



AIBS

Charging of electric vehicles in existing buildings

Policy Position

About AIBS

The Australian Institute of Building Surveyors (AIBS) is recognised nationally and internationally as the peak professional body representing building surveying practitioners in Australia.

Professional standards scheme

The AIBS Professional Standards Scheme for Building Surveyors (the AIBS Scheme) operates across all States and Territories. The AIBS Scheme is a legislative instrument that empowers AIBS to monitor, enforce and improve the professional standards of its members, thereby reducing risk for consumers of professional building surveying services.

Policy statement

- A. The installation of a dedicated charging point within an existing building should be a controlled activity.
- B. As a controlled activity, an approval or similar form of authorisation must be obtained by the building owner or their delegate before the work is performed.
- C. That approval or authorisation should be inclusive of an assessment against technical criteria by a building surveyor.
- D. Technical criteria include those set out in the National Construction Code Building Code of Australia.

Discussion

Regulators around Australia and throughout the world are aware that batteries used in electric vehicles can become involved in thermal runaway events and that this risk is potentially increased during battery charging. Once an electric vehicle battery becomes involved in thermal runaway, it is exceedingly difficult for firefighters to extinguish. There is significant potential for substantial adverse consequences to life safety from such events so that regulators should feel compelled to act.

AIBS believes that the first step is to ensure that the activity is regulated. There should be a need to get an approval before an electric vehicle charging point is installed in an existing building. This step will allow for the potential life safety impacts of an adverse event to be considered, which is not currently available through ensuring electrical compliance only.

There are at least three forms of charging available for electric vehicles in Australia. From least risk to greatest risk, 240 volt plug in charging which often requires half to a third of a day to fully recharge a battery pack; dedicated three phase or similar charging systems with recharge times of up to eight hours, dedicated fast charging systems utilising high voltage systems where recharge times are less than three hours.

AIBS believes that the 240 volt charging option is not necessary to control and this often does not include the installation of dedicated equipment, most often provide with an extension lead from a standard power socket.

As the risk does not change with the arrangement of responsibility for installation and operation of the charging facility, AIBS believes it is not necessary to consider the commercial arrangements as part of the trigger for approval as a private installation will be just as prone to risk as a system installed as part of a commercial business operation.

The existing legislative pathway in every Australian jurisdiction for authorisation of building work to occur should be utilised for this purpose – the activity should be added to the list of items that requires approval.

The approval should be at least inclusive of a requirement for assessment against technical criteria by a building surveyor acting in a statutory capacity. Land use planning assessments need not apply. The technical criteria of the National Construction Code Building Code of Australia that is currently called up in every Australian jurisdiction should also apply to the installation of electric vehicle charging points.

AIBS notes that the current National Construction Code Building Code of Australia does not contain a complete set of Deemed-To-Satisfy criteria that could apply to proposed installation of electric vehicle charging points so that a performance solution would be required to support approval.

The ABCB, AFAC, all Australian jurisdictions and industry are working together to develop a technical basis for safe electric vehicle charging in buildings and AIBS continues to support this work. There should not be any hesitation to legislate for approval until a set of uniform national technical requirements are established that can be referenced as Deemed-To-Satisfy requirements. The activity should be controlled as soon as possible.

In closing

AIBS is committed to working with government, industry and key stakeholders to continually improve the building regulatory system throughout Australia.

Please contact us for any clarification or further information that may assist.

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