Regulatory Impact Statement: Discontinuing the Clean Car Discount

Coversheet

Purpose of Document	
Decision sought:	Analysis produced for the Cabinet decision to discontinue the Clean Car Discount.
Advising agencies:	Te Manatū Waka - Ministry of Transport
Proposing Ministers:	Minister of Transport
Date finalised:	30 November 2023

Problem Definition

The Clean Car Discount has helped speed the uptake of EVs and other low-emission vehicles as a means to reduce transport emissions. However, concerns about the scheme's financial sustainability, its equity and fairness, its ongoing effectiveness as EV prices fall and model variety increases, and the inadvertent costs and financial risks it causes for vehicle suppliers have necessitated a reappraisal of the scheme.

The Government has committed to end the Clean Car Discount. This Regulatory Impact Statement seeks to inform that decision.

Executive Summary

The objective of the Clean Car Discount is to speed the transition to a low-emission light vehicle fleet at a faster rate than would be achieved through market forces alone. We are confident that to date the Clean Car Discount is achieving this objective. The rate of EV and hybrid uptake is now several years ahead of expectation.

At the same time the scheme has a number of challenges that will likely intensify the longer the scheme is in place. The main challenges are summarised below.

- **There are difficulties in achieving a financially sustainable and self-financing scheme**. To date rebate expenditure has been substantially greater than charge revenue. The changes to rebates and charges in July 2023 have achieved a better financial match. However, as the sales of EVs and other low emission vehicles continue to increase, we expect the Government will have to consider imposing higher charges, reducing rebates, and/or providing additional Crown funding. The Ministry's modelling assumes that from 2025 almost all but small internal combustion vehicles (ICE) vehicles[1] attract charges, and from 2027 charges apply to all ICE vehicles and all but small hybrids[2]. Rebates for new EVs would reduce from $7,015 now, to $4,600 in 2025, $2,300 in 2027 and $1,150 in 2029. It is unlikely that rebates of these levels would be either effective or needed to encourage purchase.

[1] These are vehicles with CO2 emissions below 120 grams per kilometre.

[2] These are vehicles with CO2 emissions above 80 grams per kilometre.

- **There are ongoing concerns about the equity and fairness of the scheme**. In particular:
    - high income Zealanders are able to benefit most from the Clean Car Discount as they are most able to purchase new EVs. Low-income New Zealanders are less able to buy EVs, even with a rebate, and potentially face increased vehicle prices with the scheme's charges on used-ICE imports and the indirect flow-through of those charges into the prices of second-hand ICE vehicles over time
    - some businesses and consumers are not able to avoid the charges imposed on high emission vehicles as there are no affordable low-emission alternatives that meet their needs
    - a significant proportion of rebates are likely being paid to people who do not need a financial incentive to buy low-emission vehicles. This unnecessarily increases the level of charges that need to be imposed on purchasers of high emission vehicles
- **The scheme is likely to become less effective over time in increasing the uptake of EVs above business as usual**. This is because for:
    - used-EV imports constrained supply is the key barrier. The number of used-EVs available for purchase on globally, especially from Japan, is very limited. The scheme's rebate is not an effective policy response as it cannot grow supply
    - new EVs uptake is expected to keep growing over time irrespective of the Clean Car Discount because of ongoing falls in EV prices and increases in model variety
- **Changes to the scheme's charges and rebates are causing inadvertent costs and risks**. To date the scheme has been unable to avoid:
    - causing spikes and troughs in vehicles purchases as consumers bring forward their purchases to either avoid paying higher charges or receiving lower rebates. Commercially these spikes and troughs are costly and difficult to manage as vehicle supply, shipping, warehousing and sales support are slow to adjust
    - increasing uncertainty and financial risk for vehicle suppliers. The timing and scale of the changes implemented in July 2023 were unanticipated by suppliers. Many were left holding large volumes of hybrid vehicles that no longer qualify for rebates, and larger volumes of ICE vehicles subject to charges. This negatively impacted cashflow and industry profitability.

Given these challenges, it is important to reconsider the ongoing effectiveness and impacts of the scheme. To date, it has been achieving its objective to speed the transition to a low-emission light vehicle fleet at a faster rate than would be achieved through market forces alone. However, the scheme's costs and risks are likely to grow over time while the need for the scheme will fall (assuming EV uptake continues to increase due to other policies and market factors).

If the Government decides to discontinue the Clean Car Discount, it will need to ensure that alternative policies to reduce transport CO2 emissions exist to meet New Zealand's emissions reduction commitments. These policies will need to be implemented as part of the second Emissions Reduction Plan that is currently being developed.

The options considered in this Regulatory Impact Statement are limited to a consideration of the likely net benefit in continuing with the scheme, versus ending the scheme by 31 December 2023. This end-date reflects the Government's 100 Day Action Plan.

Limitations and Constraints on Analysis

Due to time constraints, stakeholder engagement has not occurred. Instead, the analysis has been informed by publicly available information on the views of different groups on the Clean Car Discount.

The consideration of options for phasing out the Clean Car Discount has been limited to ending the scheme by 31 December 2023 versus continuing the scheme. This reflects the decisions Cabinet will take to progress the Government's 100 Day Action Plan.

We have limited information and supporting analysis to assess the equity impacts of the Clean Car Discount.

The analysis uses CO2 emission estimates calculated through the Ministry's Vehicle Fleet Emissions Model. This model provides our best estimates of the impact of the Clean Car Discount on CO2 emissions. However, the estimates are subject to high levels of uncertainty as:

- assumptions must be made about future vehicle supply, prices and purchasing patterns
- it is difficult to isolate the impact of the Clean Car policies from many other factors that influence vehicle purchase and supply decisions, such as fuel prices, economic factors, vehicle advertising and consumer trends
- it is difficult to decouple the impact of the Clean Car Discount from the impact of the Clean Car Standard as their effects are closely related.

The key assumptions underpinning the CO2 emission impact of the Clean Car Discount are as follows.

