Drive Electric: Submission on ERP2 Consultation
23 August 2024

Summary

- Climate change is as much an economic matter as it is an environmental one. We support an economically efficient response to climate change.
- We are concerned that the 'least cost' and 'net based approach' doesn't fully account for the costs associated with climate change or the economic co-benefits of investing in climate mitigation. A 'highest value' approach should be considered.
- For example, we are concerned that the financial liability created by the gap between emissions budgets and the National Determined Contribution is unspecified. Any money spent on offsetting emissions overseas is money lost to New Zealand's transition.
- We are concerned that this plan doesn't have a pathway through to net-zero 2050, and it introduces considerable uncertainty. Modelling has demonstrated that the later the transition, the more costly and disruptive it is likely to be.
- Relying on the Emissions Trading Scheme (ETS) to drive emissions reductions in transport is unlikely to be successful, without complementary policies.
- Instead of 'least cost' and 'net-based' the approach outlined in this draft ERP could transpire to be 'high cost' and 'high risk'.
- Electrifying transport is a key opportunity to accelerate emissions reductions, and just as importantly enjoy economic and social co-benefits.
- Electrifying transport also creates demand for the wider energy transition, by providing certainty for investment in renewable energy generation, transmission and distribution, as well as off-grid solar and battery technologies.
- Current policy settings have dramatically reduced electric vehicle uptake. Arguably the settings in place now favour legacy vehicle technologies.
- There is a considerable economic opportunity to accelerate the adoption of electric vehicles (of all types) with strong leadership alongside effective and efficient policy settings.

Preamble - the economic and policy underpinnings of ERP2

The electrification of transport provides considerable economic and other co-benefits for New Zealand. It also will contribute to emissions reductions and, if accelerated, contribute to meeting the second and third emissions budgets and closing the gap on the Nationally Determined Contribution (NDC). If 20% of the light fleet was electrified by 2030, this could save 3 million tonnes of CO2e/year.[1]

The key question for policy-makers in ERP2 is how fast does New Zealand want to transition to electric vehicles (of all types) and reap the economic and environmental benefits?

It is unclear that the broader economic benefits of decarbonisation are being considered, alongside the price of investment. It is important when assessing the economic impact of climate policies which support electrification include these economic co-benefits, which include:

- Replacing the $8-9b per year spent on importing fossil fuels with domestic sources of energy (and creating demand for new renewable energy generation.)[2]
- Reducing the $10.5b in social costs (e.g. health impacts) from air pollution associated with the use of fossil fuels.[3]
- International trade: New Zealand's international customers are demanding low emissions products (e.g. Fonterra) and the EU-NZ FTA has a legally binding obligation that parties must adhere to the Paris Agreement, and failing to do so could result in trade sanctions.

Broader economic benefits and costs of inaction need to be considered when assessing New Zealand's investments in climate change mitigation.

Additionally, there is likely to be a real economic cost to New Zealand for failing to reduce emissions. Mitigating the full cost of a future liability under the Paris Agreement for falling short of the country's NDC, which is not yet accounted for. According to Treasury calculations, this could cost between NZ$3.3 billion to $23.7b in 2030.[4] The current draft ERP identifies the current gap between the 2030 emissions budget and the NDC, but does not quantify the cost of mitigating this gap.

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[1] Drive Electric - indicative analysis

[2] https://driveelectric.org.nz/wp-content/uploads/2023/09/Drive-Electric-State-of-the-Nation-Report-2023.pdf, p8

[3] https://driveelectric.org.nz/wp-content/uploads/2023/09/Drive-Electric-State-of-the-Nation-Report-2023.pdf, p9

[4] https://www.treasury.govt.nz/sites/default/files/2023-04/cefa23.pdf

The quantum between our 2030 domestic target and the NDC presents an investment choice - would we rather pay to offset this gap by investing in international offers or invest this money in New Zealand to mitigate emissions and reap co-benefits?

Electrification of transport also provides a long-term cost of living saving for New Zealanders. Transpower has forecast that by 2035 a household with two EVs could have reduced energy costs of up to 51 per cent.[5]

The fundamental point is that if only narrow costs of investment in climate mitigation are considered, and not wider social and economic benefits, the economic analysis is incomplete. For this reason, we think a more appropriate consideration is assessment of climate change investments in terms of highest value.

Role of ETS and the 'low cost' approach

The consultation document itself notes the "risk that the NZ Emissions Trading Scheme alone does not encourage enough removals to achieve net zero by 2050". New Zealand is no longer on track to meet its 2050 goal, and will emit at least 28 million extra tonnes of greenhouse gas emissions between 2041 and 2050, compared to the previous pathway.[6]

When it comes to transport, the draft ERP considers that the Emissions Trading Scheme (ETS) will drive emissions reductions in transport. We are concerned with this analysis, and continue to believe that complementary policies are necessary to accelerate electrification at a rate faster and more certain than what the market alone will provide.

