

# Summary of submissions:

Approaches to government co-investment in public electric vehicle charging infrastructure

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Feedback from the public electric vehicle (EV) charging industry regarding approaches to government co-investment to accelerate the installation of public EV charging infrastructure.

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## Purpose

This document summarises and provides a record of submissions received from EECA's (Energy Efficiency and Conservation Authority) RFI (Request for Information) on approaches to government co-investment in public electric vehicle charging infrastructure. This document sets out:

- a. The background and context for the RFI
- b. The overall theme and key messages from submissions
- c. The next steps for government co-investment in public EV charging infrastructure.

## Background

EECA is a Crown entity as defined in the Energy Efficiency and Conservation Act 2000. Our function is to encourage, promote and support energy efficiency, energy conservation, and the use of renewable sources of energy. EECA aims to achieve a sustainable energy system that supports the prosperity and wellbeing of current and future generations.

EECA is one of the agencies represented on the Government's Supercharging EV Infrastructure Taskforce, along with the Ministry of Transport, Ministry of Business, Innovation and Employment and Crown Infrastructure Partners (now National Infrastructure Funding and Financing Limited). The Supercharging EV Infrastructure Taskforce will use the outputs from the RFI to inform its advice to the Minister for Energy and the Minister of Transport on an updated co-investment approach, primarily to support the installation of EV chargers that service the light vehicle fleet. The Ministers are expected to seek Cabinet endorsement for a revised approach in the first quarter of 2025.

Through co-investment, the Government is aiming to:

- a) Invest ahead of demand and commercial provision by supporting sites that are close to being commercially viable but unlikely to proceed in the short- to medium-term without a degree of government assistance.
- b) Maximise private sector investment, with the default approach that any Crown capital is recycled over time to support further investment.
- c) Take a technology and market-neutral approach, given there will be changes to battery and charger technology over time, and potential changes to the market providers of charging infrastructure.

The Government has set a target of a network of 10,000 public EV charge points by 2030 to address concerns about range anxiety and give New Zealanders the confidence to adopt EVs. A cross-government work programme is underway to support the rollout of charging infrastructure. This includes actions to address the key barriers to private investment such as the costs and processes to connect to electricity networks or gain resource consents.

Additionally, government co-investment can be used to accelerate the rollout of charging infrastructure while the market is maturing and charger utilisation is relatively low due to the proportion of EVs in the fleet.

Since 2016, government has provided grant funding, administered by EECA, for the installation of public EV chargers. Initially, this focused on demonstrating the technology and establishing a base level of fast-charger coverage along the State highway network.

New Zealand now has over 1,300 public charge points and a range of charging providers have entered the market. As we look to accelerate the network's rollout, it is timely to update the co-investment approach to ensure it is suited to the current stage of market development and to deliver maximum value from public money.

## What we did

EECA released an RFI inviting the public EV charging industry to provide feedback on approaches to government co-investment that will best enable them to accelerate the installation of public EV charging infrastructure, while also meeting the Government's objectives.

The RFI sought responses from businesses that currently manage or support the delivery of public EV charging infrastructure in New Zealand, or those that are considering investing in this infrastructure in New Zealand, to understand:

- a) The barriers or issues that may be stopping companies from significantly accelerating the installation of public EV chargers in New Zealand.
- b) The economics of building and running public EV chargers in New Zealand.
- c) Industry's views on the idea of government support for public EV charger installation in the form of concessionary loans, and the loan terms that would be preferable to industry.
- d) Industry's views on alternative forms of government investment support that may be more useful to industry than concessionary loans but still meet the Government's objectives (such as recycling Crown capital).
- e) The scale of investment that different companies may be considering under different forms of government investment support.

## Consultation period

On 4 October 2024, EECA released the RFI on GETS (Government Electronic Tenders Service), reference 30320633. Submitters were asked to send written responses to the RFI to [applications@EECA.govt.nz](mailto:applications@EECA.govt.nz).

Information about the RFI process was communicated through EECA's website and emails to known EV charging providers.

The initial deadline for responses was 25 October 2024. However, submitters requested additional time. The last response was received on 1 November 2024.

