



26 January 2017

Melissa Lee  
Chairperson  
Commerce Select Committee  
c/o Parliament Buildings  
WELLINGTON 6011

via email: [commerce@parliament.govt.nz](mailto:commerce@parliament.govt.nz)

**RE: Energy Innovation (Electric Vehicles and Other Matters) Amendment Bill 2016**

Dear Ms. Lee:

Thank you for the opportunity to provide a submission on the Energy Innovation (Electric Vehicles and Other Matters) Amendment Bill 2016.

Auckland Council and Auckland Transport are committed to unlocking the opportunities of energy and transport innovation and emerging technologies and to leading by example in our own fleets and operations. While helping to actualise our own sustainability and climate goals in line with New Zealand's international obligations under the Paris Agreement, doing so is also paramount to ensuring transport delivers on Auckland's current and future growth challenges.

We generally support the intent of the Bill and the encouragement of electric vehicle uptake. Proposed amendments to the Electricity Industry Act 2010 are our main concerns; these are further detailed in the attached submission.

Auckland Council and Auckland Transport strongly recommend that the Bill be amended to address the issues we identify. We also respectfully request that we are given the opportunity to be heard by the committee in relation to this submission.

Yours sincerely,

A handwritten signature in black ink, appearing to read "Penny Hulse", written over a horizontal line.

Councillor Penny Hulse  
Chair, Environment and Community Committee  
Auckland Council

A handwritten signature in black ink, appearing to read "David Warburton", written over a horizontal line.

David Warburton  
Chief Executive  
Auckland Transport

1 February 2017

Melissa Lee  
Chairperson  
Commerce Select Committee  
c/o Parliament Buildings  
WELLINGTON 6011

via e-mail: [commerce@parliament.govt.nz](mailto:commerce@parliament.govt.nz)

## **Energy Innovation (Electric Vehicles and Other Matters) Amendment Bill 2016**

1. Auckland Transport (AT) is pleased to have the opportunity to provide a submission to the Commerce Select Committee on the Bill entitled 'Energy Innovation (Electric Vehicles and Other Matters) Amendment Bill', read for the first time on 8 November 2016.
2. AT wishes to appear before the Select Committee in support of its submission.

### **Introduction**

3. Please find below AT's submission in response to the Energy Innovation (Electric Vehicles and Other Matters) Amendment Bill (the Bill).
4. AT's address for service is: Auckland Transport, Private Bag 92250, Auckland 1142. Any queries in relation to this submission should be directed to:  
Liz Halsted, [liz.halsted@AT.govt.nz](mailto:liz.halsted@AT.govt.nz). Phone: 006494474321
5. The submission is set out below as follows:
  - Executive summary.
  - About AT – Background information.
  - Part 1 – Amendments to the Electricity Industry Act 2010
  - Part 2: Amendments to Energy (Fuels, Levies, and References) Act 1989
  - Part 3 - Amendment to the Land Transport Act 1998
  - Part 4 – Amendments to the Road User Charges Act 2012
  - Recommendations
  - Attachment – AT's earlier submission following consultation on secondary networks.

### **Executive summary**

6. AT is actively encouraging the uptake of electric vehicles (EVs) in Auckland. AT supports policy initiatives that reflect our changing energy and transport sectors and enable changes in technology to be adopted. It is important that the legislative frameworks under which the sector operates are clear, yet flexible and adaptive to changing circumstances. This is no more important than in the case of the energy sector (power, heat and transport) where rapidly evolving consumer-facing technologies increasingly allow new business models to be unlocked, jobs and growth created, and new consumer choices to be made. AT's main concerns lie with the amendments to the Electricity Industry Act 2010. The secondary networks definitions and content is unclear and contradictory and needs to be considered in

the wider regulatory environment and to be clarified further to resolve issues discussed below.