- Rate of uptake of low-emission vehicles. Two uptake scenarios were used of five vehicle types (EV, PHEV, hybrid, petrol, diesel). The high uptake scenario assumed the substantial increase in the purchase of new EVs over 2022 and 2023 will continue and increase in following years. The low uptake scenario assumed a slower rate of uptake. Both scenarios were modelled to present a range with the base case giving a mid-point view.
- CO2 emission levels of the vehicles entering the fleet. Three broad emission bands were used as representative of the vehicles imported in New Zealand. These bands were based on the vehicles entering the fleet in 2022, and it was assumed that the three emission bands will be representative of the vehicles that enter the fleet in 2023 and outyears.
- The number of vehicles imported, by the five vehicle types, for 2023 and outyears are based on those in the latest Vehicle Fleet Emissions Model.
- Rebate eligibility is assumed to be 88% of EVs and PHEVs entering the fleet and 83% of hybrids. These assumptions are based on the number of these vehicle types that received rebates in 2022.

Responsible Manager(s) (completed by relevant manager)

Nick Paterson
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Te Manatū Waka - Ministry of Transport

30 November 2023

Quality Assurance (completed by QA panel)	
Reviewing Agency:	Ministry of Transport - Te Manatū Waka
Panel Assessment & Comment:	A panel comprised of representatives from the Ministry of Transport has reviewed this regulatory impact statement (RIS) and given it a 'partially meets' rating under the quality assurance criteria. The RIS presents a reasonable case around the overall nature of the problem, in the light of the Government's intention to repeal the Clean Car Discount by 31 December 2023. The problems with the Clean Car Discount have been clearly defined, supported by available evidence. The options to address these issues were limited to continuing with the scheme or discontinuing it within a short timeframe. Given the time constraints, there has not been the opportunity to consult, and all feasible options could not be canvassed or considered. The time constraints have also precluded a detailed cost benefit analysis

Section 1: Diagnosing the policy problem

What is the context behind the policy problem and how is the status quo expected to develop?

The Climate Change Response Act 2002 sets New Zealand's framework for reducing greenhouse gas emissions

When New Zealand ratified the Paris Agreement in 2016, it committed to joining a global effort to limit temperature rise to 1.5°C above pre-industrial levels. In 2019, Parliament amended the Climate Change Response Act 2002 to provide a framework by which New Zealand can deliver on its commitments to reduce greenhouse gas (GHG) emissions. The Act's framework establishes:

- a long-term target of reaching net zero CO2 emissions by 2050
- a system of emissions budgets to act as stepping stones towards the 2050 target
- requirements for the Government to develop and implement policies for climate change adaptation and mitigation
- an independent Climate Change Commission to provide expert advice and monitoring to help keep successive governments on track to meeting long-term goals.

The Government published the first three emissions budgets covering 2022–2035 and its first emissions reduction plan (ERP1) in May 2022.

Electrifying the vehicle fleet is a key part of achieving our climate targets

Transport is one of New Zealand's largest sources of GHG emissions, producing 40% of domestic CO2 emissions and 17% of total GHG emissions. Land transport is responsible for 92% of transport emissions with light vehicles (ie cars, SUVs, utes and vans) being responsible for 64%.

The New Zealand Productivity Commission and the Climate Change Commission identified transport as a sector with the potential to largely decarbonise by 2050. New Zealand's overall emissions reduction success is likely to rely heavily on transport realising this potential. Consequently, ERP1 sets the target to reduce transport emissions by 41 percent from 2019 levels by 2035.

Within transport, incentivising the light vehicle fleet to change more rapidly to be low emission presents a substantial, achievable and cost-effective opportunity to largely decarbonise. As a result, ERP1 has a further target to increase zero-emission vehicles to 30 percent of the light fleet by 2035.

Currently, zero-emission vehicles are 1.44% of the light vehicle fleet. To get to 30% around 1.3 million more EVs are needed in the fleet by 2035. To put this in perspective, in 2022 only 20,909 EVs entered the fleet.

The Clean Car Discount seeks to speed the shift to low and zero emission light vehicles

To date the Clean Car Discount has been a central policy in achieving the 2035 targets. Its objective is to speed the transition to low-emission vehicles at a faster rate than would be achieved through market forces alone. This is to enable the CO2 emission reduction benefits of these vehicles to be realised sooner rather than later. To do this the scheme's rebates help New Zealanders purchase low- and zero-emission vehicles, while its charges discourage the purchase of high emission vehicles.

Rebates and charges apply to vehicles sold for the first time in New Zealand, and do not apply to vehicles in the existing fleet.

The Clean Car Discount is intended to work with the Clean Car Standard in transitioning the vehicle fleet. The Discount influences the demand for low- and zero-emission vehicles through consumer facing incentives, while the Standard is focused on increasing the supply of low-emission vehicles by setting an annual fleet CO2 emission average that importers must meet.

The Clean Car Discount scheme is intended to be self-financing over 10 years

The scheme is intended to be fiscally neutral to the Crown over 10 years, with the scheme's charges providing the revenue for the payment of rebates and the scheme's implementation and administration costs.

To establish the scheme, a $301.8 million repayable Crown grant was approved through Budget 2021. This grant provided $6.8 million for the scheme's implementation and $295 million as a cash reserve for Waka Kotahi to:

- operate the scheme from 1 July 2021, with rebates for EVs and PHEVs available prior to the commencement of charges on 1 April 2022, and the expansion of rebates to include hybrid, petrol and diesel vehicles with per kilometre CO2 emissions of 146 grams and lower
- cover its costs in administering the scheme, which are capped at $8 million per year
- manage the scheme's likely cashflow pressures caused by timing differences between the payment of rebates and the receipt of sufficient revenue from charges.

The Crown grant is to be repaid by Waka Kotahi in periodic payments over 10 years. However, Waka Kotahi is only required to make repayments to the extent that the scheme is in surplus.

