Considerations for councils when engaging with charge point operators on licence agreements

Deploying EV charging equipment.

Background

This document offers information for councils exploring the deployment of electric vehicle (EV) charging infrastructure in publicly managed spaces, such as local streets and council owned or managed carparks.

It outlines some considerations for establishing a licence agreement with organisations that specialise in operating public EV chargers, referred to as charge point operators (CPOs). This document references the CPO/Local Government Licence Agreement Template developed by the Electric Vehicle Council (EVC).

The considerations given in this document are in no way intended to act as commercial advice to any party entering into a licence agreement.

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Example considerations

Councils may choose which, if any, of the considerations listed in Table 1 below, they wish to include when entering into a licence agreement with a CPO.

Table 1. Example considerations

Consideration	Relevant section in licence agreement template	Description
Length of licence agreement	Clauses 2.1 and 2.2	CPOs investing in charging infrastructure may need some time to recover their investment, which may require assurance from local councils of continued operation at the site. Depending on the cost, power, and projected utilisation of the EV charger, this period may range from 5 years for lower cost AC charging installations to 15 years for multi-bay ultrafast EV charging sites at lower utilisation locations. Licence agreements may be structured to reflect either the shorter or longer end of this timeframe, with options for both parties to review and extend the agreement if needed.
Number of EV charge ports and number of parking bays per charging site		The minimum number of charge ports and parking bays may be negotiated to reduce wait times and enhance the public experience. These will be subject to site configuration e.g. whether the chargers are located on the kerbside or in a car park, and availability of parking at the site.
Minimum EV charger availability (uptime)	Clause 19.1.	The reliability of charging infrastructure is important to build the confidence of current and prospective EV drivers. A CPO may wish to provide assurances to the council around expected EV charger operational availability (also known as “uptime”) and how scheduled and unscheduled maintenance will be managed. The CPO and council may choose to share EV charging data under the agreement including but not limited to uptime, utilisation and the number of charging

Consideration	Relevant section in licence agreement template	Description
		sessions (but not necessarily power (kWh) delivered, which may be commercially sensitive). This information may be provided directly from a CPO, or by way of a third-party and may be useful to council in planning future EV charging deployments.
Maintenance	Clauses 1.1, 4.3, 4.4, 4.5, 4.6, and 9.1.	In most circumstances, it is the responsibility of the CPO to undertake necessary site and equipment maintenance, both proactive and reactive, unless otherwise agreed. Exceptions to this may include, for instance, when a council may handle vegetation management at the site. The CPO may wish to provide users a clear method of reporting issues and accessing customer support. The CPO may wish to provide the council with appropriate support contact numbers should there be an escalation or urgent matters for the council to report.
Removal of equipment at end of licence agreement / decommissioning	Clauses 4.9, 5.3, 6.2, 10.1, and 20.3.	The agreement may include terms around how EV chargers will be treated at the end of the agreement or end of equipment life. Councils and CPOs may wish to include requirements for the treatment of the equipment and site at such a time including removing equipment from site and restoring the premises to a safe and clean condition. Both parties may choose to make exceptions for reasonable wear and tear, unless otherwise agreed between both parties.
Performance and reporting	Clauses 18.1, and 19.1.	The CPO may wish to ensure that council and the public have real-time access to information on the availability of all EV chargers at the sites specified in the licence agreement. For planned outages that last longer than 24 hours, the CPO could be required to notify the council, provide details of

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		the proposed rectification and give periodic updates until the issue is fully resolved.
Location of EV chargers	Schedule 1.	Public fast and destination EV chargers are most commonly installed at locations near local amenities, shops, cafes, toilets, playgrounds, and residential areas. EV charging locations should be well-lit and comply with relevant standards (i.e., AS/NZS 1158 – Lighting for roads and public spaces). Kerbside EV chargers are commonly placed near residential areas to serve EV drivers who lack access to off-street parking.
Insurance and indemnification	Clauses 7.1, 7.2, 7.3, 7.4, 8.1, and 8.2.	Council should require an appropriate level of public liability coverage to be held by the CPO. The council must obtain appropriate insurance and indemnification as required by their jurisdiction.
CPO exclusivity		A CPO bearing the investment cost of EV charging infrastructure in a particular location (such as a car park or precinct) may request exclusivity in that car park or precinct for the duration of the licence agreement, to increase the likelihood of achieving a commercial return on the initial investment. This may be in the form of exclusivity across the entire LGA or within a geographic radius of the CPO's installed charger(s). It would be up to the council to determine the appropriateness of the request and their preference for this arrangement.
Utilisation		Utilisation of chargers refers to how often chargers are used over a period (e.g. day/week/month/year) and can be measured in the number of sessions or by the amount of energy (kWh) that is output over the same period. The return on investment (ROI) for CPOs will vary

