vehicles, which are cars, sport utility vehicles (SUVs), vans, utes and light trucks all under 3.5 tonnes¹. Fortunately, low emission light vehicles offer a substantial, achievable and cost-effective opportunity to decarbonise. It is critical to take immediate action to realise this opportunity.
5. The Clean Car Standard and Clean Car Discount policies were initially worked on by Hon Julie Anne Genter as Associate Minister of Transport in the last term of Parliament, following specific proposals by the Productivity Commission. To realise the light vehicle opportunity, on 17 June 2019 Cabinet agreed to release the consultation document: *Moving the light vehicle fleet to low-emissions: discussion paper on a Clean Car Standard and Clean Car Discount* [CAB-19-MIN-02873 refers].
6. The consultation yielded 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. The support for the Clean Car Discount is consistent with ongoing consumer research by EECA, which identifies that the top-most barrier to electric vehicle purchase in New Zealand is upfront cost, given new electric vehicles commonly cost \$20,000 to \$40,000 more than an equivalent fossil fuel vehicle. EECA's

¹ Cars and other light vehicles produced 9389 kT of CO₂ emissions in 2018. This compares to the domestic transport sector total of 16,484 kT and to NZ's total CO₂ emissions of 35,080 kT. New Zealand's emissions including methane and other gases is 78,862 kT CO₂e (Ministry for the Environment, New Zealand's Greenhouse Gas Inventory, 2020).

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research has indicated a minimum \$5000 discount on electric vehicles is needed in order to materially influence consumer behaviour. The proposed funding for the Carbon Neutral Government Programme funding allows for a subsidy of up to \$30,000 to support Crown entities to purchase electric vehicles.

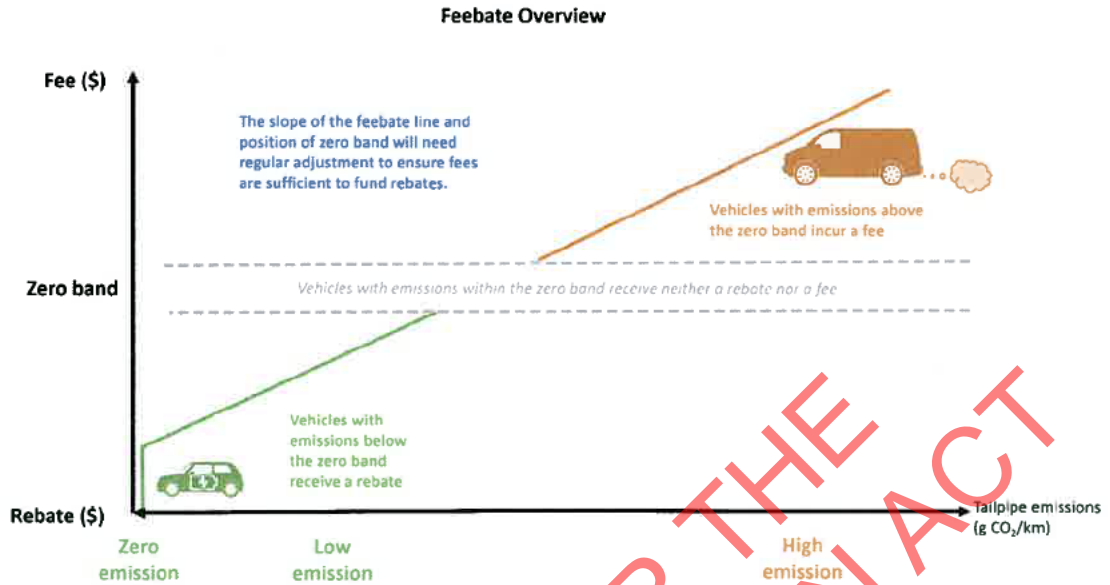


7. The Motor Industry Association (MIA) and multiple new vehicle distributors are in favour of the Clean Car Discount, suggesting a discount in the range of \$7000 to \$10,000 is necessary to achieve the 105g Clean Car Target. A 2020 AA survey revealed three quarters of respondents supported the principle of raising prices on vehicles that are above an emissions target, with a quarter answering that such fees should fund the lowering of prices on more fuel efficient cars.
8. Following consultation, Ministry of Transport officials worked with the vehicle industry and the Automobile Association to improve the design of the Standard and the Discount. Cabinet agreed in early 2021 to progress a Bill to implement the Clean Car Standard, and this has been proposed as a Priority 2 bill on the 2021 Legislation Programme, meaning it must be passed in the year. No progress has been made on a Clean Car Discount since mid-2020.

Key features of the policy

9. The Clean Car Standard addresses vehicle supply and was designed to be complemented by policy that encourages demand. A Clean Car Discount remains the Ministry's preferred key intervention, and is a specific recommendation of the Climate Change Commission and the vehicle industry, and features public support.
10. The Clean Car Discount works by placing a fee at point of first registration in New Zealand on high emitting vehicles, and using those fees to fund rebates on zero and low emission vehicles. This so-called 'feebate' scheme has the attraction of being revenue-neutral, with Waka Kotahi using a 'specific reserve' and a crown loan appropriation to manage cashflow overs and unders month-to-month and year-to-year.