As a self-financing scheme, the Clean Car Discount's rebates and charges require frequent adjustment to ensure the charges generate sufficient revenue to fund the rebates and administration costs.

The first review was triggered in late 2022 in response to the impact the stronger than expected performance of the Clean Car Discount had on the financial sustainability of the scheme. At that time substantially more in rebates had been paid out than had been received in charges.

To enable rebates to continue to be paid, and to put the scheme back on a path to be self-financing over 10 years, on 5 April 2023 the Cabinet Economic Development Committee agreed to reduce most rebates and to widen and increase charges [DEV-23-MIN-0051 refers]. In addition, $100 million was provided in Budget 2023 to replenish the scheme's repayable Crown grant.

The changes were expected to be sufficient to resource the scheme until at least mid-2024.

The scheme has a default setting that if the scheme's revenue becomes exhausted, and no additional Crown grant funding is applied, the payment of rebates stops and no rebates are queued for later payment. Rebates commence once the scheme's cash reserve has been sufficiently replenished through the build-up of charge revenue [CAB-21-Min-0128.01 refers].

The current rebates and charges are set out in the following table. Eligibility for rebates is limited to vehicles with three or more safety stars and a purchase price below $80,000 including GST and on-road costs.

Vehicle type	Rebate/charge
Zero emission vehicles (EVs)	$7,015 rebate for new vehicles $3,507 for used-imports
Vehicles that emit one to 100 grams of CO2 per kilometre (generally plug-in hybrids and smaller hybrids)	The rebate is $1,725 for new vehicles at 100 grams, plus $57.50 for each gram below 100 gram up to a maximum of $4,025 Used-imports receive half of the dollar amount
Vehicles that emit 101 to 149 grams (generally smaller petrol cars, and larger hybrids)	These vehicles attract neither rebates nor charges
Disability vehicles	$11,500 rebate for new and used-import battery EVs $5,750 rebate for new and used-import plug-in hybrid EVs and hybrids.
Vehicles that emit 150 to 191 grams of CO2 per kilometre (generally petrol and diesel cars)	These vehicles attract charges of: • $575 plus, $57.50 for each gram above 150g grams for new vehicles • half of the amount charged for new vehicles for used-imports
Vehicles that emit 192 grams or higher of CO2 per kilometre (generally large SUVs, vans and utes)	These vehicles attract the above charges to a maximum of: • $6,900 for new vehicles • $3,450 for used-imports

To date the Clean Car Discount has been effective in helping accelerate the transition to a low-emission light vehicle fleet

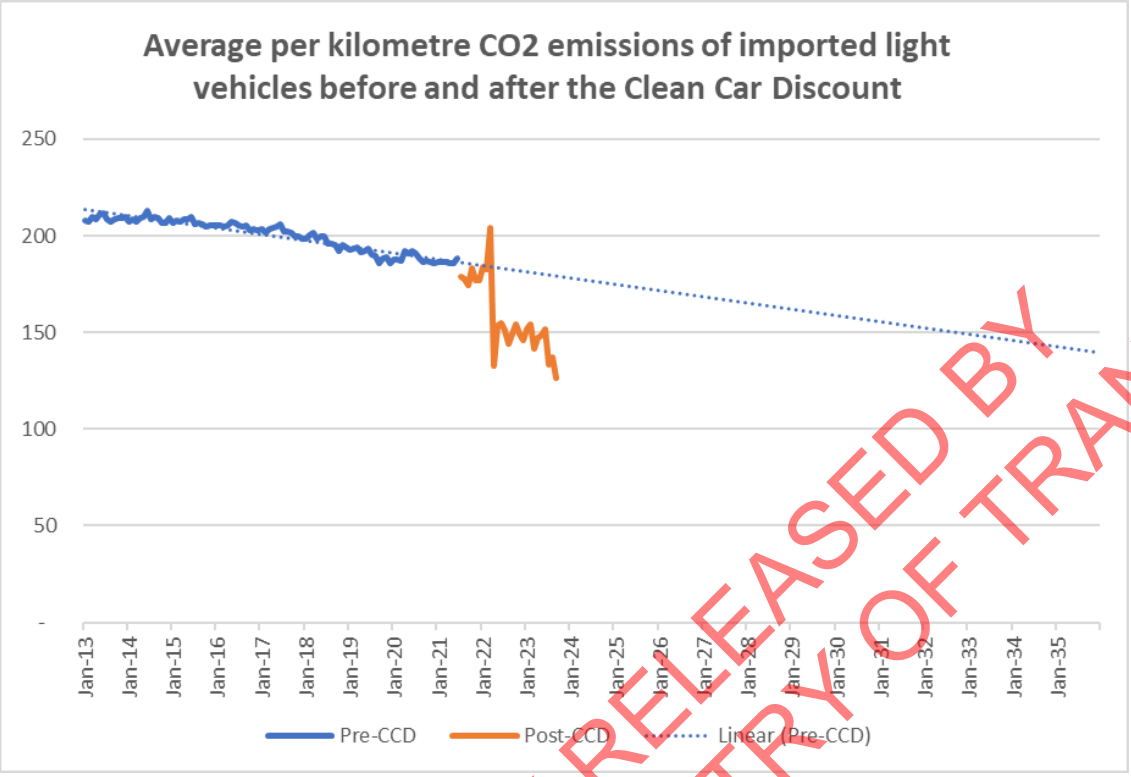
To date the uptake of low emission vehicles has outperformed government and industry expectations. Coupled with external factors, since the introduction of the scheme in July 2021, vehicle preferences have changed markedly. The annual uptake of:

- EVs has increased by 409%
- petrol hybrid vehicles has increased by 136%
- internal combustion vehicles (petrol and diesel) has decreased by 32%.

EV registrations (new and used-import) have achieved a market share of 13% compared to a world average of 5%. This puts New Zealand 17th globally in the uptake of EVs.

