


ACT
Government

 Environment, Planning and
Sustainable Development

CABINET
MINISTERIAL BRIEF

To:	Minister for Water, Energy and Emissions Reduction Minister for Business and Better Regulation	Cabinet No.: 23/471 Rec'd Minister's Office .../.../...
From:	Executive Group Manager, Environment Heritage and Water	
Subject:	Exposure Draft Lodgement of Cabinet Submission 23/471 Non-urban Water Metering Policy	
Critical Date:	28 August 2023	
Critical Reason:	To allow all directorates to review the draft submission and provide comments ahead of Expenditure Review Committee (ERC) consideration on 28 September 2023 and Cabinet consideration on 18 October 2023.	
	- DDG, Environment, Water and Emissions Reduction 15/08/2023 - DDG, Access Canberra 17/08/2023	

Recommendations

That you:

- Agree** to lodge the draft Cabinet Submission (Attachment 1) and associated documents for exposure circulation.

Agreed / Not Agreed / Please Discuss

Shane Rattenbury MLA

30/8/23

Minister's Office Feedback

I am agreeable that this go on circulation, but would like to discuss further the issues for small users, and whether there are options for a differentiated approach.

That you:

- Agree** to lodge the draft Cabinet Submission (Attachment 1) and associated documents for exposure circulation.

Agreed / Not Agreed / Please Discuss

Tara Cheyne MLA

..../..../....

Minister's Office Feedback

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Background

1. The National Water Initiative (2004), the National Framework for non-urban water metering (2009), and the Murray-Darling Basin Compliance Compact (2018) requires the states and territories to implement consistent water metering standards to ensure equity around water sharing and the protection of water resources.
2. The Metrological Assurance Framework 2 (2021) (MAF2) is a part of the National Framework and describes the key requirements to ensure a nationally consistent compliance approach for non-urban water meters. MAF2 aims to:
 - a. provide an acceptable level of confidence in water meter performance;
 - b. ensure greater coverage of pattern approved water meters which comply with Australian Standard 4747: 2013 - Meters for non-urban water supply (AS 4747);
 - c. provide a nationally consistent approach for the requirements and management of non-urban water meters; and
 - d. encourage the use of risk management to prioritise metering implementation and management requirements.
3. All states and territories are responsible for determining their non-urban water metering policy and regulations, including metering thresholds. All other Basin jurisdictions have released their own policies for non-urban water metering and are progressing with implementation.
4. The current non-urban metering guideline *ACT Water Meter Installation, Maintenance and Replacement Guideline* is dated March 2015 and is due for updating in response to the MAF2 and AS4747.

Issues

5. EPSDD has drafted an updated non-urban water metering policy that aligns with the requirements of the (MAF2) and National Framework. The draft policy is provided in Attachment E to the Cabinet Submission.
6. The policy applies to the taking of groundwater or surface water in the ACT which is licensed under the *Water Resources Act 2007* (the Act). All licensed water take is required to be metered. There are 307 non-potable water meters currently in use. The policy does not apply to individual water meters that measure potable drinking water supplied by Icon Water.
7. Licence holders are responsible for the costs associated with the installation, maintenance and reading of a water meter.
8. The content of the policy has been largely set by the MAF2 and AS4747 which have been agreed to by jurisdictional governments. However, the policy has several key new requirements:
 - a. use of pattern approved meters;
 - b. validation of meter installations by a certified person;
 - c. ongoing meter maintenance and accuracy testing; and
 - d. improved reporting and notification requirements for Licence holders.

9. In March 2023, agreement was given to consult on the draft policy (22/148106). A summary of the submissions received is in Attachment F. Submissions have been considered in the final policy.
10. The Environment Protection Authority (EPA) is responsible for implementing and enforcing the policy. The implementation of the policy will be supported by ongoing education and compliance inspections with Licence holders undertaken by the EPA. The Office of Water will assist the EPA where possible in the transition to the new requirements.
11. Implementation of the policy is proposed commence on 1 December 2023 and will use a staged risk-based approach by prioritising the implementation of new metering requirements for high-risk water take.

Financial Implications

12. Licence holders will remain responsible for all costs associated with water metering.
13. Policy implementation creates additional financial implications for Licence holders, including:
 - a. payment for meter accuracy testing in the first year of implementation, in addition to standard ACT Government fees (annual licence administration fee plus variable water abstraction charges based on consumption);
 - b. ongoing validation of accuracy, payable every 5 years, payable to external meter validators; and
 - c. if a new water meter is required, the cost to supply and install a water meter.
14. A breakdown of indicative costs is provided in Attachment I to the Cabinet Submission.
15. The administrative costs to the ACT Government to develop and implement the policy is being funded by the Commonwealth Government's under the *Federation Funding Agreement – Environment on Implementing Water Reform on the Murray-Darling Basin (2021-22 to 2023-24)* and existing budget allocations.

Consultation

Internal

16. The EPSDD Legal Team advised that no legislative change is required as the policy will be enforceable through licence conditions and existing offence provisions in the *Water Resources Act 2007*.
17. The EPSDD Communications team were consulted on meter policy and implementation.

Cross Directorate

18. The Office of Water has worked closely with Access Canberra (EPA and Communications and Engagement Team) to develop the draft policy and undertake consultation with Licence holders.
19. Access Canberra (EPA and Communications and Engagement Team) have been consulted in the preparation of this Cabinet submission.
20. Treasury (CMTEDD) has been consulted on the policy and its implementation. Treasury is supportive of the approach, subject to competitive neutrality being considered in regards to meter accuracy testing being performed by the EPA and not restricting an open market.

21. Policy and Cabinet Division (CMTEDD) has been consulted in the preparation of this Cabinet submission.

External

22. Licence holders were consulted on the draft policy over a 4-week period in May 2023. A summary of the submissions received is in Attachment F. Feedback has been incorporated into the policy where appropriate.
23. Consultation with Irrigation Australia and other state jurisdictions has informed policy development and indicative costs for validating or installing meters.
24. The Commonwealth Department of Climate Change, Energy, the Environment and Water has reviewed the draft policy to ensure that it aligns with the requirements of the MAF2 and AS 4747.
25. The Office of Water has approached Irrigation Australia, the peak organisation representing the irrigation industry, about working with industry in the ACT and surrounding areas to encourage suitably skilled industry members to become certified installers.

Benefits/Sensitivities

26. Licence holders may be sensitive to the new cost impost from this policy. However, this is a national policy and water users from all jurisdictions will incur new compliance costs.
27. The introduction of this policy will be timed closely with the ACT Government response to the Non-potable Water Review and will affect the same group of Licence holders. This is unintentional. Some Licence holders may be sensitive to two new policies with potential cost implications that are introduced in quick succession.
28. In March 2021, the Murray-Darling Basin Compliance Compact Assurance Report 2020 provided an unfavourable assessment of the ACT's progress against meeting the commitments of the Compliance Compact. The report noted that two commitments relating to metering and measurement were assessed as "Of concern". This report is publicly available on the Murray-Darling Basin Authority's website.
29. The Commonwealth Inspector General Water Compliance (IGWC) was established on 5 August 2021 to enforce compliance with the Basin Plan, *Water Act 2007* (Cwth) and other associated government resource plans. Water metering and measurement was a priority for the IGWC's Compliance Work Program for 2021-22. Failure of the ACT Government to implement a metering policy which meets the National Framework and AS4747 could result in an audit or investigation of compliance with the ACT's water resource plan and subsequent public reporting of the compliance results.

Media Implications

30. Nil arising from this brief.

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Summary of Attachments

1 – Draft Cabinet submission

A – Table of Comments

B – Open Access Decision and Wellbeing Impact Assessment summary

C – Wellbeing Impact Assessment

D – Communications-on-a-page (**to be provided at final**)

E – Non-urban Water Metering Policy

F – Listening report (**to be provided at final**)

G – Options for setting threshold criteria

H – Examples of threshold criteria from other jurisdictions

I – Indicative financial impacts for Licence holders

J – Implementation plan

CABINET SUBMISSION

23/471



Title	Non-urban Water Metering Policy
Meeting type	Expenditure Review Committee
Minister	Shane Rattenbury MLA Minister for Water, Energy and Emissions Reduction
Cabinet date	Monday, 9 October 2023
Status	EXPOSURE DRAFT
Relationship to previous decisions	Nil
Purpose	Cabinet endorsement of the Draft Non-urban Water Metering Policy to improve meter accuracy and performance
Category	Category 2 - Government business
Financial impact	Yes
Treasury agreement	Yes Date provided for Treasury agreement to financial implications: 20/07/2023 Date of Treasury agreement 11/08/2023:
Is ERC consideration required?	Yes If yes, select ERC meeting date: Monday, 9 October 2023
Legislative change	No - change to legislation not required
Regulatory impact	Yes The Non-Urban Water Metering Policy updates existing guidelines to meet national standards. Additional requirements for Licence holders will include accuracy testing of installed water meters and may require the repair or replacement of certain components where meter accuracy cannot be demonstrated. It will have a positive impact on the environment by ensuring the sustainable management of water resources and improve public confidence in water resource management and accounting.
Wellbeing Impact Assessment	Yes Environment and climate

Primary Wellbeing
Domain

RECOMMENDATIONS

- 1) I recommend Cabinet agree:
 - a. to the ACT *Non-urban Water Metering Policy* (Policy) which:
 - i. delivers on the ACT's commitment to the National Water Initiative, the National Framework for Non-urban Water Metering and the Murray-Darling Basin Compliance Compact;
 - ii. provides an acceptable level of confidence in water meter performance;
 - iii. ensures greater coverage of pattern approved water meters which comply with Australian Standard 4747:2013 - Meters for non-urban water supply (AS4747); and
 - iv. encourages the use of a risk management approach to prioritise implementation for high risk users first.
 - b. to Table 1: Implementation milestones and timeframes.
- 2) I recommend Cabinet note that:
 - a. the Policy applies only to licensed non-potable water take (treated drinking water supplied by Icon Water is out of scope);
 - b. the Policy will be jointly implemented through existing Environment, Planning and Sustainable Development Directorate and Access Canberra budgets;
 - c. consultation with non-potable water Licence holders was undertaken in May 2023 on the draft Policy (summary of submissions included in Attachment F);
 - d. policy implementation will commence on 1 December 2023 and will adopt a risk-based and staged approach by prioritising the implementation of new metering requirements for high-risk non-potable water take; and
 - e. the advice to the Chief Minister on the release of the Cabinet Decision Summary (Attachment B) as required under Section 23 of the Freedom of Information Act 2016; and
 - f. the following summaries to be released:
 - i. Cabinet agreed to adopt the Non-urban Water Metering Policy which delivers on the ACT's commitment to improve metering standards under the National Framework for non-urban water metering. The Policy provides an acceptable level of confidence in water meter performance, ensures greater coverage of pattern approved water meters which comply with the relevant standards, and uses a risk management approach to prioritise metering implementation.
 - ii. The Non-urban Water Metering Policy builds on existing water metering requirements to strengthen water measurement and enhance the regulatory approach and demonstrates the ACT's commitment to National Framework for non-urban water metering. It provides a robust metering framework which will

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improve the confidence in water meter performance and accuracy, reduce environmental impacts of water usage and ensure water is used sustainably.

SUPPORTING ARGUMENT

BACKGROUND

- 1) The National Water Initiative (2004), the National Framework for non-urban water metering (2009), and the Murray-Darling Basin Compliance Compact (2018) require states and territories to implement consistent water metering standards to ensure equity around water sharing and the protection of water resources.
- 2) The Metrological Assurance Framework 2 (2021) (MAF2) is a part of the National Framework and describes the key requirements to ensure a nationally consistent compliance approach for non-urban water meters. The MAF2 aims to:
 - a. Provide an acceptable level of confidence in water meter performance;
 - b. Ensure greater coverage of pattern approved water meters¹ which comply with Australian Standard 4747:2013 – Meters for non-urban water supply (AS 4747);
 - c. Provide a nationally consistent approach for the requirements and management of non-urban water meters; and
 - d. Encourage the use of risk management to prioritise metering implementation and management requirements.
- 3) All Basin jurisdictions, except for the ACT, have released their own policies for non-urban water metering and are progressing with implementation.
- 4) The taking of surface water and groundwater in the ACT is regulated through Licences to Take Water (Licence) issued under the *Water Resources Act 2007*. There are currently 180 active licences with each Licence holder responsible for the costs associated with the installation, maintenance and reading of a water meter.
- 5) A Licence requires a water meter to be installed at each extraction point to account for water taken. There are 290 non-potable water meters currently in use that meet the policy definition. At this time no data is not available on how many of these meters are pattern approved or about the accuracy of these meters.

¹ Pattern approved meter - a water meter that has passed the relevant pattern approval process and has a pattern approval certificate issued by the National Measurement Institute.

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- 6) Improved metering standards are required to ensure the Territory's compliance with MAF2 and the commitments made under the Murray-Darling Basin Compliance Compact. Water metering requirements are currently enforced through the *ACT Water Meter Installation, Maintenance and Replacement Guideline* (2015). The Guidelines require updating to respond to MAF2 and AS4747.

ISSUES & OPTIONS

- 7) The Office of Water within the Environment, Planning and Sustainable Development Directorate has prepared the *Non-urban water metering policy* (Policy) ([Attachment E](#)).
- 8) The Policy is aligned with the *ACT Water Strategy 2014-44: Striking the Balance* (Strategy 2, Action 7) and is in harmony with national strategy to strengthen compliance and enforcement for water resource management. The Policy delivers on accurate and timely measurement, recording, and reporting of water take. This is essential for effective water resource management so that sustainable diversions can be made from water resources, to ensure:
- a. all water users receive their fair share in accordance with entitlement conditions and legislative requirements; and
 - b. transparency and assurance that water is being managed sustainably for the benefit of all water users.
- 9) The Policy improves metering standards by providing a clear set of criteria for:
- a. new and replacement meters – use of pattern approved meters and validation of meter installations by a certified person;
 - b. existing meters – grandfathering arrangements to allow these meters to remain in service where their accuracy can be demonstrated; and
 - c. for all meters – ongoing meter maintenance and testing and improved reporting and notification requirements for Licence holders.
- 10) The Policy will not apply to individual water meters that measure potable drinking water supplied by Icon Water. Licence holders will remain responsible for all costs associated with water metering.
- 11) The Policy replaces the *Water Meter Installation, Maintenance and Replacement Guideline* previously mentioned.

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12) The Policy was developed in consultation with a range of stakeholders including Licence holders, the Office of Water, the Environment Protection Authority (EPA), Irrigation Australia and Commonwealth Department of Climate Change, Energy, the Environment and Water.

13) The Policy is based on the following principles:

- a. Maintaining 100 per cent meter coverage in the ACT for licensed non-potable water take.
- b. The content of the Policy follows the MAF2 and AS4747 requirements which have been agreed to by ACT Government and all jurisdictional governments.
- c. The implementation of the Policy takes a risk-based approach which prioritises high risk water take.

14) The Policy approach maintains 100 per cent metering coverage for the ACT for the following reasons:

- a. All licensed water take is already metered.
- b. 84% of groundwater Licences are in 'at risk' sub-water management areas. Metering is an essential management tool to accurately monitor water take to ensure that Licence holders remain within allocated volumes to avoid further pressure on the groundwater resource.
- c. The level of accuracy of existing meters is unknown for several reasons:
 - i. Age and operational service of meters;
 - ii. There is currently no requirement for meters to be tested or serviced during operational period;
 - iii. Plumbing arrangements and installations are not usually inspected before water meters are put into operation. Some installations are buried which prevents compliance inspections being undertaken; and
 - iv. Rigour of compliance inspection programs has been affected by several factors over the last 5 years, including the Covid pandemic and staff shortages.
- d. The Policy provides the best outcome for the protection and sustainable management of water resources and meets the objectives of the *Water Resources Act 2007*.
- e. The Murray Darling Basin Plan Review may result in less water availability for irrigators and the environment in the coming years due to the impact of climate change, sustainable water

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limits, First Nations connections to the Basin and regulation changes. CSIRO modelling for the Basin has predicted a 20-30 per cent decrease in future river inflows due to climate change.

f. Supports accounting confidence in future potential ACT-interstate water trading framework.

15) The Policy allows for some exemptions from the metering requirements in the following circumstances:

- a. No pumping infrastructure is installed and water cannot be taken (eg. inactive works);
- b. The use of water carts and water usage record keeping has been approved through the Licence;
- c. A meter was purchased prior to 1 December 2023 but has not been installed since the time of purchase (evidence of proof of purchase is required); or
- d. There is no pattern approved meter for a particular application (as listed on the Department of Climate Change, Energy, the Environment and Water (DCCEEW) website.

16) Exemption requests must be approved in writing by the EPA. This allows exemptions to be assessed on a case by case basis and monitored by the EPA with the aim to work towards compliance with the Policy.

17) Attachment H describes how metering thresholds have been applied in other Murray-Darling Basin jurisdictions.

Policy Implementation

18) The Policy is proposed to come into effect from 1 December 2023.

19) Implementation of Policy requirements will be rolled out in three stages from 1 December 2023. This approach allows Licence holders sufficient time to prepare for the new requirements and adopts a risk-based method to focus on large water users first and small water users last.

- a. The first group of 17 Licence holders are required to comply with the policy by 31 March 2024. This includes large scale irrigators such as golf clubs, Canberra Airport, and places of public importance irrigated by Commonwealth Government and the Transport Canberra and City Services Directorate.
- b. The next group of 57 Licence holders are required to comply with the policy by 30 June 2024. This includes medium scale water users such as agricultural/horticultural irrigators, community organisations and other commercial irrigators.

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- c. The final group of 106 Licence holders are required to comply with the policy by 31 December 2024. This includes small scale water users including urban residential gardens irrigated by groundwater bores, stock and domestic use, schools and other small-scale irrigators.
- 20) Licence holders are responsible for and will be required to demonstrate the accuracy of their existing water meter/s by their roll out date. This involves:
- a. existing water meters require periodic inspection with a validation certificate issued;
 - b. new and replacement water meters require inspection with a validation certificate issued before water is taken against the Licence; and
 - c. faulty existing water meters require notification and repair within a consistent period defined in the policy and inspection with a validation certificate issued before the meter is put back into service. The meter will need to be replaced with a pattern approved meter where it cannot be repaired.
- 21) Provisions will be available to allow Licence holders to request additional time where reasonable justification can be provided.

Compliance with policy

- 22) The EPA, within Access Canberra, is responsible for the administration and regulation of licences to take water issued under the *Water Resources Act 2007* (Act). This includes enforcing metering requirements through conditions imposed on a Licence.
- 23) The EPA will implement the Policy.
- 24) The EPA will undertake education activities and compliance inspections to assist Licence holders to comply with the new policy requirements. This type of work already forms a part of the EPA's existing inspection programs.

REGULATORY RISKS FOR THE ACT GOVERNMENT

- 25) The *Murray-Darling Basin Compliance Compact Assurance Report 2020* provided an unfavourable assessment of the ACT's progress against meeting the commitments of the Compliance Compact. This report is publicly available on the Murray-Darling Basin Authority's website.
- 26) The report noted that two commitments relating to metering and measurement were assessed as "Of concern". The concerns related to the ACT Government not being able to demonstrate that the following had been completed:

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- a. Publication of a metering policy and implementation plan;
 - b. Validation of meter accuracy and compliance with AS4747 standards;
 - c. Implementation of a timetable for the installation of new meters, and auditing and maintenance of the metering fleet; and
 - d. Annual reporting on progress with the metering implementation plan.
- 27) The Commonwealth Inspector General of Water Compliance (IGWC) was established on 5 August 2021 to enforce compliance with the Basin Plan, *Water Act 2007* (Cwth) and other associated government resource plans.
- 28) Water metering and measurement was a priority for the IGWC's Compliance Work Program for 2021-22.
- 29) If the ACT Government does not implement a metering policy which meets the National Framework and AS4747, this may result in an IGWC audit or investigation of compliance with the ACT's water resource plan and subsequent public reporting of the compliance results.

FINANCIAL IMPACT

- 30) This submission does not seek Cabinet's agreement to additional appropriation.
- 31) There will be a financial impact to existing Licence holders as described at Attachment I. These impacts relate to minimum standards for meter installation/replacement and ongoing validation and accuracy testing requirements. In summary:
- a. ongoing validation of accuracy is approximately \$300-500 per meter every 5 years, payable to external meter validators;
 - b. if existing pipework is not visible above ground, excavation works may be required at the License holder's expense;
 - c. if a new water meter is required (e.g., installing new non-potable irrigation system, replacing a faulty meter, non-compliance with the Policy), the cost for a Licence holder to supply and install a water meter is site dependent, and may range from \$300 to over \$3000 per meter; and
 - d. Licence holders will be required to pay meter accuracy validation fees in the first year of implementation, on top of standard ACT Government fees (annual licence administration fees of almost \$500, plus water abstraction charges based on consumption).

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- 32) There is currently a shortfall in the number of certified persons in NSW certifying meter installations. This issue has been raised at the interjurisdictional Regulatory Leaders Forum. NSW Government has indicated that while there are many certified persons listed on Irrigation Australia's register, the number of certified persons doing the work is decreasing due to low profitable market opportunities. There are more than 2000 NSW Licence holders waiting for water meter compliance inspection activities to be undertaken, with the wait time exceeding an average of 150 days. The NSW water meter project compliance date is anticipated to be 2040-2045 based on these waiting periods.
- 33) A search on Irrigation Australia's register shows that there are currently 4 certified persons located within a 100km radius of the ACT (Canberra, Gundaroo, Sutton and Yass). Irrigation Australia have advised that training was recently conducted in Yass and it is expected that 14 new certified persons will be available shortly.
- 34) The EPA is exploring options for offering a meter validation service, to make up the local shortfall of certified meter installers and validators. This is proposed as a fee for service, which could have regard to a price per water meter or a time charge fee. This process would have regard to the price charged in other jurisdictions by private certifiers, as was foreshadowed in the recent consultation. The service would be provided primarily to enable compliance in the absence of an existing local market for meter validation services. This approach draws on the NSW experience in rolling out their equivalent policy. NSW is currently revising its regulations to provide for practical solutions.
- 35) The introduction of a fee for service will require further work in consultation with Treasury to ensure alignment with the ACT's competitive neutrality policy with the aim of ensuring the fees reflect a fair and transparent market price for the work. The ACT Government will be offering a service in competition to the private sector in circumstances where the market has a limited capacity to meet the expected extra demand for service. Such an approach is likely to provide scope for the market to develop and for private certifiers to compete on price and service in the ACT. Understanding that Government endorsement will be required before introducing a new set of fees or charges, a separate Cabinet submission will be brought forward to the Expenditure Review Committee of Cabinet detailing the expected financial impacts of providing new fee for service under the Water Resources (Fees) Determination.

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- 36) The cost of equipment needed to undertake accuracy testing, including the purchase of an ultrasonic clamp-on flow meter, will be covered by the EPA through existing Access Canberra budget.
- 37) To support the implementation of the policy, the EPA and EPSDD will co-fund the establishment of a temporary FTE position to engage in education with Licence holders and undertake accuracy testing and compliance inspections. The ongoing resources needed to support the implementation of the Policy will be determined by Access Canberra as part of their integrated Strategic Environment Protection Framework initiative and brought forward if necessary as part of future budget processes.
- 38) Where any uncertainty in meter accuracy or correct installation of the metering equipment is apparent, the Licence holder would be required to engage a certified person to undertake meter repairs and subsequent accuracy testing or validation as required.
- 39) New and replacement water meters and metering equipment will require validation by a certified installer following installation.
- 40) In terms of financial impacts associated with competitive neutrality, a review mechanism is inbuilt to the Implementation Plan to assess the use of the ultrasonic clamp-on flow meter by EPA inspectors to ensure that competitive neutrality remains if external certified persons become available to undertake meter accuracy testing in the ACT.

WELLBEING IMPACT SUMMARY

- 41) The Policy will have a positive impact by implementing a robust metering framework which will improve the confidence in water meter performance and accuracy, reduce environmental impacts of water usage and ensure water is used sustainably. A wellbeing impact assessment is in Attachment C.
- 42) The accurate measurement of water take will provide benefit in the following ways.
 - a. The community – ensures transparency and equity in how water is shared, allocated and managed; greater confidence that water is being taken according to legal frameworks and licence conditions; and ensures users who take water are properly charged for their take.
 - b. Licence holders - provides confidence in water use data to demonstrate compliance with licence conditions and legislation; provides information on water use and management, pump and irrigation system performance; and identifies and measures water efficiency gains.

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- c. Environment – maintains the value and integrity of the water-sharing framework and ensures that water take complies with legal frameworks and licence conditions put in place to better manage environmental water.

CONSULTATION

External stakeholders (Licence holders)

- 43) All 182 Licence holders were consulted on the draft policy during a 4-week consultation period.
- 44) Feedback was received from 10 Licence holders. The main concern raised was related to the increased costs for compliance balanced with the proportional risk of small-scale irrigation. A summary of the submissions is provided as a Listening Report in Attachment F.
- 45) In response to consultation, the policy was finalised based on these considerations:
 - a. Metering is an existing Licence requirement in the ACT;
 - b. Existing meters can be retained in service where accuracy can be demonstrated;
 - c. Expected cost for accuracy testing is \$300-\$500, payable once every 5 years per non-potable water meter. This is a reasonable cost to uphold meter accuracy to national standards and is not an unacceptable cost impost when averaged out over a period of years. Increases in this cost over time may represent a sensitive to licence holders;
 - d. The additional costs to License holders for meter accuracy costs with Policy implementation, retains overall cost of licensed non-potable water irrigation as a financially viable option in preference to irrigating with fully treated drinking water;
 - e. License holders have the option to request payment plan to defer payment of standard license fees if facing financial hardship;
 - f. If a License holder is not using non-potable water for an extended period, they have the option to render their License temporarily inactive which avoids compliance costs associated with this policy and avoids general administration fees;
 - g. The roll out dates provide a clear timeframe for when costs will be imposed and allows adequate time for Licence holders to plan for future costs;
 - h. The number of available pattern approved meters has grown recently, thereby increasing market competition and choice for water users; and

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- i. The EPA has the discretion to provide an extension of time where a Licence holder cannot comply with the requirements of the policy by their roll-out date, such as financial hardship.

External stakeholders (Others)

- 46) Consultation with Irrigation Australia and other state jurisdictions informed practical application of policy development, implementation and indicative costs for validating or installing meters.
- 47) The Commonwealth Department of Climate Change, Energy, the Environment and Water reviewed the policy to ensure that it meets the intent and requirements of the MAF2 and AS4747.

ACT Government agencies

- 48) The Office of Water worked in close collaboration with the EPA during the development of the policy and implementation plan.

MEDIA/COMMUNICATIONS

- 49) The Access Canberra Communications Team are leading policy implementation communications. The Office of Water will support the Access Canberra Communications Team as required.
- 50) The Communications on a Page is in Attachment D.

IMPLEMENTATION

- 51) The Office of Water developed an implementation plan (Attachment J) in consultation with the EPA to set tasks and responsibilities for both agencies to assist in the transition to the new requirements. See Table 1 below for implementation milestones and timeframe.

Table 1: Implementation milestones and timeframes

Milestones	Date to be completed
1. Policy commences	1 December 2023
2. Phase one implementation commences from 1 January 2024	31 March 2024
3. Phase two implementation commences from 1 April 2024	30 June 2024
4. Phase three implementation commences from 1 July 2024	31 December 2024
5. Full implementation complete	31 March 2025
Final completion date:	30 June 2025

HUMAN RIGHTS IMPACT

- 52) It has been determined that there are no significant Human Rights implications arising from this Policy.

Minister’s signature _____

Date ____/____/____

ATTACHMENTS

A	Table of comments
B	Open Access Assessment: Cabinet Decision and Wellbeing Impact Assessment summary
C	Wellbeing Impact Assessment
D	Communications on a Page
E	Non-urban Water Metering Policy
F	Listening Report
G	Preferred policy position and other options for setting threshold criteria
H	Examples of threshold criteria from other jurisdictions
I	Indicative financial impacts for Licence holders
J	Implementation plan

EXPOSURE DRAFT COMMENTS – 23/471**Exposure circulation undertaken:** Full exposure circulation**Reason for exception:** N/A**Dates circulated:** Provide dates circulated

Directorate	Comment	Response
CMTEDD	Choose an item. [Provide comments.]	[Drafting directorate to provide response]
JACS	Choose an item. [Provide comments.]	[Drafting directorate to provide response]
HD	Choose an item. [Provide comments.]	[Drafting directorate to provide response]
CHS	Choose an item. [Provide comments.]	[Drafting directorate to provide response]
EDU	Choose an item. [Provide comments.]	[Drafting directorate to provide response]
TCCS	Choose an item. [Provide comments.]	[Drafting directorate to provide response]
CSD	Choose an item. [Provide comments.]	[Drafting directorate to provide response]
EPSD	Choose an item. [Provide comments.]	[Drafting directorate to provide response]
MPC	Choose an item. [Provide comments.]	[Drafting directorate to provide response]
Statutory Office Holder	Choose an item. [Provide comments.]	[Drafting directorate to provide response]

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FINAL COMMENTS - 23/471

Final circulation undertaken: 2 day final circulation

Reason for exception: N/A

Dates circulated: Provide dates circulated

Directorate	Comment	Response
CMTEDD	Choose an item. [Provide comments.]	[Drafting directorate to provide response]
JACS	Choose an item. [Provide comments.]	[Drafting directorate to provide response]
HD	Choose an item. [Provide comments.]	[Drafting directorate to provide response]
CHS	Choose an item. [Provide comments.]	[Drafting directorate to provide response]
EDU	Choose an item. [Provide comments.]	[Drafting directorate to provide response]
TCCS	Choose an item. [Provide comments.]	[Drafting directorate to provide response]
CSD	Choose an item. [Provide comments.]	[Drafting directorate to provide response]
EPSD	Choose an item. [Provide comments.]	[Drafting directorate to provide response]
MPC	Choose an item. [Provide comments.]	[Drafting directorate to provide response]
Statutory Office Holder	Choose an item. [Provide comments.]	[Drafting directorate to provide response]

CABINET

OPEN ACCESS ASSESSMENT: CABINET DECISION AND WELLBEING IMPACT ASSESSMENT SUMMARY

The Chief Minister must proactively release the information described in section 23 of the *Freedom of Information Act 2016* (the FOI Act) unless the information is contrary to the public interest in accordance with sections 16 and 17, and schedules 1 and 2 of the FOI Act. Please refer to the Cabinet Sharepoint Site for further guidance on what is within the scope of Open Access requirements.

If you believe that release of this information is within the scope of Open Access requirements and would be contrary to the public interest, please complete Part B.

PART A: Release proposed

Number and title of decision: 23/471 – Non-urban Water Metering Policy

Proposed summary of the decision for public release

Cabinet agreed to adopt the Non-urban Water Metering Policy which delivers on the ACT's commitment to improve metering standards under the National Framework for non-urban water metering. The Policy provides an acceptable level of confidence in water meter performance, ensures greater coverage of pattern approved water meters which comply with the relevant standards, and uses a risk management approach to prioritise metering implementation.

Proposed summary of the Wellbeing Impact Assessment for public release

The Non-urban Water Metering Policy builds on existing water metering requirements to strengthen water measurement and enhance the regulatory approach and demonstrates the ACT's commitment to National Framework for non-urban water metering. It provides a robust metering framework which will improve the confidence in water meter performance and accuracy, reduce environmental impacts of water usage and ensure water is used sustainably.

Attachments for release

Summary of the decision	Release through the Open Access website?	Release by Directorate?
Summary of the decision	Yes	No
<u>Attachment A</u> Table of final agency comments		
<u>Attachment B</u> Open Access Assessment – Decision Summary		
<u>Attachment C</u> Wellbeing Impact Assessment	Yes	No
<u>Attachment D</u> Communications-on-a-page	No	No
<u>Attachment E</u> Non-urban Water Metering Policy	No	No
<u>Attachment F</u>	No	No

CABINET

Summary of submissions		
<u>Attachment G</u> Options for setting threshold criteria	No	No
<u>Attachment H</u> Examples of threshold criteria from other jurisdictions	Yes	No
<u>Attachment I</u> Indicative financial impacts for licence holders	No	No
<u>Attachment J</u> Implementation plan	Yes	No

CABINET

WELLBEING IMPACT ASSESSMENT

Non-urban Water Metering Policy	EPSDD	Wellbeing Impact 1
Purpose of proposal This proposal seeks agreement to update the existing policy '<i>Water Meter Installation, Maintenance and Replacement Guideline</i>' to introduce requirements and standards for existing, new and replacement meters in line with the National Framework for non-urban water metering.		
Impact description The updating of this policy builds on the existing non-potable water metering requirements to strengthen water measurement and enhance the regulatory approach. The policy will: • ensure an acceptable level of confidence in meter performance and accuracy; • align with the National Framework for non-urban water metering (2009), including the Metrological Assurance Framework 2 (MAF2) and Australian Standard 4747: Meters for non-urban water supply (AS4747) • adopt a staged risk-based approach to implementing new metering requirements by prioritising implementation for high risk water take. The benefits of improved non-potable water metering accuracy have been balanced with costs for Licence holders by: • using a staged risk-based regulatory approach by prioritising the implementation of new metering requirements for high risk water take • allowing adequate time for implementation where possible to ensure future costs can be considered within water users' overall expenses • setting standards to enable existing meters to be retained in service • using a risk-based approach to exempt the application of telemetry, which would be a new cost to water users Overall, the proposal will have a positive impact for the ACT community as it will continue to provide assurance that water is being managed sustainably for the benefit of both the community and the environment. Licence holders will continue to be responsible for all costs associated with the supply, installation and maintenance of water meters. The proposal will have a negative impact for Licence holders who are required to install a new or replacement pattern approved water meter. Some modifications may also be required to existing pipework and fittings to ensure that the pattern approved meter is installed in accordance with the manufacturer's specifications and AS4747. There will also be a minor negative impact for Licence holders with ongoing costs to demonstrate the accuracy of existing meters, with expected costs to be between \$300 and \$500 every five years. However, in some cases, non-potable water meters may inadvertently be over-reading water usage and the validation of the meter may result in less water use being recorded. Water bills will become more accurate and financial savings may be made, as well as a lower environmental impact overall.		
Who is affected? The proposal will affect 182 holders of a Licence to Take Water issued under the <i>Water Resources Act 2007</i>. Licence holders range from commercial and industrial businesses, rural properties, Commonwealth and ACT Government directorates, sporting and recreation clubs, as well as private suburban residences. Water meters supplied by Icon Water to measure treated drinking water are out of scope.		
Wellbeing domain The primary wellbeing domains impacted by this proposal are environment and climate and governance and institutions.		
Timeframe Between one and five years The policy commences on 1 December 2023 and must be fully implemented by June 2025.		

WELLBEING IMPACT ASSESSMENT

Evidence base and data

What do we know now?

The National Water Initiative (2004), the National Framework for non-urban water metering (2009) and the Murray-Darling Basin Compliance Compact (2018) requires jurisdictional governments, including the ACT, to implement consistent metering standards for non-urban water take to ensure relative equity around water sharing and the protection of water resources.

Licensed non-potable water users in the ACT have been required to install water meters to account for surface water use and groundwater use since 1998. The ACT government has committed to strengthening its water metering policy to improve the standard of measurement for non-urban water.

Accurate water measurement benefits water users, communities, industry, and government by:

- providing the data to support transparency and assurance that water is being appropriately managed and shared;
- providing confidence that water take complies with water plan requirements, including those to protect environmental flows;
- enabling non-potable water users to demonstrate that they are meeting their regulatory requirements;
- providing water take data to better inform water resource management decisions; and
- providing timely information about available water to support water markets and water trading.

What do we need to know?

There are 307 non-potable water meters currently in use. Data is not available on how many of these meters are pattern approved or about the accuracy of these meters.

The implementation of the policy will provide the data needed to measure the progress of the ACT towards National requirements of having AS4747 compliant meters or suitable grandfathering arrangements.

Accountability and evaluation – how will we know this proposal has been successful?

- Progress towards the implementation of the MAF2 and improved metering accuracy is reported by each jurisdiction and is published on the Inspector General of Water Compliance's (IGWC) website. The Office of Water will continue to work with the IGWC to ensure that the government continues to meet its commitments through the implementation of the non-urban water metering policy.
- Other jurisdictions have developed similar policies and are at different stages of policy implementation. The ACT can draw on their experiences and make adjustments to suit the ACT context.
- The Environment Protection Authority (EPA) will implement the policy and monitor ongoing compliance and enforcement. EPA will provide annual reporting to the IGWC.

Key relationships

Agency representatives from Access Canberra (EPA) have provided input into the policy development. The Office of Water will continue to work with the EPA throughout the implementation of the policy to identify potential issues or information gaps.

Public consultation with Licence holders was undertaken in May 2023. Submissions were considered in the final policy position and details are provided in the Cabinet submission documentation.

What is government's involvement/interest?	The ACT Government will release an updated non-urban water metering policy to deliver consistent water metering standards as agreed under the National Framework for non-urban water metering (2009), and the Murray-Darling Basin Compliance Compact (2018). The updated policy will include new water metering requirements for most holders of licences to take water in the ACT. Licence holders will be responsible for the costs associated with meeting the new requirements – including the installation, maintenance and reading of compliant water meters. The government is proposing to assist by adding a new service of measuring meter accuracy to its current meter reading work.		
Why are we communicating on this issue?	Under the updated policy, licence holders in the ACT will have new requirements to comply with. Communication is required to ensure licence holders are aware of the changes, when they will take effect and their ongoing obligations to support compliance with the policy.		
Does it cross over other Directorates/ agencies?	Yes CMTEDD (Environment Protection Authority)	Spokesperson	Shane Rattenbury, Minister for Water, Energy and Emissions Reduction Geoffrey Rutledge, Deputy Director-General, EPSDD
Communications project tier	<i>Tier 3</i>		
Target audience/ stakeholders/third party endorsers	Holders of a Licence to take Water in the ACT Irrigation Australia		

Key Messages

Overarching:

- To support our commitment to the National Water Initiative and the National Framework for Non-Urban Water Metering, the ACT Government is introducing improved standards for water meters in the ACT.
- The new standards will ensure water taken from our rivers and groundwater systems can be measured and monitored accurately to support industry transparency and public confidence while supporting the health of our waterways.
- The revised standards include new requirements for:
 - use of pattern approved meters
 - validation of meter installations by a certified person
 - ongoing meter maintenance and accuracy testing
 - improved reporting and notification requirements for licence holders.
- Following consultation with ACT licence holders, the new requirements will be phased in over the next 12 months to ensure licence holders have time to comply with the new rules.
- To find out more [read the Non-urban Water Metering Policy](#)

Approved by: Geoffrey Rutledge, x75001

Action officer: Sara McIntyre, x72144

Date:

About the changes:

- From 1 December 2023, new requirements for water meters in the ACT will start to be rolled out. They include:
 - From 1 December 2023, any new or replacement water meters must comply with the requirements of the MAF2 and AS 4747 for water meter selection, installation, validation and maintenance.
 - Existing meters installed before 1 December 2023 must be pattern approved or able to demonstrate that they are accurate.
 - New reporting requirements when a water meter is installed, revalidated, repaired, removed or relocated.

Risks and sensitivities

Risk	Mitigation
The government is criticised for cost impost on licence holders.	Q&A developed highlighting the consultation process with licence holders, phased approach to rollout of the changes and that this is a national policy where water users from all jurisdictions will incur new compliance costs.
Concerns of insufficient resourcing in the EPA to monitor and manage compliance with the new requirements.	Additional resourcing for the EPA is being considered to support the implementation of the policy. This includes a proposal to obtain new equipment and staff resources to enable the EPA to deliver a new service of accuracy testing of meters.
Non-potable consultation	People who responded to the recent consultation on the new policy may not consider that their concerns have been addressed if changes have not been made.

Questions and answers

Is the ACT Government providing support to help businesses manage the additional costs associated with the new requirements?

The introduction of improved standards for non-urban water metering brings the ACT into alignment with other states and territories to regulate water meters for non-urban water supply under the National Water Initiative and the National Framework for Non-Urban Water Metering.

The new standards will ensure water taken from our rivers and groundwater systems can be measured and monitored accurately and supports the health of our waterways.

Under the framework, water users from all jurisdictions may incur new compliance costs. The Environment Protection Authority consulted with licence holders on the draft policy including associated costs. We have considered all feedback provided through this process and where possible, reflected in the final policy.

To ensure licence holders have time to comply with the new requirements, they will be phased in over the next 12 months. Under the policy, existing meters can be retained where accuracy can be demonstrated.

The government is exploring options for providing some of the required services such as basic meter validation and accuracy testing.

Action plan – how will we reach the target audience? *<refer to ACT media consumption data to ensure you're creating the right content to get to your audience, and don't forget direct stakeholder engagement. Mandatory evaluation elements are included in the table>*

Date	Communications collateral <i><Attach prepared, approved materials so they are ready to go at time of announcement></i>	Attachment	Responsibility
Prior to project launch			
TBC	Review and update of current web content including: Water Meter Requirements (act.gov.au) Related resources (act.gov.au)		AC Comms / EPA
3 days prior to publication	Stakeholder communication: Provide embargoed copy of policy to licence holders and Irrigation Australia.		EPA / EPSDD
Launch day – 1 November			
1 November	Publish link to policy AC/EPSDD Website		AC Comms / CMTEDD publishing team
1 November	Media Release? To be advised by MO.		EPSDD
Post launch	Monitor media/socials and manage any ongoing issues in collaboration with CMTEDD / EPSDD media.		EPSDD & CMTEDD Media
1 December	Complete evaluation		
Ongoing	Follow up direct communication to licence holders throughout the 12-month transition		EPA/EPSDD



Non-urban Water Metering Policy

AUSTRALIAN CAPITAL TERRITORY

Draft

July 2023

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Version history

Version number	Document date	Document status	Summary of changes
1	March 2023	Draft for consultation	Content prepared
2	June 2023	Draft for adoption	Minor edits including: • Implementation date of policy changed from 1 July 2023 to 1 December 2023 • Definition of 'accuracy testing' and 'validation' refined in Glossary • Section 2: Objectives refined and section renumbered • Heading 'Scope' changed to 'Application of Policy' and section renumbered • Section 3: Application of policy refined • Requirements in Section 4.2: Meter location refined • Requirements for general maintenance changed from 'at any time' to 'as required' in Sections 9.1 and 9.2 • Requirement for report changed from 'can' to 'must' in Section 10: Requirements for certified persons and competent persons • Section 12: Compliance with Policy updated to include certified persons

Review of policy

This policy will be reviewed every 5 years, or as required, to ensure that it remains consistent with the National Metering Framework and the requirements of Australian Standard 4747: Meters for non-urban water supply.

