

AIDE MEMOIRE: CABINET PAPER SEEKING AGREEMENT TO AN ELECTRIC VEHICLES PACKAGE

Title	Electric vehicles: package of measures to encourage uptake
Committee	Cabinet Economic Growth and Infrastructure Committee (EGI)
Issues	EGI is expected to consider this Cabinet paper at its meeting of 16 March 2016. The paper seeks agreement to a package of measures to encourage the uptake of electric vehicles.
Ministerial Consultation	Minister of Finance Minister of Revenue Associate Minister for Economic Development Minister for ACC Minister for Climate Change Issues Minister for the Environment

Talking points

- Transport accounts for around 17 percent of New Zealand's greenhouse gas emissions. It was the second largest consumer of energy in 2014 and more than 99 percent of transport energy is oil-based.
- Electric vehicles (EVs) are part of a response that looks to adopt new technologies as a means to transition to a low carbon economy without compromising individual mobility or economic growth. EVs are a technology that is well suited to New Zealand. They represent an opportunity to leverage New Zealand's abundance of renewable electricity to reduce transport emissions.
- However, a number of barriers stand in the way of New Zealand realising the benefits from EVs. Officials have worked with key business leaders and local government to develop a joint package of measures to address these barriers and speed the uptake of EVs.
- The proposals in this paper represent central government's contribution to this package.

I propose that the Energy Efficiency and Conservation Authority deliver an EVs information campaign to build awareness and dispel myths about EVs

- The campaign would target businesses and household consumers over a period of five or more years.
- The campaign would aim to increase the purchase of EVs by addressing information problems. These problems include a lack of awareness of EVs, uncertainty about the total costs of ownership, expectancy of battery life, what, if any impact to the environment disposing of batteries may cause, and other misconceptions about EVs.
- To enable the campaign to begin, I propose that the Energy Efficiency and Conservation Authority commence work in 2015/16 using reprioritised funding, and that from 2016/17 it reprioritise \$1 million per year from its existing baseline for an initial period of five years 2016/17-2020/21.

I propose that the Ministry of Business, Innovation and Employment investigate the feasibility of joint procurement across the government and also across private sector fleets to help overcome supply problems

- Stakeholders involved in developing the government-industry package of measures to speed the uptake of EVs identified joint procurement as a potential way to reduce the relatively higher purchase prices of EVs and the limited variety of models available in New Zealand.
- The Ministry of Business, Innovation and Employment would investigate the feasibility of having joint public and private sector fleet procurement, and report back to the Ministers of Transport and Economic Development by 30 June 2016.
- The costs of the investigation into the feasibility of joint procurement would be funded by the two departments' existing baseline funding.

To maximise the efforts of industry and government in addressing the barriers to EV uptake, and to encourage innovation, I propose establishing a contestable fund of \$6 million per annum

- The fund would be invested in projects that accelerate the uptake of EVs, and for innovations to encourage EV uptake that would not otherwise be funded.
- Projects could be developed by businesses, local communities, or government, but to be funded, projects would be required to commit co-funding.
- I propose the contestable fund of up to \$6 million per year will also cover the costs of establishing and administering the fund. It is expected that at least \$1.5 million of the fund for 2016/17, and \$1 million each year thereafter would be invested in the procurement measures that I will touch on in a moment.
- The contestable fund will initially be created through a mixture of reserves and reprioritised existing baseline from the Energy Efficiency and Conservation Authority of up to \$4 million through to the end of 2016/17.
- For years beyond 2016/17, I am considering options to recover the cost of the fund through a levy on consumers. Two possible levies are the levy on electricity industry participants (the Electricity Levy), and the levy on petrol and diesel consumers (the Petroleum Fuels Levy).
- Primary legislation changes would be required to use either of these levies for the new EV contestable fund.
- Further work, including formal public consultation, is needed to determine the most appropriate existing levy for the contestable fund, including principles for funding allocation.
- I seek agreement to report back by 30 May 2016 with policy decisions on the establishment of the fund. This report back will also provide advice on other funding options for the contestable fund and the financial implications of any direct or indirect subsidies.
- I also propose that the criteria for allocating the fund, and co-funding requirements be approved jointly by the Ministers of Transport and Energy and Resources, based on the guiding principles Cabinet is to agree.
- Once established, I propose that the Energy Efficiency and Conservation Authority administers the fund, with oversight from the Ministry of Business, Innovation and Employment.

- This contestable fund will be developed as a tool to promote EVs as they are already available and are a proven technology. However, I am aware that there are other technologies, including hydrogen, that may also have an important role to reduce emissions in New Zealand. I will ask my officials to consider how the scope of the fund might be expanded in subsequent years to include activities to promote other low and zero emissions technologies.

