



Energy Efficiency and Conservation Authority
Te Tari Tiaki Pūngao

To: Hon Dr Megan Woods
MINISTER OF ENERGY AND RESOURCES

CC: Hon Julie Anne Genter
ASSOCIATE MINISTER OF TRANSPORT

CC: Hon David Parker
MINISTER OF ECONOMIC DEVELOPMENT

Barriers to Electric Vehicle Uptake in the Government Fleet

Date: 15 March 2018

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Consultation:	Ministry of Transport (MOT), Ministry of Business, Innovation and Employment (MBIE), New Zealand Transport Agency (NZTA), Ministry for the Environment (MfE) and Department of Internal Affairs (DIA)		

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Background

1. This briefing follows on from EECA's previous advice and discussions with you about EVs and emission reduction opportunities for public and private sector fleets.
2. On 12 February, you requested advice on:
 - a. a stocktake of EVs in the government fleet;
 - b. barriers to government organisations' EV uptake;
 - c. background on the barriers to private sector fleet uptake; and

s 9(2)(f)(iv)

4. MOT is briefing Minister Genter on options to enhance the Government's EV Programme. EECA has contributed to the development of these options and we understand that you will be provided a copy of the briefing shortly.

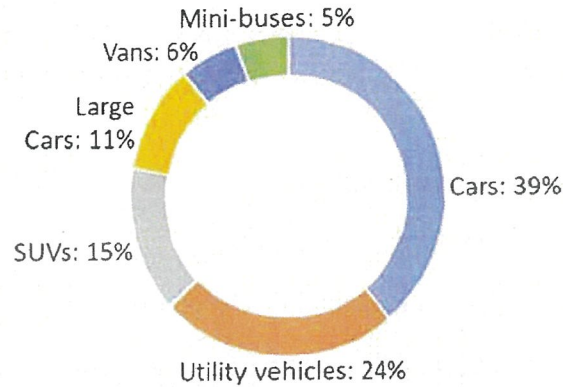
The Government's fleet and the All-of-Government vehicles contract

5. Each government organisation manages its own fleet and determines the quantity and type of vehicles it purchases.
6. The New Zealand Government Procurement and Property Branch (NZGPP) of MBIE administers the All-of-Government (AoG) vehicles contract, which provides public sector organisations with substantially discounted prices for new passenger and light commercial vehicles.
7. Data from the 351 organisations which use the AoG buy (which are considered to account for the majority of the government fleet) indicates these organisations' fleets combined (including local government) contain:

Light commercial vehicles	Light passenger vehicles	Total vehicles
Approx. 9,300	Approx. 16,400	25,700

8. Government organisations using the AoG contract purchase approximately 4,000 vehicles annually. The graph below illustrates the types of vehicles bought by these organisations each year.

Types of vehicles purchased by government organisations



9. Approximately 40 per cent of the vehicles purchased through the contract are in a 'class' in which an EV is also currently available – compact and medium-sized passenger cars, medium cargo vans and large SUVs
10. In 2016, as part of the EV Programme, NZGPP amended the AoG contract so that any supplier of new EVs could apply at any time to be added to the contract's EV supplier panel. Audi, Mercedes, and Renault applied, and all three were added to the EV supplier panel along with the pre-existing suppliers (BMW, Hyundai and Mitsubishi).
11. However, the Hyundai Ioniq (sedan) and Renault Kangoo (van) are the only fully electric, non-luxury vehicles available through the AoG contract. The full list of EV models is available in Annex 1.
12. Using the Motor Vehicle Register, NZTA has identified 226 EVs that are currently registered to government organisations (excluding New Zealand Post's 'Paxter' delivery vehicles).
13. Of these, 84 EVs were purchased through the current AoG contract since it began on 1 July 2015, of which 72 were purchased in 2017.
14. It is anticipated that the 142 additional government-owned EVs identified by NZTA include any EVs that were purchased:
 - a. before EVs became available through the AoG contract, or
 - b. outside of the AoG contract (e.g. some organisations may have purchased used EVs in order to access a lower purchase price).