## Overview of submissions

Ten submissions were received.

Submitters provided detailed information about their operations and proposed approaches to co-investment. EECA appreciates the level of information that was provided, particularly noting that much of this information is commercially sensitive. For this reason, this document will provide a high-level summary of the information that was provided through the submissions.

Key themes in responses:

1. Government co-investment needs to continue to overcome the challenging economics that impedes private sector investment in public EV charging infrastructure. At the same time, submitters considered regulatory interventions are needed to streamline network connection processes, reduce connection costs and address resource consenting barriers.
2. Submitters generally supported government co-investment being provided as concessionary loans as long as the loans have the following terms:
  - a. A loan size that provides up to 50% of the upfront costs of establishing a proposed portfolio of sites
  - b. A loan tenor of 10–15 years
  - c. A zero interest rate
  - d. Favourable repayment terms. The main options supported by submitters were either making a one-off payment at the end of the loan tenor, or commencing repayments after a significant grace period, or commencing repayments once a set utilisation or revenue metric had been met.
3. Given the high-risk nature of investment, some submitters also considered there needs to be loan reductions, or write-offs, if certain utilisation thresholds are not met by the end of the loan term.
4. Most submitters supported loans being allocated through annual contestable application rounds with comparatively large amounts of funding, rather than multiple rounds per year with smaller amounts of funding on offer. This is because annual rounds would enable better planning and reduce application costs.
5. Concessionary loans would primarily support public EV charging sites that are likely to become commercially viable over the short-to-medium-term. However, loans may be less useful for sites with challenging economics, such as in holiday destinations and rural or remote areas.
6. While most submitters supported concessionary loans, several alternative approaches were suggested. The main alternatives were joint ventures funded through Crown equity and debt investment, a market loan with a Crown funded under-write, and a contract for service type approach.

## Conclusion

The market responded favourably to the proposal of concessionary loans as a government co-investment approach to accelerate the installation of public EV charging infrastructure.

EECA thanks all submitters for the time and effort put into their submissions.

## Next steps

Government officials considered the information provided by industry through the RFI process and have provided advice to the Minister for Energy and Minister of Transport on a recommended co-investment approach. The Ministers are expected to seek Cabinet endorsement for a revised approach in the first quarter of 2025.

Cabinet will decide on the co-investment approach the Government will use to support public EV charging infrastructure, which will inform the design of future procurement processes.

## Appendix 1: RFI questions

### **BARRIERS TO EV CHARGER INSTALLATION**

In general, the public EV charging business model faces challenges while EV numbers are low and there is not high enough demand/utilisation for charge points. This creates a ‘chicken and egg’ problem where charging infrastructure will not be provided unless there is sufficient demand, and EV uptake will be impacted by the availability of charge points.

Beyond demand/utilisation risk, additional barriers to private investment in charging infrastructure in New Zealand include the costs and processes to connect to electricity networks, and potentially to gain resource consents. These issues are being considered by the Government under the Supercharging EV Infrastructure and Electrify NZ work programmes. They aren’t a focus of this RFI, however, we recognise connection costs and processes in particular do have an impact on the business case for an EV charger. From the government’s side, addressing barriers related to connection costs may reduce the need for government support.

Q – In your view, what are the main factors currently stopping the New Zealand charging industry generally, and you specifically, from significantly accelerating the installation of public EV chargers? What are the key areas that you think government can and should help with?

### **EV CHARGING ECONOMICS**

Please help us better understand the economics of your charging sites and the potential impact of concessional finance through a worked example.

We have prepared a spreadsheet template for the projected cash flows of an EV charging site. This can be found in the GETS listing alongside the RFI document and this response form. If possible, we would welcome your input by filling in this template or using your own format.

The template includes some placeholder assumptions to help illustrate how it should be used and a brief guide on how to populate it.

Q – In the answer section below, please indicate with ‘Yes’ or ‘No’ whether you are submitting the completed spreadsheet template (or similar information in your own format).

In addition to asking you to complete the template spreadsheet we are interested in your broader comments on the economics of establishing and operating EV charging sites in New Zealand (appreciating there is a degree of overlap between the information you will provide via the template and the following questions).