Glossary

Accuracy testing - the process of confirming that a meter is operating within the maximum permissible error of +/- 5% for in-situ conditions.

AS 4747 – Australian Standard 4747: Meters for non-urban water supply.

Authorised officer - an officer authorised under Section 14 of the *Environment Protection Act 1997*.

Certified person - a person with the qualifications, skills or experience to carry out work in relation to metering equipment and is certified by an accredited organisation¹ to undertake meter installation, maintenance and validation activities in accordance with Australian Standards. A current listing of Certified persons can be found in the Member Directory on Irrigation Australia's website www.irrigationaustralia.com.au

Competent person - a person employed in the meter or irrigation industry with the qualifications, skills or experience to carry out work in relation to metering equipment.

EPA – the ACT Environment Protection Authority.

Grandfathering - applies to meters installed before 1 December 2023 which are exempt from the installation and validation requirements of AS4747 for non-urban water metering.

Licence holder - the holder of a licence to take water issued under Part 5 of the *Water Resources Act 1997*.

Manufacturer's seal - a metal wire installed at the time of manufacture of the meter that connects the meter to the meter body to detect any interference with the operation of a meter and the metering equipment.

Meter - a water meter required to be installed through a condition of a licence to take water.

ML – megalitre (equivalent to 1,000,000 litres).

Metering equipment - includes the meter itself and any ancillary wiring, pipework, telemetry equipment or apparatus (where installed) and any supporting structure.

Non-urban water meters – the National Framework for Non-Urban Water Metering has defined non-urban water meters as any meter which measures water take from regulated and unregulated surface water and groundwater systems for the purposes of monitoring compliance with water entitlements and for resource management activities.

It does not include stream gauging stations or groundwater infrastructure used for resource monitoring, or meters used in urban supply and distribution systems where raw or potable water is supplied under a Standard Customer Contract by water utility (e.g. Icon Water) or non-drinking water is supplied under a Customer Contract.

Pattern approved meter - a water meter that has passed the relevant pattern approval process and has a pattern approval certificate issued by the National Measurement Institute.

Policy - the Non-urban Water Metering Policy.

¹ At the time of writing this policy, Irrigation Australia is the only nationally registered training organisation for closed conduit meters

Tamper - as defined in the *Water Resources Act 2007*.

Tamper evident seal - a seal with a unique identification number, purchased through Irrigation Australia, which is applied by certified person to detect any interference with the operation a meter and the metering equipment.

Telemetry - a device that transmits readings (in this instance a pulse or a group of pulses from the water meter) to a central data store where it can be reviewed in near-real time.

Totaliser – displays the accumulated total and total volume of flow through a meter over time.

Validation - a set of activities that includes inspecting the meter to check that it is pattern approved or has a certificate issued by a recognised and accredited testing institution, and that it has been installed and maintained in a manner that provides an acceptable level of confidence that the meter will operate within a range of error under normal operating conditions.

1. Introduction

The National Framework for non-urban water metering (2009)² and the Murray-Darling Basin Compliance Compact (2018)³ were developed from the National Water Initiative to improve water management across Australia. This framework provides a nationally consistent metering standard to improve confidence in water meter performance and accuracy.

The updated Metrological Assurance Framework 2 (MAF2)⁴ is a part of the National Framework which describes the principles to improve the measurement and metering of water taken. The MAF2 is supported by meter standards specified by Australian Standard 4747 - Meters for non-urban water supply (AS4747) that covers the installation, validation, maintenance and verification of meters.

Each state and territory is required to develop its own policy that implements these metering standards to ensure equity around water sharing, improved and continuing confidence in meter performance and water accounting, and the protection of water resources.

In the ACT, the Environment Protection Authority (the EPA) regulates the abstraction of water resources through the *Water Resources Act 2007*. All licensed water take has been required to be metered to account for water use since the introduction of the legislation in 1998.

To ensure continued confidence with water metering requirements, this Non-urban Water Metering Policy has been developed to provide standard requirements for water meter selection, installation and maintenance in the ACT. It delivers on key requirements of the MAF2 and AS4747.

2. Objectives

The objectives of the Policy are to:

- Provide a set of standards for the installation, maintenance and replacement of water meters that ensure an acceptable level of confidence in meter performance and accuracy; and
- Use a staged risk-based regulatory approach by prioritising the implementation of new metering requirements for high risk water take; and
- Uphold community confidence in water resource management and accounting.

² National Framework for Non-urban Water Metering (2009) available from <https://webarchive.nla.gov.au/awa/20130905194923/http://www.environment.gov.au/water/publications/agriculture/pubs/national-framework-for-non-urban-water-metering.pdf>

³ Murray-Darling Basin Compliance Compact available from <https://www.mdba.gov.au/sites/default/files/Basin-Compliance-Compact-180702-D18-31184.pdf>

⁴ Metrological Assurance Framework 2 available from <https://www.dcceew.gov.au/water/policy/policy/nwi/nonurban-water-metering-framework>

3. Application of the policy

The National Framework for Non-Urban Water Metering defines non-urban water meters as any meter which measures take from regulated and unregulated surface water and groundwater systems for the purposes of monitoring compliance with water entitlements and for resource management activities.

This policy applies to all water abstraction in the ACT that is required to be licensed under the *Water Resources Act 2007*⁵.

The policy does not apply to:

- Water take that is exempt from the requirement for a licence to take water⁶; or
- Stream gauging stations or groundwater infrastructure used for resource monitoring; or
- Meters used in urban supply and distribution systems where raw or potable water is supplied under a Standard Customer Contract by water utility (e.g. Icon Water) or non-drinking water is supplied under a Customer Contract.

This policy replaces the EPA “Water Meter Installation, Maintenance and Replacement Guideline”, dated March 2015.

4. Standards for new and replacement meters

This section outlines the standards for all new and replacement meters installed on or after 1 December 2023. From this date, any new or replacement water meter must comply with the requirements of Australian Standard 4747: Meters for non-urban water supply (AS 4747) for water meter selection, installation, validation and maintenance.

4.1 Meter selection

All new and replacement meters must be pattern approved. Pattern approved meters have been tested in an accredited laboratory to ensure they operate accurately under a range of environmental and operating conditions and comply with AS 4747.

A list of AS4747 compliant, pattern approved meters is available from the Australian Government’s website⁷. This list will be updated from time to time as more meters receive pattern approval.

⁵ Note: the definition of ‘urban residential property’ in the Water Resources Act 2007 does not apply in the application of this policy.

⁶ As defined in Section 28(2) of the *Water Resources Act 2007*

⁷ At the time of writing, a list of pattern approved meters is available from the Department of Climate Change, Energy, the Environment and Water (DCCEEW)

<https://www.dcceew.gov.au/sites/default/files/documents/pattern-approved-meters-list-nov2022.pdf>

Meters must:

- Be fit for purpose and suited to the intended purpose, installation configuration and operating conditions (such as water quality conditions and flow rates); and
- Have a local totalising display that indicates the water used in metric units. The preferred units are kilolitres (kL) or cubic meters (m³). For larger water meters the scale of the display can be kL x 10 or m³ x 10.

It should be noted that, although connection to telemetry is not required at this stage⁸, it is likely that it will be required across the Murray Darling Basin by 2025.

It is advisable that licence holders consult with a hydrometric specialist prior to the selection and purchase of a pattern approved water meter.

4.2 Meter location

The following requirements should be taken into consideration when choosing the location for a water meter to ensure it is installed and operated correctly. A water meter should be:

- Installed as close as reasonably practicable to the water extraction point and located upstream of any valves (except air valves), tees, take/offs, diversions or branches;
- Installed above ground with inlet and outlet pipes visible at all times;
- If above ground installation is unavoidable, an underground installation must not be more than one metre below ground level with inlet and outlet pipes visible at all times;
- Installed in a location that allows for safe access to read the meter;
- Accessible at all times (subject to security arrangements which may prevent access to unauthorised persons) and clear of vegetation and landscaping to allow easy visibility for manually reading the meter and viewing the serial number;
- Adequately supported to ensure that the full weight of the meter and its associated pipework is structurally stable and that no leakage occurs under all operating conditions; and
- Protected from the risk of damage due to environmental conditions (such as vibration, corrosion, fogging, flooding, frost and freezing) or from damage from vehicles, livestock and vandalism.

4.3 Meter installation and validation

A licence holder is responsible for ensuring that all licensed water extraction passes through a meter(s) and that separate metering systems are installed to measure groundwater and surface water components (where required).

A new or replacement meter must be installed in accordance with the pattern approval certificate⁹. The pattern approval certificate outlines the installation requirements,

⁸ Appendix C contains key points on why telemetry is not required at this stage

including correct flow direction orientation and the required lengths of pipework upstream and downstream of the meter.

While a meter can be installed by any person including a licence holder or competent person, the meter and its installation must be validated by a certified person within 28 days of installation and before taking water (whichever is first) to certify that it complies with the requirements of the pattern approval certificate, MAF2 and AS4747.

The certified person must issue a completed validation certificate¹⁰ within 7 days of completing the work. The certificate must be submitted by the licence holder via email to environment.protection@act.gov.au within 14 days of receiving it.

If a meter is not installed correctly and cannot be validated by a certified person, the installation will need to be rectified at cost to the licence holder. The validation process will also need to be repeated.

4.4 Tamper-evident seals

Metering equipment must have tamper-evident seals installed at the time of validation. The seal will be provided¹¹ and installed by the certified person to ensure the meter or any ancillary pipework cannot be removed without breaking the seals.

Refer to Section 6 for more information on tamper-evident seals.

5. Standards for Existing Meters

This section applies to existing meters installed before 1 December 2023. Any meter installed on or after this date must meet the new meter standards set in Section 4 (unless exempt as detailed in Section 8).

Existing meters installed before 1 December 2023 do not need to comply with the AS4747 as they are considered to be 'grandfathered'. This means that they can remain in service where it can be demonstrated that they are accurate to within $\pm 5\%$ in field conditions and comply with this policy.

Where a meter does not meet the requirements below, it will either need to be repaired and validated so that it is accurate or replaced in accordance with the requirements for new and replacement meters (as outlined in Section 4).

⁹ At the time of writing, a list of pattern approved meters is available from the Department of Climate Change, Energy, the Environment and Water (DCCEEW)

<https://www.dcceew.gov.au/sites/default/files/documents/pattern-approved-meters-list-nov2022.pdf>

¹⁰ Template available at <https://www.accesscanberra.act.gov.au/s/article/water-resources-licensing-tab-overview>

¹¹ Seals can only be purchased through Irrigation Australia by a certified person
https://www.irrigationaustralia.com.au/Web/Shop/Water_Meter_Seals.aspx

5.1 Pattern approved meters

Where a licence holder intends to continue using an existing pattern approved meter, it must meet each of the following criteria:

- The meter is suitable for the particular application and within its functional life of the meter, with consideration given to the age, usage, wear, expected reliability, physical condition, and operating conditions (eg. environmental or water quality) of the meter;
- The meter is validated by a certified person every five years;
- Documentation is provided to show that the meter is pattern approved and has been validated as required; and
- The tamper evident seal(s) is intact.

Note: If the tamper evident seal(s) are not intact, they must be replaced by a certified person as outlined in section 6.

5.2 Non-pattern approved meters

Where a licence holder intends to continue using an existing non-pattern approved meter, it must meet each of the following criteria:

- The meter is suitable for the particular application and within its functional life of the meter, with consideration given to the age, usage, wear, expected reliability, physical condition, and operating conditions (e.g. environmental or water quality) of the meter;
- A certificate is provided by a certified person to show that the meter accuracy has been confirmed to within $\pm 5\%$ in field conditions. A new certificate is required once every five years; and
- The manufacturer's tamper evident seal(s) is intact. If the manufacturer's seal is broken, the meter is considered to be faulty and it must be tested in accordance with Section 9 of this policy.

6. Tamper evident seals

A tamper evident seal is installed on a meter or any adjacent components to prove the integrity of the meter and show if a water meter or any adjacent components have been dismantled, altered or removed ('tampered' with).

A tamper evident seal must have a unique serial number which is recorded on the validation certificate¹². It is the responsibility of the certified person to provide and install seals to the meter installation to ensure the meter or any ancillary pipework cannot be removed without breaking the seals.

¹² Seals may be purchased by a certified person through an official supplier such as Irrigation Australia

A tamper evident seal should be installed in a location where it is protected from the risk of damage or deterioration due to environmental conditions.

A certified person can break and replace a tamper evident seal. However, the EPA may approve the breaking of a seal by a non-certified person in certain situations, such as when a meter needs to be removed for testing. Approval must be given in writing by the EPA before the seal is broken. Requests can be submitted by email to environment.protection@act.gov.au.

A meter must be re-validated if the tamper evident seal is broken by maintenance or broken or removed by a person who is not a certified person. Minor maintenance, such as battery replacement where removal of the battery does not alter the meter totaliser or cleaning of the external parts of the meter, does not require validation if the tamper evident seal remains in place.

7. Telemetry

Telemetry involves automatically recording data and sending it electronically from the meter to an information technology (IT) system in another place for monitoring and recording.

Although connection to telemetry is not required at time of commencement of this policy ¹³, it is likely that it will be required across the Murray Darling Basin by 2025.

Pattern approved meters are fitted with pulse output capability to enable future connection of ancillary equipment such as telemetry.

There is no requirement for telemetry capability to be added to existing meters at time of commencement of this policy. The benefits of requiring telemetry capability on every existing meter will need to be balanced with the significant costs required by licence holders to retrospectively install fully automated telemetry.

It is advisable that licence holders consult with a hydrometric specialist prior to the selection and purchase of a pattern approved water meter.

8. Exemptions for metering requirements

All licensed water use is required to be metered in the ACT. However, the following circumstances may be exempt from the metering requirements (subject to written approval by the EPA) where:

- No pumping infrastructure is installed and water cannot be taken;
- The use of water carts and water usage record keeping has been approved through the licence to take water;
- A meter was purchased prior to 1 December 2023 but has not been installed since the time of purchase (evidence of proof of purchase is required); or

¹³ Appendix C contains key points on why telemetry is not required at this stage

- There is no pattern approved meter listed on the Australian Government's website¹⁴ for a particular application.

A request for an exemption to the metering requirements can be submitted by email to environment.protection@act.gov.au. Exemptions will be assessed on a case by case basis and will generally be granted for a short time period, with the aim to work towards compliance with this policy. Exemption requests must be approved in writing by the EPA.

9. Maintenance, testing and repair of meters

Ongoing maintenance of a water meter is required to provide an acceptable level of confidence that a meter continues to operate within the maximum permissible limits of error and is maintained in good working order.

All maintenance procedures must comply with the MAF2, AS 4747 and the pattern approval certification (or manufacturer's specifications for non-pattern approved meters).

The maintenance requirements, including who is permitted to perform maintenance works, are outlined in Appendix A. These are key maintenance activities only and other maintenance work must be performed as required to ensure that the accuracy and integrity of the meter is maintained.

A brief summary of the requirements is provided below.

9.1 Maintenance of meters installed after 1 December 2023

A licence holder is required to undertake the following activities to ensure that the meter is measuring accurately and maintained in good working order.

- Undertake general maintenance as required to keep the area clear of vegetation and debris, check for damage and ensure the meter display is clear and legible.
- Conduct regular inspections to ensure the site remains safe and accessible, the meter is maintained in good working order and that the tamper evident seals remain intact.
- Ensure that the meter is validated by a certified person every five (5) years to ensure that the meter and metering equipment remain accurate and to perform any maintenance/service on the meter. The validation certificate, together with photographs of the meter installation and tamper-evident seals, must be provided within 14 days of receiving it, unless it has been provided by the certified person.
- Notify the EPA within five (5) working days of becoming aware of faults with meter installation or meter accuracy.
- Remedy faults of meter installation or meter accuracy within 28 days.

¹⁴ At the time of writing, a list of pattern approved meters is available from the Department of Climate Change, Energy, the Environment and Water (DCCEEW)
<https://www.dcceew.gov.au/sites/default/files/documents/pattern-approved-meters-list-nov2022.pdf>

- Use a certified person to perform maintenance work where tamper evident seals will be broken or where meter accuracy will be affected.
- Keep a log of all maintenance activities carried out on a meter and metering equipment for a period of five (5) years, including all instances when a tamper-evident seal or manufacturer's seal is broken.

9.2 Maintenance of meters installed before 1 December 2023

Consistent with the grandfathering provisions in the MAF2, meters installed before 1 December 2023 are exempt from mandatory validations where it can be demonstrated that the meter is accurate to within $\pm 5\%$ in field conditions and complies with this policy. All other maintenance provisions are the same as for meters installed after this date.

A licence holder is required to undertake the following activities to ensure that the meter is measuring accurately and maintained in good working order.

- Undertake general maintenance as required to keep the area clear of vegetation and debris, check for damage and ensure the meter display is clear and legible.
- Conduct regular inspections to ensure the site remains safe and accessible, the meter is maintained in good working order and that the tamper evident seals remain intact.
- Ensure that the meter is accuracy tested by a certified person every five (5) years to confirm that the meter is operating within $\pm 5\%$ in field conditions.
- Provide a certificate of accuracy, together with photographs of the meter installation and tamper-evident seals, to confirm the accuracy of the meter.
- Fix faults within 28 days (and notify the EPA within five (5) working days of becoming aware of the fault).
- Use a certified person to perform maintenance work where tamper evident seals will be broken or where meter accuracy will be affected.
- Keep a log of all maintenance activities carried out on a meter and metering equipment for a period of five (5) years, including all instances when a tamper-evident seal or manufacturer's seal is broken.

9.3 Meter accuracy testing

A licence holder must arrange for the accuracy of the meter to be tested if the meter is suspected to be operating inaccurately or if the tamper-evident seal or manufacturer's seal are broken by an unauthorised person.

Where the meter is removed and tested in laboratory conditions, it must operate within $\pm 2.5\%$ accuracy across the full flow rate range. Alternatively, in-situ testing can be used where the testing will provide reliable results to show that meter operates with the accuracy requirement of $\pm 5\%$ for in-situ conditions.

If the meter is outside relevant acceptable accuracy limits when tested, the meter must not be used until the meter is either:

- Repaired and it is demonstrated through a certificate of accuracy that the meter operates within acceptable accuracy limits; or
- A certificate is provided by a certified person to show that the meter accuracy has been confirmed to within $\pm 5\%$ in field conditions; or
- Replaced with a pattern approved meter that is compliant with Section 4 of this policy.

9.4 Repair of faulty meters

A licence holder must notify the EPA within five (5) working days of detecting a malfunction in which the meter is unable to accurately record water use.

A meter must be repaired, replaced or reinstalled within 28 days of notifying the EPA of the fault. If the meter cannot be repaired within that time, the licence holder must apply to the EPA for an extension in writing and include the reasons why the repair cannot be completed within that time, and provide the date by which meter repair is expected to be completed.

Once repaired, the meter must be either:

- If installed after 1 December 2023, revalidated by a certified person if the repair works affect the accuracy of the meter or if tamper evident seals are broken or removed by an unauthorised person; or
- If installed before 1 December 2023, tested for accuracy by a certified person if the repair works affect the accuracy of the meter or if the manufacturer's seal is broken by an unauthorised person.

The licence holder must provide a copy of the validation certificate or certificate of accuracy to the EPA within 14 days of receiving it, together with the first available meter reading after the meter is repaired.

If the meter cannot be repaired, it must be replaced with a meter in accordance with Section 4 of this policy.

10. Requirements for certified persons and competent persons

Competent persons and certified persons must report if they know or reasonably suspect that a meter or metering equipment they are installing, or carrying out work on, has been tampered with, within five (5) working days.

A report must be made to the EPA by email to environment.protection@act.gov.au.

11. Notification requirements for licence holders

A licence holder is responsible for notifying the EPA when the following circumstances apply.

- A new or replacement meter is installed.
- A meter is revalidated.
- A fault is detected and/or repairs are undertaken on a meter.
- Maintenance activities are completed.
- A meter has been removed or relocated.

Notifications should be provided to the EPA by email to environment.protection@act.gov.au and must be provided within the timeframes specified below.

11.1 Installation of a new or replacement meter

A licence holder must notify the EPA that a new or replacement meter has been installed within 14 days of installation. The notification must include the following information.

- A completed validation certificate confirming that the meter has been approved for use (unless it has been provided by the Certified person).
- The location of the meter using GPS coordinates (and if applicable, the colloquial name given to the meter location).
- The date the meter was installed.
- The make, size, type and serial number of the meter.
- Name and contact details of the installer.
- Licence to take water (licence number) to which the meter relates.
- Unique identification number on tamper evident seal(s) installed on meter and/or metering equipment.
- Photographs and/or a diagram of the meter fitted on pipe-work, together with dimensions showing lengths of clear pipe before and after the water meter up to the first off-take.
- The meter reading at the time of installation.

11.2 Revalidation of an existing meter

A licence holder must notify the EPA when revalidation of a meter is completed. The notification must include the following information.

- A completed validation certificate confirming that the meter has been approved for use (unless it has been provided by the Certified person).
- The make, size, type and serial number of the meter.
- Licence number to which the meter relates.

- Unique identification number on any new or replaced tamper evident seal(s) installed on the metering equipment.
- The meter reading at the time of revalidation.

11.3 Faulty meters, repair work and testing

A licence holder must notify the EPA within five (5) working days of detecting a meter malfunction in which the meter is unable to accurately record water use. The notification must include the following information.

- Licence holder's name.
- Licence number to which the meter relates.
- The location of the meter using GPS coordinates (and if applicable, the colloquial name given to the meter location).
- The make, size, type and serial number of the meter.
- Date the fault was suspected or identified.
- Last available meter reading before the meter became faulty (or if not known, the current meter reading).

For repairs and testing, the following additional information must be included within 14 days of the repair work being completed.

- Date of repair work and a description of the repair work.
- Name and contact details of repairer.
- Date of removal and meter reading at time of removal.
- If tested, the name and contact details of tester, whether the test was performed in a laboratory or in-situ, and a certificate of accuracy if approved for use.
- Date of reinstallation and meter reading at time of reinstallation.
- Unique identification number on any new or replaced tamper evident seal(s) installed on the metering equipment.

11.4 Maintenance inspections

A licence holder must notify the EPA when a 5-yearly maintenance inspection has been undertaken. The notification must include:

- Date of maintenance inspection.
- Licence holder's name.
- Licence number to which the meter relates.
- The location of the meter using GPS coordinates (and if applicable, the colloquial name given to the meter location)
- The make, size, type and serial number of the meter.
- A certificate of accuracy (for meters installed prior to 1 December 2023).

- A completed validation certificate confirming that the meter has been approved for use (for meters installed after 1 December 2023).
- The information listed in Section 9.4 if repair works are undertaken.
- Unique identification number on any new or replaced tamper evident seal(s) installed on the metering equipment.
- The meter reading at the time of maintenance inspection.

11.5 Permanent removal or relocation of a meter

A licence holder must notify the EPA when a meter is permanently removed or relocated for use at another location. The notification must include the following information.

- Date of removal or relocation.
- Licence holder's name.
- Licence number to which the meter relates.
- The location of the meter using GPS coordinates (and if applicable, the colloquial name given to the meter location).
- The make, size, type and serial number of the meter.
- The meter reading at the time of permanent removal or relocation.
- If relocated, the information listed in Section 11.1.

12. Compliance with policy

Licence holders and certified persons must comply with the requirements of this policy.

A water meter and metering equipment can be inspected by an authorised officer to confirm compliance with this policy and with the *Water Resources Act 2007*. Inspections may be undertaken in consultation with the licence holder and arranged at a mutually suitable time, where possible.

The EPA may direct a licence holder to test a meter to verify that the meter is operating within acceptable accuracy limits, or undertake other works, where:

- It is reasonably suspected that the meter is not operating within acceptable accuracy limits;
- Tamper-evident seals are broken by an unauthorised person; or
- Maintenance activities that will affect the accuracy of the meter are undertaken by an unauthorised person.

Enforcement action may be taken by the EPA in accordance with the Access Canberra Accountability Commitment¹⁵ to ensure compliance with this Policy.

¹⁵ Access Canberra's Accountability Commitment can be found here <https://www.accesscanberra.act.gov.au/s/article/about-access-canberra-tab-access-canberra-accountability-commitment>

Penalties may apply for certain offences under the *Water Resources Act 2007*, including but not limited to:

- Contravening conditions of a licence to take water, not installing a water meter, not maintaining a water meter in working condition, and not giving water meter data to the EPA; and
- Water meter tampering.

Appendix A - Maintenance Schedules

Maintenance schedule for meters installed after 1 December 2023

The following tables present maintenance schedules for license holders with meters installed after 1 December 2023. Please note that if any maintenance activities affect or may affect the accuracy of the meter, or if tamper evident seals are broken by an unauthorised person, then the meter must be tested to ensure it continues to operate within acceptable accuracy limits in accordance with section 9 of this policy.

	Annual inspection	5 Yearly inspection	Who can perform work
Preventative maintenance			
Site is safe and accessible for employees, contractors or visitors to inspect and perform work	✓	✓	Licence holder or competent person
General cleaning to suction clear the equipment, clean solar panel, check for damage and clear the area around the clear of vegetation and debris	✓	✓	Licence holder or competent person
Meter, pipework and other fittings within the metering equipment have structural integrity and there are no leaks	✓	✓	Licence holder or competent person
Tamper evident seal is present and intact	✓	✓	Licence holder or competent person
Meter display is clear and legible	✓	✓	Licence holder or competent person
Meter appears to be in good working order and rotation of totaliser is working correctly when pump is started and water is flowing	✓	✓	Licence holder or competent person
Batteries and/or solar panel are working, replace as required or as specified by the manufacturer ¹⁶	✓	✓	Licence holder or competent person
For electronic meters – there are no error messages on display or obvious faults	✓	✓	Licence holder or competent person
Corrective maintenance			
Weather-proof tamper evident seals are intact		✓	Certified person
Internal pipe is clear of damage, corrosion, material deposits or misalignments		✓	Certified person
Electrical cables and communication cables appear to be in good condition		✓	Certified person
If telemetry is installed - telemetry pole, antenna and any other infrastructure appear to be in good condition		✓	Certified person
Basic maintenance as specified by the manufacturer and pattern approval requirements		✓	Certified person
Validation		✓	Certified person
Tolerance assessment on components		✓	Certified person
For electronic meters – check software version and configuration, electronic check against internal reference source that is set at the time of calibration (as per manufacturer's requirements)		✓	Certified person
Fix a mechanical failure		✓	Certified person
Replace flow meter or flow computer		✓	Certified person

¹⁶ Where battery replacement involves the breaking of the tamper evident seal, the replacement must be carried out by a certified person

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	Annual inspection	5 Yearly inspection	Who can perform work
Replace Printed Circuit Board (PCB), electrical component		✓	Certified person
Software upgrade or change configuration		✓	Certified person
If telemetry is installed - effective signal transfer between transmitter, sensor and data logger and no fault notifications		✓	Certified person
Provide maintenance report after completing all maintenance activities in this Schedule	✓		Licence holder
Provide meter validation certificate to EPA after completing all maintenance activities in this Schedule	✓	✓	Licence holder

Maintenance schedule for meters installed before 1 December 2023

The following tables present maintenance schedules for license holders with meters installed before 1 December 2023. Please note if a manufacturer's seal or tamper evident seal is broken as part of maintenance, or at any other time, it must be replaced with an approved tamper evident seal by a certified person. A validation may be completed in place of the 5 yearly inspection to approve the meter and metering equipment for use.

	Annual inspection	5 Yearly inspection	Who can perform work
Preventative maintenance			
Site is safe and accessible for employees, contractors or visitors to inspect and perform work	✓	✓	Licence holder or competent person
General cleaning to suction clear the equipment, clean solar panel, check for damage and clear the area around the clear of vegetation and debris	✓	✓	Licence holder or competent person
Meter, pipework and other fittings within the metering equipment have structural integrity and there are no leaks	✓	✓	Licence holder or competent person
Tamper evident seal (or manufacturer's seal) is present and intact	✓	✓	Licence holder or competent person
Meter display is clear and legible	✓	✓	Licence holder or competent person
Meter appears to be in good working order and rotation of totaliser is working correctly when pump is started and water is flowing	✓	✓	Licence holder or competent person
Batteries and/or solar panel are working, replace as required or as specified by the manufacturer ¹⁷	✓	✓	Licence holder or competent person
For electronic meters – there are no error messages on display or obvious faults	✓	✓	Licence holder or competent person
Corrective maintenance			
Meter pipework and other fittings within the metering equipment have structural integrity and there are no leaks		✓	Licence holder or competent person
Weather-proof tamper evident seals are intact		✓	Licence holder or competent person
Internal pipe is clear of damage, corrosion, material deposits or misalignments		✓	Licence holder or competent person
Electrical cables and communication cables appear to		✓	Licence holder or

¹⁷ Where battery replacement involves the breaking of the tamper evident seal, the replacement must be carried out by a certified person

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	Annual inspection	5 Yearly inspection	Who can perform work
be in good condition			competent person
If telemetry is installed - telemetry pole, antenna and any other infrastructure appear to be in good condition		✓	Licence holder or competent person
Basic maintenance as specified by the manufacturer and pattern approval requirements		✓	Licence holder or competent person
Perform volumetric or simulated testing (in situ accuracy testing to ensure meter is operating within +/- 5 %)		✓	Certified person
Tolerance assessment on components		✓	Certified person
For electronic meters – check software version and configuration, electronic check against internal reference source that is set at the time of calibration (as per manufacturer's requirements)		✓	Certified person
Fix a mechanical failure		✓	Certified person
Replace flow meter or flow computer		✓	Certified person
Replace Printed Circuit Board (PCB), electrical component		✓	Certified person
Software upgrade or change configuration		✓	Certified person
If telemetry is installed - effective signal transfer between transmitter, sensor and data logger and no fault notifications		✓	Licence holder or competent person
Provide completed 5-yearly inspection report or meter validation certificate to EPA after completing all maintenance activities in this Schedule		✓	Licence holder

Appendix B - Roll out dates

This policy recognises that there are water meters installed at time of policy commencement that will initially not meet the requirements of the national metering standards. Transitional periods are provided to ensure licence holders have time to comply with the new rules.

The requirement to upgrade water meters to pattern approved is being rolled out in stages until December 2024, using a risk-based approach to ensure that the largest water users are approached first to become compliant with this policy and national metering standards. Different roll out dates apply depending on the type of water and the licensed volume. Once fully implemented, the metering rules will apply consistent metering requirements across the ACT.

Licence holders must demonstrate compliance with this policy by the respective roll out dates provided below.

Stage	Risk Category	Surface water	Groundwater	Roll out date
1	High risk	Licensed volume equal to or more than 100ML	Licensed volume of equal to or more than 50ML	31 March 2024
2	Moderate risk	Licensed volume more than 30ML but less than 100ML	Licensed volume more than 5ML but less than 50ML	30 June 2024
3	Low risk	Licensed volume less than or equal to 30ML	Licensed volume less than or equal to 5ML	31 December 2024

Note: 1 ML = 1,000,000 litres

For the purposes of this policy, high risk water take is defined by:

- high volume of water take across a small number of licences,
- permitted use of water has a higher potential for over extraction (eg. agricultural and horticultural irrigation),
- multiple meters at one or multiple sites,
- highest volumes of groundwater extraction are located in fully or overallocated sub-water management areas, or
- considerable impact on low flows during dry periods for surface water extraction.

Low risk water take is defined by:

- low volume of water take across a large number of licences, with total take being less than 10% of all licensed water allocated,
- permitted use of water has a lower potential for over extraction (eg. urban residential),
- there is generally one meter at one site,
- smallest volumes of groundwater use are located in fully or overallocated sub-water management areas, or
- low risk of impact on low flows during dry periods for surface water extraction.

Appendix C - Alignment with the Murray-Darling Basin Compliance Compact

Table 1: Alignment with the Compact

Action	Requirement	Response
3.2 Meter accuracy		
3.2 (i)	All new and replacement meters to comply with AS4747 including pattern approval and verification, by no later than June 2025.	This policy requires that: - new or replacement meters are to comply with AS4747, including pattern approval and validation from 1 December 2023; and - existing meters must be verified with a certificate of accuracy to within $\pm 5\%$ in field conditions or replaced with a new AS4747 compliant meter.
3.2 (ii)	Commencing immediately, and until June 2025: - All new and replacement meters to comply with AS4747 where available. - Where an AS4747 compliant meter is not available the use of an interim meter that has been verified with a manufacturer's certificate of accuracy to within $\pm 5\%$ is acceptable.	
3.2 (iii)	When an existing meter no longer meets $\pm 5\%$ accuracy in the field it must be repaired and validated so that it is accurate to within $\pm 5\%$ in the field or replaced (see 3.2(i)).	Meter accuracy testing is required when: - tampering is suspected or identified; - seals are broken by an unauthorised person; or - any meter is suspected to be operating inaccurately. A meter must be tested and not used until the meter is either: - repaired and it is demonstrated through a certificate of accuracy that the meter operates within acceptable accuracy limits; or - replaced with a new AS4747 compliant meter. This policy will also introduce new requirements for meter maintenance and an improved process for repairing faulty meters which will assist to detect issues earlier that could affect meter accuracy.
3.2 (iv)	All meters to be periodically validated consistent with the requirements of AS4747.	This policy has the following requirements. - Meters installed after 1 December 2023 are required to be periodically validated by a certified person. - Meters installed before 1 December 2023 are exempt from periodic validation as they are 'grandfathered', however they are subject to periodic accuracy testing.

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Action	Requirement	Response
3.2 (v)	Any exemptions to 3.2(i) to 3.2(iv) made by the state to be supported by a justification published on the relevant state agency website.	Meters installed before 1 December 2023 are exempt from the pattern approval and validation requirements of AS 4747 as this is permitted under the National Framework for Non-urban Water Metering. This policy puts in place interim measures to ensure that these meters remain accurate.
3.3 Meter coverage		
3.3 (i)	All take via water entitlements to be metered by June 2025 and a plan for achieving this.	This policy requires all licensed water take to be metered except in certain circumstances as described in section 8.
3.3 (ii)	Any exemptions to 3.3(i) made by the state to be supported by a justification, such as a regulatory impact assessment, published on the relevant state agency website.	
3.3 (iii)	The basis upon which meter thresholds have been set.	
3.4 Transmission of data		
3.4 (i)	A program to progressively automate the reporting of take, regardless of how that is measured, no later than 2025.	The installation of telemetry for non-urban meters in the ACT would be a costly exercise which would provide minimal benefit for the relative costs for the following reasons. • The ACT is a small geographical area, with all metering sites being accessible within a 40-minute drive from the city centre. Over 84 percent of groundwater licences are located within the residential suburbs of the ACT, and 66 percent for surface water licences. • All water take in the ACT has been required to be metered since 1998. This means there is a high level of confidence in existing water accounting and measurement across the ACT. • There is already a well-established requirement for licence holders to self-read their meters at a set frequency (once a year for low risk users, monthly for high risk users). This could be improved with a functionality for licence holders to submit their meter readings through an online form. • Licensed volumes in the ACT are relatively small volume (and few numbers of licences) compared to other jurisdictions, for example, 72 percent of groundwater licences are for 10ML or less, and 45 percent of surface water licences are for 20ML or less. These licensed volumes are considered to be low-moderate risk in terms of resource use and potential non-compliance. Note: The ACT will reassess this position if the level of risk to the resource changes in the future or where required telemetry becomes mandatory under the Compliance Compact.
3.4 (ii)	Any exemptions to 3.4(i) made by the state to be supported by a justification published on the relevant state agency website.	

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3.5 High risk take		
3.5	The highest risk take, including large users in the Barwon–Darling, to be accurately metered by December 2019 and will publish what constitutes highest risk in their metering policies. High risk take should also be telemetered by December 2019 with any exemptions published.	All licensed water use must be metered in the ACT. Exemptions are limited to specific types of water take prescribed by legislation (e.g. stock and domestic riparian rights). The staged roll out of the policy targets largest ACT non-urban water users first. As described above, the installation of telemetry for non-urban meters is not required in the ACT at this time due to the significant costs that would be imposed on licence holders and the minimal benefits it would achieve.
3.6 Timetable for installation		
3.6	A timetable for the installation of new meters and telemetry, and auditing and maintenance of the metering fleet to meet the above requirements.	The timetable for the installation of new meters is outlined in the policy: • From 1 December 2023, all new and replacement meters must be AS4747 compliant. • Meters installed prior 1 December 2023 must be confirmed as accurate or replaced with a AS4747 compliant meter by the relevant roll out date. The timetable for maintenance of meters is outlined in the policy: • All meters must be inspected annually by the licence holder; • Meters installed after 1 December 2023 are subject to validation requirements every five years which must be performed by a certified person; • Meters installed prior to 1 December 2023 are subject to accuracy testing every five years which can be performed by a certified person; • Any meter which is suspected to be faulty must be accuracy tested and repaired or replaced as required; and • A meter must be tested when a tamper proof seal is broken. As described above, the installation of telemetry is not required in the ACT at this time due to the significant costs that would be imposed on licence holders and the minimal benefits it would achieve.

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LISTENING REPORT

NON-URBAN WATER METERING POLICY

Under the National Framework for Non-Urban Water Metering, the standards for water meters are being improved across the Murray Darling Basin. This will ensure water taken from rivers and groundwater systems can be measured and monitored accurately and supports the health of our waterways.

The ACT Government, along with other Murray-Darling Basin Governments, has agreed to implement new standards for water meters under the National Framework. To meet this commitment, a Non-Urban Water Metering Policy has been developed. This Policy will replace the 'Water Meter Installation, Maintenance and Replacement Guideline' and includes new requirements for:

- a. use of pattern approved meters,
- b. validation of meter installations by a certified person,
- c. ongoing meter maintenance and accuracy testing, and
- d. improved reporting and notification requirements for licence holders.

The Policy applies to all water abstraction in the ACT that is licensed under the *Water Resources Act 2007*. Treated drinking water supplied by Icon Water is out of scope.

A Licence to Take Water under the *Water Resources Act 2007* requires a water meter to be installed at each extraction point to account for water taken. There are currently 180 active licences and 290 non-potable water meters in use that meet the policy definition. Licence holders are responsible for the costs associated with the installation, maintenance and reading of a water meter.

THE CONVERSATION

Targeted stakeholder consultation with Licence holders was conducted from 12 April to 10 May 2023. A cover letter, executive summary of the proposed changes and an outline of estimated costs were sent to all Licence holders with an invitation to provide written responses via email.

WHO WE ENGAGED

All 180 holders of a Licence to Take Water under the *Water Resources Act 2007* were invited to respond to the consultation process. Examples of Licence holders include ACT and Commonwealth Governments, golf clubs, plant nurseries, primary producers, rural land holders and small private gardens.

From the 180 License holders, 10 items of written feedback were received.

Key insights from the community

Increased cost of compliance

1. There was opposition from seven (7) small-scale irrigation and small groundwater users on the new metering requirements. Concerns were associated with increased compliance costs, sufficiency of existing metering and excessive requirements for small scale water use.
2. One (1) submission suggested that the ACT Government should bear the cost of metering compliance and believes that the annual administration fee exceeds the costs of servicing his licence.

Benefit of improved metering

3. Four (4) submissions believed that the existing metering requirements are adequate for small scale water users as the current standards ensure compliance with water use while balancing feasible compliance costs.

National Framework for Non-urban Water Metering

4. There was support from two (2) submissions for the intent of the National Framework for Non-urban Water Metering to manage water responsibility and support healthy waterways.

WHAT'S NEXT?

The insights from consultation have been considered when finalising the draft Non-urban Water Metering Policy. The draft Policy will be presented to Cabinet for consideration in 2023 and then made publicly available.

Key Timings

12 April to 10 May 2023 – Targeted consultation with License holders

October 2023 – Policy presented to Cabinet for consideration

1 December 2023 – Commence staged policy implementation

June 2025 – Full policy implementation

THANK YOU FOR YOUR FEEDBACK

ATTACHMENT G: Preferred policy position and other options for setting threshold criteria

Preferred policy position - Maintain 100% metering coverage and focus on improving accuracy and measurement

What policy implementation looks like

- All 182 non-potable Licence holders will need to comply with the Policy requirements;
- All 307 operational meters will be tested for accuracy by the relevant roll-out date;
- Existing meters can remain in service where accuracy can be demonstrated; and
- Inaccurate/non-functioning meters need to be repaired or replaced with pattern approved meters.

Who will be exempt?

- Nil exemption. Policy applies to all Licence holders and all non-potable water meters.

Benefits

- 84% of groundwater Licences are in 'at risk*' Water Management Areas (WMAs).
** deemed at risk because WMAs are overallocated or fully allocated.*
- The level of accuracy of existing meters is unknown for several reasons:
 - Age of meters;
 - There is currently no requirement for meters to be tested or serviced during meter lifetime;
 - Plumbing arrangements and installations are not usually inspected before they are put into operation. Some installations are buried which prevents compliance inspections being undertaken; and
 - Compliance inspections have been affected by several factors over the last 5 years, including the Covid pandemic and staff shortages.
- Supports a water trading framework which is likely to require pattern approved meters before a trade can be approved.
- Provides the best outcome for the protection and sustainable management of water resources and meets the objectives of the *Water Resources Act 2007*.
- Increases public confidence in measuring water take.
- There could be a reduction in the amount of water abstraction charge (WAC) invoiced to some Licence holders (based on consumption) if a meter has been reading higher.

