

# Case Study **Pioneering innovative solutions that cater to the needs of the EV driver and building owners**

Waverley Luxury Apartment Development, NSW

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# The Project...

Construction of 55 Luxury townhouses, Wellness Centre, Bowling Green, Club and located in the sought after beachside suburb of Waverley.

The brief was to provide to create a 100% EV Ready building for the residents of the apartments and allowance for future expansion of club & car share parking. Day 1 Visitor AC Chargers and multiple resident AC Chargers.

A system was needed to provide robust and easy to use charging, for the over 55's target market, while ensuring EV charging would never compromise the reliability and availability of power to the entire development.



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# The Solution..

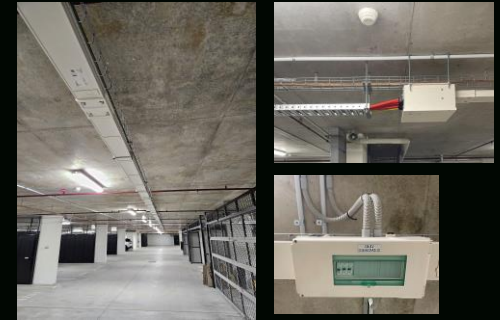
Reliability and ease of use with  
Schneider Pro AC Chargers



Ensuring security of power supply  
through Edge Control Load Management



Full access to distributed power  
through Canalis Busduct...



A EcoXpert Certified partner, to design, install and commission the offer



# AERON GROUP



# Canalis KS Busduct

Flexible and robust  
Power Distribution for  
EV Installations to 1000  
amps



*“This ambitious project saw the installation of a comprehensive Electric Vehicle (EV) charging infrastructure, a pioneering effort in the realm of sustainable transportation.*

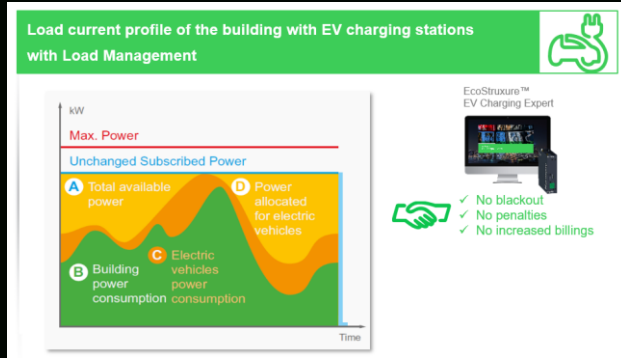
*At the heart of this venture was the 400A Canalis Busduct System, a cutting-edge solution from Schneider Electric that revolutionizes how power is distributed and managed in EV charging applications.”*

# Why Canalis Busduct ?

- **Ceiling/Soffit Real Estate** – Canalis combined with 150mm Basket took up a space of 185mmW by 400mmH Vs Conventional system of 1 x 600mm ET3, 1 x 300mm ET3 and 1 x 150mm Basket equating to 1,500mmW by 400mmH.
- **NCC J9D4** – Provided Electrical Distribution and Din space for metering
- **Value \$\$** Canalis Busduct Paired with 150mm Basket was 33% less than the conventional System and 50% less than the NCC Compliant conventional System. To date it continues to show between 25 to 50% less than conventional systems.
- **Standardised EV Installation Costs**– Canalis allowed for a set price to be provided for any future EVC installation, noting that there isn't differences in power cabling length between car spaces and conventional distribution boards.
- **Fast Installation** – Installation of the Busduct is very, very quick. *Two tradesman installed 114m in 2.5 Days.*
- **Universal** – Resident Chargers, Visitor Chargers, Club Chargers, Car Share Chargers, Building Management Chargers, and Retail Space Chargers are all supplied through the one system with metering made easy and simple via powerful Charge Point Operators such as Charge N Go who manage this site.