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		significantly based on location and utilisation. CPOs and councils may wish to discuss realistic expected utilisation when negotiating licencing fees for sites. Low utilisation sites with slower EV charger may yield a slower ROI for CPOs which may warrant lower licencing fees than a site with high utilisation with ultra-fast EV chargers where the ROI for the CPO may be quicker.
Charger output		DC fast chargers can typically incur a high upfront cost but offer quicker charging times, higher fees and therefore higher commercial return per charge. In contrast, slower AC chargers, while generally less expensive to install and maintain, often result in longer charging times and lower commercial returns per charging session. Understanding the initial upfront cost of the charger, the type and speed of charger installed i.e. AC (slower charge time) or DC (faster charge time), the expected utilisation is important to understand when considering the appropriateness of licensing fees per parking space. This includes consideration for the benefits of charging locations that aren't as easy to quantify, such as drivers spending more time in the local area, which may lead to increased economic activity during their visit.
Advertising		The presence of ancillary functions on an EV charger may have an impact on ROI and charger profitability. Ancillary functions such as advertising may provide additional revenue sources to EV charging. CPOs may wish to disclose any ancillary functions and revenue sources to councils. Council may wish to consider the type of licencing fees at EV charging sites with ancillary functions versus a site that has only EV charging.

Consideration	Relevant section in licence agreement template	Description
Licencing fee and revenue sharing		The council and the CPO may wish to discuss licencing fees or revenue sharing models. Licencing fees could be structured in various ways including an upfront fee or rolling fees (e.g. monthly). Revenue sharing models to operate chargers in public parking spaces could take into consideration factors such as: the type of charger, it's location and expected utilisation.

Example licence fee scenarios

Below are some examples of how licence fees might work for different types of chargers and how they could impact users. Assumptions used in the scenarios below include:

- Licence fees charged by council to the CPO are directly passed onto users at the site and not spread out over the entire network of chargers operated by the CPO.
- Slower AC charger scenarios
    - Council is allocating 1 x parking space to a CPO for the purpose of EV charging
    - Calculations are for a 7kW single port charger.
- Faster DC charger scenarios
    - Council is allocating 2 x parking spaces to a CPO for the purposes of EV charging.
    - Calculations are for a 75kW dual port charger.

Scenario 1: High EV charger utilisation (DC charger)

Charger type	DC fast charger x 2
Charger utilisation	High (140,000 kWh/year)
Council licence fee per parking space per year	$4,000
Potential additional cost to end user	6c/kWh

A dual port DC fast charger could deliver 140,000kWh/year.

If the licencing fee of $4,000 per parking space per year ($8,000/year total) is directly passed on to the costs paid by EV drivers, this may add about 6c/kWh ($8,000/140,000 kWh = $0.06/kWh) to the existing cost of EV charging at that site (about 10-13% increase, assuming a baseline cost of 45 to 60 c/kWh).

Scenario 2: High EV charger utilisation (DC charger)

Charger type	DC fast charger x 2
Charger utilisation	High (140,000 kWh/year)
Council licence fee per parking space per year	$500
Potential additional cost to end user	1c/kWh

For the same charger type as in Scenario 1, if a licence fee of $500 per parking space per year ($1,000/year total) is directly passed on to the costs paid by EV drivers, this may add about 1c/kWh ($1,000/140,000 kWh = $0.01/kWh) to the cost of EV charging at that site (about 2% increase, assuming a baseline cost of 45 to 60c/kWh).

Scenarios 1 and 2 above relate to DC fast EV charging only. It is expected that with slower (AC) EV charging, volumes of energy delivered will be far lower.