While the ETS is a valuable tool for reducing emissions across various sectors, its effectiveness in the transport sector is limited by several factors, including:

- The demand for fuel in the transport sector is relatively inelastic, meaning that even significant price increases due to ETS-imposed carbon costs may not substantially change consumer behavior or reduce fuel consumption.[7]
- The carbon price set by the ETS is unlikely to be high enough to incentivise significant behavioral or technological changes in the transport sector. (e.g. at $50/tonne).
- Vehicles have long asset lives (15-20 years in NZ) so there is slow fleet turnover. As a result, changes in vehicle purchasing decisions based on ETS-driven costs take time to translate into significant emissions reductions across the fleet. In other words, the sooner the transition starts the better for cumulative future emissions reductions.

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[5] https://driveelectric.org.nz/wp-content/uploads/2023/09/Drive-Electric-State-of-the-Nation-Report-2023.pdf, p48

[6] https://newsroom.co.nz/2024/07/17/govts-climate-plan-does-less-with-more/

[7] It is estimated that to reduce road transport emissions by 44% by 2030, a carbon price of $235/tCO2 is required. The same study shows that, "An even weaker result comes from recent modelling by the Ministry of Business, Innovation and Employment (2021) which compares a high price pathway that rises from $84/t in 2025 to $250/t in 2050 with a counterfactual reference scenario that assumes a constant $35/t in real terms. The high price pathway only realises a 12–18% reduction in transport sector emissions by 2050, rather than the 84% reduction that is required."

Reducing emissions in transport, particularly through electrification, to maximise the economic co-benefits to New Zealand will require some intervention. The consultation document is skeptical of this, citing the existence of the waterbed effect with the ETS. We are concerned that this concept is more theoretical than what applies in practice. The waterbed effect presumes a perfect and immediate adjustment across sectors in response to emissions reductions, which does not reflect the complexity of real-world markets. In practice, sectors have different capacities and constraints in adjusting their emissions, meaning reductions in one area do not necessarily lead to proportional increases in another. (This is further complicated by the fact that New Zealand's economy is not fully covered by the ETS, and there are free allocations.)

The reality is New Zealand has the ability to lower the cap on emissions, which can negate the waterbed effect if policies can be used to more effectively reduce emissions than price signals alone. Long term changes can be more efficiently induced, in some cases, by policy signals. For instance, promoting electric vehicle (EV) adoption can lead to a lasting shift in consumer preferences and infrastructure development. These changes reduce the long-term demand for fossil fuels, thereby lowering emissions in a sustainable manner, independent of the ETS cap adjustments.

Finally, the market-led transition being proposed by this ERP has the potential to be the highest cost transition and the most risky, instead of the desired 'least cost'. A slower transition increases the likelihood of stranded assets, higher transition costs, and intensified impacts from climate change. The longer we leave the transition, the more rapid it must become, which is not only more expensive, it has societal implications.

Role of ETS and the 'net based' approach

Analysis done by Concept Consulting for Drive Electric demonstrates that by removing EV incentives it made it more difficult to achieve New Zealand's 2050 target, which is confirmed by the ERP2. The consequence of this is that New Zealand will have to plant more trees to hit its 2050 target, which comes at the expense of sheep and beef farming.[8] This demonstrates that slowing down EV adoption impacts other sectors in the economy, and has real consequences.

New Zealand's international pledges

On light transport, New Zealand has signed the Zero Emission Vehicles Declaration to work towards all sales of new cars and vans being zero emission globally by 2040, and by no later than 2035 in leading markets.[9]

On heavy transport, New Zealand has signed the Memorandum of Understanding (MOU) on Zero-Emission Medium- and Heavy-Duty Vehicles, leading countries commit to working together to enable 100% zero-emission new truck and bus sales by 2040 with an interim

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[8] https://driveelectric.org.nz/wp-content/uploads/2023/12/Concept-Consulting-CCD-Cost-Benefit-for-Drive-Electric-1.pdf p.10

[9] https://acceleratingtozero.org/signatories

goal of 30% zero-emission vehicle sales by 2030, to facilitate achievement of net-zero carbon emissions by 2050.[10]

[10] https://globaldrivetozero.org/mou-nations/

Energy

General statement

The electrification of transport is a fundamental driver of demand for new renewable energy. It will also transition New Zealand away from fossil fuels. This in turn is fundamental to the investment case for installing new generation, transmission and distribution infrastructure. Conversely, uncertainty in demand drives uncertain investment cases. The transitions in transport and energy need to be considered together.