The following graph shows that the change in vehicle preferences has decreased the average CO2 emissions of imported vehicles by 22%, from an annual average of 187 grams

per kilometre to 145 grams per km in the last 12 months. This represents a large improvement on the 1.9 percent average annual decrease of the five years prior to the Clean Car Discount.



The Clean Car Discount's impact on transport emissions builds through time as its point of influence is vehicles entering the fleet

While the Clean Car Discount has lowered the average emissions of vehicle imports, shifting the emissions profile of the entire light fleet of 4.38 million vehicles is a long-term and more challenging task. This reflects that:

- the Clean Car Discount only influences the approximately 300,000 vehicles that enter the fleet each year
- the fleet of 4.38 million light vehicles was not subject to any fuel efficiency or CO2 regulation until 1 January 2023. Prior to this date vehicle manufacturers were, on average, supplying new vehicles with older fuel efficiency/CO2 emissions technology than were supplied to other developed countries[3]. Consequently, New Zealand's vehicle fleet has relatively higher emissions than other countries
- our vehicle fleet has a slow turn-over rate. Vehicles are driven until they are on average over 19 years. This compounds the problem of our vehicles having a relatively poorer fuel efficiency/CO2 emissions because their higher emissions are locked-in for a long period of time.

[3] New Zealand Productivity Commission – add reference

New Zealand is on track to achieve the first two emissions budgets but not the third

The current key policies to reduce transport emissions are the Emissions Trading Scheme, the Clean Car Discount, the Clean Car Standard, and policies that encourage active travel and public transport (this includes the bus fleet being zero emission by 2035).

The most recent set of emissions projections suggests that, largely because of lower-than-expected levels of travel, transport is likely to meet its expected contribution to reducing emissions during the first and second emissions budget periods.

However, current estimates suggest we are not on track for transport to achieve its expected contribution to the third emission budget for the period 2031–2035. In part, this is because future EV uptake is estimated to remain below the rate needed to support this level of decarbonisation. This suggests more focus is needed to overcome the barriers limiting their uptake. These barriers are purchase price, model variety, battery travel range and access to EV charging.

The Clean Car Discount is not a long-term policy

The scheme was introduced with the expectation that it would be discontinued when EVs approach purchase price parity with ICE vehicles, and a wide variety of EVs are available.

To date there have been significant falls in the retail prices of EVs in New Zealand. When the scheme was introduced the cheapest EV available had a retail price of around $65,000. Now a similar new EV can be purchased for around $44,500. Part of the decline reflects the entry of Chinese brands into our market offering EVs with prices that are lower. The European Commission estimates that the prices of Chinese EVs are typically 20% below EU-made models[4].

The retail price gap between new EVs and ICE vehicles depends on the vehicle model but can be around $22,000–$25,000. For instance, the 2024 pricing of Hyundai's entry level Kona as an ICE will be $42,990 with the 2023 model currently retailing at $64,990 as an EV[5]. MG's ZS SUV retails for around $50,990[6] as an EV and $24,990[7] as a ICE.

For used-import EVs price parity may be closer because these vehicles attracted subsidies when first sold in Japan. This tends to flow through into their export price as used-vehicles.

The variety of EV and PHEV models has also expanded. In mid-2019 there were only 30 models available in New Zealand. As at June 2023, there are 152 models, of which 84 are EVs and 68 PHEVs[8].

However, these models are mostly cars, SUVs and vans. There had been one model of electric ute available in New Zealand (made by LDV), but it has been withdrawn from our market. Its distributor, Inchcape NZ, has stated in the media that a replacement for the eT60 is in the pipeline but no details are publicly available[9].

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[4] https://www.reuters.com/world/europe/eu-launches-anti-subsidy-investigation-into-chinese-electric-vehicles-2023-09-13/

[5] https://www.autocar.co.nz/local-pricing-confirmed-for-new-hyundai-kona/

[6] https://mgmotor.co.nz/models/mg-zsev/

[7] https://mgmotor.co.nz/models/mg-zs/

[8] https://driveelectric.org.nz/wp-content/uploads/2023/09/Drive-Electric-State-of-the-Nation-Report-2023.pdf

[9] https://evsandbeyond.co.nz/nzs-first-electric-ute-replacement-details-under-wraps/

BYD has announced that it will introduce a 4WD electric ute into our market in late 2024. Similarly, Ford has announced that it will introduce a PHEV ute. A petrol hybrid ute from Toyota has also been announced.

What is the policy problem or opportunity?

While the Clean Car Discount has been effective in increasing the uptake of EVs and other low-emission vehicles and discouraging the purchase of high emission ones, it has significant challenges. The significance of these challenges will rise the longer the scheme is in place. This expectation assumes that:

- over this decade the demand for EVs will increase as purchase prices fall (due to ongoing reductions in manufacturing costs), battery range increases, and model variety increases
- New Zealand vehicle distributors and dealers will be able to access sufficient volumes of affordable EVs to satisfy demand.

It will continue to be difficult to achieve a financially sustainable and self-financing scheme

As the sales of EVs and other low emission vehicles continue to rise it will become increasingly difficult to match rebate expenditure with sufficient charge revenue. If the scheme were to continue, we expect it will require further investments of Crown funding in lieu of substantial changes to charges and rebates.

In large part this is a consequence of the decision to commence the scheme on 1 July 2021 with rebates for EVs and PHEVs and to delay the imposition of charges until 1 April 2022. These settings resulted in $74 million in rebate payments being made prior to the scheme accumulating any revenue from charges.

The expectation was that the cost of the rebates prior to 1 April 2022 would be made up from future charge revenue over the following 10 years. However, from 1 April 2022 substantially more in rebates continued to be paid than was collected in charges due to the:

- strong uptake of EVs and PHEVs
- decision to expand rebates to subsidise hybrids and fuel-efficient ICE vehicles.

On 5 April 2023 the previous Government sought to restore the scheme's financial sustainability by reducing most rebates and restricting them to low-emission vehicles, and widening and increasing charges. In addition, $100 million was provided in Budget 2023 as a repayable Crown grant.