Scenario 3: Low EV charger utilisation (DC charger)

Charger type	DC fast charger x 2
Utilisation	Low (30,000 kWh/year)
Cost per parking space per year	$4,000
Potential additional cost to end user	27c/kWh

For a low utilisation DC charging site, the delivered energy could look more like 30,000 kWh/year. If a licence fee of $4,000 is charged instead per parking space per year ($8,000/year total) to the CPO and directly passed on to the costs paid by EV drivers, this may add about 27c/kWh ($8,000/30,000 kWh = $0.27/kWh) to the cost of charging.

Scenario 4: High EV charger utilisation (AC charger)

Charger type	AC charger
Charger utilisation	High (20,440 kWh/year)
Council licence fee per parking space per year	$500
Potential additional cost to end user	2c/kWh

An AC charger, operating at high utilisation, might deliver in the order of 56 kWh/day to drivers, (totalling ~20,440 kWh/year). If a licence fee of $500 per parking space per year is directly passed on to the costs paid by EV drivers, this may add about 2c/kWh ($500/20,440 kWh = $0.02/kWh) to the cost of EV charging at that site.

Scenario 5: High EV charger utilisation (AC charger)

Charger type	AC charger
Charger utilisation	High (20,440 kWh/year)
Council licence fee per parking space per year	$250
Potential additional cost to end user	1c/kWh

With the same charger type as in Scenario 4, if a licence fee of $250 is charged instead per parking space per year to the CPO and directly passed on to the costs paid by EV drivers, this may add about 1c/kWh ($250/20,440 kWh = $0.01/kWh) to the cost of charging.

Scenario 6: High EV charger utilisation – revenue sharing (AC charger)

Charger type	AC charger
Charger utilisation	High (20,440 kWh/year)
Council licence fee per parking space per year	$0
Potential cost to end user (charged by CPO)	45c/kWh
Percentage of revenue to council from charger utilisation	5%
Potential revenue ($) to council	$460

With the same charger type as in Scenario 4, if a 5% revenue sharing model is agreed in place of a licence fee, a council may receive $460 in revenue from the CPO, if the CPO chooses to charge users 45c/kWh (20,440 kWh x $0.45/kWh x 0.05 = $460).

Summary

The profitability of EV chargers in the early phases of charger deployment and EV uptake can vary significantly. This variation may be influenced by factors such as charger speed, pricing, ancillary functions (such as advertising) and utilisation of that site, among others.

The council and the CPO may wish to discuss the anticipated utilisation, profitability, financial expectations of both parties for each site and charger configuration.

This collaboration may take various forms including, but not limited to:

1. Free site access for a CPO.
2. An upfront licencing fee to operate chargers in public parking spaces based on the type of charger, it's location and expected utilisation.
3. A revenue sharing model.

Glossary

AC charger: AC chargers are generally found in the home, workplace settings, or public locations. AC Chargers can be a simple three-pin plug in a conventional power outlet (Level 1) or a wall/pedestal mounted charger on a dedicated circuit (Level 2).

AS/NZS 1158: An Australian standard for public lighting.

CCS2: Combined Charging System 2 is an international standard for direct current (DC) charging, used by a wide range of vehicle manufacturers. 'Combined' refers to the addition of two DC electrical contacts to the Type 2 AC plug system.

CHAdeMO: DC fast charging system that is a type of mode 4 DC charging. This is an abbreviation of 'CHArge de MOve', equivalent to 'move using charge' or 'move by charge' or 'charge for moving'.

Charge point operator (CPO): Charge point operator is an expert operator of EV charging equipment. CPOs can be engaged by way of a licence agreement with councils to deploy, operate, and maintain public charging in public spaces managed by council.

Council: An independent, locally elected corporate body responsible for managing local issues and planning for the community's needs. For the purposes of this document, council and local government refer to the same entity.

DC charger: A DC charger powers the vehicle by converting AC from the grid and is many times faster because the converter inside the EV charger is more efficient than converters found inside the EVs.

EV: Electric Vehicles

EVC: Electric Vehicle Council

Fast Charging: DC charging with power output between 24-99 kW

LGA: Local Government Area

NSW: New South Wales

Ultra-fast charging: DC charging with power output >100 kW