



Australian Government  
Department of Industry, Science,  
Energy and Resources

**National  
Measurement  
Institute**

# **Consultation on international requirements for electricity meters**

3<sup>rd</sup> Working Draft of OIML R 46  
Electrical energy meters – alternating  
current (a.c.)

February 2020

## Background

### OIML

The International Organisation of Legal Metrology (OIML) is an inter-governmental treaty organisation that produces international recommendations (commonly called standards) for measuring instruments. The National Measurement Institute actively participates in OIML and most of our pattern approval requirements for measuring instruments used for trade are based on OIML recommendations.

### OIML R 46

OIML R 46 is an OIML recommendation that relates to electricity meters. The current version of OIML R 46 was published by OIML in 2012.

### Project group

There is a current international project to revise OIML R 46. The objectives of this project group are to review OIML R 46 giving consideration to:

- new technologies and innovations
- other international standards for electricity meters, including IEC standards, in an effort to increase harmonisation
- other measurements including reactive energy

### Subgroups

There are four subgroups associated with this project:

- **Quantities and harmonics:** This subgroup is looking at quantity definitions including active and reactive energy associated with the fundamental and with harmonics.
- **Electric vehicle charging stations:** This subgroup is looking at requirements specific to electric vehicle charging stations.
- **Smart street lighting:** This subgroup is considering the specific application of metering individual street lamps.
- **Remote displays and meters with modular components:** This subgroup is considering the use of remote displays, either a separate display unit or through a web-enabled device, and other modular components.

## Consultation

The purpose of this consultation is to provide Australian businesses and interested parties with an opportunity to provide input into the project to revise OIML R 46.

We welcome comments on the draft and ask you to submit these by using the comments form.

We also welcome general submissions on the subgroup topics and ask you to submit these using the comments form. In particular, we would welcome comments on:

1. Should electricity meters used for trade measure energy associated with the fundamental only, or including harmonics?
2. Should there be any additional or special requirements for electric vehicle charging stations?
3. Should there be any additional or special requirements for smart street lighting?
4. Should meters be permitted to use remote display? What additional or special requirements should apply to remote displays and meters with modular components?

Note, this consultation is not about adopting OIML R 46 in Australia. However, NMI is likely to consider adopting a revised OIML R 46 in Australia through future consultation. NMI has previously consulted on pattern approval standards for electricity meters in Australia, and intends to adopt a modified version of the current OIML R 46 (2012 edition) as a pathway for pattern approval in Australia.

## How to submit comments

Public consultation will run from **21 February 2020 to 31 March 2020**.

Your submission must be received by NMI by **11:59 PM AEDT on 31 March 2020**.

Comments may be submitted by completing the stakeholder comments form which is available to download from the [Consultation Hub page](#).

You may also wish to upload further documentation in support of your submission or any other matters you consider relevant.

Please send the completed form:

- By email to [InternationalLegalMetrology@measurement.gov.au](mailto:InternationalLegalMetrology@measurement.gov.au), with the subject heading '**Comment on 3WD OIML R 46**'. Please provide your name and company name in the body of the email; or
- By post to: Legal Metrology Branch, National Measurement Institute, GPO Box 2013, Canberra ACT 2601. Please mark the letter '**Comment on 3WD OIML R 46**'

NMI intends to publically release the contents of submissions. Contents of submissions will be de-identified where possible. If you would like your submission to be treated as confidential please follow the instructions below.

## Providing a confidential submission

The contents of submissions will be published on the Department of Industry, Innovation and Science's Consultation Hub webpage. However, if you would like your submission to be treated as confidential please indicate this by filling in the 'Confidential submission' section of the comments form.

Any request made under the *Freedom of Information Act 1982* (Cth) for a submission marked 'confidential' to be made available will be determined in accordance with freedom of information laws.

You can read the full **Privacy Collection Statement** on the [Consultation Hub page](#) or in the offline submission form available to download from the same page.