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11. The Clean Car Standard target of 105g by 2025 means the motor vehicle industry will be regulated to rapidly import significantly more zero and low emission vehicles or face large financial penalties (refer Annex 2). Zero and low emission vehicles have more technology and manufacturing cost. This means they cost more to purchase. The majority of global vehicle sales are now covered by government policies that reduce purchase price of clean vehicles, in order to meet climate and air quality goals. New Zealand has no such policy, and until such policy is adopted, it is unlikely the Clean Car Standard target will be met, even with the best efforts of the motor vehicle industry and vehicle purchasers.
12. Key design features of the proposed Clean Car Discount are -
- **Covers imports only:** Applies to new and used light vehicles entering New Zealand at the point of purchase, and not vehicles already in the country.
 - **Cost neutral to the Crown:** The funding of rebates would come from fees on high emission vehicles. The schedule of rebates and fees would need to be adjusted frequently to ensure the system does not get into long term deficit. Disincentive fees ensure the durability and effectiveness of the policy, in comparison to subsidies or tax exemptions. In order to prevent rebates substantially as clean cars become popular, fees will need to increase progressively in later years (Refer Annex 3—case studies) and there is some risk that market will find this challenging.
 - **Focussed on CO₂ reduction:** fees and rebates would be set specifically by CO₂ emissions, and not by vehicle weight nor body type. This could result in an overall shift towards smaller vehicles, because they tend to have lower emissions.
 - **Consumer-focussed.** Labels displaying rebates and fees would be required on vehicles for sale. Waka Kotahi would administer the scheme and issue rebates and fees, not vehicle sellers, to ensure consumers receive them and their full value.
 - **Priced on a CO₂ continuum not bands:** each gram of CO₂ results in a slightly different price treatment, avoiding gaming and rorting experienced overseas (Refer Annex 3).
 - **Exceptions and scope:** Vehicles of social and historic value would be excluded. Vehicles with very poor crash safety 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 luxury vehicles receiving unnecessary
- interacts w/ CCS...*

subsidy, though such vehicles would still be subject to fees if they produce sufficient CO₂ emissions.

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13. The 2019 Clean Car Discount consultation document proposed a schedule of rebates and fees on vehicles of varying emission levels that would adjust on an annual basis.
- If rebates are to commence in the middle of the year, then interim rebate figures for electric vehicles needs to be finalised very soon.
 - If rebates are not to commence until the start of 2022 then the level of rebates and fees is not urgent but will be needed in time to draft regulations later in 2020.

A straightforward subsidy for low emissions vehicles is not desirable as an alternative

14. Conceptually, feebates attempt to make people bear the social costs (in the case of fees), or receive the social benefit (in the case of rebates) of their vehicle choices. Consumers who purchase emissions intensive vehicles prepay a fee in recognition of the increased environmental and economic costs they are imposing. These fees are then used to reward consumers who opt to buy vehicles that will contribute to lowering New Zealand's carbon emissions.
15. A subsidy funded by general taxation is *not* recommended because that places no disincentive effect on purchasing high emission vehicles, and it externalises the costs of purchasing such vehicles. The disincentive effect of fees is modelled to provide a more significant a role in reducing emissions than the incentive effect of discounts on clean cars. A subsidy also risks being expensive for the Crown and the public, and thus prone to being terminated as soon as the volume of vehicles it addresses rises, reducing its ability to transition the market from fossil fuel to zero emission vehicles.

This policy will require updates to GST and EECA legislation

16. We recommend that GST should not apply to the discounts and fees, as it would under current legislation. This is because no good or service is being provided through the rebate or fee. It avoids perverse outcomes from businesses receiving smaller fees than individuals (because businesses can offset their GST). This decision may have a fiscal impact of no more than \$1m per year or \$4m over the forecast period. An amendment to the GST Act would be needed to clarify the rebate is not subject to GST. Treasury and Revenue officials are unsupportive of this proposal as they wish to avoid a precedent.
17. We propose that Clean Car Discount information (CO₂ emissions, discounts, and fees) is displayed on vehicles for sale, and in electronic form on any vehicle sales website, including a vehicle dealer's own website. This will be achieved through updates to the Energy Efficiency (Vehicle Fuel Economy Labelling) Regulations 2007 (the VFEL regulations), which are made under the Energy Efficiency and Conservation Act 2000 (the EEC Act). The Ministry, MBIE, and EECA have begun scoping and preliminary

² Due to emissions from electricity or hydrogen production as well as vehicle and battery manufacture.

work around this topic. A concept for an updated interim label is attached as Annex 1 to this briefing.