Over the period 1 July 2021–31 October 2023, $553 million has been paid in rebates, while over 1 April–31 October 2023, $269 million has been received from charges. The difference has been funded from the first repayable Crown grant.

As at 31 October 2023, $119.9 million remained of the Crown grants. Depending on what occurs in the vehicle market, this amount is expected to be sufficient for the scheme to operate until at least mid-2024. At this point, and if the scheme continued, the Government would have to choose to either:

- further narrow and lower rebates and/or widen and increase charges, or
- temporarily suspend the scheme's rebates until sufficient charge revenue accumulates, or

- invest additional Crown funding in lieu of changing rebates and/or charges or to support less significant changes to rebates and/or charges, or
- discontinue the scheme.

The Government would also need to decide whether or not it is feasible to continue with a self-financing scheme. To be self-financing, future charge payers would need to bear the costs of providing sufficient revenue to match future rebate expenditure and repaying the Crown grants to date of $401.8 million.

These costs would necessitate the imposition of high charges on future charge payers. It is more likely that the Crown grants to date would not be recovered and if the scheme were to continue, ongoing investments of Crown funding would be made.

To illustrate the scale of changes to charges and rebates needed the Ministry's modelling assumes that:

- from 2025 almost all but small ICE vehicles with CO2 emissions below 120 grams per kilometre attract charges, and from 2027 all vehicles with emissions above 80 grams attract charges. This will capture all ICE vehicles and most hybrids
- the maximum charges on the highest emission vehicles (these are vehicles with CO2 emissions from 260 grams) increase from $6,900 to $13,800 over 2025–2029
- rebates for new EVs fall from $7,015 to $4,600 in 2025, $2,300 in 2027 and $1,150 in 2029
- rebates are limited to EVs from 2029 with PHEVs no longer eligible.

The scheme poses equity and fairness concerns

A second key challenge is equity in that wealthier New Zealanders benefit most from the scheme as they are more able to purchase new EVs. This view is supported by EECA's quarterly Consumer Monitor survey that shows that household income is a factor in people's intention to purchase EVs and other low emission vehicles.

There is also evidence that Māori and Pacific Peoples are likely to have benefited less than other ethnicities. EECA's survey shows that the proportion of adults aware of the Clean Car Discount was 71% New Zealand Europeans versus 56% for Māori and 25% for Pacific Peoples.

Further, it is likely that low-income New Zealanders that can not afford EVs or PHEVs will increasingly face higher costs in buying hybrid and ICE vehicles because of the Clean Car Discount. This is because of the likely:

- expansion of charges to include all ICE and most hybrids if the scheme were to continue
- flow through of the increased charges into the prices of second-hand vehicles on the domestic market.

The scheme also raises concerns of fairness. The first concern is that a significant proportion of rebates are likely being paid to people who do not need a financial incentive to buy low-emission vehicles. This results in higher than necessarily charges being imposed on purchasers of high emission vehicles, as charges provide the revenue for the rebates.

EECA's March 2023 survey of EV owners[10] found that at that point in time 38% of people did not require the incentive of the Clean Car Discount to buy their vehicles. The remaining 62% agreed they purchased their EVs sooner than they would have otherwise because of the Clean Car Discount.

The second fairness concern is that the Clean Car Discount's charges can only be avoided where there are affordable low-emission alternatives available that consumers can afford and choose to buy. For cars, vans and SUVs, there are comparable alternatives, allowing consumers to avoid charges. However, this is not currently the case for utes.

Over the period 1 January–31 October 2023 utes were 10% of light vehicles entering the fleet. Utes attract significant charges from around $3,680 to a maximum of $6,900 depending on their CO2 emissions. To date the charges on utes have contributed around 50% of the charge revenue.

PHEV, hybrid and electric utes are expected to become available over the next three years. In the meantime, if the scheme were to continue, utes can be expected to attract increasing levels of charges to fund rebate expenditure, potentially to a per vehicle maximum of $13,800 by 2029.

The scheme's policy effectiveness will likely decrease relative to business-as-usual

We can also expect to see the effectiveness of the scheme reduce in increasing the uptake of EVs above business as usual.

For new EVs, to date there have been significant falls in the retail prices of EVs in New Zealand. When the scheme was introduced the cheapest EV available had a retail price of around $65,000. Now a similar new EV can be purchased for around $44,500. As well, model variety has greatly expanded from 30 EVs and PHEVs in 2019 to 152 as at June 2023.

As these price and model trends are expected to continue, the share of people who would have purchased EVs and PHEVs in the absence of the Clean Car Discount will rise.

For used EV-imports, constrained supply is the key barrier that limits uptake. Currently, vehicles suppliers are not able to import the number of EVs that they could sell because of the small volumes of used EVs available globally. In particular, in Japan, where over 95% of our used-imports are sourced, relatively low numbers of EVs have been sold on its domestic market. This creates a substantial supply constrain for our market.

The scheme's rebate that helps reduces purchase price is not an effective policy response to overcome the supply constraint for used-EV imports. For example, the current rebate could be doubled and yield little improvement in supply.

The need to recalibrate charges and rebates creates significant cost and financial risk for vehicles suppliers

Conceptually the scheme's charges are set at a level to generate sufficient revenue for the payment of rebates. However, accurately setting charges and rebates to achieve financial balance is difficult because of the uncertainty about future vehicle supply and demand. This

[10] EECA EV Public Charging Research 2023

uncertainty is managed through recalibrating charges and rebates when either too much, or too little, revenue is being collected.

However, when making changes the scheme has been unable to avoid inadvertently causing:

- spikes and troughs in vehicles purchases as consumers bring forward their purchases to either avoid paying higher charges or receiving lower rebates. Commercially these spikes and troughs are costly and difficult to manage as vehicle supply, shipping, warehousing and sales support are slow to adjust

- increased uncertainty and financial risk for vehicle suppliers, particularly new vehicle distributors who are less able to quickly adjust their forward supply orders with their overseas manufacturers. As was seen with the July 2023 changes, the timing and scale of the changes were unanticipated by suppliers. Consequently, many were left holding large volumes of hybrid vehicles that no longer qualify for rebates, and larger volumes of ICE vehicles subject to charges. This negatively impacted cashflow and industry profitability.