7. AT's submission is summarised below:

**Part 1– Amendments to the Electricity Industry Act 2010 (Electricity Industry Act)**

8. Clause 7 of Part 1 has possible indirect consequences in terms of the interpretation of “works” under the Electricity Act 1992 (Electricity Act). These consequences would be serious for AT and other road controlling authorities in terms of rights of access to the road corridor. The Bill should be amended to expressly state that for the avoidance of doubt nothing in clause 7 affects the Electricity Act.
9. The Bill does not clarify the “status” of EV chargers and secondary network equipment for Electricity Act purposes. Therefore the Bill should provide that EV chargers are not “works” for the purposes of the Electricity Act. This concern has been widely discussed in AT's earlier submission to the Ministry of Business, Innovation and Enterprise (MBIE) on 9 August 2016 on secondary networks (Appendix 1).
10. AT has concerns about the possible effects of anything in the Bill that affects electricity charging or pricing, which arise under the Commerce Act. However, the Commerce Commission, as one of the two regulators of this legislation, has explicitly said in its Input methodology review (page 23/562) that distribution pricing (peak pricing being one of these price paths available to distributors) is outside its scope and remains in the remit of the EA. The uncertainty of possible pricing impacts of those issues on AT activities such as the electrification of the PT network and the operation of the electrified rail network, electric buses, LED street lights and possible future light rail services should not be lost sight of. It also has the potential to slow the uptake of technology, the electrification of transport and the provision of EV installations.

**Part 2-- Amendments to Energy (Fuels, Levies, and References) Act 1989**

11. AT supports the proposed change to the relevant levy structure to reflect the Energy Efficiency and Conservation Authority's broader role in promoting energy efficiency.

**Part 3 - Amendment to Land Transport Act 1998 – Electric vehicles in special vehicle lanes**

12. AT supports the proposal to enable, rather than require, road controlling authorities to allow EVs to be used in special vehicle lanes.
13. While AT does not currently intend to allow EVs in special vehicle lanes in Auckland due to a focus on its other transport objectives, such as increasing public transport uptake and reducing congestion. However, AT does consider that EVs form part of an integrated sustainable transport system. AT will continue to support increased uptake of electric vehicles by, amongst other things, working with government agencies and the private sector to promote the uptake of EVs in Auckland and prioritising parking and infrastructure for EVs in new developments, parking buildings and park and ride sites.

#### **Part 4 – Amendments to the Road User Charges Act 2012**

14. AT supports the proposed exemption from RUC for heavy electric vehicles but considers that the definition of a heavy electric RUC vehicle needs to be amended to include plug-in hybrid vehicles that meet a particular CO<sub>2</sub> emissions standard or age limit in order to ensure benefits are being provided to only those vehicles making a genuine emission reduction.

#### **About AT - Background information**

15. AT is a council controlled organisation that manages and controls the Auckland transport system, which includes the roads and public transport services and infrastructure in Auckland.

#### **AT's strategic position:**

16. The Auckland Plan has identified the need for a transformational shift in public transport to support future growth in Auckland. The Auckland Transport Alignment Project (ATAP) has identified the critical need to increase public transport mode share where it reduces congestion. AT's 2015 Regional Public Transport Plan also outlines the improvements in public transport bus service performance necessary to support the transformation of public transport, including the roll-out of the new bus network.

#### **AT's strategic themes include:**

17. Build network optimisation and resilience for predictable travel times; prioritise rapid, high frequency public transport, transform and elevate customer experience, enable rapid housing delivery; and fast track creative, innovative and efficient transport services.

#### **Part 1 – Amendments to the Electricity Industry Act 2010**

18. AT is concerned Part 1 of the Bill does nothing to lessen the ambiguity as to whether secondary network providers are distributors of “works” or “electrical installations” under the Electricity Act.
19. AT's submission is that:
  - a. Clause 7 has possible indirect consequences in terms of the interpretation of “works” under the Electricity Act.
  - b. For reasons outlined in AT's earlier submission (refer attachment 1), those consequences would be serious to AT and other road controlling authorities in terms of section 24 and rights of access to the road corridor
  - c. Such consequences would be unintended (as MBIE's regulatory impact statement records that it is not intended that the Electricity Industry Act amendments will affect the Electricity Act)
  - d. The Bill should be amended to expressly state that for the avoidance of doubt nothing in clause 7 (i.e. the new section 131A of the Electricity Industry Act) affects the Electricity Act.

20. The Bill does not clarify the “status” of EV chargers and secondary network equipment for Electricity Act purposes. MBIE stated in its regulatory impact statement that,

*“while complicated, the definitions in the Electricity Act appear to be fit-for-purpose and are not creating any significant issues with regards to its application. It can be concluded that these definitions are best left as is.”<sup>1</sup>*

21. AT does not agree with MBIE’s assessment. Uncertainty as to how the definitions apply is an issue that urgently needs resolving in legislation to avoid ongoing disputes with electrical distribution companies, which are likely to increase in number in future. An example of this is AT and Vector having different interpretations of the existing definitions of an EV charger at Carlton Gore Rd in Auckland. Further, the “National guidance for public electric vehicle charging infrastructure” (the Guidance) by the New Zealand Transport Agency, published in January 2017, has no legal status, is not mandatory and does not provide legal clarity on this matter.