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DESIGN OPTIONS

A number of inter-related decisions need to be made to complete the policy design:

- 19. Minister have a choice about the timing of rebates given to clean cars. This will only affect the short term cost profile for the policy, as either option would be revenue neutral within a small number of years. It will also affect the impact on electric vehicle sales:

<p>Option 1: Issue rebates from 1 July 2021 and impose fees once legislation is in force (RECOMMENDED)</p> <p>This option enables sales of zero and low emission vehicles to lift rather than plummet following the policy announcement.</p> <p>Could occur as soon as there was Budget approval, as no legislative change is needed to issue a rebate in the form of a Government grant.</p> <p>Waka Kotahi could implement the rebate with very short notice (3 month lead time) using a simpler and more manual process.</p> <p>Waka Kotahi would require a small amount of funding for the period April to June 2021, in addition to operational funding July 2021 to December 2021.</p> <p>The initial arrangements of rebates would need to be simplified. A fully electric vehicle would get a specific figure and a plug in hybrid a reduced level. Used vehicles could receive a smaller rebate than new. Fuel efficient vehicles and hybrids would not receive a rebate initially.</p> <p>At the start of 2022, once the legislation is in place, and Waka Kotahi has had time for implementation, then graduated rebates on fuel efficient cars would commence, together with fees on high emission vehicles.</p> <p>Requires a much larger amount of money borrowed in year one given revenue can only be collected once the legislation is in force.</p> <p>Can still be revenue neutral by income collected in future years.</p>	<p>Option 2: Issue rebates and impose fees from 2022 (once legislation is in force)</p> <p>This option risks sales of zero and low emission vehicle plummet for at least six months while buyers await rebates to start.</p> <p>Announce policy but wait to issue rebates only when Waka Kotahi and legislation are both ready for the full scheme at the start of 2022.</p> <p>This would put financial strain onto businesses that exclusively or significantly focus on selling low or zero emission vehicles.</p>
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20. There are multiple approaches to progress the legislation required to implement the Clean Car Discount policy. Two options are:

<p>Option 1: One Bill for Clean Car Standard and Discount.</p> <p>This option reduces legislative workload and allows more efficient management of any design interactions between the two Clean Car policies.</p> <p>Requires Cabinet approval to add the policy to the existing legislative bid for the Clean Car Standard.</p> <p>Need Cabinet policy approval in April to allow drafting instructions to be issued to PCO. Subject to Office of the Clerk and potentially Business Committee approval to introduce an omnibus bill.</p> <p>If legislation passes in the year, allows fees and rebates to be applied from early 2022.</p> <p>Real risk that a delay in the Discount or Standard affects the timeline of the other, including the possibility that the Bill will not be passed in the year.</p>	<p>Option 2: Stand-alone Bill for the Discount</p> <p>Ensures the Clean Car Standard can progress on its existing timetable, to be passed in the year.</p> <p>The Discount to operate quicker or slower as the wish may be, in order to serve other goals around CO₂ reduction and financial position of the policy.</p> <p>Option to cognate both Bills if the legislative timetable aligns.</p> <p>Requires Cabinet approval to seek a place on the 2021 Legislation Programme.</p> <p>Removes dependencies between Discount and Standard.</p>
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The treatment of utes needs particular thought

21. The high sales volumes combined with very high emissions levels of utes contribute to significantly raising New Zealand's average vehicle emissions. Unfortunately at this time there are no hybrid or fully electric utes available, though these are expected to arrive in the market within one to two years. While many utes are purchased for productive 'workhorse' use, the rapid acceleration of uptake shows they are commonly bought for lifestyle. Many popular new utes now sell for over \$60,000, suggesting buyers would not be greatly sensitive to a small fee. The proliferation of utes in New Zealand is incompatible with transport decarbonisation, until such time as low and zero emission utes are readily available.
22. Some buyers may be able to instead select SUVs and vans, given these are already available in hybrid and electric formats both in the new and used market. However, drivers with genuine need for 4WD or open-tray format vehicles will have little ability to avoid paying a fee. A decision needs to be made on whether them paying a fee is considered an appropriate contribution to social costs, or whether some form of concession is justified.
23. The Ministry, Waka Kotahi and Ministry for the Environment recommend that no concession be given because of the considerable adverse environmental and health impacts, notwithstanding the lack of alternatives currently in the market. this would also reflect the speed with which we must all adjust in order to decarbonise transport.
24. However, if a concession is applied, it should be as time-bound, limited in scope, and limited in financial value as possible. Any concession would reduce income to the scheme, placing it into initial deficit, and thus a greater funding pool would be necessary for rebates.

Link to intro of new alternatives?

25. Ute buyers (and other high emission vehicle buyers) would already receive a concession by default, given six months minimum are needed to implement the systems for fees and to progress the legislation. This gives buyers some scope to avoid a fee by making their next purchase between announcement and implementation of fees. We would predict a rise in ute purchases before the policy is in effect, based on experience in other markets. Examples of concessions you could make are:

- Provide a discount to utes that meet harmful emission standards (Euro 6). This acknowledges there is little CO₂ reduction, but still a reduction in NO_x and particulate emissions that cause respiratory illness³.
- Remove or reduce the fee on utes with the lowest emissions. Their emissions would still be high compared to other vehicles, but, at least more buyers would avoid the highest emission variants. The 2019 consultation document suggested this approach.
- Remove or reduce the fee on utes if bought by a farming business that meets strict sustainability criteria. This adds administrative complexity.

The Clean Car Discount requires new appropriations and Crown loans, but is revenue neutral

more into as pass interim measure.