Sensitivities

- Increased purchase and installation costs for pattern approved meters, where applicable, as well as ongoing compliance costs for regular meter validation and accuracy testing.
- Large pulse of work for EPA Inspectors to initially implement the policy but will taper off to 'business as usual' after implementation stage.

Table 1 below outlines other options considered, but not included in Policy.

Table 1: Other options considered, but not included in Policy, for potential metering exemption threshold

	Option	What it looks like	Who would be exempt	Pros	Cons
1.	Threshold set by low risk permitted use	Urban residential use and stock and domestic use would be exempt from policy requirements. <i>Note: stock and domestic with a supplementary activity such as irrigation would not be exempt and must comply with policy requirements</i>	38 % of Licence holders would be exempt from policy requirements - Urban residential use: 52 Licences for groundwater - licensed volume ranges from 0.5ML to 4ML per year - total volume allocated is 61ML per year - Stock and domestic use 17 Licences for groundwater - licensed volume ranges from 1ML to 10ML per year - total volume allocated is 88.5ML per year	COMPLIANCE - Water take for those below the threshold could continue to be measured through a non-pattern approved meter, or as otherwise specified in conditions in the Licence. - Removes the confusion around the definition of non-urban metering and the application to meters located on urban residential properties. COMMUNITY - Reduced costs for metering and validation for small low-risk users by not requiring pattern approved meters. - Possible reduction in water abstraction charge (WAC) for meters that have been over-reading water take. - No increase to compliance costs for small licensed volumes will be balanced with benefit to the resource, where they are located in a sub water management area that this no considered to be 'at risk' due to overallocation or full allocation of water.	COMPLIANCE 100% metering coverage has been in place since 1998 and would be reduced to 62%. COMMUNITY - Reduced meter coverage may reduce public's confidence that water is being managed in a sustainable way. - Water trading is likely to require pattern approved meters before the trade can be approved. ENVIRONMENT - All urban residential Licences are located in overallocated or fully allocated sub water management areas. - The sustainable extraction limit of an aquifer is usually much less than the rate of annual recharge, or renewal. - Effects of groundwater over-use may not be detected for several decades because of slow renewal and movement of the resource.

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	Option	What it looks like	Who would be exempt	Pros	Cons
				ENVIRONMENT - Permitted use is considered to have the lowest risk of overuse under the Disallowable Instrument 'Reasonable Use Guidelines'. - Small, allocated volumes with most not using their full licensed volume in an average rainfall year. - Urban residential use – no new entitlements being issued so there can be no increase in amount allocated. - Stock and domestic – the maximum entitlements that can be granted is limited to 10ML, and there is not expected to be significant increase in entitlements as properties are well established. - Offers some protection of resource as exempt volumes are small (total of 149.5ML). - There is low competition and consumption in most of the sub water management areas for stock and domestic use (Gudgenby, Upper Murrumbidgee and Paddys).	
2.	Threshold set by licensed volume of 5 ML or less	Small licensed volumes are exempt from policy requirements, mainly being urban residential, stock and domestic and	52% of Licence holders would be exempt from policy requirements Groundwater:	COMPLIANCE Water take for those below the threshold could continue to be measured through a non-pattern approved meter, or as otherwise	COMPLIANCE 100% metering coverage has been in place since 1998 and would be reduced to 48%. COMMUNITY

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	Option	What it looks like	Who would be exempt	Pros	Cons
		community organisations	• 84 Licences would be exempt (total number of active Licences is 182) • Total licensed volume – 159ML annually • Main uses – urban residential gardens, stock and domestic with agricultural/horticultural irrigation, and irrigation of parklands, sportsgrounds and urban open spaces Surface water: • 10 Licences would be exempt (total number of active Licences is 182) • Total licensed volume – 28.5ML annually • Main uses – irrigation, commercial/industrial	specified in conditions in the Licence. • Aligns with approaches taken by other jurisdictions (see Attachment H). • Removes the confusion around the definition of non-urban metering and the application to meters located on urban residential properties. COMMUNITY • Reduced costs for metering and validation for small licensed volumes by not requiring pattern approved meters. • Possible reduction in water abstraction charge (WAC) for meters that have been over-reading water take. • Licence conditions can require a basic meter (non-pattern approved) or other means of measurement for water accounting. • No increase to compliance costs for small licensed volumes will be balanced with benefit to the resource, where they are located in a sub water management area that this no considered to be 'at risk' due to overallocation or full allocation of water.	• Reduced meter coverage may reduce public's confidence that water is being managed in a sustainable way. • Water trading is likely to require pattern approved meters before the trade can be approved. ENVIRONMENT • All urban residential Licences are located in fully allocated WMAs or over allocated WMA. • The sustainable extraction limit of an aquifer is usually much less than the rate of annual recharge, or renewal. • Effects of groundwater over-use may not be detected for several decades because of slow renewal and movement of the resource.

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	Option	What it looks like	Who would be exempt	Pros	Cons
				ENVIRONMENT Offers some protection of resource as exempt volumes are small (total of 187.5ML).	
3.	Threshold set by 'at risk' sub water management area, combined with a licensed volume of 5 ML or less <i>Note: 'At risk' sub water management areas are those that are overallocated or fully allocated, being groundwater in Central Molonglo, Lower Molonglo and Ginninderra.</i>	84% of Licences are in 'at risk' water management areas: – Central Molonglo (overallocated) – 94 Licences, totalling 1253.5ML – Ginninderra (fully allocated) - 14 Licences, totalling 229ML – Lower Molonglo (fully allocated) - 10 Licences, totalling 197ML	Groundwater: 6 groundwater Licences - Total licensed volume of 14.5ML annually - Main use is stock and domestic Surface water: 10 Licences would be exempt (total number of active Licences is 182) - Total licensed volume – 28.5ML annually - Main uses – irrigation, commercial/industrial	COMPLIANCE - Water take for those below the threshold could continue to be measured through a non-pattern approved meter, or as otherwise specified in conditions in the Licence. COMMUNITY - No increase to compliance costs for small licensed volumes will be balanced with benefit to the resource, where they are located in a sub water management area that this no considered to be 'at risk' due to overallocation or full allocation of water. ENVIRONMENT - Offers some protection of resource as exempt volumes are small (total of 43ML).	COMPLIANCE 100% metering coverage has been in place since 1998 and would be reduced to 91%. - May create confusion around metering as there will be different requirements for groundwater and surface water of same volumes. - Implementation plans may be required for each sub water management area to identify metering requirements and exemptions. - Confusion remains around the definition of non-urban metering and the application to meters located on urban residential properties. COMMUNITY - Reduced meter coverage may reduce public's confidence that water is being managed in a sustainable way. - Water trading is likely to require pattern approved meters before the trade can be approved.
4.	High risk take only	Policy applies to high high risk take, defined	98.4% of Licence holders would be exempt from policy requirements	COMPLIANCE Easy to implement.	COMPLIANCE Does not meet the intent of the Compliance Compact and MAF2.

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	Option	What it looks like	Who would be exempt	Pros	Cons
		by MAF2 as take of 500ML or more	Policy would apply to 3 Licence holders (1.6% of total Licences) with a total licensed volume of 1756ML annually	COMMUNITY No change for most Licence holders.	- Progression towards pattern approved metering is publicly reported by the Inspector-General Water Compliance. COMMUNITY - Does not increase public confidence in sustainable management of water. ENVIRONMENT - No significant improved environmental outcomes.
5.	Do nothing – maintain current requirements	All licensed water take continues to be metered through existing meters with no progression towards pattern approved meters		COMPLIANCE - No change to current practices COMMUNITY - No change for Licence holders	COMPLIANCE - Does not meet ACT commitments made under the Compliance Compact and MAF2. - Progression towards pattern approved metering is publicly reported by the Inspector-General Water Compliance. COMMUNITY - Does not increase public confidence in sustainable management of water. ENVIRONMENT - No improved environmental outcomes.

Attachment H: Examples of threshold criteria from other jurisdictions

State	Threshold criteria	Other considerations
NSW	- Surface water - All works that take or may be used to take water are required to have a meter, except pumps less than 100mm as authorised by the authority. - Groundwater - All works that take or may be used to take water are required to have a meter, except water bores with a diameter* less than 200mm as authorised by the authority. - All licensed water use in 'at risk' ** groundwater sources must be metered regardless of the size of the bore (unless water is taken under a basic landholder right). <i>** deemed at risk because they are overallocated or at risk of overallocation.</i>	- All existing works which are already metered will continue to be metered - Meters are owned by licence holders - Improving meter coverage is a key policy target
VIC	- Surface water – unregulated system - licenced volume of ≤ 10 megalitres per year - Surface water – regulated system – annual use of ≤ 10 megalitres per year - Groundwater – licenced volume of ≤ 20 megalitres per year	- Meters are owned by water corporations - The VIC policy is an overarching document -water corporations develop their own metering action plans with their own thresholds - These thresholds have been in place since 2004 and successive policies have maintained grandfathering arrangements
SA	- All water use is metered - can be licensed for 200 KL for domestic use for a bed and breakfast (ACT minimum is 500 KL) - Flexibility provisions and exemptions apply by WMA, for example: - Eastern Mount Lofty Ranges – dam less than 2ML capacity (excluding high risk dams), dams used for stock and domestic purposes - River Murray prescribed watercourse – allocation less than 5000 KL for stock and domestic purposes (automatic flexibility does not apply where there is a second use) - Special flexibility applies in certain circumstances, eg. inactive works, sites that are difficult to meter	- Meters are owned by licence holders - Water usage not required for billing (a levy is charged based on the entitlement volume) - Water use is reported as the full allocated volume

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State	Threshold criteria	Other considerations
QLD	• Volumetric entitlements to take 5ML or less, as specified on the entitlement, will not require metering. • However, where a water plan states a different minimum measurement threshold for a water plan area or part of a plan area, the threshold stated in the water plan will apply • Metering will not be required (exemptions) for entitlements to take water for the following low-risk activities: – stock and domestic – public amenities – educational facilities • Where a volumetric entitlement is inactive, i.e. water has not been or is not currently being taken under the entitlement, metering will not be required to be in place for that entitlement. An entitlement becomes inactive if water is not taken for over 12 months	• Any entitlement that was a metered entitlement at the commencement of the policy will continue to be metered • Meters are owned by licence holders • Improving meter coverage is a key policy target

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ATTACHMENT I – INDICATIVE FINANCIAL IMPACTS FOR LICENCE HOLDERS

SUMMARY OF COSTS

The following total costs are expected for Licence holders.

- **NEW** Accuracy test or validation – approx. \$300-\$500 per meter every five years. Almost half of Licence holders have one active meter only.
- **NEW** Meter repairs and replacement as required – cost varies depending on specific site conditions, the type of work to be performed and the type of equipment to be repaired or replaced. Approx. \$3,000 for meter replacement, if required
- Existing annual administration fee of \$497.90 (payable for 2022-2023).
- Existing annual Water abstraction fee of \$0.324 per kilolitre (payable for 2022-2023).

Impacted stakeholders	• All Licence holders will be subject to <u>new</u> costs (182 Licences in total) to demonstrate accuracy of their meter • Water meters are privately owned, purchased and maintained at the Licence holders' cost. The policy will not change this.
Quantum of water meters	• 307 ACT water meters currently in use (active) • Approx. 50% of Licences have 1 meter • Approx. 5% of Licences have more than 5 meters in total
Meter validation costs – <u>at policy implementation</u>	• Upfront cost between \$300-\$500 per meter for meter validation testing payable by 31 December 2024, total cost dependent on number of water meters per Licence
Meter validation costs - <u>ongoing</u>	• Approx \$300-500 per meter, payable every 5 years, for meter validation testing, total cost dependent on number of water meters per Licence • Ongoing maintenance
New water meter	• New water meter installation costs are site dependent, ranging from \$300 to over \$3,000 per meter
Costs payable to	• All costs payable to water meter validators or meter installers that are certified by Irrigation Australia Limited, or • A proposed 'fee for service' model for ACT government validation, with administration fees payable to the government

BACKGROUND

The new Non-urban Water Metering Policy (the policy) is being rolled out in stages between December 2023 and December 2024 to provide time for Licence holders to prepare for compliance costs associated with accuracy testing and/or meter repair and replacement.

A risk-based approach applies to policy implementation roll-out. Large water users, which pose a higher risk to the resource, are required to demonstrate compliance first.

The costs of water meters¹ vary by size and location so the following costs are provided as a broad estimate.

- Every existing meter is to be tested for accuracy or validated by the roll out date – cost varies between \$300 and \$500 per meter.
- Where a meter is verified as accurate or a validation certificate is issued - another test is required in 5 years, or earlier where a fault is suspected.
- Where a meter cannot be verified as accurate or a validation certificate cannot be issued – maintenance or repairs are required and costs for this will vary with labour and parts.
- Where repairs do not fix the fault, the meter must be replaced with a new pattern approved meter. The cost to supply and install a pattern approved meter can range from \$3,000 for small meters (up to 200mm) to over \$10,000 for larger or bespoke meters (used by large irrigators in other jurisdictions).

The typical service life for pattern approved meters is 15 to 20 years so it is anticipated that numerous meters will be able to remain in service where their accuracy can be verified.

Please note the estimated costs are indicative only, and there are many factors that will influence how much it may cost to demonstrate the accuracy of a meter or the installation of a new meter, including:

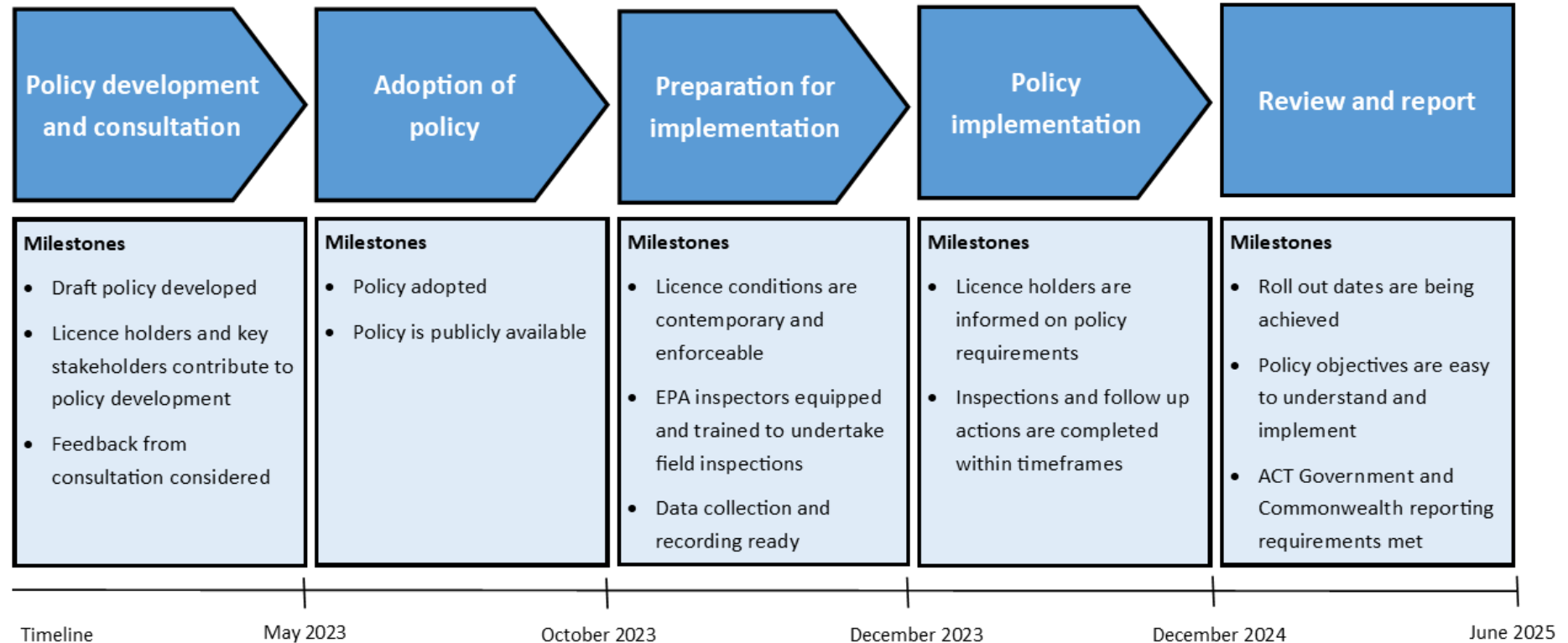
- site conditions, such as ease of access to the meter;
- if existing pipework is visible above ground or whether excavation works are required at the Licensee's expense;
- if additional works are required to install a replacement meter;
- type of meter (electronic or mechanical meter); and
- travel costs for a certified installer to travel from a regional NSW area to the ACT (dependent on total kilometres travelled). It is expected that travel costs will be either reduced or eliminated as more local ACT-based installers become certified.

The above costs also do not incorporate telemetry as this is not a mandatory requirement at this time. Telemetry can cost between \$500 and \$2,000 when installed with a new meter, depending on the sophistication of the telemetry and the communication options. It can cost up to \$12,000 when retrofitted to existing meters.

¹ These costs have been taken from the 'NSW Water Reform Action Plan, Water take measurement and metering, consultation paper, March 2018', the Victorian 'Preparing non-urban water meter action plans, Guidelines for Water Corporations' and verified in conversations with local certified installers.

Attachment J- Implementation Plan for Non-urban Water Metering Policy

1. Summary of Key Milestones



2. Purpose

The purpose of the Implementation Plan is to identify the key tasks and communication strategies for implementing the Non-urban Water Metering Policy.

3. Outcomes

The outcomes of this Implementation Plan are detailed in Table 1. The outcomes and success criteria detailed in this section reflect the delivery of key milestones, as outlined in Section 7.

Table 1: Outcomes and success criteria

Outcome	Success Criteria
Number of pattern approved meters is identified	The number of pattern approved meters can be accurately reported
Accuracy of existing meters is known	Increased confidence that the take of water is accurately and reliably measured
Meters are upgraded as required	New and replacement meters are installed in accordance with policy requirements
Reporting requirements are met	Reporting is accurate and is provided in a timely manner

4. Assumptions

The Implementation Plan will:

- have strong leadership and access to the skills and capability required to deliver the plan in the time scheduled;
- be appropriately resourced to ensure it delivers on-ground outcomes;
- have ongoing cooperation and support from key stakeholders throughout its operation; and
- have Executive support of the policy intent and direction.

5. Constraints

The following constraints have been identified that may impact the progress of the implementation plan:

- No additional budget has been allocated to this project.
- The capacity and/or willingness of key stakeholders, including Licence holders, to engage in the implementation plan may impact efficacy.
- Availability of certified persons to undertake accuracy testing and meter repairs.

6. Tracking Progress

EPA will report on Implementation of the Policy to the Inspector General of Water Compliance (IGWC).

Implementation of the Policy will be monitored by the IGWC.

Office of Water will have general oversight of Policy implementation.

Within the five year cycle of the policy, there may be the need to adapt as policy is implemented, external service provider market buy-in is better understood, or compliance approaches change and national reporting becomes routine.

7. Key Milestones

The key implementation milestones are outlined in Table 2.

Table 2: Key Milestones

	Action	Tasks	Responsible	Timeframe	Progress	Result
1	Consultation with licence holders and other key stakeholders on draft policy	Prepare consultation letter/email to stakeholders to advise of draft policy and seek feedback. Stakeholders include: • Licence holders • ACT Rural Landholders Association • Monaro Golf Association • Irrigation Australia • Inspector-General of Water Compliance • Department of Climate Change, Energy and Water	OoW/Access Canberra Comms Team	May 2023 4-week consultation period	Complete	Licence holders and key stakeholders opportunity to contribute to Policy development
		Snapshot document with a summary of the main requirements of the Policy and link to full detailed Policy sent with consultation letter.	OoW	May 2023	Complete	
2	Adoption of final policy	Consider submissions when finalising policy	OoW	June 2023	Complete	Submissions received are incorporated into final policy where appropriate
		Provide response to submissions	OoW	June 2023	Complete	
		Prepare and finalise Cabinet submission for policy agreement	OoW	June – October 2023	Progressing	Cabinet agrees to the policy and implementation plan
		Seek advice from Comms Team on corporate branding and graphic design requirements	OoW/AC Comms Team	July 2023	Not started	Document is consistent with corporate branding
3	Policy accepted by Cabinet	Cabinet submission approved	Cabinet	October 2023	Progressing	Final policy adopted
		Publish policy on Access Canberra website (Water resourcing licensing page) and supersede previous water metering guideline	EPA/AC Web Team	October 2023	Not started	Document is publicly available
4	Update licence conditions	Amend all (182) Licence holder licence conditions to specify: • New conditions of Policy – 5-yearly validation and accuracy testing requirements – repairs and maintenance – notification and reporting requirements	EPA	October 2023 (after adoption of policy by Cabinet)	Not started	Licence amendments and administration tasks are completed at least one month before first roll out date Conditions reference the new policy and are

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		- Update existing conditions to reference new Policy - test new conditions and elements of offence for enforceability				enforceable
	Action	Tasks	Responsible	Timeframe	Progress	Result
		Consultation with licence holders on proposed amendments to licence conditions (in accordance with S55 of <i>Water Resources Act</i>)	EPA	October/November 2023	Not started	
		Consider submissions when finalising new conditions	EPA	October/November 2023	Not started	
		Update Licenses with amended conditions	EPA	October/November 2023	Not started	
		Update database with new details	EPA	October/November 2023	Not started	
		Send licence to licence holders, including response to any submissions received	EPA	October/November 2023	Not started	
		Update public register with new Licenses	EPA	October/November 2023	Not started	
5	Training for staff	Register for 'Meter Installation & Validation' training through Irrigation Australia	EPA	EPA staff attended in March 2023	Complete	Staff are: - confident working alone in the field - able to undertake duties as an authorised officer - able to carry out an inspection of a water meter and surrounding equipment - able to complete data entry as required
Consider undertaking meter inspections with another jurisdiction	OoW/EPA	As opportunity arises	Not started			
Purchase clamp-on flow meter and undertake training with equipment supplier	EPA	Before Policy Implementation	Not started			
Ensure staff are familiar with EPA's 'Working Alone in Field Policy' and workplace health and safety requirements	EPA	Before Policy Implementation	Progress unknown – EPA to advise			
Ensure staff are familiar with WRIS database and able to enter data accurately and in line with business rules	EPA	Before October 2023	Progress unknown – EPA to advise			
Admin check - authorised officer ID cards, vehicle pin, PPE, mobile phone with access to Survey123, tools (gloves, screwdriver etc.)	EPA	Before October 2023	Progress unknown – EPA to advise			

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	Action	Tasks	Responsible	Timeframe	Progress	Result
6	Data collection and database preparation	Identify new data fields to be captured in WRIS for each meter (see point 10 for Metering report card metrics) • Meter info – brand, size, installation date • Number of AS4747 compliant meters • Number of grandfathered meters • Date of last validation • Date of last accuracy test • Due dates for validation and accuracy testing • Status of repairs and faults • Compliance actions	EPA	October-December 2023	Not started	Accurate and timely data is recorded and reporting commitments can be met
		Create data fields in database, including query for reporting	EPA	Before December 2023	Not started	
7	Education for licence holders	Offer onsite visits to licence holders who require assistance or further advice to comply	EPA	As required	As required	Licence holders are prepared for their roll out date and can meet the requirements of the policy
8	Inspections and data collection	Inspection templates developed	EPA	January 2024	Not started	Accurate and consistent data is recorded during field inspections and entered into database for ongoing administration of licence and to meet reporting requirements
		EPA purchased clamp on ultrasonic device for inspections and staff pre-trained with physical aspects and software use to undertake inspections	EPA	December 2023	Progressing	
		Update inspection survey in Survey123	EPA	January 2024	Not started	
		Water meters <u>AND</u> metering installations are inspected within one month after roll out date	EPA	From March 2024 and as per staged rollout	Not started	
		Follow up inspections undertaken within 28 days of initial inspection	EPA	Within 28 days of initial inspection	As required	
		Enforcement procedure actions completed and compliance with policy achieved	EPA	In accordance with Access Canberra policies	As required	
		Data entry completed by EPA inspectors to capture inspection details, compliance actions and reporting data (see Point 9 below)	EPA	At time of inspection	As required	

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		Ongoing inspections are built into workplans and become business as usual as per policy	EPA and/or licence holder	Ongoing from March 2024, no end date as BAU	Not yet started	
	Action	Tasks	Responsible	Timeframe	Progress	Result
9	Review progress	Review roll out dates: - How many licences have been inspected/accuracy tested? - How many comply? - Are the dates still achievable?	OoW	May 2024 for first roll out date, and then ongoing to align with other roll out dates	Not started	Policy objectives are achievable and easy to understand and implement for both the EPA and licence holders
		Review policy content: - Are the requirements achievable? - Is Policy easily understood by EPA and licence holders?	OoW	June 2024	Not started	
		Review the use of ultrasonic clamp-on flow meters by EPA staff: - Can a reasonable number of inspections be completed by EPA? - Are staff having issues with interpreting results? - How many installations are referred to certified persons for follow up? - Have more external certified persons become available in ACT region?	OoW/EPA	June 2024	Not started	
		Check ACT Gov Competitive Neutrality policy requirements: - Assess measured cost of inspection effort (time, oncosts, overheads) - Costs absorbed by Government that would otherwise be paid by Licence holder to external service provider	OoW/EPA	June 2024	Not started	
		Identify any additional resources required	EPA	As required	As required	

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	Action	Tasks	Responsible	Timeframe	Progress	Result
10	Reporting	Include progress of policy implementation in EPA annual report: • Number of grandfathered meters • Number of pattern approved meters • Percentage metering coverage	EPA	In line with current annual reporting requirements	As required	Reporting is provided with required timeframe
		'Metering Report Card Metrics' reporting to IGWC (template provided by IGWC). Minimum data required (noting that the Report Card may be updated by IGWC each year): • Water take: – Volume of water take – Percentage of water take not metered • Meters: – No of pattern approved, or AS4747 compliant, meters in use – Percentage of water take measured by pattern approved, or AS4747 compliant, meters – No of meters in use not pattern approved, including Grandfathered meters – Percentage of water take measured by meters that are not pattern approved.	EPA	End of financial year	As required	
		Progress of policy implementation to MDBA as required by the Federation Funding Agreement	OoW	In line with Federation Funding Agreement	As required	
		Monthly meetings with OoW Project Manager and EPA Assistant Director, Water Regulation to: • Track status of implementation plan by due dates • Identify implementation risks by summarizing actions due in next 30-60 days	OoW/EPA	Commencing December 2023		To monitor progress of implementation plan and report to Senior Directors of OoW and EPA

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		(after meeting) • Provide monthly report to Senior Directors				
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	Action	Tasks	Responsible	Timeframe	Progress	Result
		Report to Executive (EPSDD and Access Canberra) where required, such as: • Delays with policy implementation • Resourcing issues • Success stories • Potential policy changes	OoW/EPA	As required	As required	To ensure Executives are kept updated on progress of implementation plan as required



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MINISTERIAL BRIEF

To:	Minister for Water, Energy and Emissions Reduction	Cabinet No.: 23/471 Rec'd Minister's Office .../.../...
From:	Executive Group Manager, Environment, Heritage and Water	
Subject:	Final Lodgement of Cabinet item 'Non-urban water metering policy'	
Critical Date:	27/09/2023	
Critical Reason:	The final submission must be lodged with Cabinet Office on or before 10am 27 September 2023 for ERC consideration on 9 October 2023.	

Purpose

To seek agreement to lodge the final submission and associated attachments.

Recommendations

That you:

1. **Agree** to EPSDD lodging the final Cabinet submission (Attachment 1) and associated documents with the Cabinet Office; and

Agreed / Not Agreed / Please Discuss

2. **Annotate** if an EPSDD official is required to attend.

Required / Not Required / Please Discuss

Shane Rattenbury MLA

21/9/23

Minister's Office Feedback

Background

1. On 30 August 2023, the Minister for Water, Energy and Emissions Reduction agreed via brief 23/471 to circulate the exposure draft of the draft Non-urban Water Metering Policy (the Policy).
2. The Policy meets commitments made by the ACT Government under Murray Darling Basin water reforms and the National Framework for Non-urban Water Metering.
3. Adoption of the Policy is due to be considered by ERC on 9 October 2023, followed by Cabinet on 23 October 2023.

Issues

4. All directorates supported the proposed draft policy.
5. Comments were received from CMTEDD. The comments related to:
 - a. Availability of certified meter installer and validators (CMI);
 - b. Placing an unintended regulatory burden on Licence holders if they are unable to access testing services;
 - c. Seeking an extension from the Commonwealth Government to manage expectations and seek an extension to the compliance date;
 - d. Commentary on metering validation service and fee for service proposed to be offered by ACT government; and
 - e. Suggested changes to recommendations for Cabinet noting.
6. The Cabinet submission has been updated to:
 - a. Add 'policy implementation risks' as a subheading;
 - b. Remove discussion on the Environment Protection Authority (EPA) providing metering validation service;
 - c. Make it explicit that a flexible approach needs to be taken to the implementation plan in light of the issues raised in 'policy implementation risks';
 - d. Add a proposal to offer a \$300 rebate to assist low risk users with costs for initial accuracy testing; and
 - e. Remove reference to funding the establishment of a temporary FTE position.

Financial Implications

7. Licence holders will remain responsible for all costs associated with water metering.
8. The ACT Government is proposing to offer a \$300 rebate to assist low risk users with costs for initial accuracy testing. This group comprises 106 Licence holders and a total of 117 active meters. The rebate would be a one-off payment, paid during the first year of implementation. This is subject to Cabinet's agreement. The expected total cost is \$35,100.

9. Paragraph 37 of the exposure draft referred to the EPA and EPSDD co-funding the establishment of a temporary FTE position to engage in education with Licence holders and undertake accuracy testing and compliance inspections. At this stage this position will not be funded as the government does not need to provide a meter validation service.

Consultation

Internal

10. EPSDD stakeholders were provided the opportunity to comment on the proposed Policy as part of the exposure draft circulation. Nil comment was received.

Cross Directorate

11. The Policy was prepared with input from Access Canberra (Environment Protection Authority) and Treasury.
12. All Directorates were provided the opportunity to comment on the proposed Government Response as part of the exposure draft circulation. One formal comment was received from CMTEDD as highlighted above.

External

13. Nil.

Benefits/Sensitivities

14. Licence holders may be sensitive to the new cost impost from this policy. However, this is a national policy and water users from all jurisdictions will incur new compliance costs.
15. The introduction of this policy will be timed closely with the ACT Government response to the Non-potable Water Review and will affect the same group of Licence holders. This is unintentional. Some Licence holders may be sensitive to two new policies with potential cost implications that are introduced in quick succession.
16. Failure of the ACT Government to implement a metering policy which meets the National Framework and AS4747 could result in an audit or investigation by the Commonwealth Inspector General Water Compliance (IGWC) of compliance with the ACT's water resource plan and subsequent public reporting of the compliance results.

Media Implications

17. The Office of Water has engaged with EPSDD Communications and Access Canberra Communications Teams to develop a communications plan which is included within the cabinet package (Attachment D).

Signatory Name: Bren Burkevics

Phone: 6207 8628

Action Officer: Sara McIntyre

Phone: 6207 2144

Summary of Attachments

- 1 – Final Cabinet submission
 - A – Table of Comments
 - B – Open Access Decision and Wellbeing Impact Assessment summary
 - C – Wellbeing Impact Assessment
 - D – Communications-on-a-page
 - E – Non-urban Water Metering Policy
 - F – Listening report
 - G – Options for setting threshold criteria
 - H – Examples of threshold criteria from other jurisdictions
 - I – Indicative financial impacts for Licence holders
 - J – Implementation plan



CABINET SUBMISSION

23/471

Title	Non-urban Water Metering Policy
Meeting type	Expenditure Review Committee
Minister	Shane Rattenbury MLA Minister for Water, Energy and Emissions Reduction
Cabinet date	Monday, 9 October 2023
Status	FINAL
Relationship to previous decisions	Nil
Purpose	Cabinet endorsement of the Draft Non-urban Water Metering Policy to improve meter accuracy and performance
Category	Category 2 - Government business
Financial impact	Yes
Treasury agreement	Yes Date provided for Treasury agreement to financial implications: 20/07/2023 Date of Treasury agreement 11/08/2023:
Is ERC consideration required?	Yes If yes, select ERC meeting date: Monday, 9 October 2023
Legislative change	No - change to legislation not required
Regulatory impact	Yes The Non-Urban Water Metering Policy updates existing guidelines to meet national standards. Additional requirements for Licence holders will include accuracy testing of installed water meters and may require the repair or replacement of certain components where meter accuracy cannot be demonstrated. It will have a positive impact on the environment by ensuring the sustainable management of water resources and improve public confidence in water resource management and accounting.
Wellbeing Impact Assessment	Yes
Primary Wellbeing Domain	Environment and climate

RECOMMENDATIONS

- 1) I recommend Cabinet agree to the ACT *Non-urban Water Metering Policy* (Policy) which:
 - a. delivers on the ACT's commitment to the National Water Initiative, the National Framework for Non-urban Water Metering and the Murray-Darling Basin Compliance Compact;
 - b. provides an acceptable level of confidence in water meter performance;
 - c. ensures greater coverage of pattern approved water meters which comply with Australian Standard 4747:2013 - Meters for non-urban water supply (AS4747); and
 - d. encourages the use of a risk management approach to prioritise implementation for high risk users first.
- 2) I recommend Cabinet agree to:
 - a. the financial impacts summary at Table 1;
 - b. the implementation milestones and timeframes at Table 2;
 - c. provide low risk users with a \$300 rebate, paid once in the first year of implementation;
 - d. the Minister for Water, Energy and Emissions Reduction settling with the Chief Minister any necessary administrative arrangements to administer the rebate program.
- 3) I recommend Cabinet note that:
 - a. the Policy applies only to licensed non-potable water take (treated drinking water supplied by Icon Water is out of scope);
 - b. the Policy will be jointly implemented through existing Environment, Planning and Sustainable Development Directorate and Access Canberra budgets;
 - c. consultation with non-potable water Licence holders was undertaken in May 2023 on the draft Policy (Listening Report included in Attachment F);
 - d. policy implementation will commence on 1 December 2023 and will adopt a risk-based and staged approach by prioritising the implementation of new metering requirements for high-risk non-potable water take;
 - e. the draft implementation plan in Attachment J will be finalised in consultation with other key stakeholders over coming months; and
 - f. that EPSDD has identified potential market capacity issues in delivering metering validation services in other jurisdictions and that the implementation plan will consider a range of mitigation strategies to manage this risk which may include:

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- i. regular monitoring of market capacity;
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 - iv. liaison with the Commonwealth Government on compliance and deadlines to manage expectations and seek extensions if needed.
- g. EPSDD will work with Treasury and Environment Protection Authority to determine the optimal risk mitigation strategies.
- h. the advice to the Chief Minister on the release of the Cabinet Decision Summary (Attachment B) as required under Section 23 of the Freedom of Information Act 2016; and
- i. the following summaries to be released:
 - i. Cabinet agreed to adopt the Non-urban Water Metering Policy which delivers on the ACT's commitment to improve metering standards under the National Framework for non-urban water metering. The Policy provides an acceptable level of confidence in water meter performance, ensures greater coverage of pattern approved water meters which comply with the relevant standards, and uses a risk management approach to prioritise metering implementation.
 - ii. The Non-urban Water Metering Policy builds on existing water metering requirements to strengthen water measurement and enhance the regulatory approach and demonstrates the ACT's commitment to National Framework for non-urban water metering. It provides a robust metering framework which will improve the confidence in water meter performance and accuracy, reduce environmental impacts of water usage and ensure water is used sustainably.

SUPPORTING ARGUMENT

BACKGROUND

- 1) The National Water Initiative (2004), the National Framework for non-urban water metering (2009), and the Murray-Darling Basin Compliance Compact (2018) require states and territories to implement consistent water metering standards to ensure equity around water sharing and the protection of water resources.
- 2) The Metrological Assurance Framework 2 (2021) (MAF2) is a part of the National Framework and describes the key requirements to ensure a nationally consistent compliance approach for non-urban water meters. The MAF2 aims to:
 - a. Provide an acceptable level of confidence in water meter performance;
 - b. Ensure greater coverage of pattern approved water meters¹ which comply with Australian Standard 4747:2013 – Meters for non-urban water supply (AS 4747);
 - c. Provide a nationally consistent approach for the requirements and management of non-urban water meters; and
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- 3) All Basin jurisdictions, except for the ACT, have released their own policies for non-urban water metering and are progressing with implementation.
- 4) The taking of surface water and groundwater in the ACT is regulated through Licences to Take Water (Licence) issued under the *Water Resources Act 2007*. There are currently 180 active licences with each Licence holder responsible for the costs associated with the installation, maintenance and reading of a water meter.
- 5) A Licence requires a water meter to be installed at each extraction point to account for water taken. There are 290 non-potable water meters currently in use that meet the policy definition. At this time no data is not available on how many of these meters are pattern approved or about the accuracy of these meters.

¹ Pattern approved meter - a water meter that has passed the relevant pattern approval process and has a pattern approval certificate issued by the National Measurement Institute.

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- 6) Improved metering standards are required to ensure the Territory's compliance with MAF2 and the commitments made under the Murray-Darling Basin Compliance Compact. Water metering requirements are currently enforced through the ACT *Water Meter Installation, Maintenance and Replacement Guideline* (2015). The Guidelines require updating to respond to MAF2 and AS4747.

ISSUES & OPTIONS

- 7) The Office of Water within the Environment, Planning and Sustainable Development Directorate has prepared the *Non-urban water metering policy* (Policy) ([Attachment E](#)).
- 8) The Policy is aligned with the *ACT Water Strategy 2014-44: Striking the Balance* (Strategy 2, Action 7) and is in harmony with national strategy to strengthen compliance and enforcement for water resource management. The Policy delivers on accurate and timely measurement, recording, and reporting of water take. This is essential for effective water resource management so that sustainable diversions can be made from water resources, to ensure:
- a. all water users receive their fair share in accordance with entitlement conditions and legislative requirements; and
 - b. transparency and assurance that water is being managed sustainably for the benefit of all water users.
- 9) The Policy improves metering standards by providing a clear set of criteria for:
- a. new and replacement meters – use of pattern approved meters and validation of meter installations by a certified meter installer and validator (CMI);
 - b. existing meters – grandfathering arrangements to allow these meters to remain in service where their accuracy can be demonstrated; and
 - c. for all meters – ongoing meter maintenance and testing and improved reporting and notification requirements for Licence holders.
- 10) The Policy will not apply to individual water meters that measure treated drinking water supplied by Icon Water.
- 11) The Policy replaces the *Water Meter Installation, Maintenance and Replacement Guideline* previously mentioned.

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12) The Policy was developed in consultation with a range of stakeholders including Licence holders, the Office of Water, the Environment Protection Authority (EPA), Irrigation Australia and Commonwealth Department of Climate Change, Energy, the Environment and Water.

13) The Policy is based on the following principles:

- a. Maintaining 100 per cent meter coverage in the ACT for licensed non-potable water take.
- b. The content of the Policy follows the MAF2 and AS4747 requirements which have been agreed to by ACT Government and all jurisdictional governments.
- c. The implementation of the Policy takes a risk-based approach which prioritises high risk water take.

14) The Policy approach maintains 100 per cent metering coverage for the ACT for the following reasons:

- a. All licensed water take is already metered.
- b. 84% of groundwater Licences are in 'at risk' sub-water management areas. Metering is an essential management tool to accurately monitor water take to ensure that Licence holders remain within allocated volumes to avoid further pressure on the groundwater resource.
- c. The level of accuracy of existing meters is unknown for several reasons:
 - i. Age and operational service of meters;
 - ii. There is currently no requirement for meters to be tested or serviced during operational period;
 - iii. Plumbing arrangements and installations are not usually inspected before water meters are put into operation. Some installations are buried which prevents compliance inspections being undertaken; and
 - iv. Rigour of compliance inspection programs has been affected by several factors over the last 5 years, including the Covid pandemic and staff shortages.
- d. The Policy provides the best outcome for the protection and sustainable management of water resources and meets the objectives of the *Water Resources Act 2007*.
- e. The Murray Darling Basin Plan Review may result in less water availability for irrigators and the environment in the coming years due to the impact of climate change, sustainable water

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limits, First Nations connections to the Basin and regulation changes. CSIRO modelling for the Basin has predicted a 20-30 per cent decrease in future river inflows due to climate change.

- f. Supports accounting confidence in future potential ACT-interstate water trading framework.

15) The Policy allows for some exemptions from the metering requirements in the following circumstances:

- a. No pumping infrastructure is installed and water cannot be taken (eg. inactive works);
- b. The use of water carts and water usage record keeping has been approved through the Licence;
- c. A meter was purchased prior to 1 December 2023 but has not been installed since the time of purchase (evidence of proof of purchase is required); or
- d. There is no pattern approved meter for a particular application (as listed on the Department of Climate Change, Energy, the Environment and Water (DCCEEW) website).

16) Exemption requests must be approved in writing by the EPA. This allows exemptions to be assessed on a case by case basis and monitored by the EPA with the aim to work towards compliance with the Policy.

17) Attachment H describes how metering thresholds have been applied in other Murray-Darling Basin jurisdictions.

Policy Implementation

18) The Policy is proposed to come into effect from 1 December 2023.

19) Implementation of Policy requirements will be rolled out in three stages from 1 December 2023. This approach allows Licence holders sufficient time to prepare for the new requirements and adopts a risk-based method to focus on large water users first and small water users last.

- a. The first group of 17 Licence holders are required to comply with the policy by 31 March 2024. This includes large scale irrigators such as golf clubs, Canberra Airport, and places of public importance irrigated by Commonwealth Government and the Transport Canberra and City Services Directorate.
- b. The next group of 57 Licence holders are required to comply with the policy by 30 June 2024. This includes medium scale water users such as agricultural/horticultural irrigators, community organisations and other commercial irrigators.