22. Therefore AT’s submission is:

- a. there is real uncertainty as to the interpretation of definitions in the Electricity Act, in their application to emerging technologies especially EV chargers;
- b. the consequences of this uncertainty are as explained in AT’s earlier submission on MBIE’s consultation paper in August 2016 (attached in Appendix 1);
- c. the Bill does not resolve this uncertainty, and may in fact increase it;
- d. other Government publications e.g. the Guidance, appear to proceed on the basis that EV chargers are not “works” under the Electricity Act, however electricity operators do not necessarily accept this view;
- e. the Bill is the most appropriate place to determine this issue as it already deals with the same or closely related subject matter;
- f. the Bill should provide that EV chargers are not “works” for the purposes of the Electricity Act (or at least that section 24 of the Electricity Act does not apply to EV chargers).

23. Whilst the Bill does not directly affect electricity charging or pricing issues such as input methodology (IM) and peak pricing which arise under the Commerce Act, AT nevertheless submits that when considering electricity related legislative amendments, it is important that the wider context needs to be considered, such as electrified public transport services, street lighting and management of public facilities, e.g. those with the potential to substantially increase peak electricity costs for tax payers. The proposed amendment has the potential to increase compliance costs, in particular for the Auckland electric rail network, with little benefit as much of the compliance regime is not relevant.

24. This is important as the Commerce Commission has said in its Input Methodology (IM) review decisions, dated 20 December 2016<sup>2</sup>, that structural change is a matter for legislation rather than falling under Part 4 of the Commerce Act.

25. Therefore AT submits that Government consider whether there are potential peak pricing impacts of the Bill on the future operation and electrification of AT’s public

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<sup>1</sup> Paragraph 40

<sup>2</sup> Topic Paper 3: Paragraphs 214 to 216 of the Commerce Commission Input Methodology Review(2016), *The future impact of emerging technologies in the energy sector*. <http://www.comcom.govt.nz/regulated-industries/input-methodologies-2/input-methodologies-review>

transport network, street lighting, its facilities and possible future transit technologies (such as Light Rail) which are significant users of electricity at peak times.

26. The Commerce Commission states secondary network providers will be defined as distributors and proposes to apply the same regulatory provisions. However, this is in conflict with what is stated in the Electricity Act. Distribution relates to the conveyance of electricity by lines to a point of supply. Beyond that, “*..fittings that form part of a system that is used to convey electricity to a point of consumption, or used to generate or store electricity*<sup>3</sup>..” are classed as electrical installations.
27. New and emerging technologies offer alternatives to traditional poles and wires especially with the use of batteries for storage of electricity and with on-going improvements in battery technology. Beyond the point where the connection to the national grid supply is made, batteries e.g. in EVs or in private property are storing electricity for future use; they are not part of the distribution system and appear to be more appropriately classed as installations.
28. If that is accepted, then it would be inappropriate to apply a regulatory system for distributors to a system that meets the definition of an installation. The logic also applies to EV charging points which can also be classed as installations in that lines supply electricity to a point of supply (the charging point) and beyond that EVs can connect to recharge.

## **Part 2 - Amendments to Energy (Fuels, Levies, and References) Act 1989**

29. AT supports the proposed change to the relevant levy structure to reflect the Energy Efficiency and Conservation Authority’s broader role in promoting energy efficiency.

## **Part 3 - Amendment to Land Transport Act 1998 – Electric vehicles in special vehicle lanes**

30. The changes proposed by this Bill to the Land Transport Act 1998 are intended to “clarify that the power to make bylaws that can be used in respect of any vehicle of a specified class (which may include electric vehicles)”<sup>4</sup>. Auckland Transport notes the proposed amendment simply deletes two words from the current provision so that, AT believes, the amendment makes no material change to the current position. However AT does support the Bill enabling, rather than requiring, road controlling authorities to allow EVs to be used in special vehicle lanes. As stated in the explanatory note, road controlling authorities have many transport objectives that will need to be balanced in order to ensure the continued effectiveness of special vehicle lanes.
31. AT acknowledges that the substantive changes to provide for electric vehicles in special vehicle lanes will be brought about by amendments to the rules made under the Land Transport Act 1998, namely the Land Transport (Road User) Rule 2004 and the Land Transport Rule: Traffic Control Devices 2004. Auckland Transport therefore awaits the release of the proposed rule amendments in order to understand the detail of the proposal.
32. In the interim AT has the following general concerns and comments regarding electric vehicles in special vehicle lanes:

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<sup>3</sup> Electricity Act 1992

<sup>4</sup> Energy Innovation (Electric Vehicles and other matters) Amendment Bill, Explanatory note, page 6.