26. To progress, the Clean Car Discount will need:

- a repayable loan of \$6.8⁴ million in the coming fiscal year for Waka Kotahi to fund implementation work. A small portion of this will be applied to work already done to date.
- an appropriation of several million dollars to fund the cashflow deficits for moments in time where more rebates and internal costs are paid than fees collected, the size of which impacts how effectively the policy can operate,
- up to \$8.0 million per year in operating costs, which would be funded from revenue within the scheme,
- a 'specific reserve', which acts like a bank account, administered by Waka Kotahi to track the scheme's accumulated funding and spending

27. If rebates are to commence in from July 2021, Waka Kotahi estimates it will need up to \$713,650 opex for implementation (to be approved in April and be spent by 30 June 2021) and \$580,938 opex for operating the period July to December 2021. No funding source has been identified for this expenditure.

28. Waka Kotahi would also be given a financial facility to manage the day to day and year to year cashflow position of rebates and fees. The size of the 'overdraft limit' is prescribed by the appropriation provided following decisions on Budget 2021. This size dictates other constraints and settings of the policy:

³ Less than 10% of light diesel vehicles imported during 2020 met the Euro 6 requirement. Most light diesel imports are utes. Our two most popular models, Ford Ranger and Toyota Hilux, have been required to meet this standard for six years in the UK due to regulation that does not apply here.

⁴ This was \$6.6M and the operating costs were \$7M. Updated figures were supplied by Waka Koathi in March 2021.

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Please note due to changes in the policy settings these estimates in the table below are now out-of-date

Illustrative Scenario One (Lower Ambition)	Illustrative Scenario Two (Higher Ambition)
<p>\$36.6m Repayable Loan</p> <p>– of which \$30m is for rebate funding and operating.</p> <p>(In line with 2019 public consultation and Clean Car Discount in Budget 2021 bid)</p>	<p>Additional \$265m Repayable Loan</p> <p>– All of this increase going to additional rebate funding, alongside a temporary concession to utes and other high-emitting vehicles</p> <p>(Same dollar figure as Enhanced Clean Car Discount in Budget 2021 bid but now with recommendation all be deemed repayable by Waka Kotahi)</p>
<p>The incremental cumulative impact of the Clean Car Discount from 2022 to 2050 is a reduction of between 1.7 and 6.1 mega tonnes⁵ of CO₂</p> <p>The incremental net present value (NPV) ranges from \$30m to \$9,90m, and the incremental benefit to cost ratio (BCR) ranges from 1.2 to 2.5. The marginal abatement cost (MAC)⁶ per tonne of CO₂ ranges from -\$20 to -\$165.</p>	<p>The incremental cumulative impact of the Clean Car Discount from 2022 to 2050 is a reduction of between 2.6 and 9.2 mega tonnes of CO₂.</p> <p>The incremental net present value (NPV) ranges from \$180m to \$1,830m, and the incremental benefit to cost ratio (BCR) ranges from 1.8 to 3.5. The marginal abatement cost (MAC) per tonne of CO₂ ranges from -\$07 to -\$199.</p>
<p>Benefits:</p> <p>Less funding required.</p> <p>Consistent with original consultation document.</p>	<p>Benefits</p> <p>Greater CO₂ reduction. More consistent with 2030 and future climate goals. (Subject to final policy settings)</p> <p>Enables rebates from 1 July 2021, six months prior to the introduction of fees.</p> <p>Enables temporary concession on utes.</p> <p>Rebates on clean vehicles can be larger and have greater effect.</p> <p>Enables greater deficits to occur whether forecast (e.g. to support immediate rebates) or not (due to better than expected uptake of clean cars)</p> <p>The larger repayable loan enables a greater level of year 1 deficit possible ahead of later surplus position.</p> <p>Originally this option was presented in Budget 2021 as a one-off appropriation. We now consider that this amount <i>could be</i> repayable, by setting future fee levels more optimally. The size of this appropriation is scalable.</p>
<p>Risks and negatives:</p> <p>Rebates could easily exhaust all funding available because it is limited to a maximum \$30M cashflow deficit.</p>	<p>Risks and negatives:</p>