Meaningful procurement measures are needed to tackle the supply and demand issues facing EVs. These include an EVs demonstration, a financial 'kickstarter' for government agencies, and uptake targets

A demonstration of EVs in government fleets

- To build demand and to show commitment to EVs, I propose that the Ministry of Business, Innovation and Employment administer an EVs demonstration programme across the government fleets.
- The trial is initially intended to have 24 vehicles in four government fleet locations. Subject to funding being available, the demonstration could begin in the 2016/17 financial year and run from one to three years.
- In the first year, 2016/17, the demonstration would require one-off funding of approximately \$500,000 to cover the incremental costs of the demonstration vehicles along with the costs of administration, monitoring and the production of case studies for public sector fleet managers. Future costs would depend on the outcomes achieved. I propose that this funding be sourced from the contestable fund outlined above.
- Depending on the outcomes achieved, the demonstration could be scaled up. I propose that the Ministry of Business, Innovation and Employment report to the Ministers of Transport and Economic Development on the potential for the demonstration to be expanded, within six months of the trial commencing.

A financial 'kickstarter' for the purchase of EVs in government fleets

- Given the current constrained funding environment, it is likely that government agencies will favour cheaper conventional vehicles over an EV equivalent.
- To overcome this resourcing barrier, I propose that a financial 'kickstarter' be available to government organisations that are eligible to purchase from the All-of-Government vehicle catalogue.
- The 'kickstarter' would provide funding to cover the price differential between a conventional vehicle and an EV equivalent. This is designed to achieve a critical mass of EVs into government fleets.
- To do this, I propose that funding of \$1 million per year be made available. This funding would come from the contestable fund outlined above.

Committing with industry and local government to a 'New Zealand Inc' uptake target

- Stakeholder consultation indicated that the private sector in particular wanted a target for EV uptake and one that demonstrated the Government's commitment to reducing transport emissions via EVs.

- Based on the stakeholder feedback, I propose a target of EVs making up two percent of the vehicle fleet by the end of 2021. To achieve the target, new EV registrations would need to double each year until 2021. That means increasing annual registrations of EVs from about 500 in 2015, to 32,000 in 2021 (e.g. 1,000 in 2016, 2,000 in 2017, 4,000 in 2018, and so on).

To help ensure that the growing network of charging stations is safe and cohesive, I have asked the NZ Transport Agency to support private sector development of public charging infrastructure

- Using its existing funding, the NZ Transport Agency will clarify the regulatory framework for charging infrastructure, and provide national information and guidance for public charging infrastructure.
- Development of charging infrastructure needs to be supported in a way that is complementary to and does not compete with private investment. Therefore, I do not propose direct government funding or ownership of public charging infrastructure.
- Information about public charging infrastructure will also be covered by the proposed campaign to be delivered by the Energy Efficiency and Conservation Authority.
- The Energy Efficiency and Conservation Authority and the New Zealand Transport Agency will coordinate their EV activities.
- As well, officials from the Ministry of Transport and the Ministry of Business, Innovation and Employment will continue to monitor how the charging infrastructure develops, including the impact of EVs on national and local electricity infrastructure.

As a financial incentive for uptake, I propose extending the road user charges exemption for light EVs from 30 June 2020 to 31 December 2021, and introducing a road user charges exemption for heavy electric vehicles until 31 December 2025

Exemption for light EVs

- Light EVs are currently exempt from road user charges until 30 June 2020. Exempting EVs from road user charges is a transparent and efficient way of providing a financial incentive to encourage consumers and businesses to opt for EVs over equivalent conventional vehicles.
- The current exemption, provides an owner with a subsidy of around \$2,500 between now and 2020 when it is set to expire.
- I propose to amend the existing road user charges exemption for light EVs until 30 December 2021, which is when I expect the two percent uptake target to be met. This is an 18 month extension from the existing end of the exemption.
- Officials will carry out a review in 2019 as to whether the two percent target is likely to be met by then. They will recommend adjustments to the end date if needed at that time.

- At this threshold, the maximum foregone revenue would be in the order of \$35.7 million per year, based on current road user charges rates.

Exemption for heavy EVs

- I propose that additional amendments are made to enable an exemption for heavy EVs (i.e. trucks and buses) from road user charges, as the current exemption only applies to light vehicles.
- This exemption will initially last until 2025, rather than 2021 as for the light vehicle RUC exemption, as it is likely it will take longer for them to reach two percent of the heavy vehicle fleet (3,000 vehicles). The end date would also be reviewed in 2019.
- A two percent uptake of EVs across the heavy vehicle fleet by 2025 would result in foregone revenue of about \$24 million per year, once the threshold is reached. A two percent uptake of EVs across the heavy vehicle fleet by 2030 would result in foregone revenue of about \$29 million per year.

Foregone revenue risk

- A loss of foregone revenue in the order of up to \$40 million might be experienced by the end of 2021. This would be followed by a maximum of \$29 million per year foregone revenue by 2030, assuming two percent of the heavy fleet is electric by that time.
- The risk of foregone revenue would be managed as existing revenue and expenditure pressures currently are. The New Zealand Transport Agency Board would decide on the projects to be prioritised for funding in the National Land Transport Programme. These decisions would be made in line with the Government's priorities articulated in the Government Policy Statement on land transport.