Top 25 vehicles purchasers by Government organisation (**Commercially Sensitive**)

15. The below table illustrates the top 25 organisations which have purchased cars and SUVs since July 2015, through the AoG contract. These organisations have purchased 3,050 vehicles in the past three and half years. Potentially, EVs could be 'fit-for-purpose' and substituted for these conventional vehicles in these organisations.
16. However, the capital cost and charging infrastructure costs will continue to be major barriers to EV uptake. Due to NZGPP's confidentially agreements with organisations, this information is considered **Commercially Sensitive**.

s 9(2)(i), s 9(2)(ba)(i)

s 9(2)(i), s 9(2)(ba)(i)

[Redacted Content]	
Total	3,050

Barriers to transitioning the Government's vehicle fleet

18. Through its EV related activity and engagement, NZGPP has identified the following factors which may be barriers to EV uptake. The net effect of these barriers is that government organisations face significant difficulty transitioning to EVs.

Higher price of EVs

19. The higher purchase price of EVs is considered the greatest barrier to uptake. Currently, new EVs cost significantly more than equivalent conventional vehicles, both in terms of purchase price (the capital cost) and total cost of ownership (TCO). Analysis of the vehicles and pricing currently available through the AoG contract shows that in each vehicle class that includes EVs:

s 9(2)(i)

[Redacted Content]

¹ Purchased through the AoG catalogue and includes sub-compact, compact and medium sized cars and SUVs.

Limited variety of EVs available and brand perception

20. The variety of EV models available as new vehicles in New Zealand and consequently through the AoG contract are presently very limited.
21. The majority of EVs currently available are perceived as 'luxury brands' (e.g. BMW, Audi, Mercedes, and Renault) and therefore most public sector organisations deem them unsuitable as government fleet vehicles.
22. Currently the AoG catalogue recommends 110 vehicles in total. This includes 16 EVs (compared to 40 conventional vehicles) in the compact and medium sized passenger car, medium cargo van and large SUV classes.
23. Approximately 40 per cent of the vehicles purchased through the AoG catalogue are in one of these classes. The AoG vehicles contract is sufficiently flexible to enable new EV models and/or new suppliers of EVs to be added to the contract at any time.

Funding vehicle purchases

24. It is understood that some government organisations may not set aside the depreciation claimed on existing vehicles for replacing vehicles, resulting in vehicle replacement competing with other areas of expenditure for access to capital.
25. If this arrangement occurs, it is anticipated that uncertain and/or limited access to capital may impede an organisation's ability to replace its vehicles according to an optimal schedule and/or meet the higher cost of transitioning to EVs.

Cost of charging infrastructure

26. Government organisations with EVs need to install adequate charging infrastructure. Installation cost can be significant and varies according to the extent of work required at the installation location. For example, distribution network transformer upgrades might be required.
27. Installing EV charging equipment can also be complex, especially for larger numbers of EVs. Installation may involve changes to the building/car park where EVs are located (requiring approval of the building owner) and increasing the supply of electricity (involving the local lines company).
28. Installing arrays of charging infrastructure is a relatively new process and can come with hidden challenges and costs for organisations.
29. Based on the information available from recent examples of installing charging infrastructure for large numbers of EVs (20 or more), it is understood that charging infrastructure can cost as much as \$10,000-\$15,000 per EV.

Understanding of EVs

30. EVs and EV charging are relatively new technologies and are changing rapidly. This situation may be a barrier because:

- a. some government organisations may not have the expertise to assess the suitability of EVs as fleet vehicles, and require EV education targeted at fleet owners.
- b. government organisations that are better informed about EVs may resist paying a premium for EVs because they anticipate the technology will rapidly improve (i.e. have larger batteries and greater range and consequently be less constrained by charging requirements) and significantly decrease in price during the next few years.

What has been done to address these barriers?

NZGPP piloted joint public-private sector EV procurement

31. In 2017, NZGPP piloted joint EV procurement for the public-private sectors with the objective of reducing EV prices and encouraging the market to increase the variety of EVs available. See Annex 3 for background to this pilot.

32. Seven government organisations and 10 private sector organisations took part, registering their intent to purchase a total of 86 EVs. NZGPP secured pricing for this volume of EVs.