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- c. The final group of 106 Licence holders are required to comply with the policy by 31 December 2024. This includes small scale water users including urban residential gardens irrigated by groundwater bores, stock and domestic use, schools and other small-scale irrigators.
- 20) Licence holders are responsible for and will be required to demonstrate the accuracy of their existing water meter/s by their roll out date. This involves:
- a. existing water meters require periodic inspection with a validation certificate issued;
 - b. new and replacement water meters require inspection with a validation certificate issued before water is taken against the Licence; and
 - c. faulty existing water meters require notification and repair within a consistent period defined in the policy and inspection with a validation certificate issued before the meter is put back into service. The meter will need to be replaced with a pattern approved meter where it cannot be repaired.
- 21) Provisions will be available to allow Licence holders to request additional time where reasonable justification can be provided.

Compliance with policy

- 22) The EPA, within Access Canberra, is responsible for the administration and regulation of licences to take water issued under the *Water Resources Act 2007* (Act). This includes enforcing metering requirements through conditions imposed on a Licence.
- 23) The EPA will implement the Policy.
- 24) The EPA will undertake education activities and compliance inspections to assist Licence holders to comply with the new policy requirements. This type of work already forms a part of the EPA's existing inspection programs.

Regulatory risks for the ACT Government

- 25) The *Murray-Darling Basin Compliance Compact Assurance Report 2020* provided an unfavourable assessment of the ACT's progress against meeting the commitments of the Compliance Compact. This report is publicly available on the Murray-Darling Basin Authority's website.
- 26) The report noted that two commitments relating to metering and measurement were assessed as "Of concern". The concerns related to the ACT Government not being able to demonstrate that the following had been completed:

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- a. Publication of a metering policy and implementation plan;
 - b. Validation of meter accuracy and compliance with AS4747 standards;
 - c. Implementation of a timetable for the installation of new meters, and auditing and maintenance of the metering fleet; and
 - d. Annual reporting on progress with the metering implementation plan.
- 27) The Commonwealth Inspector General of Water Compliance (IGWC) was established on 5 August 2021 to enforce compliance with the Basin Plan, *Water Act 2007* (Cwth) and other associated government resource plans.
- 28) Water metering and measurement was a priority for the IGWC's Compliance Work Program for 2021-22.
- 29) If the ACT Government does not implement a metering policy which meets the National Framework and AS4747, this may result in an IGWC audit or investigation of compliance with the ACT's water resource plan and subsequent public reporting of the compliance results.

Policy implementation risks for the ACT Government

- 30) Successful implementation of the non-urban water metering policy is dependent upon the growth of the number of providers for meter validation services.
- 31) There is currently a shortfall in the number of certified meter installers and validators (CMIs) in NSW certifying meter installations. This issue was raised at the interjurisdictional Regulatory Leaders Forum at the start of the year. NSW Government indicated that while there are many CMIs listed on Irrigation Australia's register, the number actually doing the work is decreasing due to low profitable market opportunities. There are more than 2000 NSW Licence holders waiting for water meter compliance inspection activities to be undertaken, with the wait time exceeding an average of 150 days. The NSW water meter project compliance date is anticipated to be 2040-2045 based on these waiting periods.
- 32) There has been an increase in the number of CMIs registered on Irrigation Australia's register in the last two months, as a result of local-based training being offered in Yass. The register shows that there is one CMI in the ACT (excluding trained EPA officers), and an additional 5 CMIs located within a 100km radius of the ACT. Five more training courses are scheduled between now and the end of this year which may help to increase CMI numbers further.
- 33) It is unknown at this time whether the ACT will experience the same issue as NSW with the

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availability of CMIs. The ACT market may attract CMIs in that meters are located within close proximity of the city centre, they are generally small-scale installations and there is only a small number of meters in total.

- 34) A range of mitigation strategies have been considered to manage the risk of CMIs not being available to perform accuracy testing, including:
- a. Regular monitoring of market capacity.
 - b. Using a flexible approach to change the roll out dates in the policy if licence holders or the EPA experience difficulties in reaching compliance timeframes.
 - c. Allowing individual licence holders to request an extension in circumstances where compliance cannot be achieved by the roll-out date, such as financial hardship.
 - d. EPA officers using a risk-based approach to compliance and enforcement in line with the *Environment Regulation and Protection Compliance and Enforcement Guideline 2016* on a case-by-case basis. The risk assessment informs a proportional response such as support and engagement, education or active pursuit (reserved for significant non-compliance).
 - e. Being ready to initiate alternative Government intervention options to fill a shortfall of CMIs (if it occurs) such as:
 - i. An ACT Government procurement process to source independent certified persons, or
 - ii. Accuracy testing undertaken by the EPA (least preferred option due to competitive neutrality concerns).
 - f. Engage with the Commonwealth Government to manage expectations and seek an extension to the policy compliance date of June 2025 if needed.
- 35) The Government intervention at point (e) in Paragraph 34 is the least preferred option should market failure result in nil private CMIs operating in the ACT. If this eventuates, the intervention could be offered as a fee for service with pricing set per water meter or a time charge fee with regard to the price charged in other jurisdictions by CMIs.
- 36) The introduction of a fee for service would require further work in consultation with Treasury to ensure alignment with the ACT's competitive neutrality policy and that fees reflect a fair and transparent market price for the work. The ACT Government would only consider offering a service in competition to the private sector in circumstances where there is limited capacity to

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meet the expected extra demand for service. Such an approach would still provide scope for CMI supply to grow and for private CMIs to compete on price and service in the ACT.

- 37) Government endorsement will be required before introducing a new set of fees or charges in the Government intervention option. If this eventuates, a separate Cabinet submission would be brought forward to the Expenditure Review Committee detailing the expected financial impacts of providing new fee for service under the Water Resources (Fees) Determination.
- 38) Some jurisdictions recently raised a concern at the Regulatory Leaders Forum about their level of confidence in achieving the standard of $\pm 5\%$ accuracy for in-situ conditions for grandfathered meters. The accuracy of meters can potentially be affected by the age of the meters, whether they were pattern approved, and poor water quality.
- 39) Both the IGWC and DCCEEW have advised that no evidence or anecdotal data has been presented by jurisdictions to demonstrate the extent of the issue. There has also been no submission made to the Australia Standards Review Committee which is currently reviewing AS4747 and the MAF2.
- 40) Some ACT meters are now approaching their end of life after being installed 20+ years ago and accuracy is unknown since meters left the factory.
- 41) Accuracy testing has never been performed on meters in the ACT.
- 42) The preferred option is to maintain the precautionary principle and ensure that all meters are accuracy tested to confirm that they are operating within $\pm 5\%$ accuracy for in-situ conditions.
- 43) Access Canberra and EPSDD will work in collaboration with the Inspector-General of Water Compliance and other jurisdictions to provide input into the current review of the Australian Standards to ensure that it is appropriate for the proposed settings.

FINANCIAL IMPACT

- 44) This submission seeks Cabinet's agreement to additional appropriation (see Table 1). The ACT Government is proposing to offer a \$300 rebate per meter to assist low risk users with costs for initial accuracy testing. This group comprises 106 Licence holders and 117 active meters.
- 45) The rebate would be a one-off payment, paid during the first year of implementation. Applications for the rebate would be assessed by the EPA and where eligibility is approved, final payments would be processed by the Shared Services Finance Team.

Table 1: Financial impacts summary

	2023-24 \$'000	2024-25 \$'000	2025-26 \$'000	Total \$'000
Capital impacts	n/a	n/a	n/a	0
Expense impacts	Nil	35	Nil	35
— Rebate for low risk users for accuracy testing				
Revenue/savings/offsets impacts	Nil	Nil	Nil	0
Staffing impact	Nil	Nil	Nil	0
— Total additional FTEs				

- 46) There will be a financial impact to existing Licence holders as described at [Attachment I](#). These impacts relate to minimum standards for meter installation/replacement and ongoing validation and accuracy testing requirements. In summary:
- a. ongoing validation of accuracy is approximately \$300-500 per meter every 5 years, payable to external meter validators;
 - b. if existing pipework is not visible above ground, excavation works may be required at the License holder's expense;
 - c. if a new water meter is required (e.g., installing new non-potable irrigation system, replacing a faulty meter, non-compliance with the Policy), the Licence holder bears the cost for meter replacement which may range from \$800 to over \$3000 per meter; and
 - d. all Licence holders will be required to pay meter accuracy validation fees in the first year of implementation (payable to private CMLs) and thereafter every five years, however, low risk Licence holders will be eligible to receive a \$300 rebate in the first year of implementation (subject to Cabinet agreement).
- 47) There is no change to Licence holder liability for standard ACT Government fees (annual licence administration fee of \$516.55 for 2023-2024, plus water abstraction charges based on consumption).

WELLBEING IMPACT SUMMARY

- 48) The Policy will have a positive impact by implementing a robust metering framework which will improve the confidence in water meter performance and accuracy, reduce environmental impacts of water usage and ensure water is used sustainably. A wellbeing impact assessment is in [Attachment C](#).

- 49) The accurate measurement of water take will provide benefit in the following ways:
- a. The community – ensures transparency and equity in how water is shared, allocated and managed; greater confidence that water is being taken according to legal frameworks and licence conditions; and ensures users who take water are properly charged for their take.
 - b. Licence holders - provides confidence in water use data to demonstrate compliance with licence conditions and legislation; provides information on water use and management, pump and irrigation system performance; and identifies and measures water efficiency gains.
 - c. Environment – maintains the value and integrity of the water-sharing framework and ensures that water take complies with legal frameworks and licence conditions put in place to better manage environmental water.

CONSULTATION

External stakeholders (Licence holders)

- 50) All 180 Licence holders were consulted on the draft policy during a 4-week consultation period.
- 51) Feedback was received from 10 Licence holders. The main concern raised was related to the increased costs for compliance balanced with the proportional risk of small-scale irrigation. A summary of the submissions is provided as a Listening Report in Attachment E.
- 52) In response to consultation, the policy was finalised based on these considerations:
- a. Metering is an existing Licence requirement in the ACT;
 - b. Existing meters can be retained in service where accuracy can be demonstrated;
 - c. Expected cost for accuracy testing is \$300-\$500, payable once every 5 years per non-potable water meter. This is a reasonable cost to uphold meter accuracy to national standards and is not an unacceptable cost impost when averaged out over a period of years.
 - d. The additional costs to Licence holders for meter accuracy costs retains overall cost of licensed non-potable water irrigation as a financially viable option in preference to irrigating with fully treated drinking water;
 - e. Licence holders have the option to request a payment plan to defer payment of standard license fees if facing financial hardship;

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- f. If a Licence holder is not using non-potable water for an extended period, they have the option to render their licence temporarily inactive which avoids compliance costs associated with this policy and avoids general administration fees;
- g. The roll out dates provide a clear timeframe for when costs will be imposed and allows adequate time for Licence holders to plan for future costs;
- h. The number of available pattern approved meters has grown recently, thereby increasing market competition and choice for water users; and
- i. The EPA has the discretion to provide an extension of time where a Licence holder cannot comply with the requirements of the policy by their roll-out date, such as financial hardship.

External stakeholders (Others)

- 53) Consultation with Irrigation Australia and other state jurisdictions informed practical application of policy development, implementation and indicative costs for validating or installing meters.
- 54) The Commonwealth DCCEEW reviewed the policy to ensure that it meets the intent and requirements of the MAF2 and AS4747.

ACT Government agencies

- 55) The Office of Water worked in close collaboration with the EPA during the development of the policy and implementation plan.

MEDIA/COMMUNICATIONS

- 56) The Access Canberra Communications Team are leading policy implementation communications. The Office of Water will support the Access Canberra Communications Team as required.
- 57) The Communications on a Page is in Attachment D.

IMPLEMENTATION

- 58) The Office of Water developed an implementation plan (Attachment J) in consultation with the EPA to set tasks and responsibilities for both agencies to assist in the transition to the new requirements.
- 59) The EPA and EPSDD will continue to work through a number of outstanding matters associated with the implementation, as they are identified. These include a potential shortfall in the number of certified persons in the local region able to provide meter verification services, as well as concerns around the required accuracy standards of AS4747. The implementation plan will be

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adjusted as required to manage any issues and the Minister for Water, Energy and Emissions Reduction advised.

60) See Table 1 below for implementation milestones and timeframe.

Table 2: Implementation milestones and timeframes

Milestones	Date to be completed
1. Policy commences	1 December 2023
2. Phase one implementation commences from 1 January 2024	31 March 2024
3. Phase two implementation commences from 1 April 2024	30 June 2024
4. Phase three implementation commences from 1 July 2024	31 December 2024
5. Full implementation complete	31 March 2025
Final completion date:	30 June 2025

HUMAN RIGHTS IMPACT

61) It has been determined that there are no significant Human Rights implications arising from this Policy.

Minister's signature



Date 24/9/23

ATTACHMENTS

A	Table of comments
B	Open Access Assessment: Cabinet Decision and Wellbeing Impact Assessment summary
C	Wellbeing Impact Assessment
D	Communications on a Page
E	Non-urban Water Metering Policy
F	Listening Report
G	Preferred policy position and other options for setting threshold criteria
H	Examples of threshold criteria from other jurisdictions
I	Indicative financial impacts for Licence holders
J	Implementation plan

CABINET SUBMISSION

23/471



Title	Non-urban Water Metering Policy
Meeting type	Expenditure Review Committee
Minister	Shane Rattenbury MLA Minister for Water, Energy and Emissions Reduction
Cabinet date	Monday, 9 October 2023
Status	FINAL
Relationship to previous decisions	Nil
Purpose	Cabinet endorsement of the Draft Non-urban Water Metering Policy to improve meter accuracy and performance
Category	Category 2 - Government business
Financial impact	Yes
Treasury agreement	Yes Date provided for Treasury agreement to financial implications: 20/07/2023 Date of Treasury agreement 11/08/2023:
Is ERC consideration required?	Yes If yes, select ERC meeting date: Monday, 9 October 2023
Legislative change	No - change to legislation not required
Regulatory impact	Yes The Non-Urban Water Metering Policy updates existing guidelines to meet national standards. Additional requirements for Licence holders will include accuracy testing of installed water meters and may require the repair or replacement of certain components where meter accuracy cannot be demonstrated. It will have a positive impact on the environment by ensuring the sustainable management of water resources and improve public confidence in water resource management and accounting.
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 - c. for all meters – ongoing meter maintenance and testing and improved reporting and notification requirements for Licence holders.
- 10) The Policy will not apply to individual water meters that measure treated drinking water supplied by Icon Water.
- 11) The Policy replaces the *Water Meter Installation, Maintenance and Replacement Guideline* previously mentioned.

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12) The Policy was developed in consultation with a range of stakeholders including Licence holders, the Office of Water, the Environment Protection Authority (EPA), Irrigation Australia and Commonwealth Department of Climate Change, Energy, the Environment and Water.

13) The Policy is based on the following principles:

- a. Maintaining 100 per cent meter coverage in the ACT for licensed non-potable water take.
- b. The content of the Policy follows the MAF2 and AS4747 requirements which have been agreed to by ACT Government and all jurisdictional governments.
- c. The implementation of the Policy takes a risk-based approach which prioritises high risk water take.

14) The Policy approach maintains 100 per cent metering coverage for the ACT for the following reasons:

- a. All licensed water take is already metered.
- b. 84% of groundwater Licences are in 'at risk' sub-water management areas. Metering is an essential management tool to accurately monitor water take to ensure that Licence holders remain within allocated volumes to avoid further pressure on the groundwater resource.
- c. The level of accuracy of existing meters is unknown for several reasons:
 - i. Age and operational service of meters;
 - ii. There is currently no requirement for meters to be tested or serviced during operational period;
 - iii. Plumbing arrangements and installations are not usually inspected before water meters are put into operation. Some installations are buried which prevents compliance inspections being undertaken; and
 - iv. Rigour of compliance inspection programs has been affected by several factors over the last 5 years, including the Covid pandemic and staff shortages.
- d. The Policy provides the best outcome for the protection and sustainable management of water resources and meets the objectives of the *Water Resources Act 2007*.
- e. The Murray Darling Basin Plan Review may result in less water availability for irrigators and the environment in the coming years due to the impact of climate change, sustainable water

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limits, First Nations connections to the Basin and regulation changes. CSIRO modelling for the Basin has predicted a 20-30 per cent decrease in future river inflows due to climate change.

f. Supports accounting confidence in future potential ACT-interstate water trading framework.

15) The Policy allows for some exemptions from the metering requirements in the following circumstances:

- a. No pumping infrastructure is installed and water cannot be taken (eg. inactive works);
- b. The use of water carts and water usage record keeping has been approved through the Licence;
- c. A meter was purchased prior to 1 December 2023 but has not been installed since the time of purchase (evidence of proof of purchase is required); or
- d. There is no pattern approved meter for a particular application (as listed on the Department of Climate Change, Energy, the Environment and Water (DCCEEW) website).

16) Exemption requests must be approved in writing by the EPA. This allows exemptions to be assessed on a case by case basis and monitored by the EPA with the aim to work towards compliance with the Policy.

17) Attachment H describes how metering thresholds have been applied in other Murray-Darling Basin jurisdictions.

Policy Implementation

18) The Policy is proposed to come into effect from 1 December 2023.

19) Implementation of Policy requirements will be rolled out in three stages from 1 December 2023. This approach allows Licence holders sufficient time to prepare for the new requirements and adopts a risk-based method to focus on large water users first and small water users last.

- a. The first group of 17 Licence holders are required to comply with the policy by 31 March 2024. This includes large scale irrigators such as golf clubs, Canberra Airport, and places of public importance irrigated by Commonwealth Government and the Transport Canberra and City Services Directorate.
- b. The next group of 57 Licence holders are required to comply with the policy by 30 June 2024. This includes medium scale water users such as agricultural/horticultural irrigators, community organisations and other commercial irrigators.

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- c. The final group of 106 Licence holders are required to comply with the policy by 31 December 2024. This includes small scale water users including urban residential gardens irrigated by groundwater bores, stock and domestic use, schools and other small-scale irrigators.
- 20) Licence holders are responsible for and will be required to demonstrate the accuracy of their existing water meter/s by their roll out date. This involves:
- a. existing water meters require periodic inspection with a validation certificate issued;
 - b. new and replacement water meters require inspection with a validation certificate issued before water is taken against the Licence; and
 - c. faulty existing water meters require notification and repair within a consistent period defined in the policy and inspection with a validation certificate issued before the meter is put back into service. The meter will need to be replaced with a pattern approved meter where it cannot be repaired.
- 21) Provisions will be available to allow Licence holders to request additional time where reasonable justification can be provided.

Compliance with policy

- 22) The EPA, within Access Canberra, is responsible for the administration and regulation of licences to take water issued under the *Water Resources Act 2007* (Act). This includes enforcing metering requirements through conditions imposed on a Licence.
- 23) The EPA will implement the Policy.
- 24) The EPA will undertake education activities and compliance inspections to assist Licence holders to comply with the new policy requirements. This type of work already forms a part of the EPA's existing inspection programs.

Regulatory risks for the ACT Government

- 25) The *Murray-Darling Basin Compliance Compact Assurance Report 2020* provided an unfavourable assessment of the ACT's progress against meeting the commitments of the Compliance Compact. This report is publicly available on the Murray-Darling Basin Authority's website.
- 26) The report noted that two commitments relating to metering and measurement were assessed as "Of concern". The concerns related to the ACT Government not being able to demonstrate that the following had been completed:

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- a. Publication of a metering policy and implementation plan;
 - b. Validation of meter accuracy and compliance with AS4747 standards;
 - c. Implementation of a timetable for the installation of new meters, and auditing and maintenance of the metering fleet; and
 - d. Annual reporting on progress with the metering implementation plan.
- 27) The Commonwealth Inspector General of Water Compliance (IGWC) was established on 5 August 2021 to enforce compliance with the Basin Plan, *Water Act 2007* (Cwth) and other associated government resource plans.
- 28) Water metering and measurement was a priority for the IGWC's Compliance Work Program for 2021-22.
- 29) If the ACT Government does not implement a metering policy which meets the National Framework and AS4747, this may result in an IGWC audit or investigation of compliance with the ACT's water resource plan and subsequent public reporting of the compliance results.

Policy implementation risks for the ACT Government

- 30) Successful implementation of the non-urban water metering policy is dependent upon the growth of the number of providers for meter validation services.
- 31) There is currently a shortfall in the number of certified meter installers and validators (CMIs) in NSW certifying meter installations. This issue was raised at the interjurisdictional Regulatory Leaders Forum at the start of the year. NSW Government indicated that while there are many CMIs listed on Irrigation Australia's register, the number actually doing the work is decreasing due to low profitable market opportunities. There are more than 2000 NSW Licence holders waiting for water meter compliance inspection activities to be undertaken, with the wait time exceeding an average of 150 days. The NSW water meter project compliance date is anticipated to be 2040-2045 based on these waiting periods.
- 32) There has been an increase in the number of CMIs registered on Irrigation Australia's register in the last two months, as a result of local-based training being offered in Yass. The register shows that there is one CMI in the ACT (excluding trained EPA officers), and an additional 5 CMIs located within a 100km radius of the ACT. Five more training courses are scheduled between now and the end of this year which may help to increase CMI numbers further.
- 33) It is unknown at this time whether the ACT will experience the same issue as NSW with the

availability of CMIs. The ACT market may attract CMIs in that meters are located within close proximity of the city centre, they are generally small-scale installations and there is only a small number of meters in total.

- 34) A range of mitigation strategies have been considered to manage the risk of CMIs not being available to perform accuracy testing, including:
- a. Regular monitoring of market capacity.
 - b. Using a flexible approach to change the roll out dates in the policy if licence holders or the EPA experience difficulties in reaching compliance timeframes.
 - c. Allowing individual licence holders to request an extension in circumstances where compliance cannot be achieved by the roll-out date, such as financial hardship.
 - d. EPA officers using a risk-based approach to compliance and enforcement in line with the *Environment Regulation and Protection Compliance and Enforcement Guideline 2016* on a case-by-case basis. The risk assessment informs a proportional response such as support and engagement, education or active pursuit (reserved for significant non-compliance).
 - e. Being ready to initiate alternative Government intervention options to fill a shortfall of CMIs (if it occurs) such as:
 - i. An ACT Government procurement process to source independent certified persons, or
 - ii. Accuracy testing undertaken by the EPA (least preferred option due to competitive neutrality concerns).
 - f. Engage with the Commonwealth Government to manage expectations and seek an extension to the policy compliance date of June 2025 if needed.
- 35) The Government intervention at point (e) in Paragraph 34 is the least preferred option should market failure result in nil private CMIs operating in the ACT. If this eventuates, the intervention could be offered as a fee for service with pricing set per water meter or a time charge fee with regard to the price charged in other jurisdictions by CMIs.
- 36) The introduction of a fee for service would require further work in consultation with Treasury to ensure alignment with the ACT's competitive neutrality policy and that fees reflect a fair and transparent market price for the work. The ACT Government would only consider offering a service in competition to the private sector in circumstances where there is limited capacity to

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meet the expected extra demand for service. Such an approach would still provide scope for CMI supply to grow and for private CMIs to compete on price and service in the ACT.

- 37) Government endorsement will be required before introducing a new set of fees or charges in the Government intervention option. If this eventuates, a separate Cabinet submission would be brought forward to the Expenditure Review Committee detailing the expected financial impacts of providing new fee for service under the Water Resources (Fees) Determination.
- 38) Some jurisdictions recently raised a concern at the Regulatory Leaders Forum about their level of confidence in achieving the standard of $\pm 5\%$ accuracy for in-situ conditions for grandfathered meters. The accuracy of meters can potentially be affected by the age of the meters, whether they were pattern approved, and poor water quality.
- 39) Both the IGWC and DCCEEW have advised that no evidence or anecdotal data has been presented by jurisdictions to demonstrate the extent of the issue. There has also been no submission made to the Australia Standards Review Committee which is currently reviewing AS4747 and the MAF2.
- 40) Some ACT meters are now approaching their end of life after being installed 20+ years ago and accuracy is unknown since meters left the factory.
- 41) Accuracy testing has never been performed on meters in the ACT.
- 42) The preferred option is to maintain the precautionary principle and ensure that all meters are accuracy tested to confirm that they are operating within $\pm 5\%$ accuracy for in-situ conditions.
- 43) Access Canberra and EPSDD will work in collaboration with the Inspector-General of Water Compliance and other jurisdictions to provide input into the current review of the Australian Standards to ensure that it is appropriate for the proposed settings.

FINANCIAL IMPACT

- 44) This submission seeks Cabinet's agreement to additional appropriation (see Table 1). The ACT Government is proposing to offer a \$300 rebate per meter to assist low risk users with costs for initial accuracy testing. This group comprises 106 Licence holders and 117 active meters.
- 45) The rebate would be a one-off payment, paid during the first year of implementation. Applications for the rebate would be assessed by the EPA and where eligibility is approved, final payments would be processed by the Shared Services Finance Team.

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Table 1: Financial impacts summary

	2023-24 \$'000	2024-25 \$'000	2025-26 \$'000	Total \$'000
Capital impacts	n/a	n/a	n/a	0
Expense impacts	Nil	35	Nil	35
— Rebate for low risk users for accuracy testing				
Revenue/savings/offsets impacts	Nil	Nil	Nil	0
Staffing impact	Nil	Nil	Nil	0
— Total additional FTEs				

- 46) There will be a financial impact to existing Licence holders as described at [Attachment I](#). These impacts relate to minimum standards for meter installation/replacement and ongoing validation and accuracy testing requirements. In summary:
- a. ongoing validation of accuracy is approximately \$300-500 per meter every 5 years, payable to external meter validators;
 - b. if existing pipework is not visible above ground, excavation works may be required at the License holder's expense;
 - c. if a new water meter is required (e.g., installing new non-potable irrigation system, replacing a faulty meter, non-compliance with the Policy), the Licence holder bears the cost for meter replacement which may range from \$800 to over \$3000 per meter; and
 - d. all Licence holders will be required to pay meter accuracy validation fees in the first year of implementation (payable to private CMLs) and thereafter every five years, however, low risk Licence holders will be eligible to receive a \$300 rebate in the first year of implementation (subject to Cabinet agreement).
- 47) There is no change to Licence holder liability for standard ACT Government fees (annual licence administration fee of \$516.55 for 2023-2024, plus water abstraction charges based on consumption).

WELLBEING IMPACT SUMMARY

- 48) The Policy will have a positive impact by implementing a robust metering framework which will improve the confidence in water meter performance and accuracy, reduce environmental impacts of water usage and ensure water is used sustainably. A wellbeing impact assessment is in [Attachment C](#).

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- 49) The accurate measurement of water take will provide benefit in the following ways:
- a. The community – ensures transparency and equity in how water is shared, allocated and managed; greater confidence that water is being taken according to legal frameworks and licence conditions; and ensures users who take water are properly charged for their take.
 - b. Licence holders - provides confidence in water use data to demonstrate compliance with licence conditions and legislation; provides information on water use and management, pump and irrigation system performance; and identifies and measures water efficiency gains.
 - c. Environment – maintains the value and integrity of the water-sharing framework and ensures that water take complies with legal frameworks and licence conditions put in place to better manage environmental water.

CONSULTATION

External stakeholders (Licence holders)

- 50) All 180 Licence holders were consulted on the draft policy during a 4-week consultation period.
- 51) Feedback was received from 10 Licence holders. The main concern raised was related to the increased costs for compliance balanced with the proportional risk of small-scale irrigation. A summary of the submissions is provided as a Listening Report in Attachment E.
- 52) In response to consultation, the policy was finalised based on these considerations:
- a. Metering is an existing Licence requirement in the ACT;
 - b. Existing meters can be retained in service where accuracy can be demonstrated;
 - c. Expected cost for accuracy testing is \$300-\$500, payable once every 5 years per non-potable water meter. This is a reasonable cost to uphold meter accuracy to national standards and is not an unacceptable cost impost when averaged out over a period of years.
 - d. The additional costs to Licence holders for meter accuracy costs retains overall cost of licensed non-potable water irrigation as a financially viable option in preference to irrigating with fully treated drinking water;
 - e. Licence holders have the option to request a payment plan to defer payment of standard license fees if facing financial hardship;

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- f. If a Licence holder is not using non-potable water for an extended period, they have the option to render their licence temporarily inactive which avoids compliance costs associated with this policy and avoids general administration fees;
- g. The roll out dates provide a clear timeframe for when costs will be imposed and allows adequate time for Licence holders to plan for future costs;
- h. The number of available pattern approved meters has grown recently, thereby increasing market competition and choice for water users; and
- i. The EPA has the discretion to provide an extension of time where a Licence holder cannot comply with the requirements of the policy by their roll-out date, such as financial hardship.

External stakeholders (Others)

- 53) Consultation with Irrigation Australia and other state jurisdictions informed practical application of policy development, implementation and indicative costs for validating or installing meters.
- 54) The Commonwealth DCCEEW reviewed the policy to ensure that it meets the intent and requirements of the MAF2 and AS4747.

ACT Government agencies

- 55) The Office of Water worked in close collaboration with the EPA during the development of the policy and implementation plan.

MEDIA/COMMUNICATIONS

- 56) The Access Canberra Communications Team are leading policy implementation communications. The Office of Water will support the Access Canberra Communications Team as required.
- 57) The Communications on a Page is in Attachment D.

IMPLEMENTATION

- 58) The Office of Water developed an implementation plan (Attachment J) in consultation with the EPA to set tasks and responsibilities for both agencies to assist in the transition to the new requirements.
- 59) The EPA and EPSDD will continue to work through a number of outstanding matters associated with the implementation, as they are identified. These include a potential shortfall in the number of certified persons in the local region able to provide meter verification services, as well as concerns around the required accuracy standards of AS4747. The implementation plan will be

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adjusted as required to manage any issues and the Minister for Water, Energy and Emissions Reduction advised.

60) See Table 1 below for implementation milestones and timeframe.

Table 2: Implementation milestones and timeframes

Milestones	Date to be completed
1. Policy commences	1 December 2023
2. Phase one implementation commences from 1 January 2024	31 March 2024
3. Phase two implementation commences from 1 April 2024	30 June 2024
4. Phase three implementation commences from 1 July 2024	31 December 2024
5. Full implementation complete	31 March 2025
Final completion date:	30 June 2025

HUMAN RIGHTS IMPACT

61) It has been determined that there are no significant Human Rights implications arising from this Policy.

Minister's signature _____

Date ____/____/____

ATTACHMENTS

A	Table of comments
B	Open Access Assessment: Cabinet Decision and Wellbeing Impact Assessment summary
C	Wellbeing Impact Assessment
D	Communications on a Page
E	Non-urban Water Metering Policy
F	Listening Report
G	Preferred policy position and other options for setting threshold criteria
H	Examples of threshold criteria from other jurisdictions
I	Indicative financial impacts for Licence holders
J	Implementation plan

MINISTER FOR WATER, ENERGY AND EMISSIONS REDUCTION CABINET

BRIEF

23/471

Title	Non-urban Water Metering Policy
Minister	Shane Rattenbury MLA Minister for Water, Energy and Emissions Reduction
Cabinet date	Wednesday, 18 October 2023
Recommended position	SUPPORT

Submission recommendations

The Paper seeks endorsement of the update to the existing policy 'Water Meter Installation, Maintenance and Replacement Guideline' to introduce requirements and standards for existing, new and replacement meters in line with the National Framework for non-urban water metering.

It is recommended that you support all recommendations.

Issues/comment

There are no outstanding issues. The submission was shared with Access Canberra (Environment Protection Authority) and who are supportive of the content.

Wellbeing Impact Assessment

The Wellbeing Impact Assessment has been completed. The impacts are anticipated across the environment and climate and governance and institutions domains:

- positive impact on the environment
- positive impact on governance and institutions.

The sustainable management of water resources is vital for supporting social, cultural, economic and environmental outcomes. Meters enable water users to demonstrate they are using their allocation responsibly and within the rules.

Context and consultation

In March 2021, the Murray-Darling Basin Compliance Compact Assurance Report 2020 provided an unfavourable assessment of the ACT's progress against meeting the commitments of the Compliance Compact. The report noted that two commitments relating to metering and measurement were assessed as "Of concern".

The Office of the Inspector-General Water Compliance is the independent authority for overseeing states' compliance with the implementation of the Basin Plan. The Office prioritised the accurate metering and measurement of water take across the Basin in 2021-2022 and has the power to undertake an audit or investigation of compliance with a state's water resource plan.

The ACT Government has committed to developing a policy through the *Federation Funding Agreement – Environment on Implementing Water Reform on the Murray-Darling Basin* (2021-22 to 2023-24).

The Office of Water has worked closely with Access Canberra (Environment Protection Authority) in drafting the policy and they are supportive of the content.

The submission does not engage a right contained in the *Human Rights Act 2004*.

Cleared:	Geoffrey Rutledge (Deputy Director General, Environment, Water and Emissions Reduction)
Prepared by:	Sara McIntyre (Water Policy Compliance Officer)

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Consultation with licence holders on the draft policy was undertaken for a four week period and feedback has been incorporated into the final policy. Direct education with licence holders will be undertaken by the Environment Protection Authority during the implementation of the policy to assist with compliance.

Cleared: Geoffrey Rutledge (Deputy Director General, Environment, Water and Emissions Reduction)
Prepared by: Sara McIntyre (Water Policy Compliance Officer)

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EXPOSURE DRAFT COMMENTS – 23/471

Exposure circulation undertaken: Full exposure circulation

Reason for exception: N/A

Dates circulated: 31 August 2023 – 6 September 2023

Directorate	Comment	Response
CMTEDD	CMTEDD understands that this submission seeks to establish a framework to assist the ACT to comply with an agreement with the Commonwealth requiring 300 non-urban water meters to be accuracy tested by June 2025. Despite this agreement with the Commonwealth, a new obligation to require water meter testing will need to include scope/flexibility to ensure licence holders are not in breach of the law if a shortage of water meter testing services in the region prevents them from complying within the required timeframe. However, there may be a risk of unintended regulatory burden if licence holders are required to report their non-compliance and/or seek an exemption from the requirement to comply by June 2025, for the reason that they have been unable to access testing services. Should the Government determine to provide water meter testing services, Treasury can help EPSDD to establish a fee framework to support this. Should Government not seek to provide these services, Treasury suggests early engagement with the	New sub-heading ‘Policy implementation risks for the ACT Government’ added to consolidate commentary, particularly on water testing services. It is not known if the ACT will experience the same shortage of certified meter installer and validators (CMIs) as NSW until policy implementation commences. Paragraphs 33 and 34 added to outline risk for the ACT and measures that can be put in place throughout policy implementation. There will be close engagement with the first round of Licence holders to determine if there is a shortfall in CMIs. Where a shortfall is identified, a quick response can be employed to give Licence holders an extension of time to comply and to allow government to consider what degree of intervention may be required. Paragraph 35 updated to remove ‘will’ and to emphasis that this is only an option for further consideration if required.

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Commonwealth to explore the possibility of a longer transition period that would ensure licensees have sufficient time to comply with the new obligation. Should a longer transition period not be supported by the Commonwealth, Treasury recommends consideration of a tender process to acquire a service provider to provide water meter testing services to all licencees. Adiditonally, the wording in Para. 35 suggests the ACT <u>will</u> offer a service in competition with market provider. The Submission should make clear that this is an option for further assessment which would also go to the above points. The submission states that a metering validation fee will also be added to standard Government fees for Licence holders in the first year of implementation. CMTEDD understands this is a remnant of the previous discussions to implement a fee for service for EPA-provided services in order to address market capacity concerns. EPSDD has advised this reference will be removed to account for the fact a fee for service model may be considered as a risk mitigation option in the implementation planning but is <u>not</u> currently a preferred option. CMTEDD also notes that the submission seeks Cabinet agreement to the implementation plan and milestones. CMTEDD suggest this recommendation be removed and that the following (or similar) be added for Cabinet noting: • <i>“Cabinet note:</i> ○ <i>the draft implementation plan at Attachment [xx] and that EPSDD will finalise this plan in concert with other key</i>	Metering validation fee removed. A fee for service will be considered if the ACT experiences a shortfall in the number of certified meter installers and validators. Changes made to recommendations for Cabinet noting. Paragraph 43 added. Paragraph 59 added to emphasis that the implementation plan (<u>Attachment J</u>) will be adjusted as required to manage any issues.
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- stakeholders over coming months; and*
- *That EPSDD has identified market capacity issues in delivering metering validation services in other jurisdictions and that the implementation plan will consider a range of mitigation strategies to manage this risk which may include:*
 - Regular monitoring of market capacity*
 - Government procuring services via a panel or similar to undertake validation at Licence holders expense*
 - The EPA directly providing validation services (least preferred due to competitive neutrality concerns)*
 - Liaison with the Commonwealth on compliance and deadlines to manage expectations and seek extensions if needed.*
- *EPSDD will work with Treasury and EPA to determine the optimal risk mitigation strategies”*

CMTEDD further notes the proposal for a Non-Urban Water Metering Policy has been developed by EPSDD to provide that the ACT meets a national standard to which the ACT has formally committed. There has been close collaboration with the Environment Protection Authority (EPA) and an appropriate weight given to regulatory concerns throughout.

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	The EPA and EPSDD continue to work through a number outstanding matters associated with the implementation and design of this Policy, as they are identified. These include a current shortfall in the number of certified persons in the local region able to provide meter verification services, as well as concerns around the required accuracy standards of the new Policy. In response to these issues, the government is exploring options for the EPA to assist in the delivery of the validation service within the ACT and AC is collaborating with EPSDD, the Inspector-General of Water Compliance and other jurisdictions to provide input to a current review of the Australian Standard aiming to ensure that it is appropriate for the proposed settings.	
JACS	Supported.	
HD	Supported.	
CHS	Supported.	
EDU	Supported.	
TCCS	Supported.	
CSD	Supported.	
MPC	Supported.	
Statutory Office Holder	Supported.	

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FINAL COMMENTS - 23/471

Final circulation undertaken: 2 day final circulation

Reason for exception: N/A

Dates circulated: Provide dates circulated

Directorate	Comment	Response
CMTEDD	Choose an item. [Provide comments.]	[Drafting directorate to provide response]
JACS	Choose an item. [Provide comments.]	[Drafting directorate to provide response]
HD	Choose an item. [Provide comments.]	[Drafting directorate to provide response]
CHS	Choose an item. [Provide comments.]	[Drafting directorate to provide response]
EDU	Choose an item. [Provide comments.]	[Drafting directorate to provide response]
TCCS	Choose an item. [Provide comments.]	[Drafting directorate to provide response]
CSD	Choose an item. [Provide comments.]	[Drafting directorate to provide response]
EPSD	Choose an item. [Provide comments.]	[Drafting directorate to provide response]
MPC	Choose an item. [Provide comments.]	[Drafting directorate to provide response]
Statutory Office Holder	Choose an item. [Provide comments.]	[Drafting directorate to provide response]

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OPEN ACCESS ASSESSMENT: CABINET DECISION AND WELLBEING IMPACT ASSESSMENT SUMMARY

The Chief Minister must proactively release the information described in section 23 of the *Freedom of Information Act 2016* (the FOI Act) unless the information is contrary to the public interest in accordance with sections 16 and 17, and schedules 1 and 2 of the FOI Act. Please refer to the Cabinet Sharepoint Site for further guidance on what is within the scope of Open Access requirements.

If you believe that release of this information is within the scope of Open Access requirements and would be contrary to the public interest, please complete Part B.

PART A: Release proposed

Number and title of decision: 23/471 – Non-urban Water Metering Policy

Proposed summary of the decision for public release

Cabinet agreed to adopt the Non-urban Water Metering Policy which delivers on the ACT's commitment to improve metering standards under the National Framework for non-urban water metering. The Policy provides an acceptable level of confidence in water meter performance, ensures greater coverage of pattern approved water meters which comply with the relevant standards, and uses a risk management approach to prioritise metering implementation.

Proposed summary of the Wellbeing Impact Assessment for public release

The Non-urban Water Metering Policy builds on existing water metering requirements to strengthen water measurement and enhance the regulatory approach and demonstrates the ACT's commitment to National Framework for non-urban water metering. It provides a robust metering framework which will improve the confidence in water meter performance and accuracy, reduce environmental impacts of water usage and ensure water is used sustainably.

Attachments for release

Summary of the decision	Release through the Open Access website?	Release by Directorate?
Summary of the decision	Yes	No
<u>Attachment A</u> Table of final agency comments		
<u>Attachment B</u> Open Access Assessment – Decision Summary		
<u>Attachment C</u> Wellbeing Impact Assessment	Yes	No
<u>Attachment D</u> Communications-on-a-page	No	No
<u>Attachment E</u> Non-urban Water Metering Policy	No	No
<u>Attachment F</u>	No	No

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Summary of submissions		
<u>Attachment G</u> Options for setting threshold criteria	No	No
<u>Attachment H</u> Examples of threshold criteria from other jurisdictions	Yes	No
<u>Attachment I</u> Indicative financial impacts for licence holders	No	No
<u>Attachment J</u> Implementation plan	Yes	No

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WELLBEING IMPACT ASSESSMENT

Non-urban Water Metering Policy	EPSDD	Wellbeing Impact 1
Purpose of proposal This proposal seeks agreement to update the existing policy '<i>Water Meter Installation, Maintenance and Replacement Guideline</i>' to introduce requirements and standards for existing, new and replacement meters in line with the National Framework for non-urban water metering.		
Impact description The updating of this policy builds on the existing non-potable water metering requirements to strengthen water measurement and enhance the regulatory approach. The policy will: - ensure an acceptable level of confidence in meter performance and accuracy; - align with the National Framework for non-urban water metering (2009), including the Metrological Assurance Framework 2 (MAF2) and Australian Standard 4747: Meters for non-urban water supply (AS4747) - adopt a staged risk-based approach to implementing new metering requirements by prioritising implementation for high risk water take. The benefits of improved non-potable water metering accuracy have been balanced with costs for Licence holders by: - using a staged risk-based regulatory approach by prioritising the implementation of new metering requirements for high risk water take - allowing adequate time for implementation where possible to ensure future costs can be considered within water users' overall expenses - setting standards to enable existing meters to be retained in service - using a risk-based approach to exempt the application of telemetry, which would be a new cost to water users Overall, the proposal will have a positive impact for the ACT community as it will continue to provide assurance that water is being managed sustainably for the benefit of both the community and the environment. Licence holders will continue to be responsible for all costs associated with the supply, installation and maintenance of water meters. The proposal will have a negative impact for Licence holders who are required to install a new or replacement pattern approved water meter. Some modifications may also be required to existing pipework and fittings to ensure that the pattern approved meter is installed in accordance with the manufacturer's specifications and AS4747. There will also be a minor negative impact for Licence holders with ongoing costs to demonstrate the accuracy of existing meters, with expected costs to be between \$300 and \$500 every five years. However, in some cases, non-potable water meters may inadvertently be over-reading water usage and the validation of the meter may result in less water use being recorded. Water bills will become more accurate and financial savings may be made, as well as a lower environmental impact overall.		
Who is affected? The proposal will affect 1802 holders of a Licence to Take Water issued under the <i>Water Resources Act 2007</i>. Licence holders range from commercial and industrial businesses, rural properties, Commonwealth and ACT Government directorates, sporting and recreation clubs, as well as private suburban residences. Water meters supplied by Icon Water to measure treated drinking water are out of scope.		
Wellbeing domain Environment and climate The primary wellbeing domains impacted by this proposal are environment and climate and governance and institutions.		
Timeframe		

WELLBEING IMPACT ASSESSMENT

Between one and five years

The policy commences on 1 December 2023 and must be fully implemented by June 2025.