The evidence is clear that upfront purchase price of electric vehicles remains the biggest barrier for individuals to transition to decarbonise their households.

For more information see our response to Transport, including on private charging.

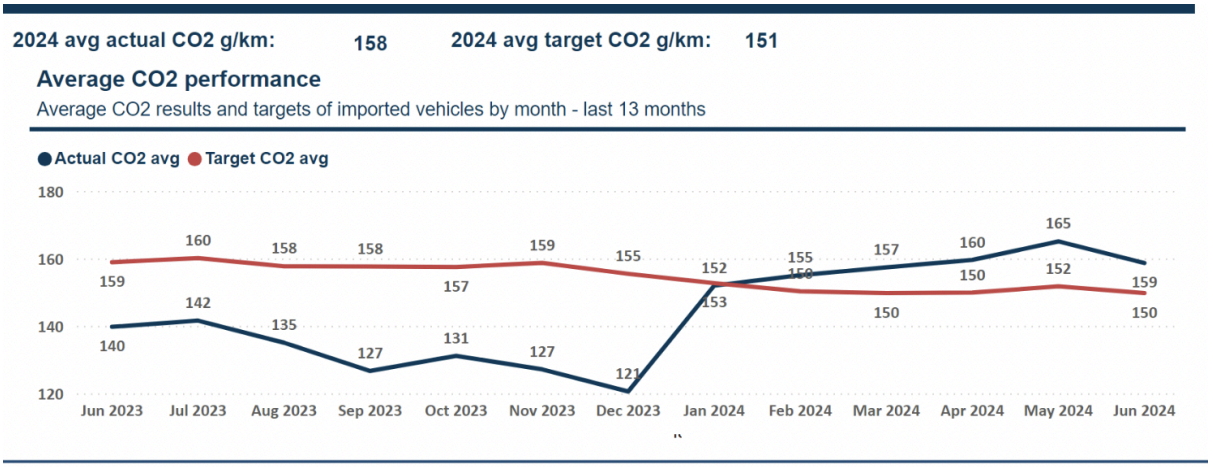
Transport

Preamble

There are no questions in the consultation relating to the uptake of low emissions vehicles in New Zealand, beyond charging infrastructure, but we will address these under question 6.8.

The uptake of electric vehicles has slowed considerably since 1 January 2024. So far this year, 9% of new passenger cars were plug-in EVs (down from 27.2% for all of 2023).[11] While the overall new passenger vehicle market is down 29% in the year to August, BEVs are down 70%.[12]

The change in composition of newly registered passenger cars is resulting in a fleet that is emitting more emissions than the year previous. The NZTA Clean Car Standard report shows that average CO2 emissions from imported vehicles have increased in 2024.[13]



Policy changes have contributed to the dramatic reduction in EV uptake, including the removal of the Clean Car Discount; the removal of the RUC exemption; and the removal of the Auckland fuel tax. This series of changes has also contributed to less positive narratives emerging about EVs. Settings are now arguably geared towards legacy vehicle technologies.

From an emissions reduction perspective, the slowing of EV uptake creates more emissions from transport. Every ICE vehicle imported into New Zealand today will continue to emit for the next 15-20 years. The technical annex of the ERP2 consultation acknowledges this by demonstrating the removal of the Clean Car Discount is contributing to the projected failure to meet the third emissions budget.[14]

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[11] https://evdb.nz/ev-stats
[12] EVDB newsletter August 2024
[13] https://nzta.govt.nz/assets/About-us/docs/oia2-2024/clean-car-discount-monthly-report-june-2024.pdf?utm_source=substack&utm_medium=email
[14] https://newsroom.co.nz/2024/07/17/nz-no-longer-on-track-for-net-zero-under-govts-new-climate-plan/

With the removal of the Clean Car Discount and Clean Car Standards staying at their previous levels (which have now been weakened), independent modelling shows:[15]

- There would be approximately 100,000 fewer EVs on the road by 2030.
- The reduced rates of EV uptake will increase non-emissions economic costs to the economy (mainly petrol and diesel) by at least $900m.
- The cumulative emissions associated with increased ICE travel would increase by at least 0.9 MtCO2e out to 2030.