33. While AT notes that the Bill does not provide a definition of an 'electric vehicle' (this will be provided later by amendment to the rules), the explanatory note to the Bill suggests an intention to include pure EVs (battery power only) and plug-in hybrids in the definition; and likewise the proposed definition of a "heavy electric RUC vehicle" in the Bill (to be inserted into the Road User Charges Act 2012) also includes all plug-in hybrid vehicles. Allowing all plug-in hybrid vehicles to take advantage of the benefits intended for genuine electric vehicles would result in relatively poorly performing plug-in hybrid vehicles (in terms of energy efficiency, electric power range and emissions) being given advantages over vehicles with more efficient and cleaner standard petrol or diesel engines. This will not achieve the vehicle fleet environmental and efficiency benefits that AT and the Government is seeking and is viewed as a significant deficit with the EV proposals. Lessons learnt from the USA with heavy plug-in hybrid electric vehicles confirm AT's concerns. As a way forward AT recommends a specific CO<sub>2</sub> standard, range or a vehicle age limit is imposed before a plug-in hybrid becomes an EV for the purposes of these proposals. This will ensure that maximum environmental benefits are realised and will encourage the uptake of higher quality electric vehicles.
34. The explanatory note recognises that an RCA needs to balance other transport objectives when deciding which categories of vehicles should be permitted to use its special vehicle lanes. AT's priority is to support rapid, high frequency public transport services and it has done so by implementing an extensive network of special vehicle lanes in Auckland. Experience to date has shown that patronage growth is strongest and customer satisfaction highest where these services operate largely uninterrupted by other vehicles and traffic
35. In AT's view, allowing EVs to access Auckland special vehicle lanes will negatively impact on its ability to continue to deliver high quality public transport services for Auckland residents. It is for this reason that AT does not currently intend to allow EVs in special vehicle lanes in Auckland.

#### *Safety issues*

36. Including EVs in special vehicle lanes may create safety issues. For example, if EVs were allowed in Auckland's bus lanes, the EV would be delayed whenever a bus stopped to pick up or drop off passengers at a bus stop and may try to enter the main traffic lane to get around the bus, which could be an unsafe move in congested corridors and increase congestion in general vehicle lanes.

#### *Enforcement*

37. If EVs were entitled to use some or all of the special vehicle lanes in Auckland, enforcement of those not entitled to use the lane would be very difficult. This is because an electric vehicle is not externally recognisable as such so a parking warden (who has legal authority to enforce special vehicle lanes) or an enforcement officer could not visually identify it as an authorised user.
38. While an enforcement officer can require the vehicle to pull over in order to make enquiries as to whether it is an electric vehicle, a parking warden cannot. The lack of external indicators for electric vehicles will add time and enforcement costs for local authorities.

#### *Road user confusion*

39. The lack of external indicators of whether or not a vehicle is an EV will also create road user confusion: Unlike most vehicles lawfully permitted to use special vehicle lanes, an electric vehicle is not easily distinguished from a standard vehicle. While road users can quickly identify that a taxi or shuttle is entitled to use a transit lane, if

electric vehicles are permitted in these lanes without any external identifiers, other road users will presume the lane is open to them to use.

40. This is a particular issue in Auckland given many special vehicle lanes apply only at certain times of the day and are not 24 hour lanes. Allowing EVs in these lanes will only increase confusion as to whether the special vehicle lane restriction currently applies, or whether it has reverted back to a general use lane (outside of the hours the lane applies).
41. Further confusion will occur through the eroding of national consistency: currently the categories of vehicle that may use each type of special vehicle lane is nationally consistent as the rules under the Land Transport Act 1998 provide the categories that may use the lane. AT is aware many other RCAs do not intend to allow EVs in their special vehicle lanes, but if some do, there will no longer be nationally consistent rules regarding use of the lanes. This is likely to impact on enforcement costs as drivers visiting from any regions allowing EVs in special vehicle lanes will incorrectly assume they can use Auckland's special vehicle lanes. It will also mean visitors to New Zealand will not have a consistent rule to follow.