33. Of the organisations that took part, eight confirmed orders for a total of 38 EVs (a shortfall of 48) and s 9(2)(ba)(i), s 9(2)(i)

The other nine organisations did not purchase EVs as:

- a. many were not ready to adopt EVs, particularly due to the cost and complexity of installing charging equipment.

s 9(2)(ba)(i), s 9(2)(i)

34. NZGPP reviewed the pilot and identified several factors which prevented it from fully achieving its objectives. s 9(2)(ba)(i), s 9(2)(i)

35. The identified factors include:

- a. **limited variety of EVs available and brand perception:** There is a limited variety of 'non-luxury' EVs which fleet owners consider to be suitable fleet vehicles. Consequently there is minimal competition between non-luxury suppliers. s 9(2)(ba)(i), s 9(2)(i)

- b. s 9(2)(ba)(i), s 9(2)(i)

- c. **uncertain resale (residual) values:** Public and private sector fleet managers are uncertain of EV resale values, which is an important component of fleet procurement and management. This uncertainty

creates a financial risk which weakens the business case for adopting EVs. Conducting research to improve the certainty of EV resale values may better support the business case for adopting EVs.

- d. **charging equipment cost and complexity:** Installing EV charging equipment, particularly for higher numbers of EVs, can be complex and costly. Identifying ways to help fleet owners minimise the cost and complexity is considered important to enabling improved fleet EV uptake.

Trialling EVs in the Crown Fleet

36. All Crown fleet vehicles are leased from BMW, which is an AoG supplier. The Department of Internal Affairs (DIA) has recently completed a six month trial of a Plug-in Hybrid Electric Vehicle (PHEV) BMW Crown limousine.
37. The conclusion is that the trialled EV model is suitable for inclusion in the broader Crown fleet as a supplement to, rather than a complete replacement for, the existing diesel powered vehicles.
38. DIA are due to brief the Minister Responsible for Ministerial Services before making a decision to include the BMW PHEV in the Crown fleet.
39. The Minister Responsible for Ministerial Services has also prioritised EVs as ministerial self-drive vehicles. Ministers are now encouraged to select an EV as their ministerial self-drive vehicle, unless they have a valid need for a petrol vehicle.

Local Government EV initiatives

40. Examples of EV leadership with local government bodies such as Northland Regional, Greater Wellington Regional, Christchurch City and Auckland City councils are converting their fleets and installing public charging infrastructure, supporting electric car share schemes and creating EV friendly communities.
41. Tauranga City Council has bulk procured e-bikes for its staff to reduce emissions and ease parking issues. The council made the bulk order on behalf of the staff, along with seven e-bikes for its own vehicle fleet, to encourage fewer single-occupant cars into the Tauranga city centre.

Barriers to EV uptake in the private sector

42. The barriers to EV uptake in the corporate fleet sector are similar to those facing government organisations in terms of vehicle and infrastructure costs. However, compared to purchasing through the AoG catalogue, businesses have a greater variety of vehicles to consider and the ability to buy used vehicles.
43. As with Government organisations, the key concern for private sector entities is that the business case for purchasing new EVs is generally not compelling due to the higher purchase and TCO costs. Even with cheaper running costs, the investment is presently hard to justify for most EVs in the market.
44. Businesses are also concerned about the significant uncertainty associated with the expected residual values of EVs. This is because New Zealand's EV market is still developing and the value of an ex-fleet EV is still unclear.

45. This means that businesses are bearing significant residual value risk when purchasing or leasing EVs. It will be a few years until quality information on EV residual value becomes available. Factors that impact the uncertainty of residual value include battery degradation rates and the pace of new vehicle technology improvements.
46. The price of new EVs in New Zealand is typically higher than in other countries. For example, Europe's number one selling EV in 2017, the Renault Zoe, retails for NZD \$20-30,000 more here than in the UK. The UK Government also applies a GBP £4,500 subsidy to new EVs.
47. Anecdotally, this is due to the small size of New Zealand's vehicle market and the strategy of EV manufacturers to prioritise countries with significant incentives and vehicle fuel economy standards.