#### **EV charging economics – demand/utilisation**

Q – What are your views on current and future EV traffic and utilisation in New Zealand (passing volumes and turn-in rates) across different charging sites (e.g. urban, rural, journey hubs)?

Q – What is the current utilisation rate of your current EV charging network – average utilisation, high, low, median etc and distribution of utilisation between different charging sites (e.g. urban, rural, journey hubs)?

Q – What is your expected future utilisation rates across your current EV charging network?

### **EV charging economics – capital costs**

Q – What are the capital costs of establishing a typical new charging site, and cost ranges for different situations (e.g. urban vs rural)? Please include the characteristics of the site you are describing (number and power of chargers etc).

### **EV charging economics – operating costs and revenue**

Q – Can you provide information relating to your operating costs and revenue related to charging?

Q – What revenue streams (other than charging revenue) are available or are enhanced as a result of the presence of a charger at your EV charging sites?

### **EV charging economics – financing approach and costs**

Q – Can you please explain how you have financed development of your existing EV charging sites? How do you expect this to change as the market matures?

Q – Can you please explain the costs of your current financing?

Q – To the extent you have engaged with investment firms when seeking capital, what considerations or barriers are you facing to access capital? What scale of financing is necessary to attract their investment? What is the minimum return on investment they require at different levels of investment etc?

### **EV charging economics – other factors**

Q – What other information do you think we need to be aware of concerning the economics of establishing and operating EV charging sites in New Zealand to enable us to best develop an effective and efficient concessional funding model for public EV charging (both relating to the industry generally in New Zealand and specifically your business)?

## **A CONCESSIONARY LOAN APPROACH**

We currently see concessionary loans as an option that is likely to meet the Government's objectives. Loans can provide a relatively simple procurement approach and contracting terms. However, we recognise that the benefit these loans could provide to charge point operators depends on the specific loan terms being offered. Loan terms are discussed later in this document.

Grant funding is not being considered as it is inconsistent with the objective to recycle Crown capital to support further investment over time.

### **Financing and security options**

Our current thinking is that, if the concessionary loans approach was used, it would include the following broad features:

- **Cap on Crown contribution** – Loans to be capped at a portion of the capital costs of establishing a charging site/package of sites (to ensure private sector co-investment and risk sharing) – potentially up to ~50% of capital costs. To ensure available Crown funding supports the roll-out of charge points to the greatest extent possible, the level of Crown



subsidy provided under loans should not exceed the level actually required by the recipient to make the relevant charge points commercially viable.

- **Interest rate applied** – An option is for concessionary loans to be provided at 0% interest for their full tenor (outside of default scenarios or potentially where utilisation reaches an acceptable threshold level). If interest is charged on the loans, an extended loan tenor would be required to provide the equivalent level of subsidy (impeding the Crown’s ability to recycle the available capital).
- **Loan tenor and repayments**
  - A maximum loan term would be set (e.g. ~10 years), with various options for repayment being investigated including:
    - A bullet repayment of full loan after a set period of years;
    - Repayment over a predetermined ramp period (e.g. escalating repayments over a number of years, with a potential lump sum at the end of the loan term);
    - Repayment over a ramp period commencing on occurrence of a trigger event (e.g. once utilisation reaches an acceptable threshold level or sites become cash flow positive);
    - Variations on the above.
  - We would expect to set minimum requirements for loan repayments that would be acceptable to the Government, and then allow for applicants to bid more attractive terms (i.e. faster repayment of Crown capital likely favoured when assessing applications – as this will allow more recycling of Crown capital).
  - Repayment terms will have a material impact on the rate of recycling of Crown capital, and therefore the number of chargers that can be delivered from a fixed pool of Crown capital.
- **Security** – The Crown is investigating realistic assumptions regarding security for concessionary loans. See below.
- **Minimum terms of operation/performance** – It is likely concessionary loan terms will require minimum terms of operation (e.g. minimum operating period, maintenance and charger ‘up-time’, performance standards) – with potential for accelerated repayment of loan if terms materially breached.
- **Reporting** – Loan agreements will require transparency and reporting of actual costs and site performance.