#### *Conclusion*

42. While AT does not currently intend to allow EVs in special vehicle lanes in Auckland for the above reasons, AT does consider that EVs form part of an integrated sustainable transport system. AT will continue to support increased uptake of electric vehicles and supports:
  - a. An open, fair and accessible market.
  - b. The right amount of charging infrastructure in the right place, ideally located 'off-street'.
  - c. Minimum standards and responsibility for design, operation, safety and maintenance of the charging infrastructure.
  - d. A management regime that ensures access and availability of charging infrastructure to potential users.
  - e. The safe and efficient operation of the existing and future road network.
  - f. Working with government agencies and the private sector to promote the uptake of EVs in Auckland.
  - g. Prioritising parking and infrastructure for EVs in new developments, parking buildings and park and ride sites.
  - h. Increasing the number of EVs in AT's own vehicle fleet.
43. AT will continue to progress these and other initiatives.

#### **44. Part 4 – Amendments to the Road User Charges Act 2012**

45. AT supports the proposed exemption from RUC for heavy electric vehicles in principle. However, AT considers that the definition of a heavy electric RUC vehicle needs to be amended to include a CO<sub>2</sub> emission limit/range and/or an age limit for the plug-in hybrids in order to ensure that the RUC is provided to only those vehicles making a genuine emission reduction. This will ensure that electric plug-in hybrid vehicles that have higher CO<sub>2</sub> emissions than a conventional diesel or petrol vehicles will not get the proposed RUC exemption and that the vehicle fleet environmental and efficiency benefits that Government is seeking are achieved.

## **46. RECOMMENDATIONS**

47. The Bill should be amended to expressly state that for the avoidance of doubt nothing in clause 7 (i.e. the new section 131A of the Electricity Industry Act) affects the Electricity Act.
48. The Bill needs to clarify the ambiguity as to whether secondary network providers are 'distributors' or 'retailers' of "works" or "electrical installations" under the Electricity Act.
49. That Government consider whether there are potential peak pricing impacts of the Bill on the future operation of AT's public transport network, street lighting, its facilities and possible future transit technologies (such as Light Rail) which are significant users of electricity at peak times
50. The Bill also needs to clarify whether an EV charging station is a "work" or an "installation", in the context of section 24 of the Electricity Act. This ambiguity currently leads to uncertainty, disputes and financial implications for AT.
51. EV charging points are not considered part of the electricity distribution system and should more appropriately be classed as "installations" rather than "works". This is not clear and there is real uncertainty as to the interpretation of definitions in the Electricity Act. The Bill is the most appropriate place to clarify this as it already deals with the same or closely related subject matter.
52. That the definitions of vehicles included as EVs under the various supporting legislation be defined to include a CO<sub>2</sub> standard/range or an age limit to prevent plug-in hybrids, with higher CO<sub>2</sub> and air quality emissions than conventional diesel vehicles, taking advantage of the benefits intended for genuine electric vehicles.
53. That the Committee notes that, given AT's other transport objectives and the concerns raised above, AT does not currently intend to allow EVs to use special vehicle lanes on AT's roads in Auckland.
54. That the Committee notes that AT will continue to support and encourage the uptake of EVs through other initiatives including prioritising parking and infrastructure for EVs in new developments, parking buildings and park and ride sites; and increasing the number of EVs in AT's own vehicle fleet.

## **Attachment 1 - Auckland Transport's (AT's) submission to MBIE on 8 August 2016 in response to consultation on the application of electricity legislation to secondary networks and publicly accessible charging infrastructure for electric vehicles (the consultation).**

### **Overview**

Please find below Auckland Transport's (AT's) submission in response to your consultation on the application of electricity legislation to secondary networks and publicly accessible charging infrastructure for electric vehicles (the consultation).

Part 1 of our submission provides some background information about AT, its functions and strategic goals, the work it is doing in relation to electric vehicles, and some key issues relating to publicly accessible charging infrastructure.

Part 2 of our submission provides our answers to your questions.