Evidence base and data

What do we know now?

The National Water Initiative (2004), the National Framework for non-urban water metering (2009) and the Murray-Darling Basin Compliance Compact (2018) requires jurisdictional governments, including the ACT, to implement consistent metering standards for non-urban water take to ensure relative equity around water sharing and the protection of water resources.

Licensed non-potable water users in the ACT have been required to install water meters to account for surface water use and groundwater use since 1998. The ACT government has committed to strengthening its water metering policy to improve the standard of measurement for non-urban water.

Accurate water measurement benefits water users, communities, industry, and government by:

- providing the data to support transparency and assurance that water is being appropriately managed and shared;
- providing confidence that water take complies with water plan requirements, including those to protect environmental flows;
- enabling non-potable water users to demonstrate that they are meeting their regulatory requirements;
- providing water take data to better inform water resource management decisions; and
- providing timely information about available water to support water markets and water trading.

What do we need to know?

There are ~~307~~ 290 non-potable water meters currently in use. Data is not available on how many of these meters are pattern approved or about the accuracy of these meters.

The implementation of the policy will provide the data needed to measure the progress of the ACT towards National requirements of having AS4747 compliant meters or suitable grandfathering arrangements.

Accountability and evaluation – how will we know this proposal has been successful?

- Progress towards the implementation of the MAF2 and improved metering accuracy is reported by each jurisdiction and is published on the Inspector General of Water Compliance's (IGWC) website. The Office of Water will continue to work with the IGWC to ensure that the government continues to meet its commitments through the implementation of the non-urban water metering policy.
- Other jurisdictions have developed similar policies and are at different stages of policy implementation. The ACT can draw on their experiences and make adjustments to suit the ACT context.
- The Environment Protection Authority (EPA) will implement the policy and monitor ongoing compliance and enforcement. EPA will provide annual reporting to the IGWC.

Key relationships

Agency representatives from Access Canberra (EPA) have provided input into the policy development. The Office of Water will continue to work with the EPA throughout the implementation of the policy to identify potential issues or information gaps.

Public consultation with Licence holders was undertaken in May 2023. Submissions were considered in the final policy position and details are provided in the Cabinet submission documentation.

What is government's involvement/interest?	The ACT Government will release an updated non-urban water metering policy to deliver consistent water metering standards as agreed under the National Framework for non-urban water metering (2009), and the Murray-Darling Basin Compliance Compact (2018).		
Why are we communicating on this issue?	To raise awareness of and support compliance with the updated policy, noting license holders have financial responsibility for meter installation and maintenance costs.		
Does it cross over other Directorates/agencies?	CMTEDD – Access Canberra	Spokesperson	Shane Rattenbury, Minister for Water, Energy and Emissions Reduction Geoffrey Rutledge, Deputy Director-General, EPSDD Executive Group Manager, Environment, Heritage and Water, Bren Burkevics Emma Humphreys, Senior Director Office of Water, EPSDD
Communications project tier	Tier 3		

Target audiences

Primary	• Holders of a Licence to take Water in the ACT
Key influencers/stakeholders	• Irrigation Australia • Icon Water
ACTPS (if relevant)	• Access Canberra • Government license holders

Key Messages

- The ACT Government is committed to achieving its vision for water management over the next thirty years which sees a community working together, managing water wisely to support a vibrant, sustainable and thriving region.
- The introduction of improved standards for non-urban water metering brings the ACT into alignment with other states and territories to regulate water meters for non-urban water supply under the National Water Initiative and the National Framework for Non-Urban Water Metering.
- Following consultation with ACT licence holders, the new standards will ensure water taken from our rivers and groundwater systems can be measured and monitored accurately to support industry transparency and public confidence while supporting the health of our waterways. The new requirements will be phased in over the next 12 months to ensure licence holders have time to comply with the new rules. For more information, visit [URL TBC](#).

Action plan

Date	Communications collateral	Distribution	Responsibility
Prior to project launch			
September 2023	Distribute consultation Listening Report to license holders	Email	EPA / AC Comms
September/ October 2023	Review and update current web content	• Water Meter Requirements (act.gov.au) • Related resources (act.gov.au) • Water regulation	AC Comms / EPA / EPSDD Comms
30 October	Stakeholder communication: • Provide embargoed copy of policy to licence holders and Irrigation Australia.	Email	Office of Water
Launch day – 1 November			
1 November	Publish link to policy	Environment website & Access Canberra website	EPSDD Comms/ AC Comms
Ongoing	Follow up direct communication to licence holders throughout the 12-month transition	Email	Policy reminders: Office of Water Regulation: EPA

Attachment A: Talking Points

- The ACT Government is committed to achieving its vision for water management over the next thirty years which sees a community working together, managing water wisely to support a vibrant, sustainable and thriving region.
- The introduction of improved standards for non-urban water metering brings the ACT into alignment with other states and territories to regulate water meters for non-urban water supply under the National Water Initiative and the National Framework for Non-Urban Water Metering.
- Following consultation with ACT licence holders, the new standards will ensure water taken from our rivers and groundwater systems can be measured and monitored accurately to support industry transparency and public confidence while supporting the health of our waterways.
- The new requirements will be phased in over the next 12 months to ensure licence holders have time to comply with the new rules. For more information, visit [URL TBC](#).

Policy details

- The revised standards include new reporting requirements for when a water meter is installed, revalidated, repaired, removed or relocated. This includes requirements for:
 - use of pattern approved meters
 - validation of meter installations by a certified person
 - ongoing meter maintenance and accuracy testing
 - improved reporting and notification requirements for licence holders.
- From 1 December 2023, any new or replacement water meters must comply with the requirements of the MAF2 and AS 4747 for water meter selection, installation, validation and maintenance.
- Existing meters installed before 1 December 2023 must be pattern approved or able to demonstrate that they are accurate.
- Under the policy, existing meters can be retained where accuracy can be demonstrated.
- The government is exploring options for providing some of the required services such as basic meter validation and accuracy testing.

Background/ sensitivities

- Under the framework, water users from all jurisdictions may incur new compliance costs. The Environment Protection Authority consulted with licence holders on the draft policy including associated costs. We have considered all feedback provided through this process and where possible, reflected in the final policy.



Non-urban Water Metering Policy

AUSTRALIAN CAPITAL TERRITORY

Draft

July 2023

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Version history

Version number	Document date	Document status	Summary of changes
1	March 2023	Draft for consultation	Content prepared
2	June 2023	Draft for adoption	Minor edits including: • Implementation date of policy changed from 1 July 2023 to 1 December 2023 • Definition of ‘accuracy testing’ and ‘validation’ refined in Glossary • Section 2: Objectives refined and section renumbered • Heading ‘Scope’ changed to ‘Application of Policy’ and section renumbered • Section 3: Application of policy refined • Requirements in Section 4.2: Meter location refined • Requirements for general maintenance changed from ‘at any time’ to ‘as required’ in Sections 9.1 and 9.2 • Requirement for report changed from ‘can’ to ‘must’ in Section 10: Requirements for certified persons and competent persons • Section 12: Compliance with Policy updated to include certified persons
3	September 2023	Draft for adoption	• ‘Field conditions’ changed to ‘in-situ conditions’ for consistency throughout document • Section 5.2: text changed from ‘A new certificate is required once every five years’ to ‘no more than five (5) years before the rollout date’.

Review of policy

This policy will be reviewed every 5 years, or as required, to ensure that it remains consistent with the National Metering Framework and the requirements of Australian Standard 4747: Meters for non-urban water supply.

For more information contact the Environment Protection Authority on 13 22 81 or email environment.protection@act.gov.au.

Glossary

Accuracy testing - the process of confirming that a meter is operating within the maximum permissible error of $\pm 5\%$ accuracy for in-situ conditions.

AS 4747 – Australian Standard 4747: Meters for non-urban water supply.

Authorised officer - an officer authorised under Section 14 of the *Environment Protection Act 1997*.

Certified person - a person with the qualifications, skills or experience to carry out work in relation to metering equipment and is certified by an accredited organisation¹⁸ to undertake meter installation, maintenance and validation activities in accordance with Australian Standards. A current listing of Certified persons can be found in the Member Directory on Irrigation Australia's website www.irrigationaustralia.com.au

Competent person - a person employed in the meter or irrigation industry with the qualifications, skills or experience to carry out work in relation to metering equipment.

EPA – the ACT Environment Protection Authority.

Grandfathering - applies to meters installed before 1 December 2023 which are exempt from the installation and validation requirements of AS4747 for non-urban water metering.

Licence holder - the holder of a licence to take water issued under Part 5 of the *Water Resources Act 1997*.

Manufacturer's seal - a metal wire installed at the time of manufacture of the meter that connects the meter to the meter body to detect any interference with the operation of a meter and the metering equipment.

Meter - a water meter required to be installed through a condition of a licence to take water.

ML – megalitre (equivalent to 1,000,000 litres).

Metering equipment - includes the meter itself and any ancillary wiring, pipework, telemetry equipment or apparatus (where installed) and any supporting structure.

Non-urban water meters – the National Framework for Non-Urban Water Metering has defined non-urban water meters as any meter which measures water take from regulated and unregulated surface water and groundwater systems for the purposes of monitoring compliance with water entitlements and for resource management activities.

It does not include stream gauging stations or groundwater infrastructure used for resource monitoring, or meters used in urban supply and distribution systems where raw or potable water is supplied under a Standard Customer Contract by water utility (e.g. Icon Water) or non-drinking water is supplied under a Customer Contract.

Pattern approved meter - a water meter that has passed the relevant pattern approval process and has a pattern approval certificate issued by the National Measurement Institute.

Policy - the Non-urban Water Metering Policy.

¹⁸ At the time of writing this policy, Irrigation Australia is the only nationally registered training organisation for closed conduit meters

Tamper - as defined in the *Water Resources Act 2007*.

Tamper evident seal - a seal with a unique identification number, purchased through Irrigation Australia, which is applied by certified person to detect any interference with the operation a meter and the metering equipment.

Telemetry - a device that transmits readings (in this instance a pulse or a group of pulses from the water meter) to a central data store where it can be reviewed in near-real time.

Totaliser – displays the accumulated total and total volume of flow through a meter over time.

Validation - a set of activities that includes inspecting the meter to check that it is pattern approved or has a certificate issued by a recognised and accredited testing institution, and that it has been installed and maintained in a manner that provides an acceptable level of confidence that the meter will operate within a range of error under normal operating conditions.

1. Introduction

The National Framework for non-urban water metering (2009)² and the Murray-Darling Basin Compliance Compact (2018)³ were developed from the National Water Initiative to improve water management across Australia. This framework provides a nationally consistent metering standard to improve confidence in water meter performance and accuracy.

The updated Metrological Assurance Framework 2 (MAF2)⁴ is a part of the National Framework which describes the principles to improve the measurement and metering of water taken. The MAF2 is supported by meter standards specified by Australian Standard 4747 - Meters for non-urban water supply (AS4747) that covers the installation, validation, maintenance and verification of meters.

Each state and territory is required to develop its own policy that implements these metering standards to ensure equity around water sharing, improved and continuing confidence in meter performance and water accounting, and the protection of water resources.

In the ACT, the Environment Protection Authority (the EPA) regulates the abstraction of water resources through the *Water Resources Act 2007*. All licensed water take has been required to be metered to account for water use since the introduction of the legislation in 1998.

To ensure continued confidence with water metering requirements, this Non-urban Water Metering Policy has been developed to provide standard requirements for water meter selection, installation and maintenance in the ACT. It delivers on key requirements of the MAF2 and AS4747.

2. Objectives

The objectives of the Policy are to:

- Provide a set of standards for the installation, maintenance and replacement of water meters that ensure an acceptable level of confidence in meter performance and accuracy; and
- Use a staged risk-based regulatory approach by prioritising the implementation of new metering requirements for high risk water take; and
- Uphold community confidence in water resource management and accounting.

² National Framework for Non-urban Water Metering (2009) available from <https://webarchive.nla.gov.au/awa/20130905194923/http://www.environment.gov.au/water/publications/agriculture/pubs/national-framework-for-non-urban-water-metering.pdf>

³ Murray-Darling Basin Compliance Compact available from <https://www.mdba.gov.au/sites/default/files/Basin-Compliance-Compact-180702-D18-31184.pdf>

⁴ Metrological Assurance Framework 2 available from <https://www.dcceew.gov.au/water/policy/policy/nwi/nonurban-water-metering-framework>

3. Application of the policy

The National Framework for Non-Urban Water Metering defines non-urban water meters as any meter which measures take from regulated and unregulated surface water and groundwater systems for the purposes of monitoring compliance with water entitlements and for resource management activities.

This policy applies to all water abstraction in the ACT that is required to be licensed under the *Water Resources Act 2007*⁵.

The policy does not apply to:

- Water take that is exempt from the requirement for a licence to take water⁶; or
- Stream gauging stations or groundwater infrastructure used for resource monitoring; or
- Meters used in urban supply and distribution systems where raw or potable water is supplied under a Standard Customer Contract by water utility (e.g. Icon Water) or non-drinking water is supplied under a Customer Contract.

This policy replaces the EPA “Water Meter Installation, Maintenance and Replacement Guideline”, dated March 2015.

4. Standards for new and replacement meters

This section outlines the standards for all new and replacement meters installed on or after 1 December 2023. From this date, any new or replacement water meter must comply with the requirements of Australian Standard 4747: Meters for non-urban water supply (AS 4747) for water meter selection, installation, validation and maintenance.

4.1 Meter selection

All new and replacement meters must be pattern approved. Pattern approved meters have been tested in an accredited laboratory to ensure they operate accurately under a range of environmental and operating conditions and comply with AS 4747.

A list of AS4747 compliant, pattern approved meters is available from the Australian Government’s website⁷. This list will be updated from time to time as more meters receive pattern approval.

⁵ Note: the definition of ‘urban residential property’ in the Water Resources Act 2007 does not apply in the application of this policy.

⁶ As defined in Section 28(2) of the *Water Resources Act 2007*

⁷ At the time of writing, a list of pattern approved meters is available from the Department of Climate Change, Energy, the Environment and Water (DCCEEW)
<https://www.dcceew.gov.au/sites/default/files/documents/pattern-approved-meters-list-nov2022.pdf>

Meters must:

- Be fit for purpose and suited to the intended purpose, installation configuration and operating conditions (such as water quality conditions and flow rates); and
- Have a local totalising display that indicates the water used in metric units. The preferred units are kilolitres (kL) or cubic meters (m³). For larger water meters the scale of the display can be kL x 10 or m³ x 10.

It should be noted that, although connection to telemetry is not required at this stage⁸, it is likely that it will be required across the Murray Darling Basin by 2025.

It is advisable that licence holders consult with a hydrometric specialist prior to the selection and purchase of a pattern approved water meter.

4.2 Meter location

The following requirements should be taken into consideration when choosing the location for a water meter to ensure it is installed and operated correctly. A water meter should be:

- Installed as close as reasonably practicable to the water extraction point and located upstream of any valves (except air valves), tees, take/offs, diversions or branches;
- Installed above ground with inlet and outlet pipes visible at all times;
- If above ground installation is unavoidable, an underground installation must not be more than one metre below ground level with inlet and outlet pipes visible at all times;
- Installed in a location that allows for safe access to read the meter;
- Accessible at all times (subject to security arrangements which may prevent access to unauthorised persons) and clear of vegetation and landscaping to allow easy visibility for manually reading the meter and viewing the serial number;
- Adequately supported to ensure that the full weight of the meter and its associated pipework is structurally stable and that no leakage occurs under all operating conditions; and
- Protected from the risk of damage due to environmental conditions (such as vibration, corrosion, fogging, flooding, frost and freezing) or from damage from vehicles, livestock and vandalism.

4.3 Meter installation and validation

A licence holder is responsible for ensuring that all licensed water extraction passes through a meter(s) and that separate metering systems are installed to measure groundwater and surface water components (where required).

A new or replacement meter must be installed in accordance with the pattern approval certificate⁹. The pattern approval certificate outlines the installation requirements,

⁸ Appendix C contains key points on why telemetry is not required at this stage

including correct flow direction orientation and the required lengths of pipework upstream and downstream of the meter.

While a meter can be installed by any person including a licence holder or competent person, the meter and its installation must be validated by a certified person within 28 days of installation and before taking water (whichever is first) to certify that it complies with the requirements of the pattern approval certificate, MAF2 and AS4747.

The certified person must issue a completed validation certificate¹⁰ within 7 days of completing the work. The certificate must be submitted by the licence holder via email to environment.protection@act.gov.au within 14 days of receiving it.

If a meter is not installed correctly and cannot be validated by a certified person, the installation will need to be rectified at cost to the licence holder. The validation process will also need to be repeated.

4.4 Tamper-evident seals

Metering equipment must have tamper-evident seals installed at the time of validation. The seal will be provided¹¹ and installed by the certified person to ensure the meter or any ancillary pipework cannot be removed without breaking the seals.

Refer to Section 6 for more information on tamper-evident seals.

5. Standards for Existing Meters

This section applies to existing meters installed before 1 December 2023. Any meter installed on or after this date must meet the new meter standards set in Section 4 (unless exempt as detailed in Section 8).

Existing meters installed before 1 December 2023 must be accuracy tested before the relevant rollout date in Appendix B. A meter can remain in service where it can be demonstrated that it is accurate to within $\pm 5\%$ for in-situ conditions and complies with this policy.

Where a meter does not meet the requirements below, it will either need to be repaired and validated so that it is accurate or replaced in accordance with the requirements for new and replacement meters (as outlined in Section 4).

⁹ At the time of writing, a list of pattern approved meters is available from the Department of Climate Change, Energy, the Environment and Water (DCCEEW)

<https://www.dcceew.gov.au/sites/default/files/documents/pattern-approved-meters-list-nov2022.pdf>

¹⁰ Template available at <https://www.accesscanberra.act.gov.au/s/article/water-resources-licensing-tab-overview>

¹¹ Seals can only be purchased through Irrigation Australia by a certified person
https://www.irrigationaustralia.com.au/Web/Shop/Water_Meter_Seals.aspx

5.1 Pattern approved meters

Where a licence holder intends to continue using an existing pattern approved meter, it must meet each of the following criteria:

- The meter is suitable for the particular application and within its functional life of the meter, with consideration given to the age, usage, wear, expected reliability, physical condition, and operating conditions (eg. environmental or water quality) of the meter;
- The meter is validated by a certified person every five years;
- Documentation is provided to show that the meter is pattern approved and has been validated as required; and
- The tamper evident seal(s) is intact.

Note: If the tamper evident seal(s) are not intact, they must be replaced by a certified person as outlined in section 6.

5.2 Non-pattern approved meters

Where a licence holder intends to continue using an existing non-pattern approved meter, it must meet each of the following criteria:

- The meter is suitable for the particular application and within its functional life of the meter, with consideration given to the age, usage, wear, expected reliability, physical condition, and operating conditions (e.g. environmental or water quality) of the meter;
- A certificate is provided to show that the meter accuracy has been confirmed by a certified person to within $\pm 5\%$ accuracy for in-situ conditions no more than five (5) years before the rollout date. If certified accuracy has not been confirmed, the meter must be tested in accordance with Section 9 of this policy; and
- The manufacturer's tamper evident seal(s) is intact. If the manufacturer's seal is broken, the meter is considered to be faulty and it must be tested in accordance with Section 9 of this policy.

A certified person may confirm that a meter is operating within $\pm 5\%$ accuracy for in-situ conditions by using in-situ volumetric measurement, in-series metering with another temporary pattern approved meter, or any other method outlined in AS4747.

6. Tamper evident seals

A tamper evident seal is installed on a meter or any adjacent components to prove the integrity of the meter and show if a water meter or any adjacent components have been dismantled, altered or removed ('tampered' with).

A tamper evident seal must have a unique serial number which is recorded on the validation certificate¹². It is the responsibility of the certified person to provide and install seals to the meter installation to ensure the meter or any ancillary pipework cannot be removed without breaking the seals.

A tamper evident seal should be installed in a location where it is protected from the risk of damage or deterioration due to environmental conditions.

A certified person can break and replace a tamper evident seal. However, the EPA may approve the breaking of a seal by a non-certified person in certain situations, such as when a meter needs to be removed for testing. Approval must be given in writing by the EPA before the seal is broken. Requests can be submitted by email to environment.protection@act.gov.au.

A meter must be re-validated if the tamper evident seal is broken by maintenance or broken or removed by a person who is not a certified person. Minor maintenance, such as battery replacement where removal of the battery does not alter the meter totaliser or cleaning of the external parts of the meter, does not require validation if the tamper evident seal remains in place.

7. Telemetry

Telemetry involves automatically recording data and sending it electronically from the meter to an information technology (IT) system in another place for monitoring and recording.

Although connection to telemetry is not required at time of commencement of this policy¹³, it is likely that it will be required across the Murray Darling Basin by 2025.

Pattern approved meters are fitted with pulse output capability to enable future connection of ancillary equipment such as telemetry.

There is no requirement for telemetry capability to be added to existing meters at time of commencement of this policy. The benefits of requiring telemetry capability on every existing meter will need to be balanced with the significant costs required by licence holders to retrospectively install fully automated telemetry.

It is advisable that licence holders consult with a hydrometric specialist prior to the selection and purchase of a pattern approved water meter.

¹² Seals may be purchased by a certified person through an official supplier such as Irrigation Australia

¹³ Appendix C contains key points on why telemetry is not required at this stage

8. Exemptions for metering requirements

All licensed water use is required to be metered in the ACT. However, the following circumstances may be exempt from the metering requirements (subject to written approval by the EPA) where:

- No pumping infrastructure is installed and water cannot be taken;
- The use of water carts and water usage record keeping has been approved through the licence to take water;
- A meter was purchased prior to 1 December 2023 but has not been installed since the time of purchase (evidence of proof of purchase is required); or
- There is no pattern approved meter listed on the Australian Government’s website¹⁴ for a particular application.

A request for an exemption to the metering requirements can be submitted by email to environment.protection@act.gov.au. Exemptions will be assessed on a case by case basis and will generally be granted for a short time period, with the aim to work towards compliance with this policy. Exemption requests must be approved in writing by the EPA.

9. Maintenance, testing and repair of meters

Ongoing maintenance of a water meter is required to provide an acceptable level of confidence that a meter continues to operate within the maximum permissible limits of error and is maintained in good working order.

All maintenance procedures must comply with the MAF2, AS 4747 and the pattern approval certification (or manufacturer’s specifications for non-pattern approved meters).

The maintenance requirements, including who is permitted to perform maintenance works, are outlined in Appendix A. These are key maintenance activities only and other maintenance work must be performed as required to ensure that the accuracy and integrity of the meter is maintained.

A brief summary of the requirements is provided below.

9.1 Maintenance of meters installed after 1 December 2023

A licence holder is required to undertake the following activities to ensure that the meter is measuring accurately and maintained in good working order.

- Undertake general maintenance as required to keep the area clear of vegetation and debris, check for damage and ensure the meter display is clear and legible.

¹⁴ At the time of writing, a list of pattern approved meters is available from the Department of Climate Change, Energy, the Environment and Water (DCCEEW) <https://www.dcceew.gov.au/sites/default/files/documents/pattern-approved-meters-list-nov2022.pdf>

- Conduct regular inspections to ensure the site remains safe and accessible, the meter is maintained in good working order and that the tamper evident seals remain intact.
- Ensure that the meter is validated by a certified person every five (5) years to ensure that the meter and metering equipment remain accurate and to perform any maintenance/service on the meter. The validation certificate, together with photographs of the meter installation and tamper-evident seals, must be provided within 14 days of receiving it, unless it has been provided by the certified person.
- Notify the EPA within five (5) working days of becoming aware of faults with meter installation or meter accuracy.
- Remedy faults of meter installation or meter accuracy within 28 days.
- Use a certified person to perform maintenance work where tamper evident seals will be broken or where meter accuracy will be affected.
- Keep a log of all maintenance activities carried out on a meter and metering equipment for a period of five (5) years, including all instances when a tamper-evident seal or manufacturer's seal is broken.

9.2 Maintenance of meters installed before 1 December 2023

Consistent with the grandfathering provisions in the MAF2, meters installed before 1 December 2023 are exempt from mandatory validations where it can be demonstrated that the meter is accurate to within $\pm 5\%$ accuracy for in-situ conditions and complies with this policy. All other maintenance provisions are the same as for meters installed after this date.

A licence holder is required to undertake the following activities to ensure that the meter is measuring accurately and maintained in good working order.

- Undertake general maintenance as required to keep the area clear of vegetation and debris, check for damage and ensure the meter display is clear and legible.
- Conduct regular inspections to ensure the site remains safe and accessible, the meter is maintained in good working order and that the tamper evident seals remain intact.
- Ensure that the meter is accuracy tested by a certified person every five (5) years to confirm that the meter is operating within $\pm 5\%$ accuracy for in-situ conditions.
- Provide a certificate of accuracy, together with photographs of the meter installation and tamper-evident seals, to confirm the accuracy of the meter.
- Fix faults within 28 days (and notify the EPA within five (5) working days of becoming aware of the fault).
- Use a certified person to perform maintenance work where tamper evident seals will be broken or where meter accuracy will be affected.
- Keep a log of all maintenance activities carried out on a meter and metering equipment for a period of five (5) years, including all instances when a tamper-evident seal or manufacturer's seal is broken.

9.3 Meter accuracy testing

A licence holder must arrange for the accuracy of the meter to be tested if the meter is suspected to be operating inaccurately or if the tamper-evident seal or manufacturer's seal are broken by an unauthorised person.

Where the meter is removed and tested in laboratory conditions, it must operate within $\pm 2.5\%$ accuracy across the full flow rate range. Alternatively, in-situ testing can be used where the testing will provide reliable results to show that meter operates with the accuracy requirement of $\pm 5\%$ accuracy for in-situ conditions.

If the meter is outside relevant acceptable accuracy limits when tested, the meter must not be used until the meter is either:

- Repaired and it is demonstrated through a certificate of accuracy that the meter operates within acceptable accuracy limits; or
- A certificate is provided by a certified person to show that the meter accuracy has been confirmed to within $\pm 5\%$ accuracy for in-situ conditions; or
- Replaced with a pattern approved meter that is compliant with Section 4 of this policy.

A certified person may confirm that a meter is operating within $\pm 5\%$ accuracy for in-situ conditions by using in-situ volumetric measurement, in-series metering with another temporary pattern approved meter, or any other method outlined in AS4747.

9.4 Repair of faulty meters

A licence holder must notify the EPA within five (5) working days of detecting a malfunction in which the meter is unable to accurately record water use.

A meter must be repaired, replaced or reinstalled within 28 days of notifying the EPA of the fault. If the meter cannot be repaired within that time, the licence holder must apply to the EPA for an extension in writing and include the reasons why the repair cannot be completed within that time, and provide the date by which meter repair is expected to be completed.

Once repaired, the meter must be either:

- If installed after 1 December 2023, revalidated by a certified person if the repair works affect the accuracy of the meter or if tamper evident seals are broken or removed by an unauthorised person; or
- If installed before 1 December 2023, tested for accuracy by a certified person if the repair works affect the accuracy of the meter or if the manufacturer's seal is broken by an unauthorised person.

The licence holder must provide a copy of the validation certificate or certificate of accuracy to the EPA within 14 days of receiving it, together with the first available meter reading after the meter is repaired.

If the meter cannot be repaired, it must be replaced with a meter in accordance with Section 4 of this policy.

10. Requirements for certified persons and competent persons

Competent persons and certified persons must report if they know or reasonably suspect that a meter or metering equipment they are installing, or carrying out work on, has been tampered with, within five (5) working days.

A report must be made to the EPA by email to environment.protection@act.gov.au.

11. Notification requirements for licence holders

A licence holder is responsible for notifying the EPA when the following circumstances apply.

- A new or replacement meter is installed.
- A meter is revalidated.
- A fault is detected and/or repairs are undertaken on a meter.
- Maintenance activities are completed.
- A meter has been removed or relocated.

Notifications should be provided to the EPA by email to environment.protection@act.gov.au and must be provided within the timeframes specified below.

11.1 Installation of a new or replacement meter

A licence holder must notify the EPA that a new or replacement meter has been installed within 14 days of installation. The notification must include the following information.

- A completed validation certificate confirming that the meter has been approved for use (unless it has been provided by the Certified person).
- The location of the meter using GPS coordinates (and if applicable, the colloquial name given to the meter location).
- The date the meter was installed.
- The make, size, type and serial number of the meter.
- Name and contact details of the installer.
- Licence to take water (licence number) to which the meter relates.
- Unique identification number on tamper evident seal(s) installed on meter and/or metering equipment.
- Photographs and/or a diagram of the meter fitted on pipe-work, together with dimensions showing lengths of clear pipe before and after the water meter up to the first off-take.
- The meter reading at the time of installation.

11.2 Revalidation of an existing meter

A licence holder must notify the EPA when revalidation of a meter is completed. The notification must include the following information.

- A completed validation certificate confirming that the meter has been approved for use (unless it has been provided by the Certified person).
- The make, size, type and serial number of the meter.
- Licence number to which the meter relates.
- Unique identification number on any new or replaced tamper evident seal(s) installed on the metering equipment.
- The meter reading at the time of revalidation.

11.3 Faulty meters, repair work and testing

A licence holder must notify the EPA within five (5) working days of detecting a meter malfunction in which the meter is unable to accurately record water use. The notification must include the following information.

- Licence holder's name.
- Licence number to which the meter relates.
- The location of the meter using GPS coordinates (and if applicable, the colloquial name given to the meter location).
- The make, size, type and serial number of the meter.
- Date the fault was suspected or identified.
- Last available meter reading before the meter became faulty (or if not known, the current meter reading).

For repairs and testing, the following additional information must be included within 14 days of the repair work being completed.

- Date of repair work and a description of the repair work.
- Name and contact details of repairer.
- Date of removal and meter reading at time of removal.
- If tested, the name and contact details of tester, whether the test was performed in a laboratory or in-situ, and a certificate of accuracy if approved for use.
- Date of reinstallation and meter reading at time of reinstallation.
- Unique identification number on any new or replaced tamper evident seal(s) installed on the metering equipment.

11.4 Maintenance inspections

A licence holder must notify the EPA when a 5-yearly maintenance inspection has been undertaken. The notification must include:

- Date of maintenance inspection.
- Licence holder's name.
- Licence number to which the meter relates.
- The location of the meter using GPS coordinates (and if applicable, the colloquial name given to the meter location)
- The make, size, type and serial number of the meter.
- A certificate of accuracy (for meters installed prior to 1 December 2023).
- A completed validation certificate confirming that the meter has been approved for use (for meters installed after 1 December 2023).
- The information listed in Section 9.4 if repair works are undertaken.
- Unique identification number on any new or replaced tamper evident seal(s) installed on the metering equipment.
- The meter reading at the time of maintenance inspection.

11.5 Permanent removal or relocation of a meter

A licence holder must notify the EPA when a meter is permanently removed or relocated for use at another location. The notification must include the following information.

- Date of removal or relocation.
- Licence holder's name.
- Licence number to which the meter relates.
- The location of the meter using GPS coordinates (and if applicable, the colloquial name given to the meter location).
- The make, size, type and serial number of the meter.
- The meter reading at the time of permanent removal or relocation.
- If relocated, the information listed in Section 11.1.

12. Compliance with policy

Licence holders and certified persons must comply with the requirements of this policy.

A water meter and metering equipment can be inspected by an authorised officer to confirm compliance with this policy and with the *Water Resources Act 2007*. Inspections may be undertaken in consultation with the licence holder and arranged at a mutually suitable time, where possible.

The EPA may direct a licence holder to test a meter to verify that the meter is operating within acceptable accuracy limits, or undertake other works, where:

- It is reasonably suspected that the meter is not operating within acceptable accuracy limits;
- Tamper-evident seals are broken by an unauthorised person; or
- Maintenance activities that will affect the accuracy of the meter are undertaken by an unauthorised person.

Enforcement action may be taken by the EPA in accordance with the Access Canberra Accountability Commitment¹⁵ to ensure compliance with this Policy.

Penalties may apply for certain offences under the *Water Resources Act 2007*, including but not limited to:

- Contravening conditions of a licence to take water, not installing a water meter, not maintaining a water meter in working condition, and not giving water meter data to the EPA; and
- Water meter tampering.

¹⁵ Access Canberra's Accountability Commitment can be found here <https://www.accesscanberra.act.gov.au/s/article/about-access-canberra-tab-access-canberra-accountability-commitment>

Appendix A - Maintenance Schedules

Maintenance schedule for meters installed after 1 December 2023

The following tables present maintenance schedules for license holders with meters installed after 1 December 2023. Please note that if any maintenance activities affect or may affect the accuracy of the meter, or if tamper evident seals are broken by an unauthorised person, then the meter must be tested to ensure it continues to operate within acceptable accuracy limits in accordance with section 9 of this policy.

	Annual inspection	5 Yearly inspection	Who can perform work
Preventative maintenance			
Site is safe and accessible for employees, contractors or visitors to inspect and perform work	✓	✓	Licence holder or competent person
General cleaning to suction clear the equipment, clean solar panel, check for damage and clear the area around the clear of vegetation and debris	✓	✓	Licence holder or competent person
Meter, pipework and other fittings within the metering equipment have structural integrity and there are no leaks	✓	✓	Licence holder or competent person
Tamper evident seal is present and intact	✓	✓	Licence holder or competent person
Meter display is clear and legible	✓	✓	Licence holder or competent person
Meter appears to be in good working order and rotation of totaliser is working correctly when pump is started and water is flowing	✓	✓	Licence holder or competent person
Batteries and/or solar panel are working, replace as required or as specified by the manufacturer ¹⁶	✓	✓	Licence holder or competent person
For electronic meters – there are no error messages on display or obvious faults	✓	✓	Licence holder or competent person
Corrective maintenance			
Weather-proof tamper evident seals are intact		✓	Certified person
Internal pipe is clear of damage, corrosion, material deposits or misalignments		✓	Certified person
Electrical cables and communication cables appear to be in good condition		✓	Certified person
If telemetry is installed - telemetry pole, antenna and any other infrastructure appear to be in good condition		✓	Certified person
Basic maintenance as specified by the manufacturer and pattern approval requirements		✓	Certified person
Validation		✓	Certified person
Tolerance assessment on components		✓	Certified person
For electronic meters – check software version and configuration, electronic check against internal reference source that is set at the time of calibration (as per manufacturer's requirements)		✓	Certified person
Fix a mechanical failure		✓	Certified person
Replace flow meter or flow computer		✓	Certified person

¹⁶ Where battery replacement involves the breaking of the tamper evident seal, the replacement must be carried out by a certified person

	Annual inspection	5 Yearly inspection	Who can perform work
Replace Printed Circuit Board (PCB), electrical component		✓	Certified person
Software upgrade or change configuration		✓	Certified person
If telemetry is installed - effective signal transfer between transmitter, sensor and data logger and no fault notifications		✓	Certified person
Provide maintenance report after completing all maintenance activities in this Schedule	✓		Licence holder
Provide meter validation certificate to EPA after completing all maintenance activities in this Schedule	✓	✓	Licence holder

Maintenance schedule for meters installed before 1 December 2023

The following tables present maintenance schedules for license holders with meters installed before 1 December 2023. Please note if a manufacturer's seal or tamper evident seal is broken as part of maintenance, or at any other time, it must be replaced with an approved tamper evident seal by a certified person. A validation may be completed in place of the 5 yearly inspection to approve the meter and metering equipment for use.

	Annual inspection	5 Yearly inspection	Who can perform work
Preventative maintenance			
Site is safe and accessible for employees, contractors or visitors to inspect and perform work	✓	✓	Licence holder or competent person
General cleaning to suction clear the equipment, clean solar panel, check for damage and clear the area around the clear of vegetation and debris	✓	✓	Licence holder or competent person
Meter, pipework and other fittings within the metering equipment have structural integrity and there are no leaks	✓	✓	Licence holder or competent person
Tamper evident seal (or manufacturer's seal) is present and intact	✓	✓	Licence holder or competent person
Meter display is clear and legible	✓	✓	Licence holder or competent person
Meter appears to be in good working order and rotation of totaliser is working correctly when pump is started and water is flowing	✓	✓	Licence holder or competent person
Batteries and/or solar panel are working, replace as required or as specified by the manufacturer ¹⁷	✓	✓	Licence holder or competent person
For electronic meters – there are no error messages on display or obvious faults	✓	✓	Licence holder or competent person
Corrective maintenance			
Meter pipework and other fittings within the metering equipment have structural integrity and there are no leaks		✓	Licence holder or competent person
Weather-proof tamper evident seals are intact		✓	Licence holder or competent person
Internal pipe is clear of damage, corrosion, material deposits or misalignments		✓	Licence holder or competent person
Electrical cables and communication cables appear to		✓	Licence holder or

¹⁷ Where battery replacement involves the breaking of the tamper evident seal, the replacement must be carried out by a certified person

	Annual inspection	5 Yearly inspection	Who can perform work
be in good condition			competent person
If telemetry is installed - telemetry pole, antenna and any other infrastructure appear to be in good condition		✓	Licence holder or competent person
Basic maintenance as specified by the manufacturer and pattern approval requirements		✓	Licence holder or competent person
Perform volumetric or simulated testing (in situ accuracy testing to ensure meter is operating within $\pm 5\%$ accuracy)		✓	Certified person
Tolerance assessment on components		✓	Certified person
For electronic meters – check software version and configuration, electronic check against internal reference source that is set at the time of calibration (as per manufacturer's requirements)		✓	Certified person
Fix a mechanical failure		✓	Certified person
Replace flow meter or flow computer		✓	Certified person
Replace Printed Circuit Board (PCB), electrical component		✓	Certified person
Software upgrade or change configuration		✓	Certified person
If telemetry is installed - effective signal transfer between transmitter, sensor and data logger and no fault notifications		✓	Licence holder or competent person
Provide completed 5-yearly inspection report or meter validation certificate to EPA after completing all maintenance activities in this Schedule		✓	Licence holder

Appendix B - Roll out dates

This policy recognises that there are water meters installed at time of policy commencement that will initially not meet the requirements of the national metering standards. Transitional periods are provided to ensure licence holders have time to comply with the new rules.

The requirement to upgrade water meters to pattern approved is being rolled out in stages until December 2024, using a risk-based approach to ensure that the largest water users are approached first to become compliant with this policy and national metering standards. Different roll out dates apply depending on the type of water and the licensed volume. Once fully implemented, the metering rules will apply consistent metering requirements across the ACT.

Licence holders must demonstrate compliance with this policy by the respective roll out dates provided below.

Stage	Risk Category	Surface water	Groundwater	Roll out date
1	High risk	Licensed volume equal to or more than 100ML	Licensed volume of equal to or more than 50ML	31 March 2024
2	Moderate risk	Licensed volume more than 30ML but less than 100ML	Licensed volume more than 5ML but less than 50ML	30 June 2024
3	Low risk	Licensed volume less than or equal to 30ML	Licensed volume less than or equal to 5ML	31 December 2024

Note: 1 ML = 1,000,000 litres

For the purposes of this policy, high risk water take is defined by:

- high volume of water take across a small number of licences,
- permitted use of water has a higher potential for over extraction (eg. agricultural and horticultural irrigation),
- multiple meters at one or multiple sites,
- highest volumes of groundwater extraction are located in fully or overallocated sub-water management areas, or
- considerable impact on low flows during dry periods for surface water extraction.

Low risk water take is defined by:

- low volume of water take across a large number of licences, with total take being less than 10% of all licensed water allocated,
- permitted use of water has a lower potential for over extraction (eg. urban residential),
- there is generally one meter at one site,
- smallest volumes of groundwater use are located in fully or overallocated sub-water management areas, or
- low risk of impact on low flows during dry periods for surface water extraction.

Appendix C - Alignment with the Murray-Darling Basin Compliance Compact

Table 1: Alignment with the Compact

Action	Requirement	Response
3.2 Meter accuracy		
3.2 (i)	All new and replacement meters to comply with AS4747 including pattern approval and verification, by no later than June 2025.	This policy requires that: - new or replacement meters are to comply with AS4747, including pattern approval and validation from 1 December 2023; and - existing meters must be verified with a certificate of accuracy to within $\pm 5\%$ accuracy for in-situ conditions or replaced with a new AS4747 compliant meter.
3.2 (ii)	Commencing immediately, and until June 2025: a. All new and replacement meters to comply with AS4747 where available. b. Where an AS4747 compliant meter is not available the use of an interim meter that has been verified with a manufacturer's certificate of accuracy to within $\pm 5\%$ accuracy is acceptable.	
3.2 (iii)	When an existing meter no longer meets $\pm 5\%$ accuracy in the field it must be repaired and validated so that it is accurate to within $\pm 5\%$ accuracy in the field or replaced (see 3.2(i)).	Meter accuracy testing is required when: - tampering is suspected or identified; - seals are broken by an unauthorised person; or - any meter is suspected to be operating inaccurately. A meter must be tested and not used until the meter is either: - repaired and it is demonstrated through a certificate of accuracy that the meter operates within acceptable accuracy limits; or - replaced with a new AS4747 compliant meter. This policy will also introduce new requirements for meter maintenance and an improved process for repairing faulty meters which will assist to detect issues earlier that could affect meter accuracy.
3.2 (iv)	All meters to be periodically validated consistent with the requirements of AS4747.	This policy has the following requirements. - Meters installed after 1 December 2023 are required to be periodically validated by a certified person. - Meters installed before 1 December 2023 are exempt from periodic validation as they are 'grandfathered', however they are subject to periodic accuracy testing.