Fringe Benefit Tax

48. Fringe Benefit Tax (FBT) is applied to the capital costs of vehicles. The additional amount of FBT, based on the higher cost of the EVs, makes the business case for the provision of (company) vehicles, which are also used for personal use, even less compelling.
49. Advocates² for FBT relief on EVs say:
 - a. basing the amount of FBT on the capital cost of an EV means that the benefits are overvalued and there are over-taxed when compared with a similar sized ICE vehicle.
 - b. the higher price of an EV does not mean the buyer is getting a more luxurious or better car. They are merely buying a different type of motive power which has higher upfront costs and lower running costs.
50. In 2017, Inland Revenue (IR) considered whether the current FBT rules overestimate the private benefit of EVs. IR weighed a range of factors, including concerns that the above analysis is based on limited data and the relatively small difference between rates. It concluded there was not a strong enough case to justify changing the current FBT rules.
51. In its report to the Minister of Revenue in July 2017, IR acknowledged that it might be worth revisiting once the New Zealand EV market had matured and data has significantly improved. This report is attached in Annex 2.
52. Despite the FBT issues, some businesses have successfully pursued the transition to low emissions fleets. Mercury Energy's fleet is 70 per cent EV and other businesses (particularly in the electricity industry) have demonstrated leadership and are transitioning to EVs.

² Drive Electric, Automobile Association, Sustainable Business Council, Sustainable Business Network

Next Steps

53. We recommend discussing the challenges of transitioning the Government's fleet with your colleagues.

54. s 9(2)(f)(iv)

55. MOT will brief you on options to support EV uptake. EECA officials look forward to discussing the contents of these briefings at our meeting on 26 March.

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Annex 1: Electric Vehicles available through the AoG Contract

Key:

- Non-luxury vehicles
- Luxury vehicles
- Non-luxury and fully electric

Class	Body style	Make/model	Battery Electric Vehicle (BEV) or Plug-In Hybrid Electric Vehicle (PHEV)
Large SUV (AWD)	SUV	Audi Q7 e-tron	PHEV
		Mercedes GLE500e	PHEV
		Mitsubishi Outlander	PHEV
Medium Cargo Van	Cargo Van	Renault Kangoo Maxi 2 Seater	BEV
		Renault Kangoo Maxi 5 seater (fixed barrier)	BEV
		Renault Kangoo Maxi 5 seater (floating barrier)	BEV
Compact Car	Wagon	BMW 225xe	PHEV
	Hatch	Audi A3 Sportback e-tron	PHEV
		BMW i3 (94Ah battery)	BEV
		BMW i3 with REX (60Ah battery)	PHEV
		BMW i3 with REX (94Ah battery)	PHEV
		Renault Zoe Intens	BEV
		Medium Car	Sedan
		Hyundai Ioniq	PHEV
		Mercedes C350e	PHEV
	Station wagon	Mercedes C350e	PHEV

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POLICY AND STRATEGY

Tax policy report: Electric cars: reviews of depreciation rates and fringe benefit tax

Date:	10 July 2017	Priority:	Medium
Security level:	In Confidence	Report no:	IR2017/419

Action sought

	Action sought	Deadline
Minister of Revenue	Refer a copy of this report to the Minister of Transport and the Minister for Climate Change Issues	24 July 2017

Contact for telephone discussion (if required)

Name	Position	Telephone
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Peter Fawley	Policy Manager	(04) 8906086 (wk) s 9(2)(a)

POLICY AND STRATEGY

Te Wahanga o te Rauaki me te Kaupapa

10 July 2017

Minister of Revenue

Electric cars: reviews of depreciation rates and fringe benefit tax

Executive summary

1. Following on from our earlier report to you on depreciation rates and fringe benefit rules as they apply to electric vehicles (IR2017/262 refers), we have done further work seeking to better quantify the taxable benefit from the private use of company-provided electric cars.
2. The key concern in the business sector seems to be that the case for buying electric cars is generally not compelling. These cars cost more to buy, and the running cost savings alone are not enough to make the investment worthwhile. The additional amount of fringe benefit tax, based on the higher cost of the car, makes the business case for the provision of electric cars for employees' private use even less compelling.
3. During consultation, submitters pointed out that electric cars cost more than conventional cars. They argue that basing the amount of fringe benefit tax on the cost of an electric car means that the benefits are overvalued and therefore over-taxed. Submitters suggest that the higher price of an electric car does not mean the buyer is getting a more luxurious or better car. They are merely buying a different type of motive power.
4. We have also heard there is significant uncertainty around expected residual values of electric cars. This mainly comes from the fact that the New Zealand market for electric cars is still developing. This means that many businesses are bearing significant residual value risks with electric car purchasing and leasing. We understand it is expected to take a few years before there will be quality information on electric car residual values.
5. We have considered a range of information in assessing whether the current fringe benefit rules overvalue the private benefit of electric cars. Our earlier report suggested that the current fringe benefit rules might be overvaluing the private benefit of company-provided electric cars. The recently released Automobile Association's Running Costs 2017 report also suggests that the current fringe benefit rules overvalue the average private benefit from electric cars.