Thank you for the opportunity to comment on the consultation and especially for allowing us some extra time to submit. If you would like to discuss any of the points we have raised in further detail, please do not hesitate to contact us at [liz.halsted@AT.govt.nz](mailto:liz.halsted@AT.govt.nz).

### **Part 1: Background information**

Auckland Transport (AT) is a council controlled organisation that manages and controls the Auckland Transport system (this includes the roads and public transport infrastructure in Auckland).

AT's functions include:

- Granting access to the road corridor pursuant to relevant legislation for utility operators (and others) to perform works and maintenance activities.
- Managing road corridor operations.
- Managing traffic in Auckland including determining where vehicles may stop, stand and park.
- Transport planning; investigation, design, and development of infrastructure; and asset management.

AT's strategic goals include:

- Transforming and elevating the customer experience on the road network, by including route optimisation that improves traffic flows, increases the people and goods-moving capacity of the existing network and provides innovative traffic information and targeted road safety improvements.
- Building network optimisation and resilience, which is critical for Auckland's economic productivity. Network optimisation and resilience enables the network to better respond to the needs of commercial transport and provides for positive road and public transport safety outcomes and enhances accessibility and connectivity.

#### *AT's work in relation to electric vehicles*

AT is encouraging the uptake of EVs in Auckland to meet the Minister's target to increase the number of EVs in NZ to 64,000 by 2021. AT anticipates that over 32,000 of these vehicles will be delivered in Auckland.

We believe high electric vehicle uptake in Auckland and NZ can only be realised by collaborating with the public and private sector. We have been working closely with MOT, NZTA, EECA and other local authorities and the private sector like Charge.net and Vector and Mighty River power on EV fleet uptake, infrastructure development, communications and regulation. All of this with a view to helping us better perform our functions and achieve our strategic goals and the Auckland Plan vision for a more liveable Auckland.

AT considers that electric vehicles form part of an integrated sustainable transport and land-use system, and that the road network should enable and provide, where possible, for an increased electric vehicle uptake.

AT consider that increased uptake of electric vehicles will be supported by, among other things:

- An open, fair and accessible market.
- The right amount of charging infrastructure in the right place, ideally located mostly 'off-street'.
- Minimum standards and responsibility for design, operation, safety and maintenance of the charging infrastructure.
- A management regime that ensures access and availability of charging infrastructure to potential users.
- The safe and efficient operation of the existing and future road network.

#### *AT's general comments in relation to publicly accessible charging infrastructure*

Publicly accessible charging infrastructure has the potential to be located on property controlled and managed by AT and for which AT is the statutory road controlling authority. This could include roads and off street car parking places (such as park and rides situated near public transport services and parking buildings).

AT believes that regardless of the classification of the charging infrastructure under electricity legislation, all other traffic and parking restrictions will still also need to apply to EVs whilst charging, including paid for parking

AT considers that road controlling authorities, collaborating closely with utility operators, are best placed to determine the location of charging infrastructure for the following reasons:

- Charging infrastructure bridges public areas from the footpath to the adjacent parking area and therefore affects both pedestrian and vehicle traffic flow, and may also impact on cycle paths and other special vehicle lanes, for the entire lifecycle of the charging infrastructure (i.e. not just for the duration of any installation works but while being used by consumers and when it has become obsolete).
- In order for charging infrastructure to be utilised effectively, electric vehicles will need to be able to safely access the adjacent car parks and wait for long enough to charge the vehicle. Only road controlling authorities can prohibit or restrict the stopping and parking of vehicles and enforce such restrictions (using their own resources).
- There are safety concerns in relation to charging infrastructure that go beyond electrical safety, for example: electric vehicles being towed whilst still attached to the

charging infrastructure; trip hazards in relation cords that may cross footpaths or cycle lanes; and considerations for events such as car accidents.

- Charging infrastructure should be ‘networked’ to provide users with assurance – users should be able to find where its located, if it’s broken who to call or where the next nearest charger is, whether the adjacent parking space is vacant or not and how to plan the journeys and make charging arrangements in advance so they aren’t caught short.