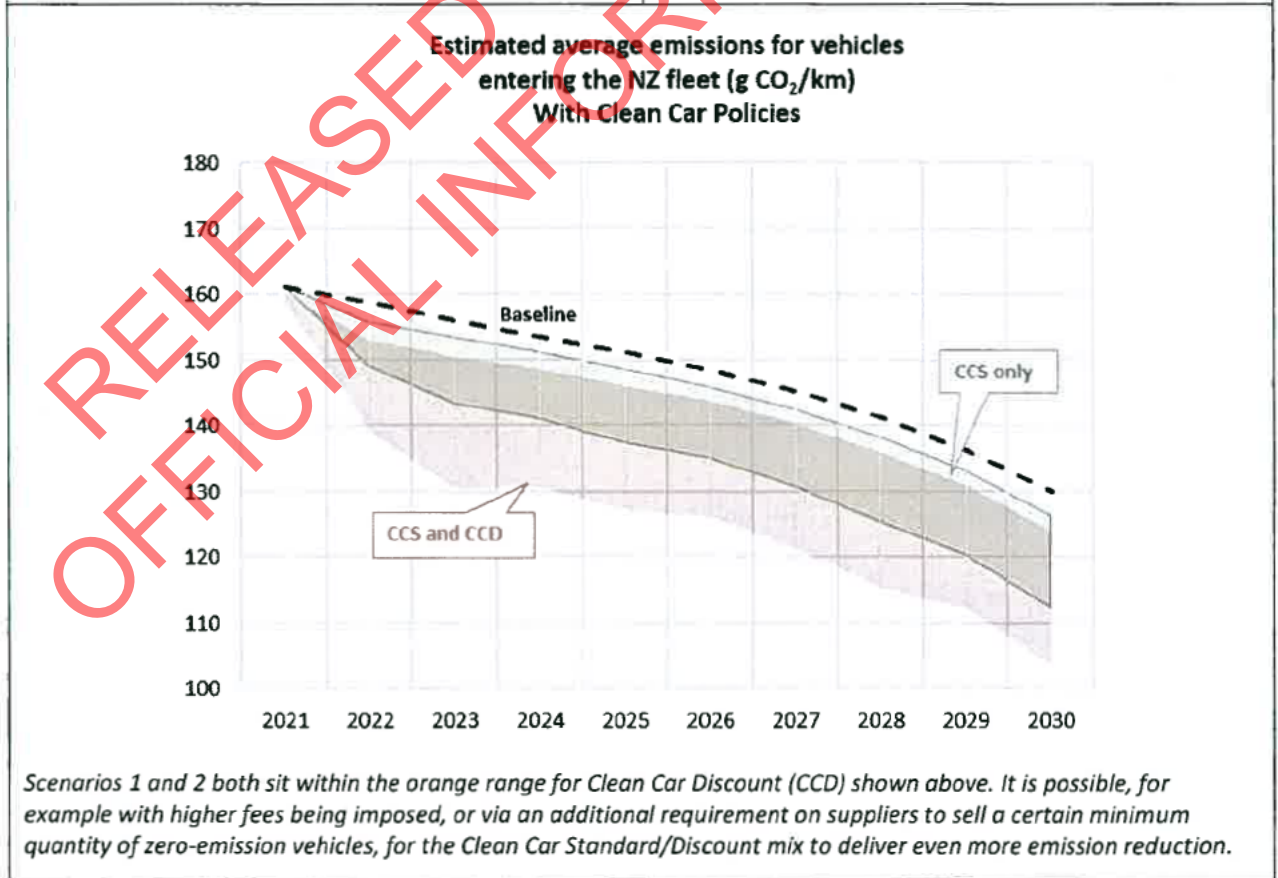
⁵ High-end estimates assume the level of behavioural responses is around 4 times higher than the low-end estimates.

⁶ A marginal abatement cost is a measure of the cost-effectiveness of the policy intervention in reducing GHG emissions. It is calculated by dividing the net present value (NPV) of the intervention with the expected reduction in emissions from implementation of the intervention. When the estimated MAC is negative, it indicates the policy intervention has a net benefit from implementation.

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<p>Consumers would be subject to lolly-scramble effect where rebates are not available throughout year (see example Annex 3).</p> <p>Rebates on clear vehicles will be smaller, and have lesser effect.</p> <p>Lower CO² abatement. Less consistent with 2030 and longer-term emissions targets.</p> <p>Rebates will begin at least six months after policy is announced, meaning EV sales will stagnate for the rest of 2021</p> <p>Requires income from day one to prevent exhausting rebate funding. Rebates should not commence earlier than fees, and fee should remain higher (Concessions to utes not recommended.)</p>	<p>Still some risk that funding level is exhausted, if consumer interest in clean cars greatly exceeds expectations, and/or if level of fees are set too low.</p> <p>If rebates commence six months before fees commence, the cost of those initial six months of rebate is estimated to be approximately \$80M. In addition Waka Kotahi indicates a need for a small additional operational spend. This makes it harder for the policy later achieving cost neutrality (unless this additional funding is not to be repayable).</p>
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<p>Example year one settings and resulting outcomes:</p> <p><i>Illustration only – actual fees subject to further analysis and discussion.</i></p> <p>Rebates: \$5000 (new) (originally \$8000)⁷ \$2600 (used) (unchanged)</p> <p>Max Fee: \$3000 (new) (unchanged) \$1500 (used) (unchanged)</p>	<p>Example year one settings and resulting outcomes</p> <p><i>Illustration only – actual fees subject to further analysis and discussion.</i></p> <p>Rebates: \$7500 (new) (originally \$8000) \$3000 (used) (originally \$2600)</p> <p>Max Fee: \$3500 (new) (originally \$3000) \$1500 (used) (unchanged)</p>
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⁷ Original figures are those publicly stated in the 2019 consultation.