Action	Requirement	Response
3.2 (v)	Any exemptions to 3.2(i) to 3.2(iv) made by the state to be supported by a justification published on the relevant state agency website.	Meters installed before 1 December 2023 are exempt from the pattern approval and validation requirements of AS 4747 as this is permitted under the National Framework for Non-urban Water Metering. This policy puts in place interim measures to ensure that these meters remain accurate.
3.3 Meter coverage		
3.3 (i)	All take via water entitlements to be metered by June 2025 and a plan for achieving this.	This policy requires all licensed water take to be metered except in certain circumstances as described in section 8.
3.3 (ii)	Any exemptions to 3.3(i) made by the state to be supported by a justification, such as a regulatory impact assessment, published on the relevant state agency website.	
3.3 (iii)	The basis upon which meter thresholds have been set.	
3.4 Transmission of data		
3.4 (i)	A program to progressively automate the reporting of take, regardless of how that is measured, no later than 2025.	The installation of telemetry for non-urban meters in the ACT would be a costly exercise which would provide minimal benefit for the relative costs for the following reasons. • The ACT is a small geographical area, with all metering sites being accessible within a 40-minute drive from the city centre. Over 84 percent of groundwater licences are located within the residential suburbs of the ACT, and 66 percent for surface water licences. • All water take in the ACT has been required to be metered since 1998. This means there is a high level of confidence in existing water accounting and measurement across the ACT. • There is already a well-established requirement for licence holders to self-read their meters at a set frequency (once a year for low risk users, monthly for high risk users). This could be improved with a functionality for licence holders to submit their meter readings through an online form. • Licensed volumes in the ACT are relatively small volume (and few numbers of licences) compared to other jurisdictions, for example, 72 percent of groundwater licences are for 10ML or less, and 45 percent of surface water licences are for 20ML or less. These licensed volumes are considered to be low-moderate risk in terms of resource use and potential non-compliance. Note: The ACT will reassess this position if the level of risk to the resource changes in the future or where required telemetry becomes mandatory under the Compliance Compact.
3.4 (ii)	Any exemptions to 3.4(i) made by the state to be supported by a justification published on the relevant state agency website.	

3.5 High risk take		
3.5	The highest risk take, including large users in the Barwon–Darling, to be accurately metered by December 2019 and will publish what constitutes highest risk in their metering policies. High risk take should also be telemetered by December 2019 with any exemptions published.	All licensed water use must be metered in the ACT. Exemptions are limited to specific types of water take prescribed by legislation (e.g. stock and domestic riparian rights). The staged roll out of the policy targets largest ACT non-urban water users first. As described above, the installation of telemetry for non-urban meters is not required in the ACT at this time due to the significant costs that would be imposed on licence holders and the minimal benefits it would achieve.
3.6 Timetable for installation		
3.6	A timetable for the installation of new meters and telemetry, and auditing and maintenance of the metering fleet to meet the above requirements.	The timetable for the installation of new meters is outlined in the policy: • From 1 December 2023, all new and replacement meters must be AS4747 compliant. • Meters installed prior 1 December 2023 must be confirmed as accurate or replaced with a AS4747 compliant meter by the relevant roll out date. The timetable for maintenance of meters is outlined in the policy: • All meters must be inspected annually by the licence holder; • Meters installed after 1 December 2023 are subject to validation requirements every five years which must be performed by a certified person; • Meters installed prior to 1 December 2023 are subject to accuracy testing every five years which can be performed by a certified person; • Any meter which is suspected to be faulty must be accuracy tested and repaired or replaced as required; and • A meter must be tested when a tamper proof seal is broken. As described above, the installation of telemetry is not required in the ACT at this time due to the significant costs that would be imposed on licence holders and the minimal benefits it would achieve.

LISTENING REPORT

NON-URBAN WATER METERING POLICY

Under the National Framework for Non-Urban Water Metering, the standards for water meters are being improved across the Murray Darling Basin. This will ensure water taken from rivers and groundwater systems can be measured and monitored accurately and supports the health of our waterways.

The ACT Government, along with other Murray-Darling Basin Governments, has agreed to implement new standards for water meters under the National Framework. To meet this commitment, a Non-Urban Water Metering Policy has been developed. This Policy will replace the 'Water Meter Installation, Maintenance and Replacement Guideline' and includes new requirements for:

- a. use of pattern approved meters,
- b. validation of meter installations by a certified person,
- c. ongoing meter maintenance and accuracy testing, and
- d. improved reporting and notification requirements for licence holders.

The Policy applies to all water abstraction in the ACT that is licensed under the Water Resources Act 2007. Treated drinking water supplied by Icon Water is out of scope.

A Licence to Take Water under the Water Resources Act 2007 requires a water meter to be installed at each extraction point to account for water taken. There are currently 180 active licences and 290 non-potable water meters in use that meet the policy definition. Licence holders are responsible for the costs associated with the installation, maintenance and reading of a water meter.

THE CONVERSATION

Targeted stakeholder consultation with Licence holders was conducted from 12 April to 10 May 2023. A cover letter, executive summary of the proposed changes and an outline of estimated costs were sent to all Licence holders with an invitation to provide written responses via email.

WHO WE ENGAGED

All 180 holders of a Licence to Take Water under the *Water Resources Act 2007* were invited to respond to the consultation process. Examples of Licence holders include ACT and Commonwealth Governments, golf clubs, plant nurseries, primary producers, rural land holders and small private gardens.

From the 180 License holders, 10 items of written feedback were received.

Key insights from the community

Increased cost of compliance

1. There was opposition from seven (7) small-scale irrigation and small groundwater users on the new metering requirements. Concerns were associated with increased compliance costs, sufficiency of existing metering and excessive requirements for small scale water use.
2. One (1) submission suggested that the ACT Government should bear the cost of metering compliance and believes that the annual administration fee exceeds the costs of servicing his licence.

Benefit of improved metering

3. Four (4) submissions believed that the existing metering requirements are adequate for small scale water users as the current standards ensure compliance with water use while balancing feasible compliance costs.

National Framework for Non-urban Water Metering

4. There was support from two (2) submissions for the intent of the National Framework for Non-urban Water Metering to manage water responsibility and support healthy waterways.

WHAT'S NEXT?

The insights from consultation have been considered when finalising the draft Non-urban Water Metering Policy. The draft Policy will be presented to Cabinet for consideration in 2023 and then made publicly available.

Key Timings

12 April to 10 May 2023 – Targeted consultation with License holders

October 2023 – Policy presented to Cabinet for consideration

1 December 2023 – Commence staged policy implementation

June 2025 – Full policy implementation

THANK YOU FOR YOUR FEEDBACK

ATTACHMENT G: Preferred policy position and other options for setting threshold criteria

Preferred policy position - Maintain 100% metering coverage and focus on improving accuracy and measurement

What policy implementation looks like

- All 180 non-potable Licence holders will need to comply with the Policy requirements;
- All 209 operational meters will be tested for accuracy by the relevant roll-out date;
- Existing meters can remain in service where accuracy can be demonstrated; and
- Inaccurate/non-functioning meters need to be repaired or replaced with pattern approved meters.

Who will be exempt?

- Nil exemption. Policy applies to all Licence holders and all non-potable water meters.

Benefits

- 84% of groundwater Licences are in 'at risk*' Water Management Areas (WMAs).
** deemed at risk because WMAs are overallocated or fully allocated.*
- The level of accuracy of existing meters is unknown for several reasons:
 - Age of meters;
 - There is currently no requirement for meters to be tested or serviced during meter lifetime;
 - Plumbing arrangements and installations are not usually inspected before they are put into operation. Some installations are buried which prevents compliance inspections being undertaken; and
 - Compliance inspections have been affected by several factors over the last 5 years, including the Covid pandemic and staff shortages.
- Supports a water trading framework which is likely to require pattern approved meters before a trade can be approved.
- Provides the best outcome for the protection and sustainable management of water resources and meets the objectives of the *Water Resources Act 2007*.
- Increases public confidence in measuring water take.
- There could be a reduction in the amount of water abstraction charge (WAC) invoiced to some Licence holders (based on consumption) if a meter has been reading higher.

Sensitivities

- Increased purchase and installation costs for pattern approved meters, where applicable, as well as ongoing compliance costs for regular meter validation and accuracy testing.
- Large pulse of work for EPA Inspectors to initially implement the policy but will taper off to 'business as usual' after implementation stage.

Table 1 below outlines other options considered, but not included in Policy.

Table 1: Other options considered, but not included in Policy, for potential metering exemption threshold

	Option	What it looks like	Who would be exempt	Pros	Cons
1.	Threshold set by low risk permitted use	Urban residential use and stock and domestic use would be exempt from policy requirements. <i>Note: stock and domestic with a supplementary activity such as irrigation would not be exempt and must comply with policy requirements</i>	38 % of Licence holders would be exempt from policy requirements - Urban residential use: 52 Licences for groundwater - licensed volume ranges from 0.5ML to 4ML per year - total volume allocated is 61ML per year - Stock and domestic use 17 Licences for groundwater - licensed volume ranges from 1ML to 10ML per year - total volume allocated is 88.5ML per year	COMPLIANCE - Water take for those below the threshold could continue to be measured through a non-pattern approved meter, or as otherwise specified in conditions in the Licence. - Removes the confusion around the definition of non-urban metering and the application to meters located on urban residential properties. COMMUNITY - Reduced costs for metering and validation for small low-risk users by not requiring pattern approved meters. - Possible reduction in water abstraction charge (WAC) for meters that have been over-reading water take. - No increase to compliance costs for small licensed volumes will be balanced with benefit to the resource, where they are located in a sub water management area that this no considered to be 'at risk' due to overallocation or full allocation of water.	COMPLIANCE 100% metering coverage has been in place since 1998 and would be reduced to 62%. COMMUNITY - Reduced meter coverage may reduce public's confidence that water is being managed in a sustainable way. - Water trading is likely to require pattern approved meters before the trade can be approved. ENVIRONMENT - All urban residential Licences are located in overallocated or fully allocated sub water management areas. - The sustainable extraction limit of an aquifer is usually much less than the rate of annual recharge, or renewal. - Effects of groundwater over-use may not be detected for several decades because of slow renewal and movement of the resource.

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				ENVIRONMENT • Permitted use is considered to have the lowest risk of overuse under the Disallowable Instrument 'Reasonable Use Guidelines'. • Small, allocated volumes with most not using their full licensed volume in an average rainfall year. • Urban residential use – no new entitlements being issued so there can be no increase in amount allocated. • Stock and domestic – the maximum entitlements that can be granted is limited to 10ML, and there is not expected to be significant increase in entitlements as properties are well established. • Offers some protection of resource as exempt volumes are small (total of 149.5ML). • There is low competition and consumption in most of the sub water management areas for stock and domestic use (Gudgenby, Upper Murrumbidgee and Paddys).	
2.	Threshold set by licensed volume of 5 ML or less	Small licensed volumes are exempt from policy requirements, mainly being urban residential, stock and domestic and community organisations	52% of Licence holders would be exempt from policy requirements Groundwater: • 84 Licences would be exempt (total number of	COMPLIANCE • Water take for those below the threshold could continue to be measured through a non-pattern approved meter, or as otherwise specified in conditions in the Licence.	COMPLIANCE • 100% metering coverage has been in place since 1998 and would be reduced to 48%. COMMUNITY

CABINET

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	Option	What it looks like	Who would be exempt	Pros	Cons
			active Licences is 182) • Total licensed volume – 159ML annually • Main uses – urban residential gardens, stock and domestic with agricultural/horticultural irrigation, and irrigation of parklands, sportsgrounds and urban open spaces Surface water: • 10 Licences would be exempt (total number of active Licences is 182) • Total licensed volume – 28.5ML annually • Main uses – irrigation, commercial/industrial	• Aligns with approaches taken by other jurisdictions (see Attachment H). • Removes the confusion around the definition of non-urban metering and the application to meters located on urban residential properties. COMMUNITY • Reduced costs for metering and validation for small licensed volumes by not requiring pattern approved meters. • Possible reduction in water abstraction charge (WAC) for meters that have been over-reading water take. • Licence conditions can require a basic meter (non-pattern approved) or other means of measurement for water accounting. • No increase to compliance costs for small licensed volumes will be balanced with benefit to the resource, where they are located in a sub water management area that this no considered to be 'at risk' due to overallocation or full allocation of water. ENVIRONMENT	• Reduced meter coverage may reduce public's confidence that water is being managed in a sustainable way. • Water trading is likely to require pattern approved meters before the trade can be approved. ENVIRONMENT • All urban residential Licences are located in fully allocated WMAs or over allocated WMA. • The sustainable extraction limit of an aquifer is usually much less than the rate of annual recharge, or renewal. • Effects of groundwater over-use may not be detected for several decades because of slow renewal and movement of the resource.

CABINET

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	Option	What it looks like	Who would be exempt	Pros	Cons
				ENVIRONMENT Offers some protection of resource as exempt volumes are small (total of 187.5ML).	
3.	Threshold set by 'at risk' sub water management area, combined with a licensed volume of 5 ML or less <i>Note: 'At risk' sub water management areas are those that are overallocated or fully allocated, being groundwater in Central Molonglo, Lower Molonglo and Ginninderra.</i>	84% of Licences are in 'at risk' water management areas: – Central Molonglo (overallocated) – 94 Licences, totalling 1253.5ML – Ginninderra (fully allocated) - 14 Licences, totalling 229ML – Lower Molonglo (fully allocated) - 10 Licences, totalling 197ML	Groundwater: 6 groundwater Licences - Total licensed volume of 14.5ML annually - Main use is stock and domestic Surface water: 10 Licences would be exempt (total number of active Licences is 182) - Total licensed volume – 28.5ML annually - Main uses – irrigation, commercial/industrial	COMPLIANCE - Water take for those below the threshold could continue to be measured through a non-pattern approved meter, or as otherwise specified in conditions in the Licence. COMMUNITY - No increase to compliance costs for small licensed volumes will be balanced with benefit to the resource, where they are located in a sub water management area that this no considered to be 'at risk' due to overallocation or full allocation of water. ENVIRONMENT - Offers some protection of resource as exempt volumes are small (total of 43ML).	COMPLIANCE 100% metering coverage has been in place since 1998 and would be reduced to 91%. - May create confusion around metering as there will be different requirements for groundwater and surface water of same volumes. - Implementation plans may be required for each sub water management area to identify metering requirements and exemptions. - Confusion remains around the definition of non-urban metering and the application to meters located on urban residential properties. COMMUNITY - Reduced meter coverage may reduce public's confidence that water is being managed in a sustainable way. - Water trading is likely to require pattern approved meters before the trade can be approved.
4.	High risk take only	Policy applies to high high risk take, defined	98.4% of Licence holders would be exempt from policy requirements	COMPLIANCE Easy to implement.	COMPLIANCE Does not meet the intent of the Compliance Compact and MAF2.

CABINET

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	Option	What it looks like	Who would be exempt	Pros	Cons
		by MAF2 as take of 500ML or more	Policy would apply to 3 Licence holders (1.6% of total Licences) with a total licensed volume of 1756ML annually	COMMUNITY No change for most Licence holders.	- Progression towards pattern approved metering is publicly reported by the Inspector-General Water Compliance. COMMUNITY - Does not increase public confidence in sustainable management of water. ENVIRONMENT - No significant improved environmental outcomes.
5.	Do nothing – maintain current requirements	All licensed water take continues to be metered through existing meters with no progression towards pattern approved meters		COMPLIANCE - No change to current practices COMMUNITY - No change for Licence holders	COMPLIANCE - Does not meet ACT commitments made under the Compliance Compact and MAF2. - Progression towards pattern approved metering is publicly reported by the Inspector-General Water Compliance. COMMUNITY - Does not increase public confidence in sustainable management of water. ENVIRONMENT - No improved environmental outcomes.

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Attachment H: Examples of threshold criteria from other jurisdictions

State	Threshold criteria	Other considerations
NSW	• Surface water - All works that take or may be used to take water are required to have a meter, except pumps less than 100mm as authorised by the authority. • Groundwater - All works that take or may be used to take water are required to have a meter, except water bores with a diameter* less than 200mm as authorised by the authority. • All licensed water use in 'at risk'** groundwater sources must be metered regardless of the size of the bore (unless water is taken under a basic landholder right). <i>** deemed at risk because they are overallocated or at risk of overallocation.</i>	• All existing works which are already metered will continue to be metered • Meters are owned by licence holders • Improving meter coverage is a key policy target
VIC	• Surface water – unregulated system - licenced volume of ≤ 10 megalitres per year • Surface water – regulated system – annual use of ≤ 10 megalitres per year • Groundwater – licenced volume of ≤ 20 megalitres per year	• Meters are owned by water corporations • The VIC policy is an overarching document -water corporations develop their own metering action plans with their own thresholds • These thresholds have been in place since 2004 and successive policies have maintained grandfathering arrangements
SA	• All water use is metered - can be licensed for 200 KL for domestic use for a bed and breakfast (ACT minimum is 500 KL) • Flexibility provisions and exemptions apply by WMA, for example: • Eastern Mount Lofty Ranges – dam less than 2ML capacity (excluding high risk dams), dams used for stock and domestic purposes • River Murray prescribed watercourse – allocation less than 5000 KL for stock and domestic purposes (automatic flexibility does not apply where there is a second use) • Special flexibility applies in certain circumstances, eg. inactive works, sites that are difficult to meter	• Meters are owned by licence holders • Water usage not required for billing (a levy is charged based on the entitlement volume) • Water use is reported as the full allocated volume

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State	Threshold criteria	Other considerations
QLD	• Volumetric entitlements to take 5ML or less, as specified on the entitlement, will not require metering. • However, where a water plan states a different minimum measurement threshold for a water plan area or part of a plan area, the threshold stated in the water plan will apply • Metering will not be required (exemptions) for entitlements to take water for the following low-risk activities: – stock and domestic – public amenities – educational facilities • Where a volumetric entitlement is inactive, i.e. water has not been or is not currently being taken under the entitlement, metering will not be required to be in place for that entitlement. An entitlement becomes inactive if water is not taken for over 12 months	• Any entitlement that was a metered entitlement at the commencement of the policy will continue to be metered • Meters are owned by licence holders • Improving meter coverage is a key policy target

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ATTACHMENT I – INDICATIVE FINANCIAL IMPACTS FOR LICENCE HOLDERS

SUMMARY OF COSTS

The following total costs are expected for Licence holders.

- **NEW** Accuracy test or validation – approx. \$300-\$500 per meter every five years. Almost half of Licence holders have one active meter only.
- **NEW** Meter repairs and replacement as required – cost varies depending on specific site conditions, the type of work to be performed and the type of equipment to be repaired or replaced. Costs range from \$800 to \$3,000+ for meter replacement, if required.
- Existing annual administration fee of \$516.55 (payable for 2023-2024).
- Existing annual water abstraction fee (WAC) of \$0.334 per kilolitre (payable for 2023-2024).

Impacted stakeholders	• All Licence holders (180 in total) will be subject to <u>new</u> costs to demonstrate accuracy of their meter • Water meters are privately owned, purchased and maintained at the Licence holders' cost. The policy will not change this.
Quantum of water meters	• 290 ACT water meters currently in use (active) • Approx. 50% of Licences have 1 meter • Approx. 5% of Licences have more than 5 meters in total
Meter validation costs – <u>at policy implementation</u>	• Upfront cost between \$300-\$500 per meter for meter validation testing payable by 31 December 2024, total cost dependent on number of water meters per Licence
Meter validation costs - <u>ongoing</u>	• Approx \$300-500 per meter, payable every 5 years, for meter validation testing, total cost dependent on number of water meters per Licence • Ongoing maintenance
New water meter	• Cost to purchase meter ranges from \$800 to \$3,000+. Installation costs are dependent on specific site conditions, the type of work to be performed and the type of equipment to be repaired or replaced.
Costs payable to	• All costs payable to water meter validators or meter installers that are certified by Irrigation Australia Limited

BACKGROUND

The new Non-urban Water Metering Policy (the policy) is being rolled out in stages between December 2023 and December 2024 to provide time for Licence holders to prepare for compliance costs associated with accuracy testing and/or meter repair and replacement.

A risk-based approach applies to policy implementation roll-out. Large water users, which pose a higher risk to the resource, are required to demonstrate compliance first.

The costs of water meters¹ vary by size and location so the following costs are provided as a broad estimate.

- Every existing meter is to be tested for accuracy or validated by the roll out date – cost varies between \$300 and \$500 per meter.
- Where a meter is verified as accurate or a validation certificate is issued - another test is required in 5 years, or earlier where a fault is suspected.
- Where a meter cannot be verified as accurate or a validation certificate cannot be issued – maintenance or repairs are required and costs for this will vary with labour and parts.
- Where repairs do not fix the fault, the meter must be replaced with a new pattern approved meter. The cost to supply and install a pattern approved meter can range from \$800 to \$3,000 for small meters (up to 200mm) to over \$10,000 for larger or bespoke meters (used by large irrigators in other jurisdictions).

The typical service life for pattern approved meters is 15 to 20 years so it is anticipated that numerous meters will be able to remain in service where their accuracy can be verified.

Please note the estimated costs are indicative only, and there are many factors that will influence how much it may cost to demonstrate the accuracy of a meter or the installation of a new meter, including:

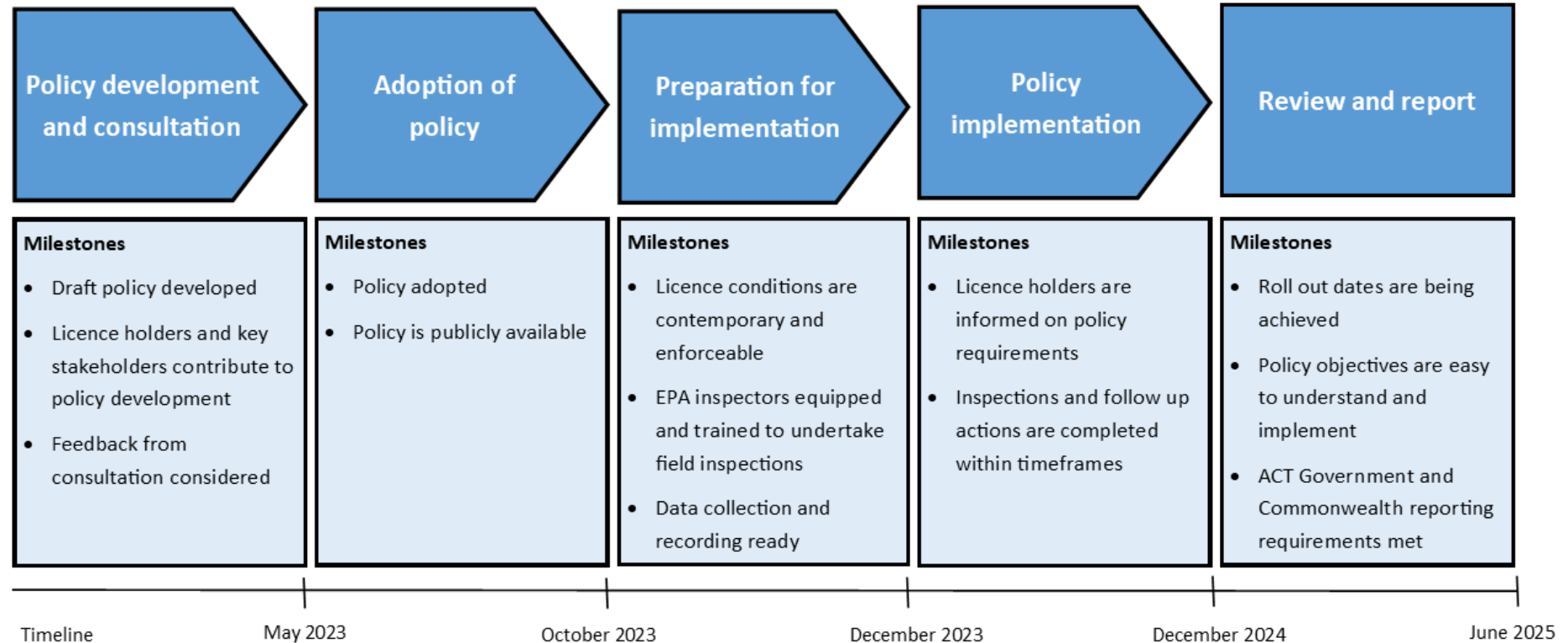
- site conditions, such as ease of access to the meter;
- if existing pipework is visible above ground or whether excavation works are required at the Licensee's expense;
- if additional works are required to install a replacement meter;
- type of meter (electronic or mechanical meter); and
- travel costs for a certified installer to travel from a regional NSW area to the ACT (dependent on total kilometres travelled). It is expected that travel costs will be either reduced or eliminated as more local ACT-based installers become certified.

The above costs also do not incorporate telemetry as this is not a mandatory requirement at this time. Telemetry can cost between \$500 and \$2,000 when installed with a new meter, depending on the sophistication of the telemetry and the communication options. It can cost up to \$12,000 when retrofitted to existing meters.

¹ These costs have been taken from the 'NSW Water Reform Action Plan, Water take measurement and metering, consultation paper, March 2018', the Victorian 'Preparing non-urban water meter action plans, Guidelines for Water Corporations' and verified in conversations with local certified installers.

Attachment J- Implementation Plan for Non-urban Water Metering Policy

1. Summary of Key Milestones



2. Purpose

The purpose of the Implementation Plan is to identify the key tasks and communication strategies for implementing the Non-urban Water Metering Policy.

3. Outcomes

The outcomes of this Implementation Plan are detailed in Table 1. The outcomes and success criteria detailed in this section reflect the delivery of key milestones, as outlined in Section 7.

Table 1: Outcomes and success criteria

Outcome	Success Criteria
Number of pattern approved meters is identified	The number of pattern approved meters can be accurately reported
Accuracy of existing meters is known	Increased confidence that the take of water is accurately and reliably measured
Meters are upgraded as required	New and replacement meters are installed in accordance with policy requirements
Reporting requirements are met	Reporting is accurate and is provided in a timely manner

4. Assumptions

The Implementation Plan will:

- have strong leadership and access to the skills and capability required to deliver the plan in the time scheduled;
- be appropriately resourced to ensure it delivers on-ground outcomes;
- have ongoing cooperation and support from key stakeholders throughout its operation; and
- have Executive support of the policy intent and direction.

5. Constraints

The following constraints have been identified that may impact the progress of the implementation plan:

- No additional budget has been allocated to this project.
- The capacity and/or willingness of key stakeholders, including Licence holders, to engage in the implementation plan may impact efficacy.
- Availability of certified persons to undertake accuracy testing and meter repairs.

6. Tracking Progress

EPA will report on Implementation of the Policy to the Inspector General of Water Compliance (IGWC).

Implementation of the Policy will be monitored by the IGWC.

Office of Water will have general oversight of Policy implementation.

Within the five year cycle of the policy, there may be the need to adapt as policy is implemented, external service provider market buy-in is better understood, or compliance approaches change and national reporting becomes routine.

7. Key Milestones

The key implementation milestones are outlined in Table 2.

Table 2: Key Milestones

	Action	Tasks	Responsible	Timeframe	Progress	Result
1	Consultation with licence holders and other key stakeholders on draft policy	Prepare consultation letter/email to stakeholders to advise of draft policy and seek feedback. Stakeholders include: • Licence holders • ACT Rural Landholders Association • Monaro Golf Association • Irrigation Australia • Inspector-General of Water Compliance • Department of Climate Change, Energy and Water	OoW/Access Canberra Comms Team	May 2023 4-week consultation period	Complete	Licence holders and key stakeholders opportunity to contribute to Policy development
		Snapshot document with a summary of the main requirements of the Policy and link to full detailed Policy sent with consultation letter.	OoW	May 2023	Complete	
2	Adoption of final policy	Consider submissions when finalising policy	OoW	June 2023	Complete	Submissions received are incorporated into final policy where appropriate
		Provide response to submissions	OoW	June 2023	Complete	
		Prepare and finalise Cabinet submission for policy agreement	OoW	June – October 2023	Progressing	Cabinet agrees to the policy and implementation plan
		Seek advice from Comms Team on corporate branding and graphic design requirements	OoW/AC Comms Team	July 2023	Not started	Document is consistent with corporate branding
3	Policy accepted by Cabinet	Cabinet submission approved	Cabinet	October 2023	Progressing	Final policy adopted
		Publish policy on Access Canberra website (Water resourcing licensing page) and supersede previous water metering guideline	EPA/AC Web Team	October 2023	Not started	Document is publicly available

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4	Update licence conditions	Amend all (182) Licence holder licence conditions to specify: - New conditions of Policy 5-yearly validation and accuracy testing requirements - repairs and maintenance - notification and reporting requirements - Update existing conditions to reference new Policy test new conditions and elements of offence for enforceability	EPA	October 2023 (after adoption of policy by Cabinet)	Not started	Licence amendments and administration tasks are completed at least one month before first roll out date Conditions reference the new policy and are enforceable
		Consultation with licence holders on proposed amendments to licence conditions (in accordance with S55 of <i>Water Resources Act</i>)	EPA	October/November 2023	Not started	
		Consider submissions when finalising new conditions	EPA	October/November 2023	Not started	
		Update Licenses with amended conditions	EPA	October/November 2023	Not started	
		Update database with new details	EPA	October/November 2023	Not started	
		Send licence to licence holders, including response to any submissions received	EPA	October/November 2023	Not started	
		Update public register with new Licenses	EPA	October/November 2023	Not started	
5	Training for staff	Register for 'Meter Installation & Validation' training through Irrigation Australia	EPA	EPA staff attended in March 2023	Complete	Staff are: - confident working alone in the field - able to undertake duties as an authorised officer - able to carry out an inspection of a water meter and surrounding equipment able to complete data entry as required
		Consider undertaking meter inspections with another jurisdiction	OoW/EPA	As opportunity arises	Not started	
		Ensure staff are familiar with EPA's 'Working Alone in Field Policy' and workplace health and safety requirements	EPA	Before Policy Implementation	Progress unknown – EPA to advise	
		Ensure staff are familiar with WRIS database and able to enter data accurately and in line with business rules	EPA	Before October 2023	Progress unknown – EPA to advise	
			EPA	Before October 2023		

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6	Data collection and database preparation	Identify new data fields to be captured in WRIS for each meter (see point 10 for Metering report card metrics) • Meter info – brand, size, installation date • Number of AS4747 compliant meters • Number of grandfathered meters • Date of last validation • Date of last accuracy test • Due dates for validation and accuracy testing • Status of repairs and faults • Compliance actions	EPA	October-December 2023	Not started	Accurate and timely data is recorded and reporting commitments can be met
		Create data fields in database, including query for reporting	EPA	Before December 2023	Not started	
7(a)	Commencement of accuracy testing	Licence holders engage certified persons to undertake accuracy testing	Licence holders	As per staged rollout	Not started	Licence holders are prepared for their roll out date and can meet the requirements of the policy
		Offer onsite visits to licence holders who require assistance or further advice to comply	EPA	As required	As required	
7(b)		In event of shortfall of meter validators, commence a tender process to source independent certified persons	OoW/EPA/Treasury	As required	As required	
7(c)		In the event of an unsuccessful tender process, EPA to complete accuracy testing	OoW/EPA/Treasury	As required	As required	
8	Inspections and data collection	Inspection templates developed as required	EPA	January 2024	As required	Accurate and consistent data is recorded during field inspections and entered into database for ongoing administration of licence and to meet reporting requirements
		Update inspection survey in Survey123 as required	EPA	January 2024	Not started	
		Water meters and metering installations are inspected for compliance	EPA	From March 2024 and as per staged rollout	Not started	
		Follow up inspections undertaken within 28 days of initial inspection	EPA	Within 28 days of initial inspection	As required	
		Enforcement procedure actions completed and compliance with policy achieved	EPA	In accordance with Access Canberra policies	As required	
		Data entry completed by EPA inspectors to capture inspection details, compliance actions and reporting data (see Point 9 below)	EPA	At time of inspection	As required	
		Ongoing inspections are built into workplans and become business as usual as per policy	EPA and/or licence holder	Ongoing from March 2024, then is BAU	Not yet started	

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9	Review progress	Review progress to achieve compliance by roll out dates: - How many licences have been inspected/accuracy tested? - How many comply? - Is there a sufficient supply of meter validators to meet compliance dates? Are the dates still achievable?	OoW	From March 2024, with ongoing monitoring through entire implementation	Not started	Policy objectives are achievable and easy to understand and implement for both the EPA and licence holders
		Review policy content: - Are the requirements achievable? - Is Policy easily understood by EPA and licence holders?	OoW	From March 2024, with ongoing monitoring through entire implementation	Not started	
		Identify any additional resources required	EPA	As required	As required	
10	Reporting	Include progress of policy implementation in EPA annual report: - Number of grandfathered meters - Number of pattern approved meters - Percentage metering coverage	EPA	In line with current annual reporting requirements	As required	Reporting is provided with required timeframe
		'Metering Report Card Metrics' reporting to IGWC (template provided by IGWC). Minimum data required (noting that the Report Card may be updated by IGWC each year): - Water take: - Volume of water take - Percentage of water take not metered - Meters: - No of pattern approved, or AS4747 compliant, meters in use - Percentage of water take measured by pattern approved, or AS4747 compliant, meters - No of meters in use not pattern approved, including Grandfathered meters - Percentage of water take measured by meters that are not pattern approved.	EPA	End of financial year	As required	
		Progress of policy implementation to MDBA as required by the Federation Funding Agreement	OoW	In line with Federation Funding Agreement	As required	

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10	Reporting (continued)	Monthly meetings with OoW Project Manager and EPA Assistant Director, Water Regulation to: • Track status of implementation plan by due dates • Identify implementation risks by summarizing actions due in next 30-60 days (after meeting) • Provide monthly report to Senior Directors	OoW/EPA	Commenced July 2023		
		Report to Executive (EPSDD and Access Canberra) where required, such as: • Delays with policy implementation • Resourcing issues • Success stories • Potential policy changes	OoW/EPA	As required	As required	

CABINET SUBMISSION

23/471



Title	Non-urban Water Metering Policy
Meeting type	Expenditure Review Committee
Minister	Shane Rattenbury MLA Minister for Water, Energy and Emissions Reduction
Cabinet date	Monday, 9 October 2023
Status	FINAL
Relationship to previous decisions	Nil
Purpose	Cabinet endorsement of the Draft Non-urban Water Metering Policy to improve meter accuracy and performance
Category	Category 2 - Government business
Financial impact	Yes
Treasury agreement	Yes Date provided for Treasury agreement to financial implications: 20/07/2023 Date of Treasury agreement 11/08/2023:
Is ERC consideration required?	Yes If yes, select ERC meeting date: Monday, 9 October 2023
Legislative change	No - change to legislation not required
Regulatory impact	Yes The Non-Urban Water Metering Policy updates existing guidelines to meet national standards. Additional requirements for Licence holders will include accuracy testing of installed water meters and may require the repair or replacement of certain components where meter accuracy cannot be demonstrated. It will have a positive impact on the environment by ensuring the sustainable management of water resources and improve public confidence in water resource management and accounting.
Wellbeing Impact Assessment	Yes
Primary Wellbeing Domain	Environment and climate

RECOMMENDATIONS

- 1) I recommend Cabinet agree to the ACT *Non-urban Water Metering Policy* (Policy) which:
 - a. delivers on the ACT's commitment to the National Water Initiative, the National Framework for Non-urban Water Metering and the Murray-Darling Basin Compliance Compact;
 - b. provides an acceptable level of confidence in water meter performance;
 - c. ensures greater coverage of pattern approved water meters which comply with Australian Standard 4747:2013 - Meters for non-urban water supply (AS4747); and
 - d. encourages the use of a risk management approach to prioritise implementation for high risk users first.
- 2) I recommend Cabinet agree to:
 - a. the ongoing financial impacts of policy implementation;
 - b. provide low risk users with a \$300 rebate, paid once in the first year of implementation, with costs of the rebate absorbed by the Environment, Planning and Sustainable Development Directorate within existing financial resources;
 - c. the implementation milestones and timeframes at Table 1;
 - d. the Minister for Water, Energy and Emissions Reduction settling with the Chief Minister any necessary administrative arrangements to administer the rebate program.
- 3) I recommend Cabinet note that:
 - a. the Policy applies only to licensed non-potable water take (treated drinking water supplied by Icon Water is out of scope);
 - b. the Policy will be jointly implemented through existing Environment, Planning and Sustainable Development Directorate and Access Canberra budgets;
 - c. consultation with non-potable water Licence holders was undertaken in May 2023 on the draft Policy (Listening Report included in Attachment F);
 - d. policy implementation will commence on 1 December 2023 and will adopt a risk-based and staged approach by prioritising the implementation of new metering requirements for high-risk non-potable water take;
 - e. the draft implementation plan in Attachment J will be finalised in consultation with other key stakeholders over coming months; and

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- f. that EPSDD has identified potential market capacity issues in delivering metering validation services in other jurisdictions and that the implementation plan will consider a range of mitigation strategies to manage this risk which may include:
 - i. regular monitoring of market capacity;
 - ii. government procuring services to undertake validation at Licence holders expense;
 - iii. the EPA directly providing validation services (least preferred due to competitive neutrality concerns); or
 - iv. liaison with the Commonwealth Government on compliance and deadlines to manage expectations and seek extensions if needed.
- g. EPSDD will work with Treasury and Environment Protection Authority to determine the optimal risk mitigation strategies.
- h. the advice to the Chief Minister on the release of the Cabinet Decision Summary (Attachment B) as required under Section 23 of the Freedom of Information Act 2016; and
- i. the following summaries to be released:
 - i. Cabinet agreed to adopt the Non-urban Water Metering Policy which delivers on the ACT's commitment to improve metering standards under the National Framework for non-urban water metering. The Policy provides an acceptable level of confidence in water meter performance, ensures greater coverage of pattern approved water meters which comply with the relevant standards, and uses a risk management approach to prioritise metering implementation.
 - ii. The Non-urban Water Metering Policy builds on existing water metering requirements to strengthen water measurement and enhance the regulatory approach and demonstrates the ACT's commitment to National Framework for non-urban water metering. It provides a robust metering framework which will improve the confidence in water meter performance and accuracy, reduce environmental impacts of water usage and ensure water is used sustainably.

SUPPORTING ARGUMENT

BACKGROUND

- 1) The National Water Initiative (2004), the National Framework for non-urban water metering (2009), and the Murray-Darling Basin Compliance Compact (2018) require states and territories to implement consistent water metering standards to ensure equity around water sharing and the protection of water resources.
- 2) The Metrological Assurance Framework 2 (2021) (MAF2) is a part of the National Framework and describes the key requirements to ensure a nationally consistent compliance approach for non-urban water meters. The MAF2 aims to:
 - a. Provide an acceptable level of confidence in water meter performance;
 - b. Ensure greater coverage of pattern approved water meters¹ which comply with Australian Standard 4747:2013 – Meters for non-urban water supply (AS 4747);
 - c. Provide a nationally consistent approach for the requirements and management of non-urban water meters; and
 - d. Encourage the use of risk management to prioritise metering implementation and management requirements.
- 3) All Basin jurisdictions, except for the ACT, have released their own policies for non-urban water metering and are progressing with implementation.
- 4) The taking of surface water and groundwater in the ACT is regulated through Licences to Take Water (Licence) issued under the *Water Resources Act 2007*. There are currently 180 active licences with each Licence holder responsible for the costs associated with the installation, maintenance and reading of a water meter.
- 5) A Licence requires a water meter to be installed at each extraction point to account for water taken. There are 290 non-potable water meters currently in use that meet the policy definition. At this time no data is not available on how many of these meters are pattern approved or about the accuracy of these meters.

¹ Pattern approved meter - a water meter that has passed the relevant pattern approval process and has a pattern approval certificate issued by the National Measurement Institute.

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- 6) Improved metering standards are required to ensure the Territory's compliance with MAF2 and the commitments made under the Murray-Darling Basin Compliance Compact. Water metering requirements are currently enforced through the ACT *Water Meter Installation, Maintenance and Replacement Guideline* (2015). The Guidelines require updating to respond to MAF2 and AS4747.

ISSUES & OPTIONS

- 7) The Office of Water within the Environment, Planning and Sustainable Development Directorate has prepared the *Non-urban water metering policy* (Policy) ([Attachment E](#)).
- 8) The Policy is aligned with the *ACT Water Strategy 2014-44: Striking the Balance* (Strategy 2, Action 7) and is in harmony with national strategy to strengthen compliance and enforcement for water resource management. The Policy delivers on accurate and timely measurement, recording, and reporting of water take. This is essential for effective water resource management so that sustainable diversions can be made from water resources, to ensure:
- a. all water users receive their fair share in accordance with entitlement conditions and legislative requirements; and
 - b. transparency and assurance that water is being managed sustainably for the benefit of all water users.
- 9) The Policy improves metering standards by providing a clear set of criteria for:
- a. new and replacement meters – use of pattern approved meters and validation of meter installations by a certified meter installer and validator (CMI);
 - b. existing meters – grandfathering arrangements to allow these meters to remain in service where their accuracy can be demonstrated; and
 - c. for all meters – ongoing meter maintenance and testing and improved reporting and notification requirements for Licence holders.
- 10) The Policy will not apply to individual water meters that measure treated drinking water supplied by Icon Water.
- 11) The Policy replaces the *Water Meter Installation, Maintenance and Replacement Guideline* previously mentioned.