The flow-on negative impact on cash-flow and profitability of many vehicle distributors is likely to have:

- created pressure for increases in vehicle prices as distributors look to recover losses

- reduced the ability of distributers to introduce new EVs and PHEVs to the market in the short- to medium-term. This is because vehicle distributors often reduce their per vehicle profit margins to introduce and establish new models on the market.

The inadvertent increases in costs and risks that come with the Clean Car Discount are a significant downside to the policy. The costs can be expected to be passed-on to consumers.

Discontinuing the Clean Car Discount creates an opportunity to improve the policy response

As strong EV uptake is critical to achieving our emission targets it is important that effective policies are in place. However, the certainty about where policy should focus is reduced by the multitude of factors that influence the level of EV update.

We are confident the Clean Car Discount has helped speed the shift to low emission vehicles. Yet we can not precisely quantify how much of the increased rate of EV uptake since July 2021 is due solely to the Clean Car Discount and how much has occurred because of factors such as:

- the rise in petrol and diesel prices
- growing awareness about the need for people to reduce their carbon footprints
- the entry of Chinese brands supplying more affordable EVs
- since 1 January 2023, the Clean Car Standard has required vehicle suppliers to lower the average emissions of the vehicles they import.

Discontinuation of the Clean Car Discount would provide an opportunity for the impact of the scheme to be better understood, including the circumstances in which the key barrier to EV uptake is price. If EV uptake subsequently reduces there will be a strong case for future initiatives to be developed.

Moreover, it will free up government resource that can be better focused on mitigation policies that avoid the challenges associated with the Clean Car Discount.

What objectives are sought in relation to the policy problem?

The following objectives should be sought in deciding whether to continue with the Clean Car Discount or discontinue it.

- Continue the momentum in shifting the light vehicle fleet to be low-emission as a means to reduce transport emissions.
- Any intervention is cost effective and focused where it will have the greatest impact in influencing vehicle supply and demand.
- Policies are equitable and fair.
- Policy settings provide predictability and certainty for vehicle suppliers and consumers.

For the purposes of this RIS, we have not given weightings to each objective, as we have not yet received direction from the incoming Government on what their expected objectives are for the scheme.

Section 2: Deciding upon an option to address the policy problem

What criteria will be used to compare options?

The above objectives will be reflected in the following criteria used to assess the options.

- The option would help accelerate the shift to a low-emission light vehicle fleet.
- The option's setting would be predictable and certain for vehicle suppliers and consumers.
- The option would be cost effective and focused where it will have the greatest impact in encouraging a switch to low emission vehicles.
- The option increases equity and fairness in the shift to low emission vehicles.

What scope will options be considered within?

The scope of options has been limited to just two options: to either continue or discontinue the Clean Car Discount scheme. The second option reflects manifesto policy commitments made during the 2023 General Election. Specifically discontinuing the Clean Car Discount is part of the Government's 100 Day Action Plan. Due to time constraints, we have not considered other options (e.g. modifying the current scheme).

What options are being considered?

The options considered were the counterfactual of retaining the Clean Car Discount and the 100 Day Action Plan initiative to discontinue the Clean Car Discount.

Option One – Retain the Clean Car Discount

The scheme would continue with its current settings, which are as follows.

- Eligibility for rebates would remain limited to vehicles with three or more safety stars and a purchase price below $80,000 including GST and on-road costs.
- A recalibration of current rebates and charges would be expected from mid-2024 and/or additional Crown funding would be invested to enable the uninterrupted payment of rebates.
- The current rebates and charges set out on page 7 will change as needed. The Ministry's modelling has assumed that
    - from 2025 almost all but small ICE vehicles with CO2 emissions below 120 grams per kilometre attract charges, and from 2027 all vehicles with emissions above 80 grams attract charges. This will capture all ICE vehicles and most hybrids
    - the maximum charges on the highest emission vehicles (these are vehicles with CO2 emissions from 260 grams) increase from $6,900 to $13,800 over 2025–2029
    - rebates for new EVs fall from $7,015 to $4,600 in 2025, $2,300 in 2027 and $1,150 in 2029
    - rebates are limited to EVs from 2029 with PHEVs no longer eligible.

Option Two – Discontinue the Clean Car Discount

The scheme would be discontinued on 31 December 2023. After this date charges would no longer be imposed on vehicles that emit 150 grams of CO2 per kilometre and higher. Rebates would only be available for eligible vehicles purchased and registered by and including 31 December 2023.

Applications for rebates would be able to be made to Waka Kotahi up to a month following 31 December 2023. All eligible applications would be processed by Waka Kotahi and the remaining Crown funding for the scheme would be returned to the Climate Emergency Response Fund.

Analysis of the options

How will the options deliver the objectives in relation to the policy problem/opportunity?

In our analysis we have considered Option 1 to be business-as-usual (or the counterfactual) and assessed Option 2 against it.

Of the two options, retention of the scheme will best meet the objective to continue the momentum in shifting the light vehicle fleet to be low-emission as a means to reduce transport emissions.

The Ministry's modelling suggests that if the scheme ended on 31 December 2023 the expected emission saving from the Clean Car Discount would reduce by between 1,104–2,181 kilotonnes to 2050.

The reductions in emission savings over the periods corresponding to the first three emission budgets (EB) and for the period to 2050 are shown in the following table.

Reduced CO2-e savings (kilotonnes) from ending the Clean Car Discount on 31 December 2023				
Scenario	**2022-2025 (EB 1)**	**2026-2030 (EB 2)**	**2031-2035 (EB 3)**	**2022-2050**
Baseline impact scenario	65	442	451	1,588
High impact scenario	81	588	627	2,181
Low impact scenario	50	317	311	1,104

The foregone emission reductions would reflect an expected fall in the uptake of EVs and PHEVs and a rise in the purchase of ICE vehicles.

