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Electric Vehicle charging strategy: Charging our future

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PRESENTED TO

Te Manatū Waka Ministry of Transport

A SUBMISSION BY

Strata Community Association (NZ)

Introduction

SCA (NZ) is the peak professional association for the New Zealand Body Corporate and Community Title Management industry and was formed in 2016 to provide a forum for improved standards and education in the industry.

Membership includes body corporate managers, support staff, committee members and suppliers of products and services to the industry. SCA (NZ) proudly fulfills the dual roles of a professional institute and consumer advocate.

SCA (NZ) is a chapter of the Strata Community Association, which represents practitioners throughout Australia. The Strata Community Association has formal links with the Community Associations Institute of the USA.

Based on the 2020 Australasian Strata Insights Report, approximately 115,000 New Zealanders live in apartments and between 275,000 and 400,000 people living in properties under strata title of some kind (including townhouses, residential accommodation etc.). The industry employs approximately 352 full-time strata managers.[1]

As the growth of apartment and strata living has intensified over the last decade, the strata management strata services industry has grown in lock step to serve it. Strata managers navigate through a maze of legislation and regulation ranging from actual strata specific legislation, regulation, workplace, health and safety issues and building codes as well as measures applicable to the management of body corporate funds.

A key driver of SCA (NZ) is to improve the standard and professionalism of the body corporate management industry.

If you have any questions about this submission, please direct them to Shaun Brockman, National Policy and Advocacy Manager, SCA, shaun.brockman@strata.community.

[1] Hazel Easthope, Sian Thompson and Alistair Sisson, *Australasian Strata Insights 2020*, City Futures Research Centre, UNSW, Accessed at https://cityfutures.be.unsw.edu.au/research/projects/2020-australasian-strata-insights/

SCA (NZ) extends its broad support for the EV Charging Draft Strategy and its five long-term outcomes:

- Outcome 1: Aotearoa's EV charging system is underpinned by affordable, reliable, secure and safe power supply and infrastructure.
- **Outcome 2: All EV users can safely access and use EV charging when and where needed.**
- Outcome 3: Aotearoa's EV charging system is underpinned by integrated and streamlined cross-sectoral planning and standards.
- Outcome 4: Aotearoa's EV charging market functions effectively, can adapt and evolve over time, and is attractive to users, operators and investors.
- Outcome 5: Our national EV charging system supports the transition to, and use of, low-emissions transport modes across the wider transport system.

In particular, SCA (NZ) would like to highlight the critical importance of Outcome 2: All EV users can safely access and use EV charging when and where needed.

EV charging in apartments, townhouses and other unit-titled complexes presents a unique set of challenges to freestanding homes, as challenges of infrastructure upgrades, collective responsibility and decision making, equity, fire and safety concerns, insurance and legislative barriers are all factors.

While we indicate our broad support for the strategy, there needs to be careful attention paid to the unique challenges presented by unit-titled properties, and elements of these challenges given awareness and integrated into overall planning.

Please see below a breakdown of these challenges, and a set of overall recommendations for the New Zealand Government to consider as part of its final strategy.

What are unit-titled properties?

Unit-titled properties allow for individual ownership of part of a property (called a lot and can include land, a townhouse, villa, duplex, or an apartment), combined with shared ownership in the remainder of the property (usually called 'common property' and includes areas such as foyers, driveways, gardens). This is achieved through a legal structure, called owners corporations, bodies corporate, strata companies or strata corporations (use of term/s are typically based on the jurisdiction where this applies).

In 2021 the census indicated that the average household size (persons per dwelling) was 2.52 persons, in comparison body corporates may have upwards of hundreds of participants. Economies of scale are created in unit-titled properties, and as a result investing in the sustainable development of unit-titled properties means investing in better and smarter ways for communities to live.

Historically, government incentives specifically targeting or carefully considering unit-titled properties have been absent. Most policies and incentives have been targeted at freestanding homes, which is often due to the considerable difference in complexity for implementation into unit-titled properties, or just a lack of awareness of the needs that must be met.

Why are unit-titled properties important to EV policy in New Zealand?

Approximately 300,000 people live in some form of unit-titled property in New Zealand, or 5-7% of the population.[2] About the same proportion of EVs are in these properties, making up many thousands of vehicles.