# Ecostruxure EV Charging Expert

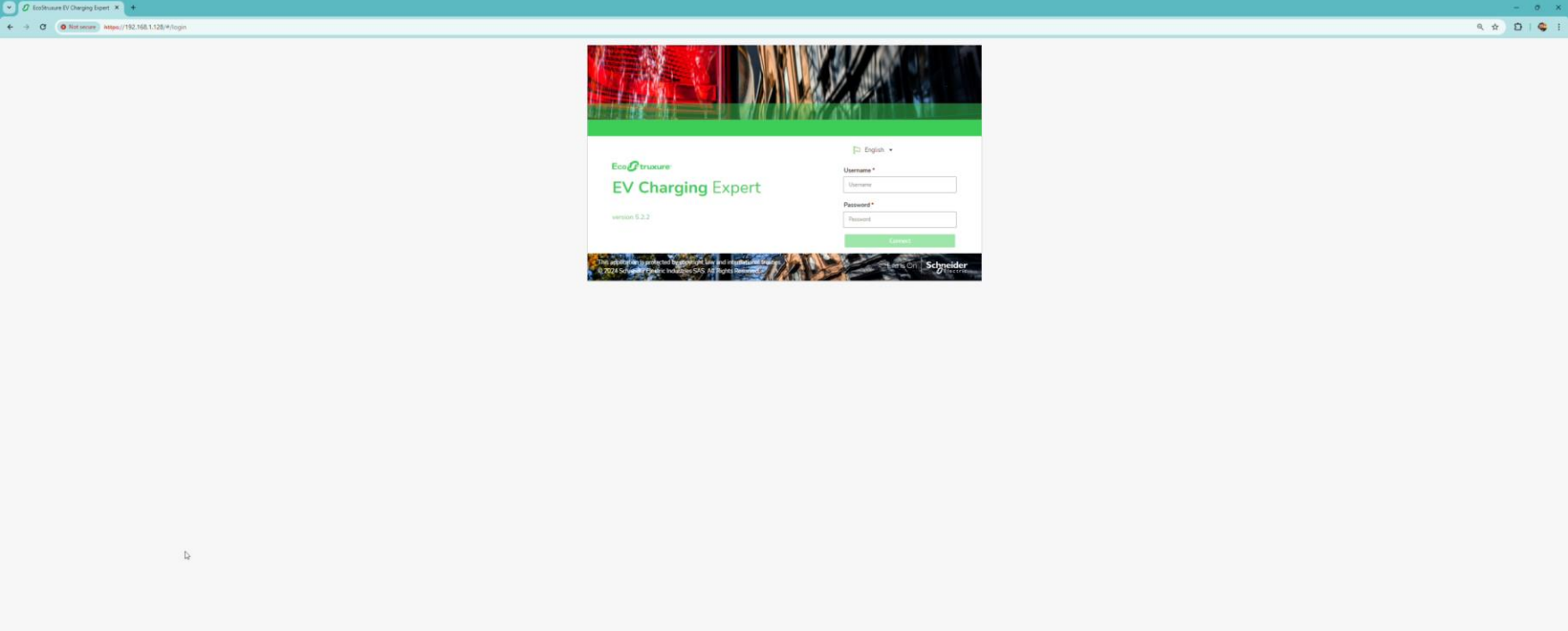
## Edge Control Load Management



*“This system is designed to optimize the distribution and consumption of electrical power among multiple EV chargers. It dynamically adjusts the power allocated to each charger based on real-time demand and pre-set priorities, ensuring efficient energy use without overloading the electrical network “*

- Edge Control hardware with NO cloud connection required, for greater **resilience**
- Scalable from 5 to 100 + socket capacity and upgradable with **NO hardware** change
- **Dynamically adjusts** charging rates in real time, to respond to available building capacity

# Ecostruxure EV Charging Expert



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# Fire Safety and Isolation

## EVCE's Fire Panel Interface

Utilising the power of the EcoStruxure, Schneider's EVCE LMS **seamlessly integrates** with various other building systems, such as the Fire Detection System.

The NSW FR recommends that *“EV Charging is provided with automatic or remote emergency shutdown of charging stations”* To follow this recommendation, an emergency stop button or isolation switch would not suffice or be appropriate as they would require manual interaction and we required another system.

The EcoStruxure LMS was **integrated with the Fire Detection System** so that in the event of Fire Detection anywhere throughout the building all electric vehicle chargers will shut down and cease all charging, Seamless, Remote and Automatic. This also allowed for charging too automatically continue if the fire alert was cleared.

NSWFR have also recommended that in the event of an Electric Vehicle Fire that no persons should be within 25m of the vehicle. Use of local isolators or emergency stops don't meet this safety recommendation.

While Shunt Trip and Physical Isolation could have been utilised at a substantially greater cost, this brought about further issues, such as requiring a licenced electrician to re-engage the system, even in the event of basic fire system testing, or accidental or fault driven alarms, creating constant additional and unnecessary costs. **EVCE Fire Panel integration avoids these issues**



# Pro AC Mode 3 EV Charger 7-22 kW

Easy to use and Robust for multi residential and commercial applications



*"The incorporation of these chargers into the project highlights a commitment to providing top-tier EV charging solutions."*

# Project in Review

Cost Effective, Fast, Advanced, Complete, Flexible and all Sustainably Green Premium



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Electric

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