It would also slow the growth in the number of EVs available to be purchased on the domestic second-hand market, as EVs that entered the fleet new are on-sold. This will likely reduce the ability of low-income New Zealanders to benefit from EVs.

Based on our modelling we do not expect the removal of the Clean Car Discount to affect the achievement of transport's contribution to EB1. However, in the absence of an alternative policy it could create a small risk that transport does not meet its contribution to EB2, and could contribute to making the achievement of transport's contribution to EB3 more difficult. This is shown in the table below:

Impact of removing Clean Car Discount in 2023 on achieving transport emission reduction targets (kt CO_2)			
	2022-2025 (EB1)	2026-2030 (EB2)	2031-2035 (EB3)
Targeted abatement from transport	*-597*	*-7,227*	*-23,783*
Latest estimate of abatement from transport (with Clean Car Discount ending 2030)	*-6,205* *(More than sufficient)*	*-9,036* *(Sufficient)*	*-10,545* *(Not sufficient)*
Projected change of ending Clean Car Discount in 2023	*+50 to +81*	*+317 to +558*	*+311 to +627*
Latest estimate of abatement from transport ***(with Clean Car Discount ending 2023)***	*-6,155 to -6,124* *(More than sufficient)*	*-8,719 to -8,478* *(Sufficient, but only by small margin)*	*-10,234 to -9,918* *(Not sufficient)*

Alternative policies will be required to make up for the anticipated CO2 emission reductions that the scheme was expected to deliver. These policies will need to be implemented as part of the second Emissions Reduction Plan that is currently being developed.

Against the loss of the CO2 emissions reduction, the gains from discontinuing the scheme would be avoiding the:

- equity and fairness concerns that will increase as charges will likely need to expand to include all ICE and hybrid vehicles from 2025. There is also the potential for prices of vehicles in the second-hand market to rise indirectly as charges flow-through

- need for recalibrations of rebates and charges that increase cost and financial risk for vehicle suppliers

- the risk of additional Crown funding being needed to continue the payment of rebates

- loss of policy effectiveness in increasing the uptake of EVs above business as usual.

Neither option would advance equity and fairness in the shift to low emission vehicles. This requires a targeted policy response.

What are the views of stakeholders?

Due to time constraints stakeholder engagement has not occurred. However, from publicly available information and information held by the Ministry we are aware of the following views.

- Drive Electric, a not-for-profit which encourages EV uptake, opposes discontinuation of the Clean Car Discount. This is because it expects it will lead to a fall in EV sales, putting emissions targets at risk as well as the broader economic benefits of electrifying transport.

- Greenpeace, which is a global environmental campaigning organisation, opposes discontinuation of the Clean Car Discount. In its view it is likely the upward trend in SUV and ute purchases, which lost steam with the introduction of the programme, will once again pick up. It considers that combined with any lost momentum on developing other transport modes, the impact on road safety and emissions reduction could be significant.

- Auckland City Electric Vehicles, which is an EV and hybrid dealership, opposes discontinuation of the Clean Car Discount. This is because losing the rebate would broaden the price gap between new and second hand EVs. The price of imported EVs would also be influenced by what they were able to be bought for in Japan. They might stay the same price, they might lower with the rebate gone. Without a discount it expects about 30 percent of its customers could opt to keep using a petrol car.

- Better New Zealand Trust, which is an EV advocacy group, are of the view that without the Clean Car Discount's rebate the momentum in switching to EVs would stop. "I think it would slow it to an absolute dribble. The uptake since July 2021, which is when the Clean Car Discount was introduced, has been nothing short of astronomic. It's been fantastic," "I think people will go, 'Oh, yes an EV, yes, I could get one but perhaps not now'."

- The Motor Trade Association, which represents over 3,800 businesses that repair, service, purchase and sell motor vehicles, supports discontinuation. In its view the Clean Car Discount has contributed to the strong demand for low emission vehicles. However, the scheme's parameters have unfair and unfortunate social impacts 'of rewarding consumers wealthy enough to buy an EV, while penalising those who are not'[11].

[11] Driving New Zealand forward, Future proofing the automotive industry, Our call to the next Government of Aotearoa New Zealand 2023

- The Imported Motor Vehicle Industry Association (VIA) that represents used vehicle importers is likely to support discontinuation. In submissions on the Clean Car Discount, it has highlighted the scheme's inequity. In its view, "the Clean Car Discount has lower-income New Zealanders subsidising the purchase of high efficiency vehicles by more affluent buyers".

- The Motor Industry Association (MIA) that represents new vehicle distributors is likely to support discontinuation. This is because of the uncertainty and financial cost that the July 2023 recalibration of the charges and rebates caused. MIA stated that its members had anticipated that rebates would be reduced and charges would be increased, however, they did not expect the threshold at which a vehicle receives a rebate to be reduced from 146 grams of CO2 per km to 100 grams. This reduction resulted in almost all hybrid vehicles no longer qualifying for a rebate. Its members were unable to adjust their forward orders with their overseas manufacturers because of the short notice period. Apart from the financial impact, MIA expressed its concerns about the impact on sales of petrol hybrids. A fall in the sale of these vehicles will negatively impact the downward trend of CO2 emission improvements in New Zealand.

How do the options compare?

In our analysis we have considered Option 1 to be business-as-usual (or the counterfactual) and assessed Option 2 against it. This is why Option 1 has rankings of “O”.