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12) The Policy was developed in consultation with a range of stakeholders including Licence holders, the Office of Water, the Environment Protection Authority (EPA), Irrigation Australia and Commonwealth Department of Climate Change, Energy, the Environment and Water.

13) The Policy is based on the following principles:

- a. Maintaining 100 per cent meter coverage in the ACT for licensed non-potable water take.
- b. The content of the Policy follows the MAF2 and AS4747 requirements which have been agreed to by ACT Government and all jurisdictional governments.
- c. The implementation of the Policy takes a risk-based approach which prioritises high risk water take.

14) The Policy approach maintains 100 per cent metering coverage for the ACT for the following reasons:

- a. All licensed water take is already metered.
- b. 84% of groundwater Licences are in 'at risk' sub-water management areas. Metering is an essential management tool to accurately monitor water take to ensure that Licence holders remain within allocated volumes to avoid further pressure on the groundwater resource.
- c. The level of accuracy of existing meters is unknown for several reasons:
 - i. Age and operational service of meters;
 - ii. There is currently no requirement for meters to be tested or serviced during operational period;
 - iii. Plumbing arrangements and installations are not usually inspected before water meters are put into operation. Some installations are buried which prevents compliance inspections being undertaken; and
 - iv. Rigour of compliance inspection programs has been affected by several factors over the last 5 years, including the Covid pandemic and staff shortages.
- d. The Policy provides the best outcome for the protection and sustainable management of water resources and meets the objectives of the *Water Resources Act 2007*.
- e. The Murray Darling Basin Plan Review may result in less water availability for irrigators and the environment in the coming years due to the impact of climate change, sustainable water

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limits, First Nations connections to the Basin and regulation changes. CSIRO modelling for the Basin has predicted a 20-30 per cent decrease in future river inflows due to climate change.

f. Supports accounting confidence in future potential ACT-interstate water trading framework.

15) The Policy allows for some exemptions from the metering requirements in the following circumstances:

- a. No pumping infrastructure is installed and water cannot be taken (eg. inactive works);
- b. The use of water carts and water usage record keeping has been approved through the Licence;
- c. A meter was purchased prior to 1 December 2023 but has not been installed since the time of purchase (evidence of proof of purchase is required); or
- d. There is no pattern approved meter for a particular application (as listed on the Department of Climate Change, Energy, the Environment and Water (DCCEEW) website).

16) Exemption requests must be approved in writing by the EPA. This allows exemptions to be assessed on a case by case basis and monitored by the EPA with the aim to work towards compliance with the Policy.

17) Attachment H describes how metering thresholds have been applied in other Murray-Darling Basin jurisdictions.

Policy Implementation

18) The Policy is proposed to come into effect from 1 December 2023.

19) Implementation of Policy requirements will be rolled out in three stages from 1 December 2023. This approach allows Licence holders sufficient time to prepare for the new requirements and adopts a risk-based method to focus on large water users first and small water users last.

- a. The first group of 17 Licence holders are required to comply with the policy by 31 March 2024. This includes large scale irrigators such as golf clubs, Canberra Airport, and places of public importance irrigated by Commonwealth Government and the Transport Canberra and City Services Directorate.
- b. The next group of 57 Licence holders are required to comply with the policy by 30 June 2024. This includes medium scale water users such as agricultural/horticultural irrigators, community organisations and other commercial irrigators.

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- c. The final group of 106 Licence holders are required to comply with the policy by 31 December 2024. This includes small scale water users including urban residential gardens irrigated by groundwater bores, stock and domestic use, schools and other small-scale irrigators.
- 20) Licence holders are responsible for and will be required to demonstrate the accuracy of their existing water meter/s by their roll out date. This involves:
- a. existing water meters require periodic inspection with a validation certificate issued;
 - b. new and replacement water meters require inspection with a validation certificate issued before water is taken against the Licence; and
 - c. faulty existing water meters require notification and repair within a consistent period defined in the policy and inspection with a validation certificate issued before the meter is put back into service. The meter will need to be replaced with a pattern approved meter where it cannot be repaired.
- 21) Provisions will be available to allow Licence holders to request additional time where reasonable justification can be provided.

Compliance with policy

- 22) The EPA, within Access Canberra, is responsible for the administration and regulation of licences to take water issued under the *Water Resources Act 2007* (Act). This includes enforcing metering requirements through conditions imposed on a Licence.
- 23) The EPA will implement the Policy.
- 24) The EPA will undertake education activities and compliance inspections to assist Licence holders to comply with the new policy requirements. This type of work already forms a part of the EPA's existing inspection programs.

Regulatory risks for the ACT Government

- 25) The *Murray-Darling Basin Compliance Compact Assurance Report 2020* provided an unfavourable assessment of the ACT's progress against meeting the commitments of the Compliance Compact. This report is publicly available on the Murray-Darling Basin Authority's website.
- 26) The report noted that two commitments relating to metering and measurement were assessed as "Of concern". The concerns related to the ACT Government not being able to demonstrate that the following had been completed:

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- a. Publication of a metering policy and implementation plan;
 - b. Validation of meter accuracy and compliance with AS4747 standards;
 - c. Implementation of a timetable for the installation of new meters, and auditing and maintenance of the metering fleet; and
 - d. Annual reporting on progress with the metering implementation plan.
- 27) The Commonwealth Inspector General of Water Compliance (IGWC) was established on 5 August 2021 to enforce compliance with the Basin Plan, *Water Act 2007* (Cwth) and other associated government resource plans.
- 28) Water metering and measurement was a priority for the IGWC's Compliance Work Program for 2021-22.
- 29) If the ACT Government does not implement a metering policy which meets the National Framework and AS4747, this may result in an IGWC audit or investigation of compliance with the ACT's water resource plan and subsequent public reporting of the compliance results.

Policy implementation risks for the ACT Government

- 30) Successful implementation of the non-urban water metering policy is dependent upon the growth of the number of providers for meter validation services.
- 31) There is currently a shortfall in the number of certified meter installers and validators (CMIs) in NSW certifying meter installations. This issue was raised at the interjurisdictional Regulatory Leaders Forum at the start of the year. NSW Government indicated that while there are many CMIs listed on Irrigation Australia's register, the number actually doing the work is decreasing due to low profitable market opportunities. There are more than 2000 NSW Licence holders waiting for water meter compliance inspection activities to be undertaken, with the wait time exceeding an average of 150 days. The NSW water meter project compliance date is anticipated to be 2040-2045 based on these waiting periods.
- 32) There has been an increase in the number of CMIs registered on Irrigation Australia's register in the last two months, as a result of local-based training being offered in Yass. The register shows that there is one CMI in the ACT (excluding trained EPA officers), and an additional 5 CMIs located within a 100km radius of the ACT. Five more training courses are scheduled between now and the end of this year which may help to increase CMI numbers further.
- 33) It is unknown at this time whether the ACT will experience the same issue as NSW with the

availability of CMIs. The ACT market may attract CMIs in that meters are located within close proximity of the city centre, they are generally small-scale installations and there is only a small number of meters in total.

- 34) A range of mitigation strategies have been considered to manage the risk of CMIs not being available to perform accuracy testing, including:
- a. Regular monitoring of market capacity.
 - b. Using a flexible approach to change the roll out dates in the policy if licence holders or the EPA experience difficulties in reaching compliance timeframes.
 - c. Allowing individual licence holders to request an extension in circumstances where compliance cannot be achieved by the roll-out date, such as financial hardship.
 - d. EPA officers using a risk-based approach to compliance and enforcement in line with the *Environment Regulation and Protection Compliance and Enforcement Guideline 2016* on a case-by-case basis. The risk assessment informs a proportional response such as support and engagement, education or active pursuit (reserved for significant non-compliance).
 - e. Being ready to initiate alternative Government intervention options to fill a shortfall of CMIs (if it occurs) such as:
 - i. An ACT Government procurement process to source independent certified persons, or
 - ii. Accuracy testing undertaken by the EPA (least preferred option due to competitive neutrality concerns).
 - f. Engage with the Commonwealth Government to manage expectations and seek an extension to the policy compliance date of June 2025 if needed.
- 35) The Government intervention at point (e) in Paragraph 34 is the least preferred option should market failure result in nil private CMIs operating in the ACT. If this eventuates, the intervention could be offered as a fee for service with pricing set per water meter or a time charge fee with regard to the price charged in other jurisdictions by CMIs.
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- 42) The preferred option is to maintain the precautionary principle and ensure that all meters are accuracy tested to confirm that they are operating within $\pm 5\%$ accuracy for in-situ conditions.
- 43) Access Canberra and EPSDD will work in collaboration with the Inspector-General of Water Compliance and other jurisdictions to provide input into the current review of the Australian Standards to ensure that it is appropriate for the proposed settings.

FINANCIAL IMPACT

- 44) The ACT Government is proposing to offer a \$300 rebate per meter with costs of the rebate absorbed by EPSDD within existing financial resources.
- 45) The rebate will assist low risk users with costs for initial accuracy testing at policy implementation. This group comprises 106 low volume Licence holders with 117 active meters. Examples include irrigation of residential gardens by private bores, community organisations, private schools, businesses, several Pialligo rural irrigators and several Government entities.

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- 46) The rebate would be a one-off payment, paid during the first year of implementation. Applications for the rebate would be assessed by the EPA and where eligibility is approved, final payments would be processed by the Shared Services Finance Team.
- 47) The intent of the rebate is to improve implementation uptake and reduce the cost shock of a new policy at implementation. The minimum policy implementation costs could place a 50% cost increase above typical annual licence fees for this low-risk user group. Offering a rebate supports the low-risk users to continue to access non-potable water as an alternative to irrigating with drinking water, which in turn supports ACT water security.
- 48) There will be a financial impact to existing Licence holders as described at Attachment I. These impacts relate to minimum standards for meter installation/replacement and ongoing validation and accuracy testing requirements. In summary:
- a. ongoing validation of accuracy is approximately \$300-500 per meter every 5 years, payable to external meter validators;
 - b. if existing pipework is not visible above ground, excavation works may be required at the License holder's expense;
 - c. if a new water meter is required (e.g., installing new non-potable irrigation system, replacing a faulty meter, non-compliance with the Policy), the Licence holder bears the cost for meter replacement which may range from \$800 to over \$3000 per meter; and
 - d. all Licence holders will be required to pay meter accuracy validation fees in the first year of implementation (payable to private CMIs) and thereafter every five years, however, low risk Licence holders will be eligible to receive a \$300 rebate in the first year of implementation (subject to Cabinet agreement).
- 49) There is no change to Licence holder liability for standard ACT Government fees (annual licence administration fee of \$516.55 for 2023-2024, plus water abstraction charges based on consumption).

WELLBEING IMPACT SUMMARY

- 50) The Policy will have a positive impact by implementing a robust metering framework which will improve the confidence in water meter performance and accuracy, reduce environmental impacts of water usage and ensure water is used sustainably. A wellbeing impact assessment is in Attachment C.

- 51) The accurate measurement of water take will provide benefit in the following ways:
- a. The community – ensures transparency and equity in how water is shared, allocated and managed; greater confidence that water is being taken according to legal frameworks and licence conditions; and ensures users who take water are properly charged for their take.
 - b. Licence holders - provides confidence in water use data to demonstrate compliance with licence conditions and legislation; provides information on water use and management, pump and irrigation system performance; and identifies and measures water efficiency gains.
 - c. Environment – maintains the value and integrity of the water-sharing framework and ensures that water take complies with legal frameworks and licence conditions put in place to better manage environmental water.

CONSULTATION

External stakeholders (Licence holders)

- 52) All 180 Licence holders were consulted on the draft policy during a 4-week consultation period.
- 53) Feedback was received from 10 Licence holders. The main concern raised was related to the increased costs for compliance balanced with the proportional risk of small-scale irrigation. A summary of the submissions is provided as a Listening Report in Attachment E.
- 54) In response to consultation, the policy was finalised based on these considerations:
- a. Metering is an existing Licence requirement in the ACT;
 - b. Existing meters can be retained in service where accuracy can be demonstrated;
 - c. Expected cost for accuracy testing is \$300-\$500, payable once every 5 years per non-potable water meter. This is a reasonable cost to uphold meter accuracy to national standards and is not an unacceptable cost impost when averaged out over a period of years.
 - d. The additional costs to Licence holders for meter accuracy costs retains overall cost of licensed non-potable water irrigation as a financially viable option in preference to irrigating with fully treated drinking water;
 - e. Licence holders have the option to request a payment plan to defer payment of standard license fees if facing financial hardship;

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- f. If a Licence holder is not using non-potable water for an extended period, they have the option to render their licence temporarily inactive which avoids compliance costs associated with this policy and avoids general administration fees;
- g. The roll out dates provide a clear timeframe for when costs will be imposed and allows adequate time for Licence holders to plan for future costs;
- h. The number of available pattern approved meters has grown recently, thereby increasing market competition and choice for water users; and
- i. The EPA has the discretion to provide an extension of time where a Licence holder cannot comply with the requirements of the policy by their roll-out date, such as financial hardship.

External stakeholders (Others)

- 55) Consultation with Irrigation Australia and other state jurisdictions informed practical application of policy development, implementation and indicative costs for validating or installing meters.
- 56) The Commonwealth DCCEEW reviewed the policy to ensure that it meets the intent and requirements of the MAF2 and AS4747.

ACT Government agencies

- 57) The Office of Water worked in close collaboration with the EPA during the development of the policy and implementation plan.

MEDIA/COMMUNICATIONS

- 58) The Access Canberra Communications Team are leading policy implementation communications. The Office of Water will support the Access Canberra Communications Team as required.
- 59) The Communications on a Page is in Attachment D.

IMPLEMENTATION

- 60) The Office of Water developed an implementation plan (Attachment J) in consultation with the EPA to set tasks and responsibilities for both agencies to assist in the transition to the new requirements.
- 61) The EPA and EPSDD will continue to work through a number of outstanding matters associated with the implementation, as they are identified. These include a potential shortfall in the number of certified persons in the local region able to provide meter verification services, as well as concerns around the required accuracy standards of AS4747. The implementation plan will be

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adjusted as required to manage any issues and the Minister for Water, Energy and Emissions Reduction advised.

62) See Table 1 below for implementation milestones and timeframe.

Table 1: Implementation milestones and timeframes

Milestones	Date to be completed
1. Policy comes into effect	1 December 2023
2. Phase one implementation commences from 1 January 2024	Compliance by 31 March 2024
3. Phase two implementation commences from 1 April 2024	Compliance by 30 June 2024
4. Phase three implementation commences from 1 July 2024	Compliance by 31 December 2024
5. Full implementation complete	31 June 2025

HUMAN RIGHTS IMPACT

63) It has been determined that there are no significant Human Rights implications arising from this Policy.

Minister's signature



Date 5 / 10 / 23

ATTACHMENTS

A	Table of comments
B	Open Access Assessment: Cabinet Decision and Wellbeing Impact Assessment summary
C	Wellbeing Impact Assessment
D	Communications on a Page
E	Non-urban Water Metering Policy
F	Listening Report
G	Preferred policy position and other options for setting threshold criteria
H	Examples of threshold criteria from other jurisdictions
I	Indicative financial impacts for Licence holders
J	Implementation plan

CABINET SUBMISSION

23/471



Title	Non-urban Water Metering Policy
Meeting type	Expenditure Review Committee
Minister	Shane Rattenbury MLA Minister for Water, Energy and Emissions Reduction
Cabinet date	Monday, 9 October 2023
Status	FINAL
Relationship to previous decisions	Nil
Purpose	Cabinet endorsement of the Draft Non-urban Water Metering Policy to improve meter accuracy and performance
Category	Category 2 - Government business
Financial impact	Yes
Treasury agreement	Yes Date provided for Treasury agreement to financial implications: 20/07/2023 Date of Treasury agreement 11/08/2023:
Is ERC consideration required?	Yes If yes, select ERC meeting date: Monday, 9 October 2023
Legislative change	No - change to legislation not required
Regulatory impact	Yes The Non-Urban Water Metering Policy updates existing guidelines to meet national standards. Additional requirements for Licence holders will include accuracy testing of installed water meters and may require the repair or replacement of certain components where meter accuracy cannot be demonstrated. It will have a positive impact on the environment by ensuring the sustainable management of water resources and improve public confidence in water resource management and accounting.
Wellbeing Impact Assessment	Yes
Primary Wellbeing Domain	Environment and climate

RECOMMENDATIONS

- 1) I recommend Cabinet agree to the ACT *Non-urban Water Metering Policy* (Policy) which:
 - a. delivers on the ACT's commitment to the National Water Initiative, the National Framework for Non-urban Water Metering and the Murray-Darling Basin Compliance Compact;
 - b. provides an acceptable level of confidence in water meter performance;
 - c. ensures greater coverage of pattern approved water meters which comply with Australian Standard 4747:2013 - Meters for non-urban water supply (AS4747); and
 - d. encourages the use of a risk management approach to prioritise implementation for high risk users first.
- 2) I recommend Cabinet agree to:
 - a. the ongoing financial impacts of policy implementation;
 - b. provide low risk users with a \$300 rebate, paid once in the first year of implementation, with costs of the rebate absorbed by the Environment, Planning and Sustainable Development Directorate within existing financial resources;
 - c. the implementation milestones and timeframes at Table 1;
 - d. the Minister for Water, Energy and Emissions Reduction settling with the Chief Minister any necessary administrative arrangements to administer the rebate program.
- 3) I recommend Cabinet note that:
 - a. the Policy applies only to licensed non-potable water take (treated drinking water supplied by Icon Water is out of scope);
 - b. the Policy will be jointly implemented through existing Environment, Planning and Sustainable Development Directorate and Access Canberra budgets;
 - c. consultation with non-potable water Licence holders was undertaken in May 2023 on the draft Policy (Listening Report included in Attachment F);
 - d. policy implementation will commence on 1 December 2023 and will adopt a risk-based and staged approach by prioritising the implementation of new metering requirements for high-risk non-potable water take;
 - e. the draft implementation plan in Attachment J will be finalised in consultation with other key stakeholders over coming months; and

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- f. that EPSDD has identified potential market capacity issues in delivering metering validation services in other jurisdictions and that the implementation plan will consider a range of mitigation strategies to manage this risk which may include:
 - i. regular monitoring of market capacity;
 - ii. government procuring services to undertake validation at Licence holders expense;
 - iii. the EPA directly providing validation services (least preferred due to competitive neutrality concerns); or
 - iv. liaison with the Commonwealth Government on compliance and deadlines to manage expectations and seek extensions if needed.
- g. EPSDD will work with Treasury and Environment Protection Authority to determine the optimal risk mitigation strategies.
- h. the advice to the Chief Minister on the release of the Cabinet Decision Summary (Attachment B) as required under Section 23 of the Freedom of Information Act 2016; and
- i. the following summaries to be released:
 - i. Cabinet agreed to adopt the Non-urban Water Metering Policy which delivers on the ACT's commitment to improve metering standards under the National Framework for non-urban water metering. The Policy provides an acceptable level of confidence in water meter performance, ensures greater coverage of pattern approved water meters which comply with the relevant standards, and uses a risk management approach to prioritise metering implementation.
 - ii. The Non-urban Water Metering Policy builds on existing water metering requirements to strengthen water measurement and enhance the regulatory approach and demonstrates the ACT's commitment to National Framework for non-urban water metering. It provides a robust metering framework which will improve the confidence in water meter performance and accuracy, reduce environmental impacts of water usage and ensure water is used sustainably.

SUPPORTING ARGUMENT

BACKGROUND

- 1) The National Water Initiative (2004), the National Framework for non-urban water metering (2009), and the Murray-Darling Basin Compliance Compact (2018) require states and territories to implement consistent water metering standards to ensure equity around water sharing and the protection of water resources.
- 2) The Metrological Assurance Framework 2 (2021) (MAF2) is a part of the National Framework and describes the key requirements to ensure a nationally consistent compliance approach for non-urban water meters. The MAF2 aims to:
 - a. Provide an acceptable level of confidence in water meter performance;
 - b. Ensure greater coverage of pattern approved water meters¹ which comply with Australian Standard 4747:2013 – Meters for non-urban water supply (AS 4747);
 - c. Provide a nationally consistent approach for the requirements and management of non-urban water meters; and
 - d. Encourage the use of risk management to prioritise metering implementation and management requirements.
- 3) All Basin jurisdictions, except for the ACT, have released their own policies for non-urban water metering and are progressing with implementation.
- 4) The taking of surface water and groundwater in the ACT is regulated through Licences to Take Water (Licence) issued under the *Water Resources Act 2007*. There are currently 180 active licences with each Licence holder responsible for the costs associated with the installation, maintenance and reading of a water meter.
- 5) A Licence requires a water meter to be installed at each extraction point to account for water taken. There are 290 non-potable water meters currently in use that meet the policy definition. At this time no data is not available on how many of these meters are pattern approved or about the accuracy of these meters.

¹ Pattern approved meter - a water meter that has passed the relevant pattern approval process and has a pattern approval certificate issued by the National Measurement Institute.

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- 6) Improved metering standards are required to ensure the Territory's compliance with MAF2 and the commitments made under the Murray-Darling Basin Compliance Compact. Water metering requirements are currently enforced through the *ACT Water Meter Installation, Maintenance and Replacement Guideline* (2015). The Guidelines require updating to respond to MAF2 and AS4747.

ISSUES & OPTIONS

- 7) The Office of Water within the Environment, Planning and Sustainable Development Directorate has prepared the *Non-urban water metering policy* (Policy) ([Attachment E](#)).
- 8) The Policy is aligned with the *ACT Water Strategy 2014-44: Striking the Balance* (Strategy 2, Action 7) and is in harmony with national strategy to strengthen compliance and enforcement for water resource management. The Policy delivers on accurate and timely measurement, recording, and reporting of water take. This is essential for effective water resource management so that sustainable diversions can be made from water resources, to ensure:
- a. all water users receive their fair share in accordance with entitlement conditions and legislative requirements; and
 - b. transparency and assurance that water is being managed sustainably for the benefit of all water users.
- 9) The Policy improves metering standards by providing a clear set of criteria for:
- a. new and replacement meters – use of pattern approved meters and validation of meter installations by a certified meter installer and validator (CMI);
 - b. existing meters – grandfathering arrangements to allow these meters to remain in service where their accuracy can be demonstrated; and
 - c. for all meters – ongoing meter maintenance and testing and improved reporting and notification requirements for Licence holders.
- 10) The Policy will not apply to individual water meters that measure treated drinking water supplied by Icon Water.
- 11) The Policy replaces the *Water Meter Installation, Maintenance and Replacement Guideline* previously mentioned.

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12) The Policy was developed in consultation with a range of stakeholders including Licence holders, the Office of Water, the Environment Protection Authority (EPA), Irrigation Australia and Commonwealth Department of Climate Change, Energy, the Environment and Water.

13) The Policy is based on the following principles:

- a. Maintaining 100 per cent meter coverage in the ACT for licensed non-potable water take.
- b. The content of the Policy follows the MAF2 and AS4747 requirements which have been agreed to by ACT Government and all jurisdictional governments.
- c. The implementation of the Policy takes a risk-based approach which prioritises high risk water take.

14) The Policy approach maintains 100 per cent metering coverage for the ACT for the following reasons:

- a. All licensed water take is already metered.
- b. 84% of groundwater Licences are in 'at risk' sub-water management areas. Metering is an essential management tool to accurately monitor water take to ensure that Licence holders remain within allocated volumes to avoid further pressure on the groundwater resource.
- c. The level of accuracy of existing meters is unknown for several reasons:
 - i. Age and operational service of meters;
 - ii. There is currently no requirement for meters to be tested or serviced during operational period;
 - iii. Plumbing arrangements and installations are not usually inspected before water meters are put into operation. Some installations are buried which prevents compliance inspections being undertaken; and
 - iv. Rigour of compliance inspection programs has been affected by several factors over the last 5 years, including the Covid pandemic and staff shortages.
- d. The Policy provides the best outcome for the protection and sustainable management of water resources and meets the objectives of the *Water Resources Act 2007*.
- e. The Murray Darling Basin Plan Review may result in less water availability for irrigators and the environment in the coming years due to the impact of climate change, sustainable water

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limits, First Nations connections to the Basin and regulation changes. CSIRO modelling for the Basin has predicted a 20-30 per cent decrease in future river inflows due to climate change.

f. Supports accounting confidence in future potential ACT-interstate water trading framework.

15) The Policy allows for some exemptions from the metering requirements in the following circumstances:

- a. No pumping infrastructure is installed and water cannot be taken (eg. inactive works);
- b. The use of water carts and water usage record keeping has been approved through the Licence;
- c. A meter was purchased prior to 1 December 2023 but has not been installed since the time of purchase (evidence of proof of purchase is required); or
- d. There is no pattern approved meter for a particular application (as listed on the Department of Climate Change, Energy, the Environment and Water (DCCEEW) website).

16) Exemption requests must be approved in writing by the EPA. This allows exemptions to be assessed on a case by case basis and monitored by the EPA with the aim to work towards compliance with the Policy.

17) Attachment H describes how metering thresholds have been applied in other Murray-Darling Basin jurisdictions.

Policy Implementation

18) The Policy is proposed to come into effect from 1 December 2023.

19) Implementation of Policy requirements will be rolled out in three stages from 1 December 2023. This approach allows Licence holders sufficient time to prepare for the new requirements and adopts a risk-based method to focus on large water users first and small water users last.

- a. The first group of 17 Licence holders are required to comply with the policy by 31 March 2024. This includes large scale irrigators such as golf clubs, Canberra Airport, and places of public importance irrigated by Commonwealth Government and the Transport Canberra and City Services Directorate.
- b. The next group of 57 Licence holders are required to comply with the policy by 30 June 2024. This includes medium scale water users such as agricultural/horticultural irrigators, community organisations and other commercial irrigators.

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- c. The final group of 106 Licence holders are required to comply with the policy by 31 December 2024. This includes small scale water users including urban residential gardens irrigated by groundwater bores, stock and domestic use, schools and other small-scale irrigators.
- 20) Licence holders are responsible for and will be required to demonstrate the accuracy of their existing water meter/s by their roll out date. This involves:
- a. existing water meters require periodic inspection with a validation certificate issued;
 - b. new and replacement water meters require inspection with a validation certificate issued before water is taken against the Licence; and
 - c. faulty existing water meters require notification and repair within a consistent period defined in the policy and inspection with a validation certificate issued before the meter is put back into service. The meter will need to be replaced with a pattern approved meter where it cannot be repaired.
- 21) Provisions will be available to allow Licence holders to request additional time where reasonable justification can be provided.

Compliance with policy

- 22) The EPA, within Access Canberra, is responsible for the administration and regulation of licences to take water issued under the *Water Resources Act 2007* (Act). This includes enforcing metering requirements through conditions imposed on a Licence.
- 23) The EPA will implement the Policy.
- 24) The EPA will undertake education activities and compliance inspections to assist Licence holders to comply with the new policy requirements. This type of work already forms a part of the EPA's existing inspection programs.

Regulatory risks for the ACT Government

- 25) The *Murray-Darling Basin Compliance Compact Assurance Report 2020* provided an unfavourable assessment of the ACT's progress against meeting the commitments of the Compliance Compact. This report is publicly available on the Murray-Darling Basin Authority's website.
- 26) The report noted that two commitments relating to metering and measurement were assessed as "Of concern". The concerns related to the ACT Government not being able to demonstrate that the following had been completed:

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- a. Publication of a metering policy and implementation plan;
 - b. Validation of meter accuracy and compliance with AS4747 standards;
 - c. Implementation of a timetable for the installation of new meters, and auditing and maintenance of the metering fleet; and
 - d. Annual reporting on progress with the metering implementation plan.
- 27) The Commonwealth Inspector General of Water Compliance (IGWC) was established on 5 August 2021 to enforce compliance with the Basin Plan, *Water Act 2007* (Cwth) and other associated government resource plans.
- 28) Water metering and measurement was a priority for the IGWC's Compliance Work Program for 2021-22.
- 29) If the ACT Government does not implement a metering policy which meets the National Framework and AS4747, this may result in an IGWC audit or investigation of compliance with the ACT's water resource plan and subsequent public reporting of the compliance results.

Policy implementation risks for the ACT Government

- 30) Successful implementation of the non-urban water metering policy is dependent upon the growth of the number of providers for meter validation services.
- 31) There is currently a shortfall in the number of certified meter installers and validators (CMIs) in NSW certifying meter installations. This issue was raised at the interjurisdictional Regulatory Leaders Forum at the start of the year. NSW Government indicated that while there are many CMIs listed on Irrigation Australia's register, the number actually doing the work is decreasing due to low profitable market opportunities. There are more than 2000 NSW Licence holders waiting for water meter compliance inspection activities to be undertaken, with the wait time exceeding an average of 150 days. The NSW water meter project compliance date is anticipated to be 2040-2045 based on these waiting periods.
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- 49) There is no change to Licence holder liability for standard ACT Government fees (annual licence administration fee of \$516.55 for 2023-2024, plus water abstraction charges based on consumption).

WELLBEING IMPACT SUMMARY

- 50) The Policy will have a positive impact by implementing a robust metering framework which will improve the confidence in water meter performance and accuracy, reduce environmental impacts of water usage and ensure water is used sustainably. A wellbeing impact assessment is in Attachment C.

- 51) The accurate measurement of water take will provide benefit in the following ways:
- a. The community – ensures transparency and equity in how water is shared, allocated and managed; greater confidence that water is being taken according to legal frameworks and licence conditions; and ensures users who take water are properly charged for their take.
 - b. Licence holders - provides confidence in water use data to demonstrate compliance with licence conditions and legislation; provides information on water use and management, pump and irrigation system performance; and identifies and measures water efficiency gains.
 - c. Environment – maintains the value and integrity of the water-sharing framework and ensures that water take complies with legal frameworks and licence conditions put in place to better manage environmental water.

CONSULTATION

External stakeholders (Licence holders)

- 52) All 180 Licence holders were consulted on the draft policy during a 4-week consultation period.
- 53) Feedback was received from 10 Licence holders. The main concern raised was related to the increased costs for compliance balanced with the proportional risk of small-scale irrigation. A summary of the submissions is provided as a Listening Report in Attachment E.
- 54) In response to consultation, the policy was finalised based on these considerations:
- a. Metering is an existing Licence requirement in the ACT;
 - b. Existing meters can be retained in service where accuracy can be demonstrated;
 - c. Expected cost for accuracy testing is \$300-\$500, payable once every 5 years per non-potable water meter. This is a reasonable cost to uphold meter accuracy to national standards and is not an unacceptable cost impost when averaged out over a period of years.
 - d. The additional costs to Licence holders for meter accuracy costs retains overall cost of licensed non-potable water irrigation as a financially viable option in preference to irrigating with fully treated drinking water;
 - e. Licence holders have the option to request a payment plan to defer payment of standard license fees if facing financial hardship;

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- f. If a Licence holder is not using non-potable water for an extended period, they have the option to render their licence temporarily inactive which avoids compliance costs associated with this policy and avoids general administration fees;
- g. The roll out dates provide a clear timeframe for when costs will be imposed and allows adequate time for Licence holders to plan for future costs;
- h. The number of available pattern approved meters has grown recently, thereby increasing market competition and choice for water users; and
- i. The EPA has the discretion to provide an extension of time where a Licence holder cannot comply with the requirements of the policy by their roll-out date, such as financial hardship.

External stakeholders (Others)

- 55) Consultation with Irrigation Australia and other state jurisdictions informed practical application of policy development, implementation and indicative costs for validating or installing meters.
- 56) The Commonwealth DCCEEW reviewed the policy to ensure that it meets the intent and requirements of the MAF2 and AS4747.

ACT Government agencies

- 57) The Office of Water worked in close collaboration with the EPA during the development of the policy and implementation plan.

MEDIA/COMMUNICATIONS

- 58) The Access Canberra Communications Team are leading policy implementation communications. The Office of Water will support the Access Canberra Communications Team as required.
- 59) The Communications on a Page is in Attachment D.

IMPLEMENTATION

- 60) The Office of Water developed an implementation plan (Attachment J) in consultation with the EPA to set tasks and responsibilities for both agencies to assist in the transition to the new requirements.
- 61) The EPA and EPSDD will continue to work through a number of outstanding matters associated with the implementation, as they are identified. These include a potential shortfall in the number of certified persons in the local region able to provide meter verification services, as well as concerns around the required accuracy standards of AS4747. The implementation plan will be

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adjusted as required to manage any issues and the Minister for Water, Energy and Emissions Reduction advised.

62) See Table 1 below for implementation milestones and timeframe.

Table 1: Implementation milestones and timeframes

Milestones	Date to be completed
1. Policy comes into effect	1 December 2023
2. Phase one implementation commences from 1 January 2024	Compliance by 31 March 2024
3. Phase two implementation commences from 1 April 2024	Compliance by 30 June 2024
4. Phase three implementation commences from 1 July 2024	Compliance by 31 December 2024
5. Full implementation complete	31 June 2025

HUMAN RIGHTS IMPACT

63) It has been determined that there are no significant Human Rights implications arising from this Policy.

Minister's signature _____

Date ____/____/____

ATTACHMENTS

A	Table of comments
B	Open Access Assessment: Cabinet Decision and Wellbeing Impact Assessment summary
C	Wellbeing Impact Assessment
D	Communications on a Page
E	Non-urban Water Metering Policy
F	Listening Report
G	Preferred policy position and other options for setting threshold criteria
H	Examples of threshold criteria from other jurisdictions
I	Indicative financial impacts for Licence holders
J	Implementation plan

MINISTER FOR WATER, ENERGY AND EMISSIONS REDUCTION ERC

BRIEF

23/471

Title	Non-urban Water Metering Policy
Minister	Shane Rattenbury MLA Minister for Water, Energy and Emissions Reduction
Cabinet date	Monday, 9 October 2023
Recommended position	SUPPORT

Noted
7/10/23

Submission recommendations

The Paper seeks endorsement of the update to the existing policy 'Water Meter Installation, Maintenance and Replacement Guideline' to introduce requirements and standards for existing, new and replacement meters in line with the National Framework for non-urban water metering.

It is recommended that you support all recommendations.

Issues/comment

The submission was shared with Access Canberra (Environment Protection Authority) who are supportive of the content. The Environment Planning and Sustainable Development Directorate through the Office of Water continues to liaise closely with the Environment Protection Authority on the policy Implementation Plan.

Treasury sought clarification on the basis for proposing a one off \$300 rebate at policy implementation to low risk (low volume) licence holders.

The intent of the rebate is to improve implementation uptake and reduce the cost shock of a new policy at implementation. The minimum policy implementation costs could place a 50% cost increase above typical annual licence fees for this low-risk user group. Offering a rebate supports the low-risk users to continue to access non-potable water as an alternative to irrigating with drinking water, which in turn supports ACT water security.

There is an implementation risk of not enough external certified persons being available to provide independent meter accuracy validation for the ACT. In consultation with Treasury, the policy implementation plan has considered contingency measures for ACT Government to potentially provide meter accuracy validation but in a manner that does not impede competitive neutrality for an emerging market of external certified persons to provide the service.

Wellbeing Impact Assessment

The Wellbeing Impact Assessment has been completed. The impacts are anticipated across the environment and climate and governance and institutions domains:

- positive impact on the environment
- positive impact on governance and institutions.

The sustainable management of water resources is vital for supporting social, cultural, economic and environmental outcomes. Meters enable water users to demonstrate they are using their allocation responsibly and within the rules.

Cleared:	Fiona Wright (A/g Deputy Director General, Environment, Water and Emissions Reduction)
Prepared by:	Sara McIntyre (Water Policy Compliance Officer)

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Context and consultation

The ACT comes from a position of compliance strength by being the only Murray-Darling Basin jurisdiction with 100% of licensed non-potable water take being metered. Current policy requires all licence holders to install and maintain water meters at their own expense.

In March 2021, the Murray-Darling Basin Compliance Compact Assurance Report 2020 provided an unfavourable assessment of the ACT's progress against meeting the commitments of the Compliance Compact. The report noted that two commitments relating to metering accuracy and measurement were assessed as "Of concern".

The Office of the Inspector-General Water Compliance is the independent authority for overseeing State and Territory compliance with the implementation of the Basin Plan. The Inspector-General prioritised the accurate metering and measurement of water take across the Basin in 2021-2022 and has the power to undertake an audit or investigation of compliance with jurisdictions water resource plans.

All Basin states are required to comply with the Australian Standard AS4747 for non-urban water meter accuracy. The ACT remains the only Basin jurisdiction that has not yet adopted policy to implement the new higher level of meter accuracy required by the Inspector-General. The ACT Government has committed to developing the required policy through the *Federation Funding Agreement – Environment on Implementing Water Reform on the Murray-Darling Basin* (2021-22 to 2023-24).

The Office of Water has worked closely with Access Canberra (Environment Protection Authority) in drafting an agreed policy and implementation plan.

Consultation with licence holders (n=180) on the draft policy was undertaken for a four-week period and feedback has been incorporated into the final policy. Small volume licence holders raised concerns about cost impact of ongoing compliance with new meter accuracy requirements. Direct education with licence holders will be undertaken by the Environment Protection Authority during the implementation of the policy to assist with compliance.

Cleared: Fiona Wright (A/g Deputy Director General, Environment, Water and Emissions Reduction)

Prepared by: Sara McIntyre (Water Policy Compliance Officer)

CABINET

EXPOSURE DRAFT COMMENTS – 23/471

Exposure circulation undertaken: Full exposure circulation

Reason for exception: N/A

Dates circulated: 31 August 2023 – 6 September 2023

Directorate	Comment	Response
CMTEDD	CMTEDD understands that this submission seeks to establish a framework to assist the ACT to comply with an agreement with the Commonwealth requiring 300 non-urban water meters to be accuracy tested by June 2025. Despite this agreement with the Commonwealth, a new obligation to require water meter testing will need to include scope/flexibility to ensure licence holders are not in breach of the law if a shortage of water meter testing services in the region prevents them from complying within the required timeframe. However, there may be a risk of unintended regulatory burden if licence holders are required to report their non-compliance and/or seek an exemption from the requirement to comply by June 2025, for the reason that they have been unable to access testing services. Should the Government determine to provide water meter testing services, Treasury can help EPSDD to establish a fee framework to support this. Should Government not seek to provide these services, Treasury suggests early engagement with the	New sub-heading ‘Policy implementation risks for the ACT Government’ added to consolidate commentary, particularly on water testing services. It is not known if the ACT will experience the same shortage of certified meter installer and validators (CMIs) as NSW until policy implementation commences. Paragraphs 33 and 34 added to outline risk for the ACT and measures that can be put in place throughout policy implementation. There will be close engagement with the first round of Licence holders to determine if there is a shortfall in CMIs. Where a shortfall is identified, a quick response can be employed to give Licence holders an extension of time to comply and to allow government to consider what degree of intervention may be required. Paragraph 35 updated to remove ‘will’ and to emphasis that this is only an option for further consideration if required.

CABINET

Commonwealth to explore the possibility of a longer transition period that would ensure licensees have sufficient time to comply with the new obligation. Should a longer transition period not be supported by the Commonwealth, Treasury recommends consideration of a tender process to acquire a service provider to provide water meter testing services to all licencees. Adiditonally, the wording in Para. 35 suggests the ACT <u>will</u> offer a service in competition with market provider. The Submission should make clear that this is an option for further assessment which would also go to the above points. The submission states that a metering validation fee will also be added to standard Government fees for Licence holders in the first year of implementation. CMTEDD understands this is a remnant of the previous discussions to implement a fee for service for EPA-provided services in order to address market capacity concerns. EPSDD has advised this reference will be removed to account for the fact a fee for service model may be considered as a risk mitigation option in the implementation planning but is <u>not</u> currently a preferred option. CMTEDD also notes that the submission seeks Cabinet agreement to the implementation plan and milestones. CMTEDD suggest this recommendation be removed and that the following (or similar) be added for Cabinet noting: • <i>"Cabinet note:</i> ○ <i>the draft implementation plan at Attachment [xx] and that EPSDD will finalise</i>	Metering validation fee removed. A fee for service will be considered if the ACT experiences a shortfall in the number of certified meter installers and validators. Changes made to recommendations for Cabinet noting. Paragraph 43 added. Paragraph 59 added to emphasis that the implementation plan (<u>Attachment J</u>) will be adjusted as required to manage any issues.
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	<i>this plan in concert with other key stakeholders over coming months; and</i> ○ <i>That EPSDD has identified market capacity issues in delivering metering validation services in other jurisdictions and that the implementation plan will consider a range of mitigation strategies to manage this risk which may include:</i> – <i>Regular monitoring of market capacity</i> – <i>Government procuring services via a panel or similar to undertake validation at Licence holders expense</i> – <i>The EPA directly providing validation services (least preferred due to competitive neutrality concerns)</i> – <i>Liaison with the Commonwealth on compliance and deadlines to manage expectations and seek extensions if needed.</i> ○ <i>EPSDD will work with Treasury and EPA to determine the optimal risk mitigation strategies”</i> CMTEDD further notes the proposal for a Non-Urban Water Metering Policy has been developed by EPSDD to provide that the ACT meets a national standard to which the ACT has formally committed. There has been close collaboration with the Environment Protection Authority (EPA) and an appropriate weight given to regulatory concerns throughout.	
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	The EPA and EPSDD continue to work through a number of outstanding matters associated with the implementation and design of this Policy, as they are identified. These include a current shortfall in the number of certified persons in the local region able to provide meter verification services, as well as concerns around the required accuracy standards of the new Policy. In response to these issues, the government is exploring options for the EPA to assist in the delivery of the validation service within the ACT and AC is collaborating with EPSDD, the Inspector-General of Water Compliance and other jurisdictions to provide input to a current review of the Australian Standard aiming to ensure that it is appropriate for the proposed settings.	
JACS	Supported.	
HD	Supported.	
CHS	Supported.	
EDU	Supported.	
TCCS	Supported.	
CSD	Supported.	
MPC	Supported.	
Statutory Office Holder	Supported.	