The changes to the Clean Car Standard will compound the changes to the Clean Car Standard. Our independent modelling shows that if the Standard was removed entirely it would result in:[16]

- It could result in as many as 350,000 fewer EVs (PHEVs and BEVs) being on the road by 2030.
- The reduced rates of EV uptake will increase non-emissions economic costs to the economy (mainly petrol and diesel) by $2.7 billion in present value terms, rising to $3.5 billion if the increased emissions are valued using Treasury's recommended shadow carbon price.
- The cumulative emissions associated with increased ICE travel could increase to 3.0 MtCO2e out to 2030.

While the Standards have been reduced to the level of Australia's standards, and not removed, the figures reveal the directional and combined effect of removing the CCD and CCS. This is a serious slow down in EV uptake. The alignment to Australia on the Standards misses a wider reality that Australia has in place incentives at Federal and State level supporting the achievement of these Standards.

Against this backdrop of slowing electrification, the key question for policy-makers is how fast does New Zealand want to transition to electric vehicles (of all types) and reap the economic and environmental co-benefits?

Questions

6.1 Do you support the proposed actions to enable EV charging infrastructure?

In 2023 the industry installed 259 chargers and 405 charge points. In the first half of 2024, the industry installed about 130 chargers and 187 charge points. On a per month basis the number of charging units is about stable at 21, and the number of charge points being

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15 https://driveelectric.org.nz/wp-content/uploads/2023/12/Concept-Consulting-CCD-Cost-Benefit-for-Drive-Electric-1.pdf

16 https://driveelectric.org.nz/press-release-the-compelling-case-for-ev-incentives/

installed has softened from 34 to 31. Under current conditions, it seems likely that only 2,500 - 3,000 chargers will be delivered by 2030.[17]

We need an approximately seven-fold increase in the monthly install rate to hit 2030. This could require $1-1.5b in investment.

The evidence is weak that investment in public charging infrastructure alone will stimulate EV adoption. If anything EV adoption drives investment in public charging. Private capital needs confidence in New Zealand's EV transition through EV adoption rates and utilisation to invest in public charging infrastructure. Falling EV adoption is impacting business cases for charger deployment and the wider investment case, which is making it difficult for many CPOs to attract private capital.

On a government investment model, the mechanism for funding and the level of funding must be set in a way that it:

- Overcomes barriers to investment and deployment (EV adoption, utilisation, regional disparities, network costs)
- Catalyses the necessary private capital (~$1b-$1.5b)
- Delivers a comprehensive charging network that meets customer need

An investment model needs to be designed in concert with the organisations that are going to deliver chargers under the model.

Concessional loan

As at the time of writing, the Government is proposing a concessional finance scheme. The industry has conveyed its concern with this scheme as currently described. Industry is requesting the opportunity to engage directly on the development of a model that will catalyse investment and meet government priorities. It is essential that this model is designed with comprehensive industry input.

We have surveyed the industry, and there is concern in the CPO industry about a concessional loan model as described and the ability of this model to attract capital and overcome the barriers to investment that exist, namely EV adoption, utilisation, and network costs.

Additionally, we are struggling to identify comparable and effective international government investment models using concessional debt to provide the evidence that this model will work in New Zealand.

Under this concessional loan model, for those New Zealand-based CPOs looking to attract private capital, the real risk here is that capital does not come at the quantum necessary. It is instead possible it goes to other markets where there are more attractive market and policy conditions for EV charger investment, for example Australia.

[17] Drive Electric analysis of nine charge point operators.

For other CPOs in New Zealand (locally or globally owned) that are investing off balance sheets or with internal sources of capital, the risk is the loan model doesn't address the barriers they are experiencing and so deployment cannot accelerate at the pace necessary. It's important that a model works for a range of CPO business and investment models.

On the matter of network connections, we refer to our answer in 6.2.

6.2 What are the three main actions the Government can do to reduce barriers to and enable the development of a more extensive public EV charging infrastructure in New Zealand (without adding too much cost for households and businesses)?

EV adoption and getting the government investment settings right are critical to deploying EV public charging infrastructure. We have covered these in 6.1. Additionally, we need to consider network connection prices and processes. We have previously provided the Government and regulators considerable evidence around the challenges with network connections, and this is picked up in MBIE's own Baringa report.[18]

We acknowledge the business context for EDBs. They have complex and dense networks to manage, and these networks are the critical infrastructure that connects households and businesses to the national grid. EDBs are also regulated businesses. They have many trade-offs to manage and electrification of the economy presents an enormous investment challenge. In the specific context of connections, EDB experience to date with load connections has largely been one-off connections, or multiple homogeneous connections (e.g., housing developments).