6. We refer to a range of options for the fringe benefit rules for you to consider and discuss with your Ministerial colleagues. Weighing a range of factors, including concerns that the above analysis is based on limited New Zealand data and the relatively small difference between rates, we think that on balance there is not a strong case to justify changing the current fringe benefit rules. However, it may be worth considering undertaking another review once New Zealand data on electric cars has significantly improved.

7. As reported earlier, the advice from valuers Jones Lang LaSalle Ltd is that electric cars should have the same depreciation rate as conventional cars. In the absence of any more authoritative information on electric car depreciation rates, we do not recommend a different depreciation rate for electric cars.

Recommended action

8. It is recommended that you:

- (a) **Note** the content of this report.


Noted

- (b) **Refer** a copy of this report to the Minister of Transport and the Minister for Climate Change Issues.

Referred

s 9(2)(a)

Peter Frawley
Policy Manager


Hon Judith Collins
Minister of Revenue

Background

9. We reported to you in mid-April 2017 with the results from consultation and our preliminary views on the depreciation rate for electric cars and the method used to estimate the private benefit from employees' use of company electric cars for fringe benefit tax purposes [IR2017/262 refers]. You asked us to do some more work ahead of any discussions that you may wish to have with other Ministers.

10. The Government considers that electric vehicles can play a part in reducing greenhouse gas emissions without compromising individual mobility or economic growth. Electric vehicles can produce up to 80 per cent fewer carbon dioxide emissions than conventional vehicles. The Government therefore thinks that electric vehicles offer a low cost way of reducing emissions because of the abundance of renewable electricity and has set a target of having around 64,000 electric vehicles in the New Zealand vehicle fleet by the end of 2021.

11. Due to private sector concerns, the government directed Inland Revenue to undertake a review of the depreciation and fringe benefit tax implications for electric vehicles to ensure that the tax rules are not over-taxing business investment in electric cars. This work was included in the Government's Electric Vehicle programme.

Depreciation rate review

12. Depreciation is an income tax deduction that allows a taxpayer to recognise the decline in value of a business asset over its estimated useful life. Broadly, depreciation is an annual allowance for the wear and tear, deterioration, or obsolescence of the asset. It is desirable that tax depreciation rates approximate estimates of economic depreciation, otherwise tax depreciation rates can unduly influence business investment decisions.

13. Taxpayers currently choose from either a 30 percent diminishing value or 21 percent straight-line depreciation rate for cars. Because depreciation deductions are based on estimates, a square-up occurs when a business asset is sold. For example, if a car is sold for more than its tax book value, the seller will have to return the difference as income. If a car is sold for less than its tax book value, the seller is able to claim a deduction for the difference.

14. As previously reported, there is very little conclusive data on depreciation rates and residual values for electric cars in New Zealand. We engaged valuers Jones Lang LaSalle Ltd, and they concluded that electric cars should have the same depreciation rate as conventional cars. We see no grounds not to accept this advice.

15. The valuer's advice is that the current tax depreciation rate that applies to conventional cars is appropriate for electric cars. Their advice is that a 30 percent diminishing value rate is going to be broadly correct for electric cars. They note that many electric car manufacturers provide 8-year or 160,000-km (whichever comes first) warranties on batteries in electric cars.

16. We consider that a decision not to have a separate depreciation rate for electric cars is unlikely to be controversial. Changes to tax depreciation rates are far less valuable to businesses. This is because any accelerated deductions are clawed back when the asset is sold. Company cars are typically turned over by businesses every three to five years.

Fringe benefit rules review

17. During consultation with stakeholders, we received a number of submissions pointing out that electric cars cost more than conventional cars, and that calculating the amount of fringe benefit tax on the cost of the electric car means that the benefits of a company-provided electric car are over-taxed. They also suggest that the higher price of an electric car does not mean the buyer is getting a better or more luxurious car; they are merely buying a different vehicle technology, which has a higher initial price but lower running costs per kilometre. However, submissions provided little evidence that the fringe benefit rules are overvaluing the benefit from private use of company-provided electric cars.