Without appropriately considered policies and funding for the consideration of the thousands of vehicles entering unit-titled properties, the EV rollout will stall for these people.

When each EV starts its new life in a unit-titled property, a series of questions arise, in short:

- Can I charge my car in my parking space?
- Can I install a fast-charger for my vehicle?
- Can the building's current electrical capacity handle charging my car (and many others)?
- Who pays? For the electricity consumption and for an infrastructure upgrades or installation?
- Are there systems or methods that can determine when I can charge and how I can pay for my own electricity?
- What are the rules around charging my vehicle in my complex?

The above list instructive, but far from exhaustive.

[2] Ibid p70

Put another way and in terms of infrastructure, policy and safety, there are a series of challenges facing unit-titled properties. This submission will go into each in detail, and they include:

- Cost
- Equity within unit-titled properties
- Insurance
- Supply issues
- Physical issues (for example, location)
- Fire safety issues
- Dynamic Load Management
- Service providers

Our objective in our submission to this consultation is fourfold:

- Increased consideration of the unique characteristics of unit-titled properties in policy formulation, and the creation of incentives that benefit the significant section of the population that reside in unit-titled properties.
- Highlight that if these concerns are not considered and addressed not, they will choke demand for EVs for the 5-7 per cent of New Zealanders who live in unit-titled properties.
- Highlight that if EVs in unit-titled properties are not properly considered, it will be very costly down the road to try to address issues that could be addressed at this point in time.
- Take this opportunity to highlight the specific challenges that EV uptake will have on EV owners and people who live in unit-titled properties (as briefly detailed above).

Retrofitting Unit-titled Properties

The issue

Many potential EV consumers that reside in unit-titled properties, may be hesitant to take the leap and purchase an EV, due to the lack of confidence that their scheme will be able to sufficiently support an EV, and specifically EV charging. This can be at least in part attributed to the fact that most unit-titled properties are older buildings, and may not have the required electrical infrastructure or other means of capacity to adequately support EV charging for an entire scheme.

Similarly, bodies corporate operate in a democratised system, where each member of an body corporate may vote on a given issue. BCs, who are making decisions on behalf of the entire unit-titled property (apartment or townhouse complex) may default to denying applications for personal EV charging within a scheme due to several issues including potential cost, inability to offer infrastructure or other potential issues. This can occur even if the tenant has offered to pay for the charger, and/or the increase in common power usage that personal charging may create, due to the issues of equity and grid capacity.

Otherwise, as a scheme may not have the capability to support comprehensive personal EV charging without infrastructure upgrades, there may be a ‘first in best dressed’ scenario, where some lot owners will derive the privilege of personal EV chargers until the grid capacity of the scheme is full. At that stage, it may not be possible to facilitate personal EV chargers for the rest of the scheme without implementing significantly expensive infrastructure upgrades, and thus some residents may miss out.

The retrofitting of unit-titled properties to support this infrastructure can be extremely cost prohibitive, with the cost as much as a minimum of $100,000 prior to the installation of a charger, $2,000 per charger and the associated energy costs as a result of usage.

The solution
Support from the government in retrofitting unit-titled properties to support EV charging will be a significant driver of demand for EVs. If more unit-titled residents are confident that they are able to charge their vehicles within their building, they are far more incentivised to make the switch.

Availability of Public EV Chargers

The issue
The availability of EV chargers (at least in the short to medium term) is likely to be a significant driver of demand for EVs. If consumers have confidence that there are easily accessible chargers for their vehicle in their vicinity, they are far more likely to purchase an EV.

SCA (NZ) is advocating for co-funded investment in private unit-titled dwellings to reach hundreds of residents at a time, however, as highlighted, there are a considerable number of challenges associated with the integration of EV charging into multi-residential buildings.

In many cases, these challenges are highly complex and costly, and will not be overcome overnight.

With this in mind, the availability of fast charging public EV chargers, specifically in densely populated areas where there is a higher preponderance of unit-titled properties, will likely have a considerable impact on the demand of EVs.

It is also important to consider that those who are living in densely populated urban environments are unlikely to be driving their vehicles long distances. As a result, their EVs may only require charging periodically, and thus residents of unit-titled properties may consider fast public charging a viable long-term option (analogous to 'visiting a petrol station' as one currently would).