EDBs are also required to abide by the Commerce Commission's regulated price pathway, which operates on a 5-year cycle (e.g., DPP3 2020-2025). This framework provides certainty for most consumers in prices but creates limitations on investment by EDBs. It is essential that the allowances and revenue caps set by the Commission enable EDBs to undertake the necessary investment to support the electrification and decarbonisation of the New Zealand economy, including investing in reinforcing and upgrading networks.

There are three components of an efficient and effective system for network connections by access seekings, including public EV chargers, that need consideration:

- enhanced electricity network visibility
- streamlining electricity network connection process
- consistent approaches for connecting pricing across networks

An independent report from Sapere, Achieving Efficient Investment in Public EV Charging, will follow our submission on this consultation. The following provides some of the key findings.

The outcomes required for an efficient connection access and pricing regime - especially for CPOs (but relevant to all access seekers):

The outcomes required for an efficient connection access and pricing regime - especially for CPOs:

[18] https://www.mbie.govt.nz/assets/baringa-ev-international-case-studies-report.pdf

1. A clear and predictable commercial framework for access which enables CPOs to:
   a) efficiently evaluate both price and connection capacity for prospective locations and deploy investment accordingly;
   b) have confidence that connection prices (capital contributions and use of system charges) are cost-reflective, do not unduly deter efficient investment in charging infrastructure, and have been developed via a robust and transparent methodology.
2. The commercial framework above can be secured by reasonable and balanced contracting terms
3. National consistency of these access and pricing arrangements, allowing CPOs to deliver an efficient national public charging network across multiple EDBs
4. An access regime that enables the greatest degree of competition for deployment of EV charging networks
5. The performance of the overall connection access and pricing regime to be overseen, monitored and evaluated by a regulatory or policy agency

Collectively, these outcomes (and the deliverables that sit under each of them) would achieve a future state where the level and pace of CPO investment stands the best chance of delivering public EV charging infrastructure that would support, and not constrain, growth in the EV fleet.

Progress towards these outcomes is underway, but needs additional measures

Our review of the current connection arrangements, and the various work streams underway today of relevance to CPOs, suggests:

- The status quo arrangements fall short of the outcomes above;
- While regulatory and industry work is underway, relevant to most outcomes, we cannot say whether these will sufficiently 'close the gap' between the current state and the outcomes;
- This is partly a result of there being no comprehensive description or vision of the resulting connection access and pricing 'system' that is desired and being worked towards.
- Equally, while there are two regulators and a number of industry groups working towards a more efficient connection access and pricing regime, it is not clear how this work is being coordinated and sequenced, or monitoring the degree to which the improvements are delivering a connection access and pricing system that is in the public interest.

We have previously made recommendations to the Minister of Transport and Energy and the EV Charging Taskforce on the importance of identifying the end state and putting in place a road map to the desired outcome to enable coordination and monitoring.

Recommendations for action

Below we include a set of recommendations that would close the gap between today's reality and our ideal outcomes. This list is by no means exhaustive, and does not preclude other ways of achieving the outcome. These five actions are included as, collectively, they support the 5 outcomes above, and we believe they are all actionable in the near-term.

1. Amend the recent changes to the Commerce Commission's information disclosure regime to achieve materially improved digital network visibility[19] and ensure there is

[19] Commerce Commission's targeted information disclosure review 2024 final decisions to relieve network constraints (Amendments D3.1, D3.2 and D3.3)

alignment with the connection pricing workstream of the Electricity Authority's Distribution Pricing Reform[20].

2. The Authority to incorporate a set of distribution pricing principles into the Code that give connecting customers confidence that connection prices are cost-reflective and do not unduly deter efficient investment in charging infrastructure, with appropriate monitoring and enforcement
3. Augment existing Code provisions[21] for distribution network connections to include all types of network connections (including public EV chargers) with the clear purpose of enabling efficient network connections.
4. Ensure that mechanisms under the control of the Commerce Commission and Electricity Authority, which deal with competitive practices, apply to all connections including for EV charger access.
5. Identify which entity should have an overall responsibility for articulating the future connection access and pricing system that is desired, monitoring the degree to which regulatory and industry changes deliver progress towards that system, and lend it some urgency.

We acknowledge there is also some voluntary work underway to streamline connection processes by Electricity Networks Aotearoa, Electricity Engineers' Association, and the Electricity Authority. This work is welcomed and essential. At the time of writing, we understand a roadmap is being prepared that outlines that work programme and what it intends to achieve by when.

A word on investment pricing

We are concerned that, regardless of the outcome of the EA's consideration of pricing principles, it may still be the case that network costs (upfront and/or ongoing lines charges) are 'too high' to encourage rapid investment in EV charging. There are obviously real costs attached to network connections and reinforcement and limits placed on investment by EDBs through DPP4 and these need to be paid for. At the same time, if these costs are too high for EV public charging business models and investment cases there may be a market failure. We recommend the Government undertake some work to understand if this is the case before this situation reveals itself after any pricing changes are made by the EA (if intervention occurs) later in the decade.

