



Australian Government

Department of the Environment,  
Water, Heritage and the Arts

# Metering

## Metering Expert Group – Metering Projects

The Metering Expert Group is comprised of representatives from state and territory water resource management agencies and water service providers, the Commonwealth Government, National Measurement Institute, Irrigation Australia, Standards Australia, the Murray-Darling Basin Commission and other industry representatives with expertise in water metering. The Group was established in 2006.

### What are the Group's metering projects?

The Metering Expert Group has initiated a series of projects essential for the successful implementation of national non-urban water meter standards.

These include:

#### 1. Establishing pattern approvals and standards for non-urban water meters

The Natural Resource Management Ministerial Council agreed that the National Measurement Institute would assist the Metering Expert Group in developing national pattern approval standards for non-urban water meters.

The Ministerial Council also agreed that Standards Australia would assist in developing Australian installation specifications for non-urban water meters. The following standards are being developed:

- pattern approval specifications for closed conduit meters;
- installation standards for closed conduit meters;
- in-service standards for closed conduit meters;
- pattern approval specifications for open conduit meters;
- installation standards for open conduit meters; and
- in-service standards for open conduit meters.

Under national pattern approved standards for non-urban water meters, the water meter must be accurate to  $\pm 2.5$  per cent in laboratory conditions and  $\pm 5$  per cent in the field.

#### 2. Interacting with the water industry

The support of the water industry is essential to the success of these non-urban water metering projects. This project aims to inform industry on the nature and reasons for the changes to metering standards. This project has four parts:

##### (a) Accredited testing facilities for pattern approval

Once the new standards have been published, it will be possible for non-urban water meter designs to be tested against the standards and, if compliant, achieve pattern approval.

In order for a test facility to be technically and legally suitable to test for pattern approval purposes, it must be accredited (to ISO/IEC 17025 or its Australian equivalent), and be appointed as an approving authority under the *National Measurement Regulations 1999*.

To ensure sufficient facilities are accredited to test non-urban water meter designs against the national water meter standards, Australian Government funding is being made available through *Water for the Future*, to upgrade existing water meter testing facilities and seek accreditation through the National Association of Testing Authorities.

##### (b) Industry training framework

The proposed non-urban water meter standards will be underpinned by a national metrological assurance framework. The assurance framework relies on meters and other measurement devices being installed and maintained to legislative requirements, and the validation of the performance of the installations.

Appropriately trained personnel will be required to carry out installation, maintenance and validation. To ensure consistency and a high standard of skills, an industry-based certification program is being developed to support meter installation, maintenance and validation.

The Australian Government has engaged Irrigation Australia Limited to develop a national, industry-based certification scheme to accredit meter installers, maintainers, inspectors and validators for non-urban water meters.

In consultation with industry stakeholders, Irrigation Australia Limited will:

- develop a national certification program for metering occupations including relevant skills sets;
- develop training materials to support a pilot training and recognition project;
- conduct a pilot to establish an initial group of appropriately skilled personnel to support early implementation of the metrological assurance scheme; and
- develop options for ongoing administration of the scheme (with the objective of operating on a fee for service basis) and for an ongoing program of training and recognition.

##### (c) Development of in situ volumetric verification

In situ verification involves the meter being tested volumetrically in the field, to verify its performance within the maximum permissible limits of error, as required under the *National Measurement Act 1960 and National Measurement Regulations 1999*.

At present, in situ verification is not possible, given site-specific circumstances (such as open channel measurement and very large meters). This will continue to be difficult, even when technology is available.

This project, funded by the National Water Commission's *Raising National Water Standards program*, will investigate cost effective, practical techniques and tools for in situ verification of irrigation meters to meet the metering standards.

*(d) Industry awareness*

The implementation of new non-urban water meter standards will place new requirements on meter manufacturers, water service providers and water users. Extensive consultation with stakeholders will be undertaken to ensure that the changes are effectively communicated.

### 3. Developing implementation plans

The national non-urban water meter standards will be introduced through state and territory government legislation and licensing requirements and Commonwealth legislative provisions governing measurement.

Each state/territory is developing an implementation plan that outlines how the standards will be introduced in its jurisdiction. In addition, the Metering Expert Group is developing a national implementation plan to oversee the implementation and ensure national consistency.

The Metering Expert Group's national implementation plan will incorporate the actions of each of the state/territory plans and draw together the other projects outlined in this fact sheet.

### More information

For more information on metering visit [www.environment.gov.au/water/agriculture/metering.html](http://www.environment.gov.au/water/agriculture/metering.html)

Alternatively you can post to:

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