

Assisting future electrification and EV charging in homes

What are the proposed changes?

We are proposing changes to the Housing Provisions Standard (Housing Provisions), that is referenced by NCC Volume Two, to make it easier to replace gas-powered appliances in homes with electric-powered appliances at a low cost in the future. This is known as electrification. We're also making changes that allow for the ongoing uptake of electric vehicles (EVs).

These changes include:

- Requiring more switchboard capacity for a new house (Class 1 building) (Clause 13.7.10).
- Requiring infrastructure to support faster domestic charging of an EV in the garage (or carport, etc.) of a new house (Clause 13.7.11).

Why are these changes proposed?

To move to a net zero future, homes may need to be electrified so they can use the renewable energy that will be increasing within the electricity grid.

The [National Electric Vehicle Strategy](#) has predicted EVs will make up 50% of new vehicle sales by 2030.

Building Ministers asked us to assist with making EV charging easy through the NCC given the likely uptake of EVs, and to prepare houses for future electrification.

How were the changes developed?

To help facilitate the future electrification of houses, we worked with our peak technical committee, the Building Codes Committee (or BCC), and key stakeholders, including the Electric Vehicle Council of Australia, and the Commonwealth Department of Climate Change, Energy, the Environment and Water (or DCCEEW) to refine the proposed NCC changes.

We looked at the switchboard capacity required for a new house based on what space would be needed for the house to electrify its appliances. We found that for a house intending to use:

- a combination of gas and electricity as the energy source of appliances, a minimum of 8 empty single-phase circuit breaker slots is required, and
- electricity only as the energy source, a minimum of 4 empty single-phase circuit breaker slots is required.

To support future EV charging our work found the following:

- if a house has at least one car parking space, the main switchboard needs at least one single-phase circuit terminating at one car parking space. This circuit needs to be sized to support a load of 32A, with active conductors with a minimum cross-sectional area of 6mm².
- a general-purpose outlet of at least 15A is required, clearly labeled for EV charging.

Who has been involved?

We consulted with members of our peak technical committee, the [Building Codes Committee](#) and the following key stakeholders:

- [The Standards Australia technical committee EL-001 Wiring Rules](#), which is responsible for AS/NZS 3000 Electrical installations
- [The Electric Vehicle Council of Australia \(EVC\)](#)
- [The Commonwealth Department of Climate Change, Energy, Environment and Water \(DCCEEW\)](#) which is responsible for the [National Electric Vehicle Strategy](#).

What are the impacts?

These changes offer low-cost support for the uptake of EVs and help the future electrification of houses.

A Preliminary Impact Analysis (PIA) anticipates the increased switchboard capacity would cost approximately \$15 if installed at the time of construction. In contrast, if the switchboard capacity is increased later, this could cost approximately \$600. These proposed changes will therefore make it easier and cheaper to prepare for the future electrification of homes.

The PIA also estimated the cost of providing a dedicated 32A circuit (terminating at a 15A outlet) for faster EV charging (compared to a standard outlet) at \$350 per dwelling.

More information and relevant links

To read the full details of the changes, please review the [NCC 2025 Housing Provisions PCD](#).

Want to provide feedback?

Responses to the Public Comment Draft are invited until **11:59 PM AEST Monday 1 July 2024**.

In line with the ABCB's process for undertaking public consultation, comment will only be accepted through the ABCB's online [Consultation Hub](#).

To access the Public Comment Draft and response form:

1. Download the NCC volume(s) you wish to view and provide comment. You can also download the supporting information PDF for detailed information on the more significant/complex changes.
2. Download the response form.

Once you've reviewed the draft, complete the response form, and include your feedback on the suggested changes to the NCC.

To submit your comments:

1. Enter our Public Comment Draft consultation hub.
2. Start by agreeing to the privacy statement.
3. Let us know if you'd like your submission published publicly.
4. Enter your contact details.
5. Upload your completed form in .doc format (please make sure each file is under 25MB) and submit.