I propose that Inland Revenue, in consultation with industry stakeholder groups, review the depreciation rate and the method used to calculate fringe benefit tax as they relate to EVs to ensure that EVs are not being disadvantaged by tax rules

- Industry representatives have raised concerns that these two areas of tax law may be discouraging the purchase of EVs by companies.
- Inland Revenue will review the depreciation rate and the method used to calculate fringe benefit tax as they relate to EVs, and report on the results to the Minister of Revenue and subsequently to the Minister of Transport by 31 March 2017.
- If there is evidence that shows that the current tax rules are overtaxing EVs then this would provide a strong case for change.
- Relevant industry groups, for example, Drive Electric, electric vehicle manufacturers and the Sustainable Business Council, are likely to be well placed to provide the evidence base to assist with these reviews.

I propose that my officials work with the Ministry of Business, Innovation and Employment and the ACC to investigate how the ACC levy overcharge on plug-in hybrid EVs might be addressed

- Currently the owners of petrol plug-in hybrid EVs pay an estimated \$15 to \$40 more per year in ACC levies than equivalent diesel or pure EV owners¹ because of the way they are classified by the NZ Transport Agency, and the way in which ACC levies are charged.
- I propose that my officials report back to Cabinet by 1 October 2016 on the results of this investigation. It is possible that changes would require amendments to legislation and these can be considered as part of the proposed package of legislative amendments presented in this paper.

As a non-financial incentive, I propose to remove the regulatory barriers that prevent Road Controlling Authorities from allowing electric vehicles into bus and transit lanes

- Allowing EVs access to bus and high occupancy vehicle lanes is the non-financial measure reported to have the highest value as an incentive to the owners.
- Enabling EVs to use special vehicle lanes would require amending land transport Rules². It would also require a minor amendment to the Land Transport Act 1998 to empower road controlling authorities to make bylaws for that purpose.
- Under this option, road controlling authorities would maintain the flexibility to choose which special vehicle lanes EVs could access, allowing them to manage transport priorities along a corridor, including balancing EV promotion with network efficiency.

To provide ongoing leadership and coordination for the total government-industry package, I propose establishing a coordinating group convened by central government

- I propose that Cabinet invite me, as the Minister of Transport, to decide on the terms of reference, membership and administrative arrangements for the EVs group.

Next steps

- If the Committee agrees to the proposed package, a public announcement will be made about the EVs package, potentially at a launch event.
- I will also publicly consult on a range of options to expand an existing levy so that one may be used to fund transport energy initiatives such as the EV package.

¹ The issue does not arise if a plug-in hybrid also uses diesel power, as it would not pay the ACC levy as part of the fuel costs. At present there are no diesel plug-in hybrid electric vehicles.

² The Land Transport (Road User) Rule 2004, and related provisions in Land Transport Rule: Traffic Control Devices 2004.

Speaking points to address Treasury's comments

Contestable fund

- I propose to report back with recommendations for funding options, which include possible changes to an existing levy, and principles for allocation of the fund, by 30 May 2016 (noting there would be public consultation on the expanded levy options before then).
- I consider that the principles Cabinet is to agree will help ensure that the activities supported through the contestable fund are of high value.
- In the first instance, the contestable fund is a tool to promote EVs. Because New Zealand's electricity is largely generated from renewable sources, we can reduce greenhouse gas emissions from transport by using electric vehicles, more so than countries that use non-renewable energy sources.
- I am aware other low emission technologies may also play a role in reducing greenhouse gas emissions from transport, such as hydrogen fuel cell vehicles.
- However, I see EVs are a 'here and now' opportunity. Several models of plug-in EVs are currently offered in New Zealand, and I expect more will be introduced in the coming year. For some motorists, the total cost of owning an EV is already similar to a petrol or diesel vehicle.
- For this reason, I think it appropriate that the contestable fund begin as a measure to encourage the uptake of EVs. However, I will ask my officials to consider how the fund might be expanded to include activities to promote other low and zero emissions technologies.

Road user charges exemption

- EVs currently make up less than 0.03 percent of the fleet, projected to be 2 percent by the end of 2021. Exempting EVs from road user charges therefore represents a relatively small amount of forgone revenue, and can be considered an investment in evolving our land transport system.
- I recognise that EVs will need to become subject to road user charges in future once uptake exceeds the limits proposed in this Cabinet paper.
- The road user charges exemption is time bound. The Road User Charges Act 2012 requires that the Order in Council which specifies the period during which road user charges are not payable by light EVs must specify the date on which the exemption expires.
- The exemption for light EVs is currently in place until 30 June 2020. The proposal to extend the exemption for light EVs will require amending the period set out in the Road User Charges (Exemption Period for Light Electric RUC Vehicles) Order 2012 to state that the exemption applies until 31 December 2021. This will give consumers certainty about the minimum period for which the exemption will last.
- Similarly, introducing a road user charges exemption for heavy EVs, will also require an Order in Council that specifies an end date for this exemption.