Guidance should be provided at the national level, with appropriate mechanisms to determine local and special matters, for the following reasons:

- Charging infrastructure should be interoperable nationwide and there should be an agreed industry standard (AT currently considers that the Type 2 industry standard is appropriate).
- Charging infrastructure has potential impacts in relation to markets, health and safety and on the grid (among other matters), which require consideration at a national level.
- Planning treatment and the requirement for resource consent for such infrastructure is likely to differ from region to region.
- AT is concerned about what will happen if charging infrastructure is underutilised or due to the pace of technological change, becomes obsolete. AT considers it essential that any underutilised or obsolete infrastructure be removed and that its road or property be ‘put right’.
- Some matters are local (such as determining locations for region wide charging network, taking into account local traffic and land-use conditions) and some matters are special (particular arrangements may need to be for specific sites). Any national guidance will need to allow for local and special matters to be dealt with.

## Part 2: Consultation questions

**Question 1:** Do you agree that owners of secondary networks should be required to belong to the EGCC? Please explain why or why not.

AT has no position on this matter.

**Question 2:** Do you agree that there should be consistency in the application of the Code Part 3 of the Electricity Industry Act and the LFC and levy regulations for owners of secondary networks where their activities are similar to those of a local distribution network owner? Please explain why or why not.

AT has no position on this matter.

**Question 3:** Do you think having a consistent approach to classifying charging infrastructure is necessary and/or beneficial? Do you think they should be classified differently for access rights and electrical safety purposes? Please explain why or why not.

AT’s position is that charging infrastructure should be categorised as electrical installations for access right purposes and electrical safety purposes (our reasoning is set out in response to the further questions below).

For these reasons AT favours having a consistent approach however we note that the appropriate classifications should apply regardless of consistency.

**Question 4:** Do you think for access right purposes charging infrastructure should be categorised as works or electrical installations? Please explain why you consider it to be one or the other.

AT considers that, for access right purposes, charging infrastructure should be categorised as “electrical installations”.

AT notes that there is genuine ambiguity as to whether charging infrastructure is “works” or an “electrical installation”.

It’s arguable that a charger is a “conveyance” of electricity:

- the device can “transform” power (either in voltage or in “type” such as AC to DC depending on the type of charger);
- The charging device could “meter” electricity use and could become a “point of sale” as a financial transaction takes place.
- The charging device does not consume power, although some minor “wastage” does occur.

In a strict sense the electric vehicle attached to the charger is the consumer of the power and could be considered an “electrical appliance” or a “connectable installation”. This however is a grey area because the electric vehicle (when connected) is not “consuming” power either, but is storing it for future use.

Electricity legislation does not anticipate the situation where electricity is supplied to multiple consumers at a point of supply on a public land and it is not clear what rules should apply. For this reason AT considers that legislative changes are needed.

AT makes the following general points, which ‘colour’ our opinion:

- Charging infrastructure is situated on footpaths and is designed to be used by consumers;
- Permanent traffic controls, which may only be imposed and enforced by road controlling authorities, are likely to be required in order for charging infrastructure to be accessed and used by vehicles;
- Any categorisation and classification will need to address the lifecycle of the charging infrastructure, not just for the duration of any works relating to its installation;
- Safety considerations go beyond electrical safety – there may be trip hazards from cords and specific considerations in the event of car accidents.

It is therefore essential that road controlling authorities determine the location of charging infrastructure.

### **Consequences if charging infrastructure is defined as “works”**

Utility operators may access to the road corridor as of right to for operations classified as works, this is done pursuant to section 24 of the Electricity Act 1992 (for electricity works) and in accordance with the National Code of Practice for Utility Operators’ Access to Transport Corridors (the Access COP).

A road controlling authority may impose reasonable conditions pursuant to the Electricity Act and the Access COP, however this process is constrained:

- A road controlling authority has only 15 days to consider an access request and impose reasonable conditions – after that period has lapsed, no conditions may be applied;

- The reasonable conditions are only likely to apply for the duration of the installation works, when the impacts of the installation last for its lifecycle. For example:
  - Conditions relating to the safe and efficient flow of traffic (Access COP, 4.5.1 (2)(a)) require traffic management plans (which are temporary) when traffic controls (for instance, a reserved parking place or changes to cycle lane) (which are permanent) are required;
  - Conditions to lessen the disruption to the local community (Access COP, 4.5.1 (2)(e)) are likewise temporary considerations, when disruption caused by charging infrastructure is of a more permanent nature: parking design for the area needs to maximise benefit for the local community from the roadway, for example, parking is designed so that as many drivers as possible and the local businesses get benefit;
  - Conditions relating to health and safety (Access COP, 4.5.1 (2)(b)) i.e. people who are, likely to be directly affected by the work. Such conditions are to protect workers or road users but it's not clear it would be 'reasonable' to impose conditions beyond the duration of the works.
- Access COP 4.5.1 (4) provides that reasonable conditions cannot (among other matters) prevent, frustrate or unreasonably delay works or relate to the appropriateness of works rather than the actual undertaking of the works.