We also note that enhanced network visibility can also play a role here in potentially mitigating this scenario, as it would allow access seekers to determine which more cost effective options are available for connections - which gives them some control over price.

6.3 Do you support the Government's proposals to reduce emissions from heavy vehicles?

We support the EECA grant programme for heavy vehicles. We believe the quantum of funding should be reviewed in 2025 to ensure it can sustain uptake of these vehicles.

Additionally, we believe the funding programme should be extended to include vans and

[20] Electricity Authority's Distribution Pricing Reform – Next Steps workstream (Section 3 and upcoming report from the Network Connections Technical Group)

[21] Electricity Authority Electricity Industry Participation Code 2010 Part 6. This Code only applies to the connection of distributed generation. There is no equivalent Code that applies to the connection of demand-side customer connections.

lighter trucks. Decarbonising these vehicles in cities for deliveries, provide significant opportunities in terms of the reduction of emissions and air pollution. EV technologies for vans and light trucks exist and are well adopted in Europe. A short-term incentive programme could attract greater supply into the New Zealand market. (These vehicles were not eligible for the previous Clean Car Discount, given the pricing thresholds.)

We support a review of the Vehicle Dimensions And Mass (VDAM) rules. For example:

- The Vehicle Dimensions And Mass (VDAM) rules are no longer fit for purpose, not only for electric heavy vehicles but also diesel heavy vehicles. Electric heavy vehicles, as well as a large number of new diesel heavy vehicles, have to apply for overweight permits. The processing of these applications can take 1-2 months resulting in productivity losses and costs. VDAM regulations need to be reviewed to allow for electric vehicle designs, and automatic exemptions for electric heavy vehicles should be given until updated VDAM rules are in place.
- Road User Charges (RUC) category definitions also need adjusting to allow for electric trucks.
- Payload concessions for electric trucks.

We support that charging for heavy and lighter freight vehicles should be considered as part of the Government's SuperCharging EV Taskforce. There are some very practical things that could be considered:

- Ensuring government investment can be made available to decarbonise private charging depots, given site owners often face some of the same barriers to investment as public charging providers (namely cost of network connections). Additionally, fleet owners of trucks need time to electrify their fleets, whereas a charging depot is an upfront enabling cost.
- Working with existing charge point operators to ensure that appropriate charging stations are accessible for vans and light trucks (e.g. that there are bays that allow for charging of vans and light trucks that utilise the same charging capacities as light vehicles).
- Ensuring government investment is available for public charging facilities for heavier vehicles and marine (e.g. MegaWatt Charging), as it is for public charging operators for light vehicles.
- Ensuring government investment provides charging accessibility for subcontractors/owner-operators/owner-drivers who may not have access to off street parking.

6.4 What are the three main actions the Government can do to make it easier to switch to low- and zero-emissions heavy vehicles (without adding too much cost for households and businesses)

There is an opportunity to develop a pathway for all types of heavier vehicle: vans/light/medium/heavy vehicles, which identifies barriers to adoption and focuses first on where there are the biggest gains to be made and where electric technology is already proven and available.

The RUC exemption needs to be maintained beyond 2025 for three years, and then reviewed again, to contribute to TCO to help owners invest in low emissions vehicles.

Emissions standards for heavier vehicles need to be reviewed, and Euro VI should be considered. New Zealand should look to align with Australia on emissions standards for heavier vehicles to help ensure we can source heavier vehicles from global suppliers.

Licence classes need to be reviewed for drivers of electric trucks. Light electric trucks can be heavier than their diesel alternatives, which can push the same model of truck into the next licence Class. For example, a light truck up to 6.000kg gross laden weight can be driven on a Class 1 (car) licence, but an electrified version of the same model truck may weigh 7,000kg, requiring a Class 2 licence (i.e. from Class 1 to Class 2). This has an impact on the number of drivers available for light electric trucks. Given the shortage of truck drivers with Class 2 or higher licences, this is a disincentive to companies purchasing electric trucks. Electric trucks often have enhanced, modern safety features compared with equivalent diesel trucks, so the current policy may work against safety in this example.

Driving hours/logbook regulations need reviewing as some electric trucks might take longer to recharge enroute than the 30-minute rest break allowed for drivers in existing regulations. Updated regulations should ensure that total daily working hours for drivers acknowledge extended rest breaks.

6.8 Please provide any additional feedback on the Government's thinking about how to reduce emissions in the transport sector.