18. The real business concern seems to be that the case for buying electric cars is generally not compelling. Electric cars cost more to buy than conventional cars, and the running cost savings alone are not enough to make the investment stack up. The additional amount of fringe benefit tax makes investing in electric cars that are made available for private use by employees even less compelling.

The fringe benefit rules framework

19. The goal of the current fringe benefit rules is to tax benefits that employers provide to employees in place of salary and wages. Fringe benefits that reduce employees' private outgoings are effectively a payment of additional salary and wages. All other employees' salary and wages are taxable, and so to ensure neutrality and fairness, fringe benefits should be taxable on an equivalent basis. We assume that the cost to the employer is a reasonable proxy for the benefit to the employee.

20. Rather than making businesses calculate the total annual cost of a company car available for private use by an employee and taxing this amount, the current rules estimate the value of the private benefit as a percentage of the price of the car (currently 20%). The private benefit amount is multiplied by the appropriate tax rate to determine the amount of fringe benefit tax. This amount is deductible to the business in the same way as salary and wage costs.

21. This approach is intended to factor in the on-going costs of the car. It assumes that the employee's private benefits are equivalent to driving their own car 14,000kms. However, it is not an accurate way of valuing the actual private benefit. For example, an employee might do more or less mileage than the assumed 14,000km that the average private driver does. Further, an employee might not have bought the same model or as new a car if they were buying it themselves.

Comment

22. It is important to note that the current approach to estimating the private benefit from a company car is unlikely to be accurate; but it does significantly reduce complexity and compliance costs for businesses, when compared to having to annually calculate the actual costs of providing a company car to employees. It also has lower administration costs for Inland Revenue.

23. All other things equal, the current fringe benefit rules may overvalue the private benefit when businesses buy high priced cars that use a lower cost fuel. This occurs when the calculation of the private benefit under the fringe benefit rules exceeds the actual costs to the employer.

24. To get a sense if the current fringe benefit rules discourage investment in electric cars we have compared expected total costs for electric cars with the estimate of private benefit under the current fringe benefit rules.

25. The April report compared three years total running costs of 11 conventional and 11 electric cars with the estimated private benefit calculated under the current fringe benefit rules. This analysis suggests that the current rules overvalue the average private benefit from electric cars. The modelling suggests that multiplying the cost of an electric car by 18%, rather than the 20% rate, provides a better estimate of the average benefit from an electric car.

26. We also have new information from the Automobile Association of New Zealand, which recently released its Running Costs 2017 reports. For the first time they have reported on the total costs for electric cars. The electric car report concludes that the average annual total costs of an electric car are \$11,320 per year for the first five years of ownership. This result suggests that the current 20% rate is overvaluing the average total annual private benefit from a company electric car by about \$1,300 a year (average price of an electric car is $\$63,000 \times 2 = \$12,600$). This suggests that multiplying the purchase price of an electric car by 18% is closer to the average annual total costs (and therefore the average benefit) for an electric car (i.e. $\$63,000 \times .18 = \$11,340$).

27. The above results both suggest that the current 20% rate results in the average private benefit from company provided electric cars being overvalued. However, it is important to note that our modelling and the Automobile Association's work are based on similar methodologies and more than likely on similar data. So it is perhaps unsurprising that the results are similar.

28. In reality not all things are equal. For example, the higher price car might be twice as prestigious or twice as safe as the lower priced car. This is certainly the case with some models of electric cars. Moreover, some cars may travel twice the distance of other cars. This is why basing the amount of fringe benefit tax on the estimated average private benefit from company cars can be imprecise.

29. We also know that there are issues with New Zealand data on electric cars. In particular, there is significant uncertainty about second-hand values for electric cars in New

Zealand. We contacted two businesses that lease out electric cars. They both confirm that the residual value of an electric car is the key determinant of total running costs. They also told us that there is currently significant uncertainty with the residual values of electric cars. They expect that this uncertainty will reduce over time and as the market for electric cars matures. So while these businesses will have estimates of residual values, for commercial reasons we think that they are unlikely to share this information with officials.

30. In summary, the above analysis suggest that it is very difficult to get an on-average estimate of private benefit that works, because cars and car use can be so varied. Looking at average total costs for electric cars is also problematic because the data is based on a small sample of cars and a limited number of observations, in particular New Zealand sales data for used electric cars.

Next steps

31. Despite the limited New Zealand data on depreciation rates and residual values for electric cars, the valuer's advice is that the current car depreciation rate is appropriate for electric cars. We see no reason not to accept their judgement.

