

**Your details**

Title: Mr  
First name: Clifford  
Last name: Ashby  
Email: [jmcleod@colyirr.com.au](mailto:jmcleod@colyirr.com.au)  
Organisation (if relevant): CICL  
Position in organisation: CEO  
Address: PO Box 103  
Suburb: Coleambally  
Postcode: 2707  
Type of submission: I am submitting my organisation's submission  
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Friday 28 September 2018

NSW Department of Industry  
Water Reform Action Plan

<https://www.industry.nsw.gov.au/water-reform/make-a-submission>

Dear Sir/Madam

**Subject: CICL response to NSW water metering framework (policy, regulations and mandatory conditions) - Consultation Paper.**

**Key points**

Coleambally Irrigation Cooperative Limited (CICL) welcomes the progress that has been made on improving the standards and coverage of metering water use in NSW.

CICL's primary concerns relate to two points. Firstly, the requirement for CICL to have a pattern approved meter, when it is widely acknowledged that pattern approval for diversions of our scale is not practical. CICL is seeking the regulations to acknowledge an alternative to pattern approval is required for some off-takes.

Secondly, CICL has a strong interest in continuous improvement in the use of technology including metering and telemetry to support improved river operations in the Murrumbidgee. CICL is concerned the transfer of meters and telemetry to private ownership will diminish the quality of data available to WaterNSW. CICL is seeking assurance that the Department of Industry (the Department) and WaterNSW will constructively ensure there is sufficient detail in the telemetry requirements to avoid this unintended consequence.

**Introduction**

CICL welcomes the opportunity to provide feedback to the Department of Industry (the Department) on the NSW water metering framework consultation paper. CICL supports NSW implementing a robust metering framework centred on measurement standards, telemetry and clear accountability.

This response is based on CICL's knowledge and experience with its own systems but also with the systems used by WaterNSW in the regulated Murrumbidgee. CICL understands for some water sources the proposed regulations and roll out timeframes will require a significant number of new meters to be installed. CICL considers it essential the timeframes in the regulations can be met and the Department should be cognisant of advice from industry on this issue.

CICL welcomes recognition that the policy and regulations will apply to our river offtake works but not to the surface water works owned by CICL to supply our customers.

CICL supports the infrastructure size thresholds and does not support a lowering of these size thresholds based on the arguments about the cost of installing metering equipment, at least in the case of inland water sources, where water is a limited, valuable resource.

However, CICL is also aware that in many circumstances, particularly but not necessarily just the coastal, pump installations are portable. It is essential the regulations are practical for the diversity of circumstances applying across NSW water sources.

## **Response to consultation questions**

### **Part 1 Who will need a meter**

*1. Is it easy for you to determine whether your work(s) meet the threshold? If not, why not?*

In CICL's case yes. CICL expects many work approval holders will not be familiar with their approval and will require education to assist them understand their requirements.

*2. Which option for multiple works is preferred, and why?*

*a. Should meters be required where there is more than one work (where at least one is below the threshold)?*

CICL supports the Department's preferred option of requiring all meters linked to the same approval to require a meter.

CICL supports the policy encouraging work approval holders to rationalise works to minimise their meter installation costs. The preferred option meets this criterion.

*b. Should meters only be required if the cumulative capacity of the works is equivalent to the infrastructure-size threshold?*

The alternative approach is not supported; it is complex and will require on-going consideration in terms of pump efficiency.

*3. Are there any other types of water take that should be exempt from the metering requirements and why?*

Exemptions to the requirements to have a meter should be limited to circumstances where it is not technically feasible to install a meter. In these circumstances alternative measurement should apply. On balance CICL supports the proposed exemptions.

CICL supports the Department progressing and finalising reasonable use guidelines for basic landholder rights as a priority.

## Part 2 Standards of metering equipment

### 4. Are there any barriers to implementing the proposed metering standards that should be considered?

The information presented in Table 3 and Table 4 clearly describes the requirements where a meter exists and the standards applying to new or replacement works.

#### Pattern approval

CICL again draws the Department's attention to our concerns that a pattern approved meter is required for our off-take metering arrangement.

CICL appreciates Government's interest in requiring pattern approval for the majority of diversion points and considers the funding to increase the capacity of Manly Hydraulics to accredit both open channel and closed conduit meters to 1,200l/sec as useful. CICL's off-take has a maximum flow capacity of 6,000 ML/day that equates to 69,444 l/s, significantly more than Manly's capability.

CICL's meters are Acoustic Transit Time Meters and this type of meter is considered 'best in its class' for accurate metering of off-takes of our type. This meter cannot be pattern approved because of its scale. This meter installation is consistent with ISO 6416:2017 Hydrometry – Measurement of Discharge by ultrasonic transit (time of flight) method. The AS4747 provides for approval for use of these meters to be agreed between the meter owner and the entitlement issuer. This approval process needs to be formalised. CICL is seeking the Department to recognise the implacability limitations of requiring AS4747 including pattern approval being included as a condition on CICL's work approval. CICL has a strong interest in not being exposed to any risk that metering of its diversion is not of a suitable standard or inconsistent with its approval. Put conversely, failure for CICL's work approval to reflect this nuance of our meter type being 100 percent compliant with the AS4747 standards is an unacceptable risk to CICL.

