

# What does EV ready mean?

Electric vehicle (EV) ready means getting a building ready to accommodate EV chargers. This typically involves upgrading electrical infrastructure in the building's car park.

Being EV ready does not mean installing EV chargers now. Rather, it means getting your building ready for residents to install their own chargers at a future date. Making your building EV ready will enable residents to transition to EVs when it suits them.

The cost and complexity of retrofitting your building will depend on existing electrical infrastructure and capacity, and whether structural changes to the building are required. Installation will need to meet EV requirements identified in the National Construction Code 2022.

### Changes to the *Unit Titles (Management) Act 2011* to support EV uptake

The ACT Government has amended the *Unit Titles (Management) Act 2011* to facilitate residents installing sustainability infrastructure in buildings managed by an owners corporation or strata manager. This update ensures that owners corporations cannot unreasonably prevent or restrict the installation of sustainability infrastructure, such as EV chargers.

These changes have also introduced measures to allow fair unit levy calculations when EV chargers are used in multi-unit developments. Where EV chargers are connected to the main switchboard, the owners corporation can now pass the electricity costs on to the individual.

More info



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### **Technical considerations**

EV charging in existing apartment blocks should be designed to ensure 100% of units are EV ready. EV chargers will need to be fed from specific distribution boards on each car park level. EV chargers must not feed from individual units for the following reasons:

### Safety

- In the event of a fire or damage to an individual EV charger or its isolator, it is important to be able to safely isolate power to an area or EV charger quickly and safely. This cannot be done if an EV charger must be traced back to its originating unit, where the unit must be entered and power supply isolated.
- > When all EV chargers on a floor are controlled by a single board, it is far quicker to isolate them or identify and isolate an individual charger.
- > Signage indicating the locations of EVs and charging infrastructure will assist emergency services in the event of a fire.

#### Load management

> A building's energy load needs to be managed at the level of the incoming supply and not at the individual unit level. This is to prevent building-wide power outages and is much simpler to manage if charging is controlled at a single point.

#### Route length

- > A well-placed distribution board in a car park will ensure the shortest possible length of cable in the best location for each EV charger.
- Running cables from individual units to chargers could result in over-long cabling runs, lowering the output of the charger and risks a de-rating of surrounding cables on the route.

#### Equity of access and cost

- Some units may be unable to provide an electrical supply to their parking space due to access difficulties or distance from their unit.
- > Costs would vary significantly between units.
- > Unregulated drilling can compromise fire barriers, watertightness, and structural integrity.
- > Early adopters of EVs will take up all the available capacity, reducing availability to future EV owners.



### How to retrofit EV chargers

If you live in or manage a strata building, it can be hard to know where to start. Here are some steps to help guide you:

1. Engage with owners in your building to gauge their level of interest and EV readiness. It may then be useful to survey residents to gather more detailed information on their EV ownership plans and willingness to fund building upgrades.

2. If there is sufficient interest, the owners corporation should conduct an audit to assess the building's energy use and plan for the new electrical load. This can be carried out by a suitably qualified and licensed electrical contractor and should include identifying:

- a. historical peak energy loads
- b. energy use patterns
- c. circuit breaker sizes
- d. calculating spare electrical capacity
- e. energy efficiency upgrades that could reduce load and increase supply, such as lighting upgrades.

3. Engage a suitably qualified and licensed electrical contractor to draft a comprehensive plan and design of the installation including:

- a. high-capacity feed from the main switchboard to distribution boards on each parking level
- b. cable trays to accommodate each car space
- c. load control, such as a demand management system
- d. a billing system to pass on charging fees.

4. Owners install the chargers suitable for building loads, car requirements, and their usage patterns.



## **Benefits for property owners**

The initial cost of getting a building EV ready may be daunting for owners that don't yet own an EV or aren't planning to purchase one soon. However, for owners and owners corporations willing to commit to these building upgrades, the benefits may include:

- > increased property value
- > increased rental income
- improved competitiveness in the selling and leasing markets

Once your building is EV ready and you have a charger installed, some further benefits can include:

- > the convenience of charging at home
- > no more refuelling at petrol stations
- > reduced air pollution and emissions
- > optimised charging to lower electricity costs.

While the transition to electric vehicles may be complex, it also provides the opportunity to improve convenience for residents while driving down emissions and transport costs. Early planning will assist in making the transition to electric vehicles easier in the future.



## **Contact us**

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