



## **EVC response to the NMI Draft General Certificate of Approval for Electric Vehicle Supply Equipment – Consultation Paper**

**March 2024**

**With reference to:**

[Consultation hub | General certificate of approval for electric vehicle supply equipment \(EVSE\) - Consult hub \(industry.gov.au\)](#)

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## Preamble

The Electric Vehicle Council (EVC) is the national body representing the electric vehicle industry in Australia. As the market is emerging in Australia, our work is particularly aimed at increasing certainty for investment through policy, knowledge sharing and education.

The National Measurement Institute (NMI) is a part of the Department of Industry, Science and Resources and are responsible for biological, chemical, legal, physical and trade measurement to ensure people get what they pay for. NMI's vision is to provide measurement policy, science and regulation that underpins the economy and well-being of Australia.

The International organisation for Legal Metrology (OIML) seeks to enable economies to put in place effective legal metrology infrastructures that are mutually compatible and internationally recognised.

Our previous submission to the NMI on metering for EVSE can be found here.

[EVC submission to NMI on the draft OIML guide - Electric Vehicle Council](#)

## Introduction

The EVC supports a system that ensures and fosters consumer confidence that the amount of energy consumers receive from an EVSE is equal to or greater than what they are told they have received. The EVC wishes to see a future where metrology requirements around EV charging are harmonised with international standards. This is important in order that globally developed and manufactured solutions can be deployed in Australia, without having to meet unique national requirements – this approach promotes competition, lowers barriers to entry for equipment providers, and results in better outcomes for consumers.

To get it wrong could reduce choice of EVSE, increase cost and hamper EV uptake, jeopardising state and federal government emissions reduction targets, EV strategies and the environment.

## Guide is not yet appropriate

Guidance document OIML [G 22 edition 2022 \(E\)](#) (G22), contains 32 mentions of where a National authority may make their own determinations with regard to the EVSE allowed to be installed for trade in their particular country. Around 23 of these could result in a hardware alteration being required to meet the specific national requirement and more may require a software alteration specific for that nation.

AC vehicle to grid (V2G) is considered in G22. EVSE capable of V2G will be on average more expensive than AC EVSE that are not. Introduction of a 2-register pattern approved meter to measure the energy flows in both directions will further increase the cost of these EVSE.

OIML note that their guides are informative and that once a guide reaches the stage of being a recommendation piece, that signatories should adopt it "to the greatest possible extent". G22 is clearly not ready for adoption in a nascent EV market and overall small market like

Australia. While multiple jurisdictions are addressing this challenge in a variety of ways, the EVC is not aware of any jurisdiction currently using G22, or any test laboratories ready to certify equipment to G22.

## Poor consumer outcomes

When faced with onerous metrology requirements for trading energy by kWh, some operators of public EVSE (CPOs) may look to other legal methods of trading, such as billing consumers by the period of time that they're plugged in (eg. cents per minute) or by a subscription (eg. use as much as you want for a year), in order to monetise charging services in a manner consistent with the law, and without carrying the burden of the metrology requirements. This will predictably lead to some consumers paying far more per unit of energy received than others. In short, the proposed measure will likely cause the problem it's trying to solve.

EVSE manufacturers, faced with unique national metrology requirements in Australia, may elect not to implement those requirements, which will tend to reduce competition amongst hardware suppliers in the Australian market. This can be expected to drive up cost for businesses installing and operating EVSE, which will be passed through to consumers.

These factors will combine to impact EV uptake among consumers, delaying the transition from petrol and diesel vehicles to electric, and therefore compromising state, territory and federal objectives around decarbonisation.

EV driving consumers today are not generally concerned about the accuracy of metrology at public charging equipment. They are highly concerned about the availability of public charging equipment, which the imposition of unique Australian metrology requirements on EVSE would be likely to compromise.

For the avoidance of doubt, the EVC supports the goal of consumers having confidence that energy supplied is accurately measured, but believes this can be more effectively achieved via an alternative approach that will not compromise EVSE supply, billing methodologies of CPOs, or EV uptake.