Both scenarios:

- Assume the Clean Car Standard is in place from 2022
- Are reliant on fees and designed to be cost neutral over several years.
- Over the course of the decade, given clean cars sales (and thus rebates) will increase,
EITHER
rely on fees increasing significantly to maintain rebates at original level (accelerating CO₂ reduction), but as it is not clear whether the market would support those fee increases, our model above has not assumed increases. (Refer Annex 3 for examples of how other countries have raised fees)
OR,
reduce rebates each year if fees are not increased (decelerating CO₂ reduction). The original consultation assumed that rebate levels halved between 2021 and 2028 however updated electric vehicle modelling shows that rebates may need to fall to even lower levels if fees remain at year 1 levels. (The graph and figures on the prior page are modelled on this option)
- Assume that from 2030 the rebate level does drop to near zero (given how numerous electric vehicles will become), but that a fee is retained on all other vehicles to act as an ongoing disincentive.

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This policy is important yet further policies will still be required

29. Without an incentive policy, the expected emission reductions from the Clean Car Standard agreed in January by Cabinet are unlikely to be achieved, and, the scale of emission reductions needed in the light fleet this decade will not be achieved.
30. The Clear Car Standard and Discount when pursued together will act as foundational policy to the phasing out of internal combustion engine vehicle imports, and the ultimate aim that almost all vehicles operate with zero tailpipe emissions.
31. This policy would not address all pockets of business and private motor vehicle purchasing adequately. For example, for businesses, staff who gain private use of company vehicles are subject to FBT and the tax figure is based on the capital cost of the vehicle, which is higher for zero emission vehicles, so acts to discourage their purchase. For lower income households, even with this policy together with prices dropping due to manufacture scale and policy intervention, it is likely some will struggle to have access to the upfront cash needed to buy electric vehicles.

32.

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33. Waka Kotahi, EECA, MBIE, and MfE have contributed to the development of this advice.

Next steps:

- The climate response Ministers Budget meeting on March 16th provides you with an opportunity to discuss this proposal. The discount requires Budget funding to proceed further.
- Decisions need to be made quickly in order to seek initial approvals from Cabinet agreement in April, and to enable Waka Kotahi and PCO to start on implementation that same month.
- Officials would welcome a discussion with you on the options in this paper before preparing a Cabinet paper.



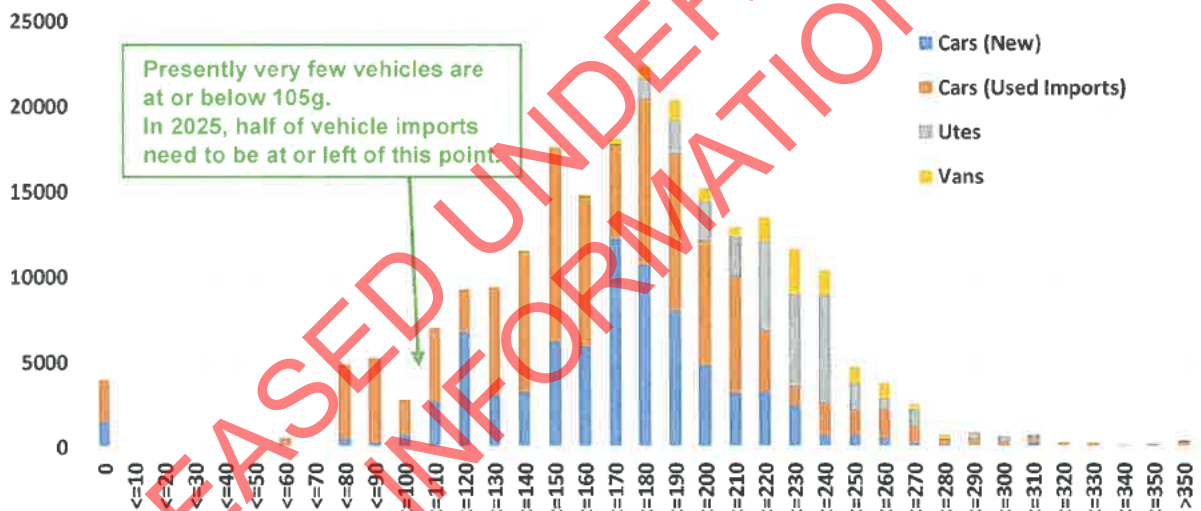
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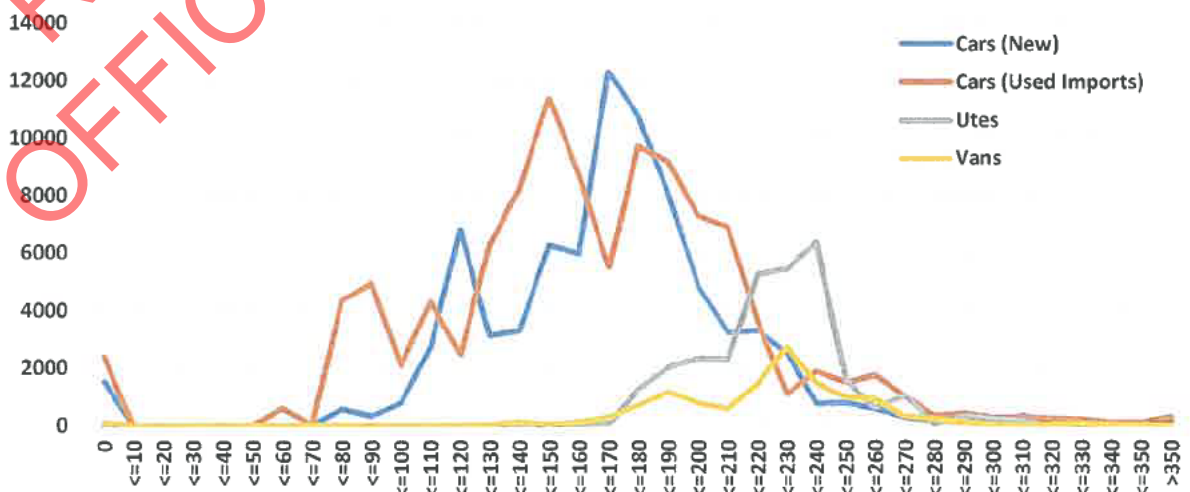
ANNEX 2 - Graphs depicting vehicles entering New Zealand during 2020.