	Option 1 – Continue the Clean Car Discount	Option 2 – Discontinue the Clean Car Discount
Helps accelerate the shift to a low-emission vehicle fleet to reduce emissions	0 CO2 emission savings expected of between 2,591–3,116 kilotonnes by 2050.	- - CO2 emission savings will reduce by between 1,104–2,181 kilotonnes by 2050. Other policy will be needed to ensure the transition of the light vehicle fleet to low and zero emissions continues as this is key to decarbonising transport.
The option’s setting create a predictable and certain regulatory environment for vehicle suppliers and consumers	0 The need to recalibrate rebates and charges has to date created significant uncertainty and risks for vehicle suppliers. The first recalibration negatively impacted the financial performance of some suppliers.	+ Ending the scheme will remove a significant source of uncertainty and financial risk for vehicle suppliers.
Would be cost effective and focused where it will have the greatest impact in encouraging a switch to low emission vehicles	0 The scheme’s cost-effectiveness is undermined by some people not needing the rebate incentive to buy EVs. Recent survey suggests this is in the order of 38% of EV owners.	+ Creates the potential for alternative better targeted policies to be put in place to incentivise the switch to low and zero emission vehicles. This creates the potential for new policy that is better targeted
Increases equity and fairness in the shift to low emission vehicles	0 Low-income New Zealanders require the most assistance to switch to low-emission vehicles as price remains the key barrier to uptake. However, as the scheme is untargeted it is likely to have reduced inclusiveness as wealthier New Zealanders have been more able to benefit from the scheme.	0 Would slow the growth in the number of EVs available to be purchased on the domestic second-hand market. This will likely reduce the ability of low-income New Zealanders to benefit from EVs. Targeted policy will be needed to ensure low-income New Zealanders are not made worse off

Key

++ strong contribution to objective
+ low but positive contribution to objective
0 No impact
- objective is undermined to a small extent
- - objective is undermined to a large extent

	People with higher disposable income are more able to benefit from the scheme through purchasing new EVs	by interventions to speed the decarbonisation of transport.
Overall assessment	0 While the scheme has been effective in speeding the transition of light vehicles to be low and zero emission, its costs and risks undermine its overall effectiveness when wider objectives are considered.	0 Preferred but other policy will be needed to continue the momentum in shifting the light vehicle fleet to low and zero emission.

What option is likely to best address the problem, meet the policy objectives and deliver the highest net benefits?

The preferred option depends on how much weighting should be given to each of the objectives and criteria. While the Clean Car Discount has clearly been effective at encouraging the uptake of zero and low emission vehicles, at a faster rate than market forces alone, the costs of the scheme are expected to grow over time, while the benefits (relative to no scheme) will reduce. Due to time constraints, we have not conducted a full cost benefit analysis to help inform the decision of exactly when the scheme should end. However, on the assumption that alternative options will be developed through the second Emissions Reduction Plan we consider it prudent that the scheme start to be phased out over 2024.

What are the marginal costs and benefits of the option?

We have not had time to do a full cost-benefit analysis. The figures shown here do not allow for an alternative policy response to be developed to realise the CO2 emission reductions, improvement in air quality, reductions in vehicle maintenance, and savings in energy costs that are forgone by discontinuing the scheme.

Affected groups	Comment	Impact.	Evidence Certainty
Additional costs of the preferred option compared to taking no action			
Vehicle consumers	Vehicle maintenance saving forgone Energy (fuel and electricity) saving forgone	$93 million $138 million	Medium
New Zealand	Air quality improvement forgone CO2 emissions reduction forgone	$224 million $94 million (1,104–2,181 kilotonnes)	Medium
Total monetised costs		$549 million	
Non-monetised costs			
Additional benefits of the preferred option compared to taking no action			
Vehicle consumers	Consumer welfare Vehicle purchasing cost reduction.	$30 million $177 million	Medium
Vehicle industry	Costs and risks avoided associated with changes to rebates and charges Reduction in business compliance costs	Not estimated $15 million	Medium
Regulator Waka Kotahi	Avoided administration costs	$37.7 million	High
New Zealand	Avoided additional Crown grant funding and/or increases in charges to continue the scheme beyond 2024	Not estimated	High
Total monetised benefits		$259.7 million	
Non-monetised benefits		High	Medium

Section 3: Delivering an option

How will the new arrangements be implemented?

The Minister of Transport will announce the date the Clean Car Discount will end as soon as practicable following Cabinet's decisions. From this end date charges will no longer be imposed on vehicles registered for the first time in New Zealand. Rebates will only be available for eligible vehicles purchased, registered and applied for by the end date.

Eligible applications will be processed by Waka Kotahi and the remaining Crown funding for the scheme will be returned to the Climate Emergency Response Fund.

To end the scheme, the Land Transport Act 1998, the Land Transport Management Act 2003, the Land Transport (Motor Vehicle Registration and Licensing) Regulations 2011 and the Energy Efficiency (Vehicle Energy Economy Labelling) Regulations 2007 will all be amended. The Land Transport (Clean Vehicle Discount Scheme Charges) Regulations 2022 will be revoked in their entirety. These amendments will revoke the scheme's charges, remove the reporting requirements imposed on Waka Kotahi, and remove the requirement for rebates and charges to be displayed on vehicle labels.

The termination of the scheme's rebates will be achieved through a new Ministerial Direction to Waka Kotahi and an amended Funding Deed between the Crown and Waka Kotahi.

Waka Kotahi will make the necessary IT system and business process changes to end the operation of the Clean Car Discount. It will also prepare public resources for consumers and vehicle suppliers.

How will the new arrangements be monitored, evaluated, and reviewed?

The Ministry will review the impact the discontinuation of the Clean Car Discount has on the uptake of low and zero emission vehicles and the consequences for the achievement of New Zealand's first three emissions budgets. This will be done as part of its business as usual work in advising the Minister of Transport on the:

- implementation of transport actions in the first Emissions Reduction Plan (ERP1). ERP1 places particular emphasis on rapidly transitioning the vehicle fleet to low- or zero-emissions vehicles
- development of the second Emissions Reduction Plan (ERP2), which is due by the end of 2024. ERP2 needs to contain actions that meet the gazetted emissions budget for the second emissions budget period of 2026-2030, and actions that set the transport sector up for the third emissions budget period of 2031–2035.