32. In terms of the review of the fringe benefit rules and electric cars, we think that there are a few options for you to consider and discuss with your Ministerial colleagues.

33. The first option is to not do anything. We know that the current approach in the fringe benefit rules trades off accuracy for simplicity. Amending these rules for electric cars creates pressure for further amendments for other cars. For example, should the rules be tweaked for hybrids or diesel cars? What about the employee who drives a \$60,000 company car 5,000kms rather than the assumed 14,000kms.

34. At the present time, there is not the depth of New Zealand data to justify changes to the standard rate of 20%. Our modelling and the Automobile Association's analysis are both based on limited data. Electric car prices are expected to fall over time as the cost of batteries (the main component of the initial price) falls as they reach mass production levels. Therefore, any distortion caused by the current method of estimating the fringe benefit is likely to reduce over time. Moreover, changes made to the 20% rate now, based on current data are likely to be difficult to roll back if prices fall as expected or the data no longer supports the current conclusions.

35. The main argument against this approach is that early adopters may be discouraged at present because there is some evidence to suggest that the current fringe benefit rules on average overvalue the private benefit from company-provided electric vehicles.

36. Another option is to review the fringe benefit rules once better data becomes available – in say 18-24 months. In particular, it would helpful if there was more data on second-hand sales of electric cars.

37. A third option is to reduce the 20% rate. As noted above, there is some evidence that suggests that an 18% rate for electric cars might produce better estimates of the average private benefit. However, a slightly lower rate may also be justified, on the basis that the current rules might be undervaluing the average private benefit of conventional cars. The concern with this option is that it is based on limited data, and changes may be difficult to reverse once electric car prices reduce. Moreover, the difference in rates is relatively small and so may not be worth the additional complexity.

38. On balance we think that options one or two are preferable to option three.

39. We do not support providing tax subsidies for electric car ownership. Using the tax system to provide a subsidy is inconsistent with the government's broad-base, low-rate revenue strategy. Tax subsidies are also often poorly targeted, less effective, and more costly than direct subsidies.

40. Cabinet invited you to report on the results of these reviews to the Minister of Transport (CAB-16-MIN-0108.01 refers). We recommend that you refer a copy of this report to the Minister of Transport. We also recommend that you forward this report to the Minister for Climate Change Issues for her information, as its content is also relevant to that portfolio.

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Annex 3: Background to the joint public-private sector EV procurement

1. As part of the EV Programme, NZGPP undertook a feasibility study and a subsequent initiative to procure EVs for public and private sector fleets.
2. The objective of aggregating and leveraging public and private sector EV demand sought to:
 - a. reduce the price of purchasing EVs for fleets;
 - b. encourage the market to increase the variety of EVs available in New Zealand; and
 - c. increase EV uptake in fleets, supporting the government objective of reaching 64,000 EVs by 2021
3. The feasibility study identified that:
 - a. the public and private sectors signalled a desire to adopt EVs;
 - b. the government has significantly less fleet vehicles than the private sector (government accounts for ~3% of new vehicle sales whereas private sector fleets account for ~60%);
 - c. many vehicles types used by the government are not yet available as EVs;
 - d. barriers to EV uptake include the higher purchase price of EVs and perceptions relating to a lack of charging infrastructure, the time it takes to charge an EV, and the limited number of EV models available in New Zealand; and
 - e. The current EV market and fleet owner's variable levels of readiness [REDACTED]
s 9(2)(g)(i), s 9(2)(i)
4. Considering this context NZGPP proposed it facilitate EV uptake in:
 - a. Public sector fleets by adding suitable EVs to the All-of-Government (AoG) vehicles contract and enabling other suitable EVs to be added to the contract as they become available; and
 - b. Private and public sector fleets by piloting the purchase of EVs in tranches, aggregating public and private sector demand, as a procurement under the AoG vehicles contract.

s 9(2)(g)(i), s 9(2)(i)

6. Engagement with stakeholders and preparation for the joint public-private sector procurement identified that:
 - a. s 9(2)(g)(i), s 9(2)(i) [REDACTED]
 - b. generally, fleet owners intended to trial EVs by purchasing small volumes initially and expressed uncertainty about charging infrastructure; and
 - c. s 9(2)(g)(i), s 9(2)(i) [REDACTED]