Irrespective of the policy settings for EVs, there's an opportunity to enhance the narrative about the positive benefits to consumers and businesses of electrification. In most cases, switching to light EVs remains the more economic choice from a running cost perspective. Over time this will only become more true as cheaper EVs arrive.

6.8a) RUC inequities

The current RUC system disadvantages electric vehicles. Analysis from the Motor Industry Association shows the equivalent road tax (either fuel tax or RUC per 1000km) from 1 April 2024[22]:

- BEV: $76
- Diesel: $76
- Petrol: $61.7
- PHEV: $51.6
- Petrol Hybrid: $39

These rates advantage petrol and petrol hybrid vehicles over battery electric vehicles. This inbuilt disadvantage needs to be rectified urgently, particularly if a universal RUC is sometime away. This current system creates an economic incentive for petrol and petrol

[22] For more analysis see: https://www.parliament.nz/resource/en-NZ/54SCTIN_EVI_60f18385-f31e-4c3e-1dba-08dc38a90c66_TIN815/6f680f9cd58b117c963f8d0b08fc19496c1dd28b

hybrid vehicles relative to EVs, it has also confused the message about the overall benefits of EV uptake to consumers in terms of lower running costs.

We also need to be concerned about the psychological impact of reducing petrol taxes by $0.70c per litre when the Fuel Excise Duty (FED) is removed and replaced with RUC for all vehicles. If not managed carefully this could actually provide a further incentive for vehicle owners to stay with petrol cars or choose new petrol cars. There is both an actual incentive (reduction in petrol price, albeit likely to be at least partially offset overall by a RUC) and psychological incentive (the experience of cheaper petrol prices, which are paid far more regularly than a RUC).

It's also worth considering the petrol tax is currently equivalent to a carbon charge of $360/tCO2, so this would amount to a hefty carbon tax cut and could also act to increase transport emissions.[23]

6.8b) Use FBT settings to encourage EV uptake

We continue to believe there is the role of a short term well targeted incentive to support EV uptake to accelerate the broader economic benefits of electrification. If we take into account the current fiscal context, FBT and accelerated depreciation are two possibilities.

Around 60% of new vehicles are purchased by businesses. Ultimately, cars bought by businesses end up in the secondhand fleet, after two to five years. So policies like this ultimately benefit the consumer in the form of more affordable EVs.

Depreciation could be accelerated on cars in business fleets to encourage them to turn-over the cars more quickly, thereby adding supply to the second hand market.

Currently, FBT can act as a disincentive to EV adoption as it is collected at higher rates than on equivalent ICE/diesel vehicles. FBT settings could be adjusted to remove that inequity. The alternative is to consider an FBT exemption. We note that the FBT scheme is in place which sits alongside Australia's forthcoming emissions standards.

We briefly explore these two options below.

A) Reduction - level the playing field

Given that FBT is a considerable annual expense, and EVs are comparatively more expensive than ICEs, FBT is currently acting as a disincentive to EV uptake.

FBT is applied only to the capital costs of vehicles, as a proxy for the capital, fuel and maintenance cost private benefits that accrue to private use of a company vehicle. Because EVs remain more expensive than ICE equivalents and have comparatively lower running costs, EVs attract much higher effective FBT than an equivalent ICE vehicle. (See this report, pp 60-63).

[23] https://blog.planetaryecology.org/2024/07/16/government-drastically-weakens-emissions-standards/

A mechanism could be introduced to alter the calculation for FBT on EVs. FBT is calculated on “Cost price (including GST) x days/90 x 5%” – that could be reduced to X% for electric vehicles to recognise that FBT is actually charged at a relatively higher rate on EVs. There is a precedent for this in terms of the Inland Revenue mileage rate, which provides different rates for ICE vehicles, hybrid vehicles and electric vehicles.

B) Extend the existing exemption for e-mobility to EVs

The FBT rates are designed to align with the marginal tax rate of the relevant employee, and reflect the tax deduction available to the employer. Employees with company cars are likely on the 33% or 39% marginal tax rates, meaning the FBT payable would be 49.25% or 63.93%. For example, a $50,000 electric vehicle made available for private use to an employee on the top marginal tax rate would cost nearly $6,400 of actual FBT. An exemption would remove this component.

There is precedent for such a policy in New Zealand. Bicycles, electric bicycles, scooters, electric scooters, and micro-mobility share services are already exempt from fringe benefit tax where they are being used for commuting to and from work. If this went ahead we would recommend applying it to e-mopeds and e-motorbikes.