- During 2020 the average vehicle entering New Zealand produced 171g of CO₂/km using the NEDC emissions test. The graphs show the level of ambition needed for the average to reduce (move left) to 105g under the Clean Car Standard by 2025. Few used cars, and very few new cars, or utes or vans, are at or below 105g at present. Placing a fee on vehicles entering New Zealand above a certain emission level could fund discounts on vehicles with zero and low emissions, shifting demand towards cleaner cars.
- Fully electric cars produce 0g of CO₂ from tailpipe emissions. Plug-in electric hybrids typically span 1-70g. Hybrids typically span 70-120g. Fuel efficient cars typically span 100-130g.
- Electric, hybrid, and fuel efficient cars are more commonly *used* cars than *new* cars.
- Utes are a numerous source of high emission vehicles relative to other vehicle types.

Distribution of light vehicle sales by emission band (g CO₂/km on NEDC)



Distribution of light vehicle sales by emission band (g CO₂/km on NEDC)



ANNEX 3: INSIGHTS INTO THREE FEEBATE SYSTEMS

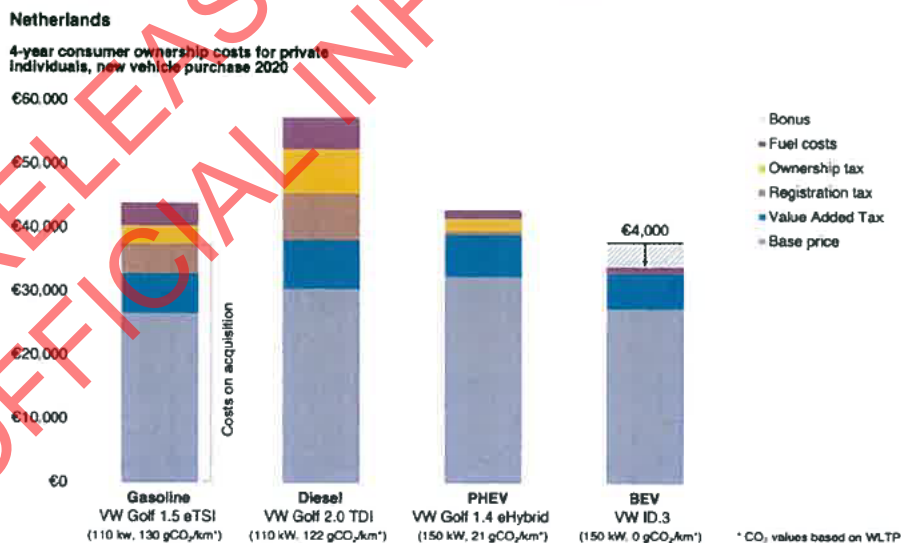
In 2020, Europe had a CO₂ emissions standard of 105g (the same figure as New Zealand now is targeting for 2025). Europe achieved its goal with approximately 10% of vehicles sales being electric. There is no consistent financial (demand-side) measure across Europe, but countries with feebate policies have achieved far greater emission reductions and electric vehicle uptake in 2020, providing lessons for New Zealand:

Sweden

- Sweden introduced a feebate scheme on 1 July 2018.
- Passenger sales rose 70% in the month prior as consumers rushed to buy conventional vehicles ahead of fees being added to high emitting vehicles.
- Electric vehicle sales rose from 6% for the 6 months pre-policy (January-June 2018), to 18% in the first month of the policy, and in 2020 averaged 32% of sales, three times the EU average⁸.
- Sweden has updated rebates (to over \$10,000) and maximum fee levels (\$7000 paid over 3 years).
- **Lessons for New Zealand:** we can expect a surge in high emission vehicles pre-policy and a prompt rise of electric vehicle vehicles once policy takes effect.

Netherlands

- In 2020 rebate budgets were exhausted in just eight days, producing a lolly-scramble effect where a small set of consumers were lucky to receive a rebate but the majority missed out. 44% of the rebate budget was exhausted in the first morning alone.⁹
- Issue due to the small size of the rebate pool (\$17M) not a high rebate level (\$6500).
- The Netherlands has bursty electric vehicle uptake; 25% of vehicle sales during 2020 with some months extremely high (72% of vehicle sales in December).
- Their feebate has enabled some electric vehicles to have lower purchase price and much lower 4-year consumer ownership than similar fuel vehicles (see graph below), though this is likely partially due to manufacturers cross-subsiding the 'base' price of EV models across their wider offering.
- **Lesson for New Zealand:** set a larger rebate fund so it can last throughout the year.