The solution
When giving consideration to public EV funding, governments should ensure that public charging stations are rolled out in 'unit-titled dense' areas, where people who may not have private access can easily charge their vehicles quickly.

Consideration should be given to potential partnerships with unit-titled properties to roll out this infrastructure in consultation with the sector to develop the best potential solutions based on the individual schemes desires, location and other factors.

Increasing the availability and accessibility of EV chargers (especially those that charge in a short amount of time) will naturally increase demand and interest.

Education

The issue – new technology
EVs are still a relatively new and emerging technology, many aspects of which are likely poorly understood by the public. Information that is supplied to the public in the form of targeted education campaigns, that outlines the overwhelming benefits of EV ownership will likely drive demand for EVs.

Whilst the government is well placed to inform New Zealanders about the viability of EVs, SCA (NZ) recommends that the government work in cooperation with relevant industry stakeholders on informational and educational campaigns, to ensure that the specialised knowledge that industry possesses is effectively translated to the public. This includes industries like unit-titles, where the aforementioned integration of elements such as EV charging infrastructure is highly complex.

Naturally, SCA (NZ) expects that the private sector (like the auto industry) will disseminate information on EV products directly to the public, via advertising. However, this information is likely to be limited in scope, to specifications that paint their EV product in a positive light, and enables the highest volume of sales. Similarly, private businesses may not necessarily be a trusted source of information for the public, due to the known associated financial incentives.

The issue – charging options

The government may also consider providing information on the charging option that consumers may require for their EVs. In most cases, consumers will only require a personal EV charger with a 7-kW capacity, especially if they are only driving distances of 30-50kms a day, and parking their vehicles at their residences. Chargers with a higher charging capability are, in most cases, likely to be unnecessary, more costly, and will put a greater burden on the electrical infrastructure it is reliant on (this is especially true of unit-titled properties).

It is important that consumers are also aware of their options regarding the integration of sustainable energy systems to supplement the charging of their EV. There is a significant difference between a reliance on vehicle to grid charging, and the integration of solar and other green energy solutions into a system to support the charging of the EV.

If consumers are motivated to purchase an EV, they are likely also interested in the uptake of other sustainable, low emissions energy solutions. Improving the public's understanding of the options available in regard to green energy systems and the possible integration with EV chargers, along with the associated emissions and cost reductions, may further encourage EV uptake.

The solution

Due to the complex nature of unit-titled properties and EV integration, the government should partner with peak and industry bodies such as SCA (NZ) to educate New Zealanders who live in unit-titled properties about how best to integrate EVs into their complex.

Therefore, the government should be leading the way for effective EV education for consumers.

Smart EV Chargers: Specifically, SCA (NZ) recommends the provision of information to consumers relating to smart-EV charging systems. As the country continues to promote sustainable practices and carbon emission reductions, the widespread adoption of smart EV charging infrastructure in multi-tenanted buildings could play a crucial role in addressing problems with EV integration.

Smart-EV charging is a system that connects an EV and a charging device with a charging operator, allowing for the management of the energy of EV charging devices based off of factors like demand, other vehicles being charged and local electricity production.

The use of a smart EV charging network may have significant benefits when integrated into a unit-titled property, including cost-effectiveness, increased efficiency, increased convenience, increased reliability and improved safety. As such, SCA (NZ) strongly recommends that the government consider implementing and contributing resources to educating NZ unit-titled residents as to the associated benefits of smart-EV charging systems.

Range Anxiety

The issue

Specifically, the government should consider providing targeted information to counter the issue of 'range anxiety' that may be a significant barrier to EV demand. Whilst consumers in NZ may commonly experience range anxiety, in reality, most New Zealanders drive relatively short distances in their cars daily, and will likely only need to charge up weekly or less. This is especially true of high-density areas, where a significant proportion of NZ's total population resides.

The single most useful means to counter range anxiety that may inhibit the uptake of EVs is to ensure that every New Zealanders can drive out of their place of residence with full range in their EV.

The solution

SCA (NZ) recommends the New Zealand government prioritise co-funding infrastructure investment in unit-titled properties and creating detailed policy plans in cooperation with state and territory governments to facilitate smooth EV rollout.