If an exemption is considered, it should be on a time limited basis, until price parity occurs between ICE and EVs. Additionally, increasing EV uptake would also increase the RUCs and GST collected by the Crown, which will defray the reduction in FBT. GST collected on an EV is likely to be higher than an equivalent ICE, given the relative cost of an EV.

6.8c) *Future of Clean Car Standards*

We are concerned that the recent review of the Clean Car Standard was done using a narrow consultation, and did not consider views from the EV industry or the wider public. When the Standards are next reviewed, it is important that a wider set of perspectives are taken into account.

It is critical that when ‘affordability’ of vehicles for consumers is considered, that these calculations include the affordability of ownership of electric vehicles - not just upfront costs of vehicles. These calculations of ‘affordability’ need to also consider the economic costs to the economy of slowing down a cleaner fleet, including social costs associated with pollution or any contingent liabilities arising to meet the Paris Agreement.

On the changes to the Standards we are also concerned that these have been and are being adapted in ways which undermine future confidence in the scheme’s ability to reduce emissions. These changes include:

- Allowing the Minister to change the Standards under regulation before 2027, which means these Standards could be reduced again with limited consultation.

- Making the Standards easier to achieve by adding more flexibility into the use of emission credits and payment of charges.

6.8d) Support private charging installation in residential and commercial buildings

In New Zealand, currently 82% of charging is done at home.[24] There are issues that need to be addressed around at-home charging including the adoption of smart charging, retrofitting apartment buildings, safety rules etc. Smart charging will help make the most of New Zealand's existing electricity infrastructure and avoid unnecessary capital investment, by helping manage peak demand. It is critical that measures are taken to support widespread adoption of 'smart chargers' in parallel with the adoption of Electric Vehicles (EVs). EV smart charging could save the New Zealand economy close to $3 billion by 2035.[25]

The membership of Drive Electric has identified these policy concepts as important to the uptake of private charging:

1. *Regulate the definition of smart chargers to enable demand response*

We ask that the Government regulates the definition of smart chargers to enable demand response. A regulated definition is important so that consumers can choose and trust the technology and that smart chargers are equipped with the right functionality. Smart charging has the joint benefit of saving consumers money and moderating the impact of EV charging on the electricity grid. Countries like the UK and China have put in place such regulations. We understand that this work has commenced, and would encourage its conclusion.

2. *Support consumer uptake of smart chargers*

Consider the role of the Government to inform consumer decision-making regarding smart chargers through education, incentives (which include the in-built incentive of cost savings), and working with electricity retailers and vehicle retailers. Australian states are doing this in various ways, which would be a useful point of consideration. We understand that this work has commenced, and would encourage its conclusion.

3. *Put in place the right policy framework to enable Vehicle to Grid (V2G) technology*

Complete an assessment of whether any additional policy and regulatory settings are required to enable V2G in New Zealand, and implement any required changes to enable the uptake of this technology by consumers and businesses. Countries like Japan, the UK and Norway provide useful case studies. Industry is anticipating products that are AC V2G enabled arriving over the next 12 months. We understand that this work has commenced, and would encourage its conclusion.

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24 https://www.climatecommission.govt.nz/our-work/advice-to-government-topic/advice-for-preparation-of-emissions-reduction-plans/2023-draft-advice-to-inform-the-strategic-direction-of-the-governments-second-emissions-reduction-plan-april-2023/full-report/

25 https://web-assets.bcg.com/b3/79/19665b7f40c8ba52d5b372cf7e6c/the-future-is-electric-full-report-october-2022.pdf

4. *Mandate EV charger installation in new commercial buildings*

Introducing charging infrastructure requirements for new developments, by setting requirements for active chargers and passive (cabling). This has been done in the UK (and other European countries). The UK has mandated charging points and re-cabling in new commercial builds and also major renovations, since June 2022 through Part S of its building code. It is more cost effective to install charging infrastructure during the build stage, and this will play a critical role in allowing businesses and consumers to choose electric.

5. *Mandate EV charger installation in new apartment buildings*

Introducing charging infrastructure requirements for new residential developments (apartments), including both active chargers and passive (cabling). For example, Australia has adjusted the National Construction Code so that from October 2023, base infrastructure for future cabling and control-point installation must be done at the time of construction. It is more cost effective to install charging infrastructure during the build stage, and this will play a critical role in allowing businesses and consumers to choose electric. In some jurisdictions, including in Australia, government funds are being established to retrofit apartments.

6. *Mandate right to charge legislation for tenants*

Ensure that tenants have the right to install and use EV charging infrastructure at their rented residences (at their cost), given that around 32% of New Zealanders are renters. This has been done in the UK, other European jurisdictions, and in parts of the US.