At a state scale, CICL is also concerned that the irrigation industry is at risk of another Four Corners exposure if we are not 100 percent certain the large off-take diversions by irrigation infrastructure operators are compliant with their licence conditions. CICL considers the regulations could provide this flexibility without reducing the pressure on the commercial sector to seek pattern approval of a wider range of meter types and sizes.

In relation to the other standards, CICL supports these standards applying to our meter and considers we already comply with these standards (ISO 6416:2017).

In addition to the above point, CICL considers the most significant barrier to the implementation will be confirming the accuracy of the existing meters in the timeframes required. Is the market able to supply sufficient 'duly qualified' people to undertake this task?

Furthermore, where the protocol is yet to be determined uncertainty is caused by not knowing what barriers may exist to achieving the telemetry standard.

*5. What additional information should be included in the data logging and telemetry protocol?*

The frequency and reliability of telemetry reporting must not result in a reduction in the effectiveness of Computer Aided River Management (CARM) modelling in the Murrumbidgee catchment. Significant government funds have been invested and the CARM project is expected to deliver a Sustainable Diversions Limit (SDL) off set. The transfer of meters and their telemetry to private ownership should not compromise CARM's effectiveness. This would be a major backward step for the Murrumbidgee and the potential loss of an SDL offset.

*6. Should telemetry be installed by a duly qualified person? What qualifications should the person have? What other options should be considered?*

The installation of telemetry requires a skilled person, but this skill is readily available in our area. The work approval holder will need advice from a telemetry specialist to determine the design and type of telemetry to suit the level of Telco coverage. There will also be various data plans on which the pumper will need advice.

In addition, the design and hosting of the database will be an important factor. There is potential for improved access to live data from the data base and the potential to 'hardwire' on-farm operational equipment into a meter output.

CICL encourages the Department to involve industry, WaterNSW and water users in the development of the telemetry requirements.

*7. What methods could be used to demonstrate the accuracy of existing meters in the field? Is guidance needed on the methods that can be used?*

As indicated in the Consultation paper, in-field validation is possible using various techniques. Review of the 'electronic finger print' and comparison of this with 'as constructed' readings would be an initial test for an electro-magnetic flow meter.

In terms of in situ checking of flow rates there are various methods that could be employed:

- Volumetrically using a calibrated 'flow rig' where possible is an expensive process.
- Ultra-sonic clamp on flow meters are potentially a very good technology for in situ flow rate testing. For the flow result to be accurate the meter must be kept in calibration and the pipe wall thickness and wall material must be known.
- In open channel situations hydrometric flow gauging can be used for checking flows.

A level of competence is required for all in situ verification techniques. It would be appropriate for Irrigation Australia Limited or Australian Hydrographers Association to provide appropriate training and certify practitioners.

### **Part 3 Ownership of meters**

8. *What factors need to be considered and what safeguards need to be in place for the proposed transfer of government-owned meters to private ownership? What needs to happen before the transfer can occur?*

CICL understands the transfer of ownership of government owned meters to private ownership includes the telemetry. This should be made clear and captured in the transitional arrangements.

CICL also understands that the transfer arrangements will be subject to further regulations that are still to be determined.

The issues raised in the section are of significant interest to private diverters in the Murrumbidgee and groundwater users.

CICL expects that a minimum requirement for the transfer is that the meter is transitioned to private ownership in a condition where it meets the standards required by Government; including the meter having a verified field test of accuracy, which will remove the need for in-field verification for the next five years. CICL notes that some meters are buried and access will not be easy.

CICL also expects the new owner will receive details of the design specification, works as executed, meter type, age or install date and results of in-field verification and information about the nature and frequency of future meter verifications the meter owner will need to comply with.

9. *What information and support will water users need to help select metering products and services that meet the required standards? Would you be comfortable with a third party meter provider being responsible for the meter?*

Government needs to provide clear direction to licence holders on what the requirements and timeframes applying to their work approval(s) are. The requirements should capture meters, telemetry and responsibilities in the event of meters or telemetry failing.

Government also needs to maintain a current, accessible list of compliant meters and meter installers. It is CICL's view that the commercial industry will respond to market demand for information to market their product. Information provided by Government should be detailed enough to assist water users questioning of providers and decision making on choice of meter and installer.

In CICL's case we would not support a third party being responsible for our meter. Other water users may be interested in a third party; however, it is CICL's opinion that the licence holder must retain ultimate responsibility.

### **Part 6 Mandatory conditions**

10. *Do you have any comments on any of the proposed mandatory conditions?*

CICL supports the mandatory conditions.

In relation to recording the purpose for which water is taken, the conditions need to clarify if this relates to irrigation, stock etc. or whether the Department is also looking for more granular information on crop type for irrigation? If this is the

case it presents challenges for recording where water may be used for a range of crop types which is the case for CICL diversions.

## **Part 7 Review**

*11. What issues and data should be considered in the five year review to assess the performance of the metering framework against its objectives?*

In addition to the issues raised in the consultation paper the review should consider:

- Results of the transfer of ownership of Government meters to private owners, including data access for WaterNSW.
- Whether the market has responded to improve the market depth of compliant meters.
- Technology improvements.
- Changed meter verification requirements.

Obviously in five years' time other issues requiring review will have emerged or be evident.

If you have any questions in relation to this submission please contact Jenny McLeod, Policy and Communication Manager on [jmcleod@colyirr.com.au](mailto:jmcleod@colyirr.com.au) or M. 0427 884 431.

Yours sincerely



Clifford Ashby  
CEO