Q – Recognising that the Government has signalled a move away from grant funding for EV charging, how effective do you feel a concessionary loan approach would be at addressing the barriers being faced by charge point operators and facilitating a significant acceleration of EV charging infrastructure implementation?

Q – Please provide comment on any of the loan terms described above. What would these loan terms mean for your business and your ability to deliver chargers, and why?

Q – What are the loan terms that could make a loan a suitable government support mechanism for you (e.g. coverage of project costs, interest rate, repayment conditions, length of term)?

Q – Are there particular segments of the public EV charging market that you feel concessionary loans or other government support approaches would be better/worse at addressing?

Q – There is currently about \$67m of Crown funding allocated to supporting the public EV charging network (pending potential future Budget bids). What are your views on how many chargers the market could deliver with that amount of funding?

### **A concessionary loan approach – security structures**

Below are a number of questions regarding potential loan and security structures for the proposed funding. As an initial observation, one of the factors that may be taken into account by the Crown will be the security and ranking of funding provided. We recognise that these questions are quite detailed; please answer to the extent you are able to.

Q – Do you anticipate any impediments to obtaining funding in the form of a loan? For example, if you have external financing that restricts your ability to raise further debt, would you have sufficient flexibility under your financial and negative covenants to borrow money from the Crown for these purposes? Do you have any other restrictions on raising further debt outside your external financing arrangements?

Q – If the funding was provided in the form of a subordinated loan, would that make a difference to the treatment under your external financing arrangements referenced above (if applicable)?

Q – Do you anticipate any impediments to granting security in favour of the Crown to secure obligations in respect of the EV funding (i.e. obligations to make payments of principal (and interest, if any) and other obligations under the funding documentation)?

Q – Do you have external financing with ‘negative pledge’ arrangements that would restrict your ability to grant security in favour of the Crown securing such funding, and would any such restrictions vary for different forms of security, such as (i) a ‘general security agreement’, (ii) mortgages over real property, or (iii) security that is limited to the EV charging infrastructure funded by the Crown?

Q – Do you have secured external financing, such that (absent engagement with your lenders) you would expect to grant security in favour of your existing financiers over EV charging infrastructure funded by the Crown?

Q – Do you anticipate that sites on which you would install EV chargers using the proposed funding be: (i) owned by you (i.e., freehold); (ii) leased; or (iii) subject to some other arrangement, e.g., a licence?

### **ALTERNATIVE APPROACHES TO CONCESSIONARY LOANS**

We recognise there are various models for Crown support that enable the recycling of Crown capital including equity investment (where the government takes an ownership interest in an entity) or Contracts for Difference (long-term contracts that guarantee a certain revenue stream).

The industry has communicated that there may be models other than concessionary loans that would better promote the Government’s objectives.

Q – Do you feel there are models of government support other than concessionary loans (excluding grants) that would better facilitate a significant acceleration of EV charging infrastructure implementation, while meeting the governments objectives? Please provide details and reasoning for how you see this approach could work.

Q – Would your preferred investment approach change with different public charging sectors (such as urban destination charging, journey charging hubs, tourist routes, rural/remote areas etc)?

## **OTHER CONSIDERATIONS**

We are considering the frequency and scale of future co-investment rounds. To date they have run multiple times a year, making about \$5-15 million of funding available in each round. However, if it is more attractive to the market, the Government could consider less frequent rounds (once per year or two years), making a larger amount of co-investment available in each round.

Less frequent, but larger, funding rounds may provide respondents with more certainty about future investments and enable consideration of larger portfolios of chargers.

Q – What do you think the scale and frequency of future funding rounds should be (within the context of the ~\$67m of future Crown funding currently allocated to supporting the public EV charging network (pending potential future budget bids)?

Q – Under the concessionary loan approach, or an alternative you have proposed, how many chargers do you feasibly see your company installing by 2030?

Q – What is the maximum level of co-investment you would commit to provide under any one funding round (i.e. \$ of co-investment) and over what period would you make that investment?