## Timelines

This [NMI consultation paper](#) (the paper) and the [outcomes report](#) from the previous consultation on G22, speak with a tone of finality that EVSE for trade will need to comply by 1<sup>st</sup> April, 2026.

If this deadline were to be made, to have product certified and in the marketplace, manufacturers would need to start developing their solutions now (assuming they are willing to do so at all for such a small market), but for product engineers to design something, they need to know the detail of what the product has to be able to do.

G22 has not yet been adopted by anyone, therefore no one has specified how they will implement it regarding the 32 determinations that can be made by national authorities. There are also no test laboratories registered to test the EVSE to G22. It's reasonably clear that G22 as currently written will not result in consistent requirements across jurisdictions – but at the current time, it cannot be applied at all.

It would be unwise for Australia to go it alone on this one, given the small number of EVSE models for trade being sold into our small market, a test lab would likely not bother to stand up a regime.

## Rest of world

G22 was published in 2022. In that year over 400,000 BEVs were sold in Germany<sup>1</sup>, while nearly 40,000 BEVs were sold in Australia. There are markets overseas far more advanced in EVs than Australia is, which are addressing the metrology challenge associated with EV charging very differently, and with caution so that they do not disrupt the rollout of charging equipment. The variety of approaches is noted in some of the supporting documentation produced by the NMI on this consultation.

Given the issue is not in urgent need of solution, and given there are multiple parallel attempts occurring in countries further along this journey than Australia, prudence would dictate observing the outcomes achieved by the various different approaches over time, and selecting the best of them as candidates for implementation here.

## EVC proposed alternative

NMI is the federal body responsible for taking a 10L test standard vessel around to petrol stations in Australia and testing the accuracy of fuel bowsers.<sup>2</sup> The NMI or a body like it, with the support of the federal government, could (as an interim step) stand up a program similar, whereby a duly appointed person travels around to various EVSE for trade with a certified and calibrated piece of testing equipment to measure the amount of energy supplied to an EV during a charging session and compare it to what the EVSE says was provided.

The initial focus of this program could be on fast chargers (>24kW DC) as that is where larger amounts of energy are typically traded in public settings, and they are significantly fewer in number than regular chargers (<24kW).

There are currently about 800 fast charger locations in Australia. A small-scale program could easily test a majority of locations in the country on an annual basis. The federal government in consultation with NMI and industry could stand this program up quickly and at low cost, to immediately start delivering confidence to drivers, as an alternative to introducing new requirements that can reasonably be expected to create bad consumer outcomes and delay the transition to EVs.

The EVC would be happy to shape this solution further with government and the NMI.

## Recommendation

The NMI should:

- Undertake a review of world progress on G22 and other international approaches to metrology related to EV charging in April, 2026, not mandate G22 by April, 2026.

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<sup>1</sup> [Europe's Biggest Car Market to See First EV Slump Since 2016 \(msn.com\)](#)

<sup>2</sup> [Verifying fuel dispensers for trade | Department of Industry, Science and Resources](#)

- Consult with industry to stand up a program to independently test EVSE in the field as described.

The consultation questions have been answered below.

1. *Can you please rate the draft General Certificate of Approval for EVSE on a scale of 1 to 5, with 5 being most acceptable and 1 being the least?*

1- It is too early to rate the appropriateness of the General Certificate of Approval for EVSE pending the upgrade of the guide to a recommendation by OIML.

2. *Do you support all of the marking requirements detailed in clause 1.2 – Markings? If not, please provide reasons.*

Given we do not support the implementation for G22 at this time in Australia, it is too early to consider what markings products will need.

3. *Are the MPEs specified in the draft General Certificate of Approval appropriate for measurements in the field? If not, please provide reasons.*

The issue of how accurate metering in EVSE shall be in Australia is a matter for a specific consultation – it may include the concept of accuracy below the stated level being different to the accuracy above, such as in the speedometer of a vehicle.

We would be happy to discuss and develop the MPEs appropriate for the EVC solution presented above.

4. *Do you have any other comments?*

Please see letter above.

For further information or discussion please contact us at [office@evc.org.au](mailto:office@evc.org.au)