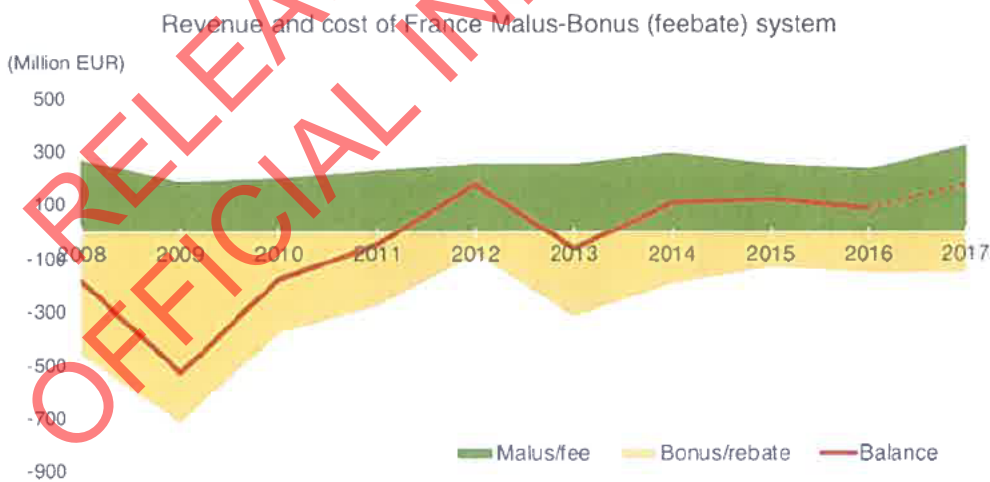
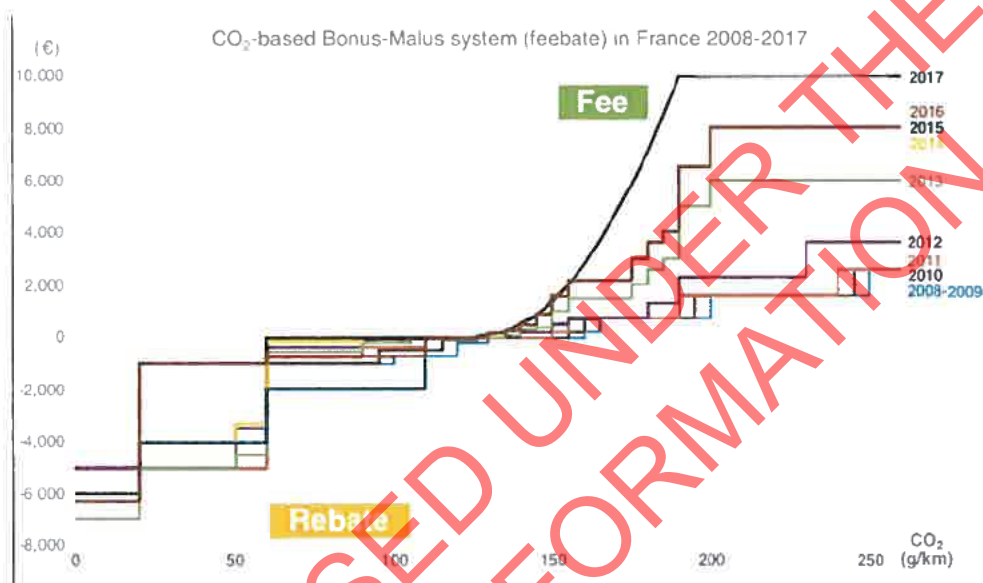


⁸ <https://www.theicct.org/blog/staff/swedens-feebate-scheme-20181008>

⁹ <https://thenextweb.com/shift/2020/07/09/the-netherlands-dutch-crazy-new-evs-10m-subsidies-used-8-days/>

France

- France pioneered the feebate system in 2008, and quickly discovered they were paying out far more money in rebates than projected, creating a multiple hundred million Euro deficit.
- This was due to gaming by the industry. France moved from 'steps' to a continuous line (see graph below). It increased the fee side of the ledger from a modest \$3000 to \$16,000 over the course of a decade to shift the scheme in surplus. Electric vehicles receive a \$10,000 rebate.
- 20% of French car registrations were electric in 2020, double the European average.
- **Lessons for New Zealand:** set up a large rebate to accommodate deficits in early years, use a continuous line not steps to avoid gaming, and assume significant rises on the fees are necessary to continue offering rebates as the adoption of low emission vehicles proliferates.¹⁰



Note: Rough calculation, does not take account of seperated bonus for hybrid vehicle from 2008 to 2014
2017 budget balance is estimated based on 2016 fleet structure.

¹⁰ <https://theicct.org/blog/staff/practical-lessons-vehicle-efficiency-policy-10-year-evolution-frances-co2-based-bonus>