AT therefore cannot refuse the location of charging infrastructure, and such infrastructure can proliferate in places which are inappropriate for the stopping and waiting of vehicles (for instance, on a cycle way or where there are broken yellow lines). Users will not legally be able to access the infrastructure.

## Conclusion

The regime for works operations is not appropriate for charging infrastructure for the following reasons:

- AT cannot determine the location of the chargers
- AT may only impose reasonable conditions which are of a temporary nature
- AT will only have 15 days to consider any reasonable conditions
- Reasonable conditions are not of sufficient scope to manage the issues, risks and impacts of charging infrastructure.

## Recommendation

AT recommends that charging infrastructure be classified as "electrical installations".

- The categorisation and classifications should be clarified in the electricity legislation.
- Locations could be determined collaboratively between road controlling authorities and utility operators, by agreement and with suitable conditions.
- Road controlling authorities can then impose the appropriate permanent traffic controls and enforce them.
- Utility operators can use the Access COP for the works to install the charging infrastructure.

**Question 5:** Do you think the provision of national information and guidance from the NZTA would be sufficient to clarify the access rights as they apply to charging infrastructure? Please explain why or why not.

AT considers that certain matters relating to access rights could be provided at the national level, for instance:

- A requirement for nationwide interoperability.
- Agreed industry standards (AT currently considers that the Type 2 industry standard is appropriate).
- Any matters that relate to the potential impacts on consumer markets, health and safety and on the grid (among other matters) which require consideration at a national level.
- A dispute mechanism between road controlling authorities and utility operators should included (how to deal with charging infrastructure that is underutilised or due to the pace of technological change, becomes obsolete; costs for removal and putting right).
- Parties should share information on utilisation of spaces and provide information to users and a nationwide network should be developed.
- Any general information for users and consumers and how it should be communicated to them.

However it should be noted that:

- Planning treatment and the requirement for resource consent for such infrastructure is likely to differ from region to region.
- Some matters are local (such as determining locations for region wide charging network, taking into account local traffic and land-use conditions) and some matters are special (particular arrangements may be needed for specific sites).
- Any specific or local information to users and consumers will likely need to be supplied by regional road controlling authorities.

Any national guidance will need to allow for local and special matters to be dealt with.

### **Recommendation**

- AT considers that any national guidance should be dealt with by a single agency and agrees that agency should be NZTA, working with other relevant agencies where appropriate.
- It is essential that any national guidance includes mechanisms to address local and special issues relating to access rights.

**Question 6:** For the purpose of electrical safety if all publically accessible EV charging infrastructure was to be categorised do you think it is better categorised as works or electrical installations? Please explain why you take this view.

**Question 7:** For the purposes of electricity safety what consequences would categorising all charging infrastructure as either works or electrical installations have? Please explain the consequences and impacts you think this would have if charging infrastructure was classified as works and if it was classified as electrical installations.

**Question 8:** How do you think electrical safety for charging infrastructure can best be addressed? Please explain any measures you have identified and why you think they are needed.

AT made the following points above in answer to question 4:

- Charging infrastructure is situated on footpaths and is designed to be used by consumers;
- Any categorisation and classification will need to address the lifecycle of the charging infrastructure, not just for the duration of any works relating to its installation;
- Safety considerations go beyond electrical safety – there may be trip hazards from cords and specific considerations in the event of car accidents.

AT notes that safety regime for “electrical installations” provides assurance for consumers that the installation is safe to use because of the electrical certificate of compliance and electrical inspection regime.

This can be contrasted with the safety regime for “works”, which assumes technically skilled parties are installing and carrying out works and are aware of any safety risks and understand how to minimise or mitigate the risk to themselves.

The electrical safety regime for “electrical installations” better covers situations where members of the public have access or use of an electrical installation such as charging infrastructure.

### **Recommendation**

- That charging infrastructure be classified as “electrical installations” for electrical safety purposes in the appropriate legislation.
- That additional and appropriate health and safety considerations be agreed and applied as conditions for installation of charging infrastructure.
- That safety information for users and consumers be prepared and appropriately communicated.

### **Auckland Transport**

**Dated: 8 August 2016**