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FINAL COMMENTS - 23/471

Final circulation undertaken: 2 day final circulation

Reason for exception: N/A

Dates circulated: Provide dates circulated

Directorate	Comment	Response
CMTEDD	Following discussion with EPSDD, CMTEDD understands that the proposed rebate to low-risk users would be funded from EPSDD's existing resources. As such, CMTEDD requests the submission be amended in time for the ERC meeting date so that: - o paragraph 2c is updated to state that the cost of the rebates will be absorbed by EPSDD; - o paragraph 44 is amended to reflect that the submission is no longer seeking agreement to additional appropriation; and - o Table 1 in the financial impact section is removed. CMTEDD considers that the submission would benefit from additional information to justify the \$300 rebate to low-risk users. The submission could look to expand on the types of users that fall under the low-risk category, and to explain why government assistance is considered necessary for this group of users.	Paragraph 2c amended and renumbered as new 2b; Paragraph 44 amended; and table deleted per CMTEDD comment. Minor editing to update correct cross-reference to table. Content added at paragraph 45 to explain types of low risk users. Content added at paragraph 47 to explain basis of validating government assistance to low risk users. Content added to Attachment I to describe impact of \$300 rebate for low-risk users. In response to CMTEDD comments on unintended regulatory burden. • EPSDD through the Office of Water continues to liaise closely with CMTEDD Access Canberra (Environment Protection Authority) on the policy Implementation Plan.

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	CMTEDD also suggests that Attachment I - Indicative Financial Impacts for Licence Holders be updated to reflect the impact of the \$300 rebate to the low-risk users. CMTEDD notes the submission has included a range of mitigation strategies for reducing the risks of a shortage in certified meter installers and validators. Despite this, Treasury considers that there remains a risk of unintended regulatory burden being placed on licence holders should they be required to report their non-compliance and/or seek an exemption from the requirement to comply by June 2025. To further mitigate these risks, CMTEDD suggests that EPSDD proactively engage with licence holders and ensure a clear and easy to follow process that assists licence holders to understand and comply with their obligations or seek assistance if they have difficulties meeting the timeframes.	• There is mutual agreement that EPA as the regulator and licence administrator remains the primary point of contact for communication with licence holders for the Non-urban Metering Policy. • The Office of Water will continue to provide policy support in collaboration with EPA to prepare for policy implementation. The risks raised by CMTEDD (self-reporting of non-compliance; seeking exemption; compliance by June 2025) are noted for further consideration by the Office of Water and the EPA. • The EPA will take the regulatory lead on compliance processes for policy implementation in harmony with existing Access Canberra regulatory protocols.
JACS	Supported.	N/A
HD	Supported.	N/A
CHS	Supported.	N/A
EDU	Supported.	N/A
TCCS	Supported.	N/A
CSD	Supported.	N/A
EPSD	Supported.	N/A
MPC	Supported.	N/A

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Statutory Office Holder	Supported.	N/A
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ATTACHMENT I – INDICATIVE FINANCIAL IMPACTS FOR LICENCE HOLDERS

SUMMARY OF COSTS

The following total costs are expected for Licence holders.

- **NEW** Accuracy test or validation – approx. \$300-\$500 per meter every five years. Almost half of Licence holders have one active meter only.
- **NEW** Meter repairs and replacement as required – cost varies depending on specific site conditions, the type of work to be performed and the type of equipment to be repaired or replaced. Costs range from \$800 to \$3,000+ for meter replacement, if required.
- Existing annual administration fee of \$516.55 (payable for 2023-2024).
- Existing annual water abstraction fee (WAC) of \$0.334 per kilolitre (payable for 2023-2024).

Impacted stakeholders	• All Licence holders (180 in total) will be subject to <u>new</u> costs to demonstrate accuracy of their meter • Water meters are privately owned, purchased and maintained at the Licence holders' cost. The policy will not change this.
Quantum of water meters	• 290 ACT water meters currently in use (active) • Approx. 50% of Licences have 1 meter • Approx. 5% of Licences have more than 5 meters in total
Meter validation costs – <u>at policy implementation</u>	• Upfront cost between \$300-\$500 per meter for meter validation testing payable by 31 December 2024, total cost dependent on number of water meters per Licence
Meter validation costs - <u>ongoing</u>	• Approx \$300-500 per meter, payable every 5 years, for meter validation testing, total cost dependent on number of water meters per Licence • Ongoing maintenance
New water meter	• Cost to purchase meter ranges from \$800 to \$3,000+. Installation costs are dependent on specific site conditions, the type of work to be performed and the type of equipment to be repaired or replaced.
Costs payable to	• All costs payable to water meter validators or meter installers that are certified by Irrigation Australia Limited

The ACT Government is proposing to offer a \$300 rebate per meter with costs of the rebate absorbed by EPSDD.

The rebate will assist low risk users with costs for initial accuracy testing at policy implementation. This group comprises 106 low volume Licence holders with 117 active meters that measure irrigation of residential gardens by private bores, community organisations, private schools, businesses, several Pialligo rural irrigators and several Government entities.

The rebate would be a one-off payment, paid during the first year of implementation.

BACKGROUND

The new Non-urban Water Metering Policy (the policy) is being rolled out in stages between December 2023 and December 2024 to provide time for Licence holders to prepare for compliance costs associated with accuracy testing and/or meter repair and replacement.

A risk-based approach applies to policy implementation roll-out. Large water users, which pose a higher risk to the resource, are required to demonstrate compliance first.

The costs of water meters¹ vary by size and location so the following costs are provided as a broad estimate.

- Every existing meter is to be tested for accuracy or validated by the roll out date – cost varies between \$300 and \$500 per meter.
- Where a meter is verified as accurate or a validation certificate is issued - another test is required in 5 years, or earlier where a fault is suspected.
- Where a meter cannot be verified as accurate or a validation certificate cannot be issued – maintenance or repairs are required and costs for this will vary with labour and parts.
- Where repairs do not fix the fault, the meter must be replaced with a new pattern approved meter. The cost to supply and install a pattern approved meter can range from \$800 to \$3,000 for small meters (up to 200mm) to over \$10,000 for larger or bespoke meters (used by large irrigators in other jurisdictions).

The typical service life for pattern approved meters is 15 to 20 years so it is anticipated that numerous meters will be able to remain in service where their accuracy can be verified.

Please note the estimated costs are indicative only, and there are many factors that will influence how much it may cost to demonstrate the accuracy of a meter or the installation of a new meter, including:

- site conditions, such as ease of access to the meter;
- if existing pipework is visible above ground or whether excavation works are required at the Licensee's expense;
- if additional works are required to install a replacement meter;
- type of meter (electronic or mechanical meter); and
- travel costs for a certified installer to travel from a regional NSW area to the ACT (dependent on total kilometres travelled). It is expected that travel costs will be either reduced or eliminated as more local ACT-based installers become certified.

The above costs also do not incorporate telemetry as this is not a mandatory requirement at this time. Telemetry can cost between \$500 and \$2,000 when installed with a new meter,

¹ These costs have been taken from the 'NSW Water Reform Action Plan, Water take measurement and metering, consultation paper, March 2018', the Victorian 'Preparing non-urban water meter action plans, Guidelines for Water Corporations' and verified in conversations with local certified installers.

depending on the sophistication of the telemetry and the communication options. It can cost up to \$12,000 when retrofitted to existing meters.



ACT
Government

Environment, Planning and
Sustainable Development

CABINET

MINISTERIAL BRIEF

To:	Minister for Water, Energy and Emissions Reduction	Cabinet No.: 23/471 Rec'd Minister's Office .../.../...
From:	Executive Group Manager, Environment, Heritage and Water	
Subject:	Final Lodgement of Cabinet item 'Non-urban water metering policy'	
Critical Date:	13/10/2023	
Critical Reason:	The final submission must be lodged with Cabinet Office on or before 10am 13 October 2023 for Cabinet consideration on 23 October 2023.	

Purpose

To seek agreement to lodge the final submission and associated attachments.

Recommendations

That you:

1. **Sign and Agree** to EPSDD lodging the final Cabinet submission (Attachment 1) and associated documents with the Cabinet Office; and

Signed / Not Signed / Please Discuss

2. **Annotate** if an EPSDD official is required to attend.

Required / Not Required / Please Discuss

Shane Rattenbury MLA

13/10/23

Minister's Office Feedback

Background

1. On 30 August 2023, the Minister for Water, Energy and Emissions Reduction agreed via brief 23/471 to circulate the exposure draft of the draft Non-urban Water Metering Policy (the Policy).
2. The Policy meets commitments made by the ACT Government under Murray Darling Basin water reforms and the National Framework for Non-urban Water Metering.
3. Adoption of the Policy was considered by ERC on 9 October 2023, and will be considered by Cabinet on 23 October 2023.
4. Following ERC consideration, minor changes have been made to the Cabinet Submission at Attachment 1 and to Attachment I to clarify and confirm government entities will not be eligible for the rebate.

Issues

5. All directorates supported the proposed draft policy.
6. Comments were received from CMTEDD. The comments related to:
 - a. Availability of certified meter installer and validators (CMI);
 - b. Placing an unintended regulatory burden on Licence holders if they are unable to access testing services;
 - c. Seeking an extension from the Commonwealth Government to manage expectations and seek an extension to the compliance date;
 - d. Commentary on metering validation service and fee for service proposed to be offered by ACT government; and
 - e. Suggested changes to recommendations for Cabinet noting.
7. The Cabinet submission has been updated to:
 - a. Add 'policy implementation risks' as a subheading;
 - b. Remove discussion on the Environment Protection Authority (EPA) providing metering validation service;
 - c. Make it explicit that a flexible approach needs to be taken to the implementation plan in light of the issues raised in 'policy implementation risks';
 - d. Add a proposal to offer a \$300 rebate to assist low risk users with costs for initial accuracy testing; and
 - e. Remove reference to funding the establishment of a temporary FTE position.

Financial Implications

8. Licence holders will remain responsible for all costs associated with water metering.

9. The ACT Government is proposing to offer a \$300 rebate to assist low risk users with costs for initial accuracy testing. This group comprises 93 Licence holders and a total of 95 active meters. The rebate would be a one-off payment, paid during the first year of implementation. This is subject to Cabinet's agreement. The expected total cost is \$28,500.
10. ACT Government and Commonwealth Government Licence holders will not be eligible for the rebate (13 entities in total).
11. Paragraph 37 of the exposure draft referred to the EPA and EPSDD co-funding the establishment of a temporary FTE position to engage in education with Licence holders and undertake accuracy testing and compliance inspections. At this stage this position will not be funded as the government does not need to provide a meter validation service.

Consultation

Internal

12. EPSDD stakeholders were provided the opportunity to comment on the proposed Policy as part of the exposure draft circulation. Nil comment was received.

Cross Directorate

13. The Policy was prepared with input from Access Canberra (Environment Protection Authority) and Treasury.
14. All Directorates were provided the opportunity to comment on the proposed Government Response as part of the exposure draft circulation. One formal comment was received from CMTEDD as highlighted above.

External

15. Nil.

Benefits/Sensitivities

16. Licence holders may be sensitive to the new cost impost from this policy. However, this is a national policy and water users from all jurisdictions will incur new compliance costs.
17. The introduction of this policy will be timed closely with the ACT Government response to the Non-potable Water Review and will affect the same group of Licence holders. This is unintentional. Some Licence holders may be sensitive to two new policies with potential cost implications that are introduced in quick succession.
18. Failure of the ACT Government to implement a metering policy which meets the National Framework and AS4747 could result in an audit or investigation by the Commonwealth Inspector General Water Compliance (IGWC) of compliance with the ACT's water resource plan and subsequent public reporting of the compliance results.

Media Implications

19. The Office of Water has engaged with EPSDD Communications and Access Canberra Communications Teams to develop a communications plan which is included within the cabinet package (Attachment D).

Signatory Name: Bren Burkevics

Phone: 6207 8628

Action Officer: Sara McIntyre

Phone: 6207 2144

Summary of Attachments

- 1 – Final Cabinet submission
 - A – Table of Comments
 - B – Open Access Decision and Wellbeing Impact Assessment summary
 - C – Wellbeing Impact Assessment
 - D – Communications-on-a-page
 - E – Non-urban Water Metering Policy
 - F – Listening report
 - G – Options for setting threshold criteria
 - H – Examples of threshold criteria from other jurisdictions
 - I – Indicative financial impacts for Licence holders
 - J – Implementation plan

CABINET SUBMISSION

23/471



Title	Non-urban Water Metering Policy
Meeting type	Expenditure Review Committee
Minister	Shane Rattenbury MLA Minister for Water, Energy and Emissions Reduction
Cabinet date	Monday, 23 October 2023
Status	FINAL
Relationship to previous decisions	Nil
Purpose	Cabinet endorsement of the Draft Non-urban Water Metering Policy to improve meter accuracy and performance
Category	Category 2 - Government business
Financial impact	Yes
Treasury agreement	Yes Date provided for Treasury agreement to financial implications: 20/07/2023 Date of Treasury agreement 11/08/2023:
Is ERC consideration required?	Yes If yes, select ERC meeting date: Monday, 9 October 2023
Legislative change	No - change to legislation not required
Regulatory impact	Yes The Non-Urban Water Metering Policy updates existing guidelines to meet national standards. Additional requirements for Licence holders will include accuracy testing of installed water meters and may require the repair or replacement of certain components where meter accuracy cannot be demonstrated. It will have a positive impact on the environment by ensuring the sustainable management of water resources and improve public confidence in water resource management and accounting.
Wellbeing Impact Assessment	Yes
Primary Wellbeing Domain	Environment and climate

RECOMMENDATIONS

- 1) I recommend Cabinet agree to the ACT *Non-urban Water Metering Policy* (Policy) which:
 - a. delivers on the ACT's commitment to the National Water Initiative, the National Framework for Non-urban Water Metering and the Murray-Darling Basin Compliance Compact;
 - b. provides an acceptable level of confidence in water meter performance;
 - c. ensures greater coverage of pattern approved water meters which comply with Australian Standard 4747:2013 - Meters for non-urban water supply (AS4747); and
 - d. encourages the use of a risk management approach to prioritise implementation for high risk users first.
- 2) I recommend Cabinet agree to:
 - a. the ongoing financial impacts of policy implementation;
 - b. provide low risk users with a \$300 rebate, paid once in the first year of implementation, with costs of the rebate absorbed by the Environment, Planning and Sustainable Development Directorate within existing financial resources;
 - c. the implementation milestones and timeframes at Table 1;
 - d. the Minister for Water, Energy and Emissions Reduction settling with the Chief Minister any necessary administrative arrangements to administer the rebate program.
- 3) I recommend Cabinet note that:
 - a. the Policy applies only to licensed non-potable water take (treated drinking water supplied by Icon Water is out of scope);
 - b. the Policy will be jointly implemented through existing Environment, Planning and Sustainable Development Directorate and Access Canberra budgets;
 - c. consultation with non-potable water Licence holders was undertaken in May 2023 on the draft Policy (Listening Report included in Attachment F);
 - d. policy implementation will commence on 1 December 2023 and will adopt a risk-based and staged approach by prioritising the implementation of new metering requirements for high-risk non-potable water take;
 - e. the draft implementation plan in Attachment J will be finalised in consultation with other key stakeholders over coming months; and

CABINET

- f. that EPSDD has identified potential market capacity issues in delivering metering validation services in other jurisdictions and that the implementation plan will consider a range of mitigation strategies to manage this risk which may include:
 - i. regular monitoring of market capacity;
 - ii. government procuring services to undertake validation at Licence holders expense;
 - iii. the EPA directly providing validation services (least preferred due to competitive neutrality concerns); or
 - iv. liaison with the Commonwealth Government on compliance and deadlines to manage expectations and seek extensions if needed.
- g. EPSDD will work with Treasury and Environment Protection Authority to determine the optimal risk mitigation strategies.
- h. the advice to the Chief Minister on the release of the Cabinet Decision Summary (Attachment B) as required under Section 23 of the Freedom of Information Act 2016; and
- i. the following summaries to be released:
 - i. Cabinet agreed to adopt the Non-urban Water Metering Policy which delivers on the ACT's commitment to improve metering standards under the National Framework for non-urban water metering. The Policy provides an acceptable level of confidence in water meter performance, ensures greater coverage of pattern approved water meters which comply with the relevant standards, and uses a risk management approach to prioritise metering implementation.
 - ii. The Non-urban Water Metering Policy builds on existing water metering requirements to strengthen water measurement and enhance the regulatory approach and demonstrates the ACT's commitment to National Framework for non-urban water metering. It provides a robust metering framework which will improve the confidence in water meter performance and accuracy, reduce environmental impacts of water usage and ensure water is used sustainably.

SUPPORTING ARGUMENT

BACKGROUND

- 1) The National Water Initiative (2004), the National Framework for non-urban water metering (2009), and the Murray-Darling Basin Compliance Compact (2018) require states and territories to implement consistent water metering standards to ensure equity around water sharing and the protection of water resources.
- 2) The Metrological Assurance Framework 2 (2021) (MAF2) is a part of the National Framework and describes the key requirements to ensure a nationally consistent compliance approach for non-urban water meters. The MAF2 aims to:
 - a. Provide an acceptable level of confidence in water meter performance;
 - b. Ensure greater coverage of pattern approved water meters¹ which comply with Australian Standard 4747:2013 – Meters for non-urban water supply (AS 4747);
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 - d. Encourage the use of risk management to prioritise metering implementation and management requirements.
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- 5) A Licence requires a water meter to be installed at each extraction point to account for water taken. There are 290 non-potable water meters currently in use that meet the policy definition. At this time no data is not available on how many of these meters are pattern approved or about the accuracy of these meters.

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ISSUES & OPTIONS

- 7) The Office of Water within the Environment, Planning and Sustainable Development Directorate has prepared the *Non-urban water metering policy* (Policy) ([Attachment E](#)).
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- 10) The Policy will not apply to individual water meters that measure treated drinking water supplied by Icon Water.
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12) The Policy was developed in consultation with a range of stakeholders including Licence holders, the Office of Water, the Environment Protection Authority (EPA), Irrigation Australia and Commonwealth Department of Climate Change, Energy, the Environment and Water.

13) The Policy is based on the following principles:

- a. Maintaining 100 per cent meter coverage in the ACT for licensed non-potable water take.
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- a. All licensed water take is already metered.
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f. Supports accounting confidence in future potential ACT-interstate water trading framework.

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- a. The first group of 17 Licence holders are required to comply with the policy by 31 March 2024. This includes large scale irrigators such as golf clubs, Canberra Airport, and places of public importance irrigated by Commonwealth Government and the Transport Canberra and City Services Directorate.
- b. The next group of 57 Licence holders are required to comply with the policy by 30 June 2024. This includes medium scale water users such as agricultural/horticultural irrigators, community organisations and other commercial irrigators.

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- c. The final group of 106 Licence holders are required to comply with the policy by 31 December 2024. This includes small scale water users including urban residential gardens irrigated by groundwater bores, stock and domestic use, schools and other small-scale irrigators.
- 20) Licence holders are responsible for and will be required to demonstrate the accuracy of their existing water meter/s by their roll out date. This involves:
- a. existing water meters require periodic inspection with a validation certificate issued;
 - b. new and replacement water meters require inspection with a validation certificate issued before water is taken against the Licence; and
 - c. faulty existing water meters require notification and repair within a consistent period defined in the policy and inspection with a validation certificate issued before the meter is put back into service. The meter will need to be replaced with a pattern approved meter where it cannot be repaired.
- 21) Provisions will be available to allow Licence holders to request additional time where reasonable justification can be provided.

Compliance with policy

- 22) The EPA, within Access Canberra, is responsible for the administration and regulation of licences to take water issued under the *Water Resources Act 2007* (Act). This includes enforcing metering requirements through conditions imposed on a Licence.
- 23) The EPA will implement the Policy.
- 24) The EPA will undertake education activities and compliance inspections to assist Licence holders to comply with the new policy requirements. This type of work already forms a part of the EPA's existing inspection programs.

Regulatory risks for the ACT Government

- 25) The *Murray-Darling Basin Compliance Compact Assurance Report 2020* provided an unfavourable assessment of the ACT's progress against meeting the commitments of the Compliance Compact. This report is publicly available on the Murray-Darling Basin Authority's website.
- 26) The report noted that two commitments relating to metering and measurement were assessed as "Of concern". The concerns related to the ACT Government not being able to demonstrate that the following had been completed:

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- a. Publication of a metering policy and implementation plan;
 - b. Validation of meter accuracy and compliance with AS4747 standards;
 - c. Implementation of a timetable for the installation of new meters, and auditing and maintenance of the metering fleet; and
 - d. Annual reporting on progress with the metering implementation plan.
- 27) The Commonwealth Inspector General of Water Compliance (IGWC) was established on 5 August 2021 to enforce compliance with the Basin Plan, *Water Act 2007* (Cwth) and other associated government resource plans.
- 28) Water metering and measurement was a priority for the IGWC's Compliance Work Program for 2021-22.
- 29) If the ACT Government does not implement a metering policy which meets the National Framework and AS4747, this may result in an IGWC audit or investigation of compliance with the ACT's water resource plan and subsequent public reporting of the compliance results.

Policy implementation risks for the ACT Government

- 30) Successful implementation of the non-urban water metering policy is dependent upon the growth of the number of providers for meter validation services.
- 31) There is currently a shortfall in the number of certified meter installers and validators (CMIs) in NSW certifying meter installations. This issue was raised at the interjurisdictional Regulatory Leaders Forum at the start of the year. NSW Government indicated that while there are many CMIs listed on Irrigation Australia's register, the number actually doing the work is decreasing due to low profitable market opportunities. There are more than 2000 NSW Licence holders waiting for water meter compliance inspection activities to be undertaken, with the wait time exceeding an average of 150 days. The NSW water meter project compliance date is anticipated to be 2040-2045 based on these waiting periods.
- 32) There has been an increase in the number of CMIs registered on Irrigation Australia's register in the last two months, as a result of local-based training being offered in Yass. The register shows that there is one CMI in the ACT (excluding trained EPA officers), and an additional 5 CMIs located within a 100km radius of the ACT. Five more training courses are scheduled between now and the end of this year which may help to increase CMI numbers further.
- 33) It is unknown at this time whether the ACT will experience the same issue as NSW with the

availability of CMIs. The ACT market may attract CMIs in that meters are located within close proximity of the city centre, they are generally small-scale installations and there is only a small number of meters in total.

- 34) A range of mitigation strategies have been considered to manage the risk of CMIs not being available to perform accuracy testing, including:
- a. Regular monitoring of market capacity.
 - b. Using a flexible approach to change the roll out dates in the policy if licence holders or the EPA experience difficulties in reaching compliance timeframes.
 - c. Allowing individual licence holders to request an extension in circumstances where compliance cannot be achieved by the roll-out date, such as financial hardship.
 - d. EPA officers using a risk-based approach to compliance and enforcement in line with the *Environment Regulation and Protection Compliance and Enforcement Guideline 2016* on a case-by-case basis. The risk assessment informs a proportional response such as support and engagement, education or active pursuit (reserved for significant non-compliance).
 - e. Being ready to initiate alternative Government intervention options to fill a shortfall of CMIs (if it occurs) such as:
 - i. An ACT Government procurement process to source independent certified persons, or
 - ii. Accuracy testing undertaken by the EPA (least preferred option due to competitive neutrality concerns).
 - f. Engage with the Commonwealth Government to manage expectations and seek an extension to the policy compliance date of June 2025 if needed.
- 35) The Government intervention at point (e) in Paragraph 34 is the least preferred option should market failure result in nil private CMIs operating in the ACT. If this eventuates, the intervention could be offered as a fee for service with pricing set per water meter or a time charge fee with regard to the price charged in other jurisdictions by CMIs.
- 36) The introduction of a fee for service would require further work in consultation with Treasury to ensure alignment with the ACT's competitive neutrality policy and that fees reflect a fair and transparent market price for the work. The ACT Government would only consider offering a service in competition to the private sector in circumstances where there is limited capacity to

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meet the expected extra demand for service. Such an approach would still provide scope for CMI supply to grow and for private CMIs to compete on price and service in the ACT.

- 37) Government endorsement will be required before introducing a new set of fees or charges in the Government intervention option. If this eventuates, a separate Cabinet submission would be brought forward to the Expenditure Review Committee detailing the expected financial impacts of providing new fee for service under the Water Resources (Fees) Determination.
- 38) Some jurisdictions recently raised a concern at the Regulatory Leaders Forum about their level of confidence in achieving the standard of $\pm 5\%$ accuracy for in-situ conditions for grandfathered meters. The accuracy of meters can potentially be affected by the age of the meters, whether they were pattern approved, and poor water quality.
- 39) Both the IGWC and DCCEEW have advised that no evidence or anecdotal data has been presented by jurisdictions to demonstrate the extent of the issue. There has also been no submission made to the Australia Standards Review Committee which is currently reviewing AS4747 and the MAF2.
- 40) Some ACT meters are now approaching their end of life after being installed 20+ years ago and accuracy is unknown since meters left the factory.
- 41) Accuracy testing has never been performed on meters in the ACT.
- 42) The preferred option is to maintain the precautionary principle and ensure that all meters are accuracy tested to confirm that they are operating within $\pm 5\%$ accuracy for in-situ conditions.
- 43) Access Canberra and EPSDD will work in collaboration with the Inspector-General of Water Compliance and other jurisdictions to provide input into the current review of the Australian Standards to ensure that it is appropriate for the proposed settings.

FINANCIAL IMPACT

- 44) The ACT Government is proposing to offer a \$300 rebate per meter with costs of the rebate absorbed by EPSDD within existing financial resources. ACT Government and Commonwealth Government Licence holders will not be eligible for the rebate (13 entities in total).
- 45) The rebate will assist low risk users with costs for initial accuracy testing at policy implementation. This group comprises 93 low volume Licence holders with 95 active meters. Examples include irrigation of residential gardens by private bores, community organisations, private schools, businesses, and several Pialligo rural irrigators.

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- 46) The rebate would be a one-off payment, paid during the first year of implementation. Applications for the rebate would be assessed by the EPA and where eligibility is approved, final payments would be processed by the Shared Services Finance Team.
- 47) The intent of the rebate is to improve implementation uptake and reduce the cost shock of a new policy at implementation. The minimum policy implementation costs could place a 50% cost increase above typical annual licence fees for this low-risk user group. Offering a rebate supports the low-risk users to continue to access non-potable water as an alternative to irrigating with drinking water, which in turn supports ACT water security.
- 48) There will be a financial impact to existing Licence holders as described at Attachment I. These impacts relate to minimum standards for meter installation/replacement and ongoing validation and accuracy testing requirements. In summary:
- a. ongoing validation of accuracy is approximately \$300-500 per meter every 5 years, payable to external meter validators;
 - b. if existing pipework is not visible above ground, excavation works may be required at the License holder's expense;
 - c. if a new water meter is required (e.g., installing new non-potable irrigation system, replacing a faulty meter, non-compliance with the Policy), the Licence holder bears the cost for meter replacement which may range from \$800 to over \$3000 per meter; and
 - d. all Licence holders will be required to pay meter accuracy validation fees in the first year of implementation (payable to private CMIs) and thereafter every five years, however, low risk Licence holders will be eligible to receive a \$300 rebate in the first year of implementation (subject to Cabinet agreement).
- 49) There is no change to Licence holder liability for standard ACT Government fees (annual licence administration fee of \$516.55 for 2023-2024, plus water abstraction charges based on consumption).

WELLBEING IMPACT SUMMARY

- 50) The Policy will have a positive impact by implementing a robust metering framework which will improve the confidence in water meter performance and accuracy, reduce environmental impacts of water usage and ensure water is used sustainably. A wellbeing impact assessment is in Attachment C.

- 51) The accurate measurement of water take will provide benefit in the following ways:
- a. The community – ensures transparency and equity in how water is shared, allocated and managed; greater confidence that water is being taken according to legal frameworks and licence conditions; and ensures users who take water are properly charged for their take.
 - b. Licence holders - provides confidence in water use data to demonstrate compliance with licence conditions and legislation; provides information on water use and management, pump and irrigation system performance; and identifies and measures water efficiency gains.
 - c. Environment – maintains the value and integrity of the water-sharing framework and ensures that water take complies with legal frameworks and licence conditions put in place to better manage environmental water.

CONSULTATION

External stakeholders (Licence holders)

- 52) All 180 Licence holders were consulted on the draft policy during a 4-week consultation period.
- 53) Feedback was received from 10 Licence holders. The main concern raised was related to the increased costs for compliance balanced with the proportional risk of small-scale irrigation. A summary of the submissions is provided as a Listening Report in Attachment E.
- 54) In response to consultation, the policy was finalised based on these considerations:
- a. Metering is an existing Licence requirement in the ACT;
 - b. Existing meters can be retained in service where accuracy can be demonstrated;
 - c. Expected cost for accuracy testing is \$300-\$500, payable once every 5 years per non-potable water meter. This is a reasonable cost to uphold meter accuracy to national standards and is not an unacceptable cost impost when averaged out over a period of years.
 - d. The additional costs to Licence holders for meter accuracy costs retains overall cost of licensed non-potable water irrigation as a financially viable option in preference to irrigating with fully treated drinking water;
 - e. Licence holders have the option to request a payment plan to defer payment of standard license fees if facing financial hardship;

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- f. If a Licence holder is not using non-potable water for an extended period, they have the option to render their licence temporarily inactive which avoids compliance costs associated with this policy and avoids general administration fees;
- g. The roll out dates provide a clear timeframe for when costs will be imposed and allows adequate time for Licence holders to plan for future costs;
- h. The number of available pattern approved meters has grown recently, thereby increasing market competition and choice for water users; and
- i. The EPA has the discretion to provide an extension of time where a Licence holder cannot comply with the requirements of the policy by their roll-out date, such as financial hardship.

External stakeholders (Others)

- 55) Consultation with Irrigation Australia and other state jurisdictions informed practical application of policy development, implementation and indicative costs for validating or installing meters.
- 56) The Commonwealth DCCEEW reviewed the policy to ensure that it meets the intent and requirements of the MAF2 and AS4747.

ACT Government agencies

- 57) The Office of Water worked in close collaboration with the EPA during the development of the policy and implementation plan.

MEDIA/COMMUNICATIONS

- 58) The Access Canberra Communications Team are leading policy implementation communications. The Office of Water will support the Access Canberra Communications Team as required.
- 59) The Communications on a Page is in Attachment D.

IMPLEMENTATION

- 60) The Office of Water developed an implementation plan (Attachment J) in consultation with the EPA to set tasks and responsibilities for both agencies to assist in the transition to the new requirements.
- 61) The EPA and EPSDD will continue to work through a number of outstanding matters associated with the implementation, as they are identified. These include a potential shortfall in the number of certified persons in the local region able to provide meter verification services, as well as concerns around the required accuracy standards of AS4747. The implementation plan will be

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adjusted as required to manage any issues and the Minister for Water, Energy and Emissions Reduction advised.

62) See Table 1 below for implementation milestones and timeframe.

Table 1: Implementation milestones and timeframes

Milestones	Date to be completed
1. Policy comes into effect	1 December 2023
2. Phase one implementation commences from 1 January 2024	Compliance by 31 March 2024
3. Phase two implementation commences from 1 April 2024	Compliance by 30 June 2024
4. Phase three implementation commences from 1 July 2024	Compliance by 31 December 2024
5. Full implementation complete	31 June 2025

HUMAN RIGHTS IMPACT

63) It has been determined that there are no significant Human Rights implications arising from this Policy.

Minister's signature



Date

13/10/23

ATTACHMENTS

A	Table of comments
B	Open Access Assessment: Cabinet Decision and Wellbeing Impact Assessment summary
C	Wellbeing Impact Assessment
D	Communications on a Page
E	Non-urban Water Metering Policy
F	Listening Report
G	Preferred policy position and other options for setting threshold criteria
H	Examples of threshold criteria from other jurisdictions
I	Indicative financial impacts for Licence holders
J	Implementation plan



CABINET SUBMISSION

23/471

Title	Non-urban Water Metering Policy
Meeting type	Expenditure Review Committee
Minister	Shane Rattenbury MLA Minister for Water, Energy and Emissions Reduction
Cabinet date	Monday, 9 October 2023 <u>Monday, 23 October 2023</u>
Status	FINAL
Relationship to previous decisions	Nil
Purpose	Cabinet endorsement of the Draft Non-urban Water Metering Policy to improve meter accuracy and performance
Category	Category 2 - Government business
Financial impact	Yes
Treasury agreement	Yes Date provided for Treasury agreement to financial implications: 20/07/2023 Date of Treasury agreement 11/08/2023:
Is ERC consideration required?	Yes If yes, select ERC meeting date: Monday, 9 October 2023
Legislative change	No - change to legislation not required
Regulatory impact	Yes The Non-Urban Water Metering Policy updates existing guidelines to meet national standards. Additional requirements for Licence holders will include accuracy testing of installed water meters and may require the repair or replacement of certain components where meter accuracy cannot be demonstrated. It will have a positive impact on the environment by ensuring the sustainable management of water resources and improve public confidence in water resource management and accounting.
Wellbeing Impact Assessment	Yes
Primary Wellbeing Domain	Environment and climate

RECOMMENDATIONS

- 1) I recommend Cabinet agree to the ACT *Non-urban Water Metering Policy* (Policy) which:
 - a. delivers on the ACT's commitment to the National Water Initiative, the National Framework for Non-urban Water Metering and the Murray-Darling Basin Compliance Compact;
 - b. provides an acceptable level of confidence in water meter performance;
 - c. ensures greater coverage of pattern approved water meters which comply with Australian Standard 4747:2013 - Meters for non-urban water supply (AS4747); and
 - d. encourages the use of a risk management approach to prioritise implementation for high risk users first.
- 2) I recommend Cabinet agree to:
 - a. the ongoing financial impacts of policy implementation;
 - b. provide low risk users with a \$300 rebate, paid once in the first year of implementation, with costs of the rebate absorbed by the Environment, Planning and Sustainable Development Directorate within existing financial resources;
 - c. the implementation milestones and timeframes at Table 1;
 - d. the Minister for Water, Energy and Emissions Reduction settling with the Chief Minister any necessary administrative arrangements to administer the rebate program.
- 3) I recommend Cabinet note that:
 - a. the Policy applies only to licensed non-potable water take (treated drinking water supplied by Icon Water is out of scope);
 - b. the Policy will be jointly implemented through existing Environment, Planning and Sustainable Development Directorate and Access Canberra budgets;
 - c. consultation with non-potable water Licence holders was undertaken in May 2023 on the draft Policy (Listening Report included in Attachment F);
 - d. policy implementation will commence on 1 December 2023 and will adopt a risk-based and staged approach by prioritising the implementation of new metering requirements for high-risk non-potable water take;
 - e. the draft implementation plan in Attachment J will be finalised in consultation with other key stakeholders over coming months; and

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- f. that EPSDD has identified potential market capacity issues in delivering metering validation services in other jurisdictions and that the implementation plan will consider a range of mitigation strategies to manage this risk which may include:
 - i. regular monitoring of market capacity;
 - ii. government procuring services to undertake validation at Licence holders expense;
 - iii. the EPA directly providing validation services (least preferred due to competitive neutrality concerns); or
 - iv. liaison with the Commonwealth Government on compliance and deadlines to manage expectations and seek extensions if needed.
- g. EPSDD will work with Treasury and Environment Protection Authority to determine the optimal risk mitigation strategies.
- h. the advice to the Chief Minister on the release of the Cabinet Decision Summary (Attachment B) as required under Section 23 of the Freedom of Information Act 2016; and
- i. the following summaries to be released:
 - i. Cabinet agreed to adopt the Non-urban Water Metering Policy which delivers on the ACT's commitment to improve metering standards under the National Framework for non-urban water metering. The Policy provides an acceptable level of confidence in water meter performance, ensures greater coverage of pattern approved water meters which comply with the relevant standards, and uses a risk management approach to prioritise metering implementation.
 - ii. The Non-urban Water Metering Policy builds on existing water metering requirements to strengthen water measurement and enhance the regulatory approach and demonstrates the ACT's commitment to National Framework for non-urban water metering. It provides a robust metering framework which will improve the confidence in water meter performance and accuracy, reduce environmental impacts of water usage and ensure water is used sustainably.

SUPPORTING ARGUMENT

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19) Implementation of Policy requirements will be rolled out in three stages from 1 December 2023. This approach allows Licence holders sufficient time to prepare for the new requirements and adopts a risk-based method to focus on large water users first and small water users last.

- a. The first group of 17 Licence holders are required to comply with the policy by 31 March 2024. This includes large scale irrigators such as golf clubs, Canberra Airport, and places of public importance irrigated by Commonwealth Government and the Transport Canberra and City Services Directorate.
- b. The next group of 57 Licence holders are required to comply with the policy by 30 June 2024. This includes medium scale water users such as agricultural/horticultural irrigators, community organisations and other commercial irrigators.

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- c. The final group of 106 Licence holders are required to comply with the policy by 31 December 2024. This includes small scale water users including urban residential gardens irrigated by groundwater bores, stock and domestic use, schools and other small-scale irrigators.
- 20) Licence holders are responsible for and will be required to demonstrate the accuracy of their existing water meter/s by their roll out date. This involves:
- a. existing water meters require periodic inspection with a validation certificate issued;
 - b. new and replacement water meters require inspection with a validation certificate issued before water is taken against the Licence; and
 - c. faulty existing water meters require notification and repair within a consistent period defined in the policy and inspection with a validation certificate issued before the meter is put back into service. The meter will need to be replaced with a pattern approved meter where it cannot be repaired.
- 21) Provisions will be available to allow Licence holders to request additional time where reasonable justification can be provided.

Compliance with policy

- 22) The EPA, within Access Canberra, is responsible for the administration and regulation of licences to take water issued under the *Water Resources Act 2007* (Act). This includes enforcing metering requirements through conditions imposed on a Licence.
- 23) The EPA will implement the Policy.
- 24) The EPA will undertake education activities and compliance inspections to assist Licence holders to comply with the new policy requirements. This type of work already forms a part of the EPA's existing inspection programs.

Regulatory risks for the ACT Government

- 25) The *Murray-Darling Basin Compliance Compact Assurance Report 2020* provided an unfavourable assessment of the ACT's progress against meeting the commitments of the Compliance Compact. This report is publicly available on the Murray-Darling Basin Authority's website.
- 26) The report noted that two commitments relating to metering and measurement were assessed as "Of concern". The concerns related to the ACT Government not being able to demonstrate that the following had been completed:

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- a. Publication of a metering policy and implementation plan;
 - b. Validation of meter accuracy and compliance with AS4747 standards;
 - c. Implementation of a timetable for the installation of new meters, and auditing and maintenance of the metering fleet; and
 - d. Annual reporting on progress with the metering implementation plan.
- 27) The Commonwealth Inspector General of Water Compliance (IGWC) was established on 5 August 2021 to enforce compliance with the Basin Plan, *Water Act 2007* (Cwth) and other associated government resource plans.
- 28) Water metering and measurement was a priority for the IGWC's Compliance Work Program for 2021-22.
- 29) If the ACT Government does not implement a metering policy which meets the National Framework and AS4747, this may result in an IGWC audit or investigation of compliance with the ACT's water resource plan and subsequent public reporting of the compliance results.

Policy implementation risks for the ACT Government

- 30) Successful implementation of the non-urban water metering policy is dependent upon the growth of the number of providers for meter validation services.
- 31) There is currently a shortfall in the number of certified meter installers and validators (CMIs) in NSW certifying meter installations. This issue was raised at the interjurisdictional Regulatory Leaders Forum at the start of the year. NSW Government indicated that while there are many CMIs listed on Irrigation Australia's register, the number actually doing the work is decreasing due to low profitable market opportunities. There are more than 2000 NSW Licence holders waiting for water meter compliance inspection activities to be undertaken, with the wait time exceeding an average of 150 days. The NSW water meter project compliance date is anticipated to be 2040-2045 based on these waiting periods.
- 32) There has been an increase in the number of CMIs registered on Irrigation Australia's register in the last two months, as a result of local-based training being offered in Yass. The register shows that there is one CMI in the ACT (excluding trained EPA officers), and an additional 5 CMIs located within a 100km radius of the ACT. Five more training courses are scheduled between now and the end of this year which may help to increase CMI numbers further.
- 33) It is unknown at this time whether the ACT will experience the same issue as NSW with the

availability of CMIs. The ACT market may attract CMIs in that meters are located within close proximity of the city centre, they are generally small-scale installations and there is only a small number of meters in total.

- 34) A range of mitigation strategies have been considered to manage the risk of CMIs not being available to perform accuracy testing, including:
- a. Regular monitoring of market capacity.
 - b. Using a flexible approach to change the roll out dates in the policy if licence holders or the EPA experience difficulties in reaching compliance timeframes.
 - c. Allowing individual licence holders to request an extension in circumstances where compliance cannot be achieved by the roll-out date, such as financial hardship.
 - d. EPA officers using a risk-based approach to compliance and enforcement in line with the *Environment Regulation and Protection Compliance and Enforcement Guideline 2016* on a case-by-case basis. The risk assessment informs a proportional response such as support and engagement, education or active pursuit (reserved for significant non-compliance).
 - e. Being ready to initiate alternative Government intervention options to fill a shortfall of CMIs (if it occurs) such as:
 - i. An ACT Government procurement process to source independent certified persons, or
 - ii. Accuracy testing undertaken by the EPA (least preferred option due to competitive neutrality concerns).
 - f. Engage with the Commonwealth Government to manage expectations and seek an extension to the policy compliance date of June 2025 if needed.
- 35) The Government intervention at point (e) in Paragraph 34 is the least preferred option should market failure result in nil private CMIs operating in the ACT. If this eventuates, the intervention could be offered as a fee for service with pricing set per water meter or a time charge fee with regard to the price charged in other jurisdictions by CMIs.
- 36) The introduction of a fee for service would require further work in consultation with Treasury to ensure alignment with the ACT's competitive neutrality policy and that fees reflect a fair and transparent market price for the work. The ACT Government would only consider offering a service in competition to the private sector in circumstances where there is limited capacity to

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meet the expected extra demand for service. Such an approach would still provide scope for CMI supply to grow and for private CMIs to compete on price and service in the ACT.

- 37) Government endorsement will be required before introducing a new set of fees or charges in the Government intervention option. If this eventuates, a separate Cabinet submission would be brought forward to the Expenditure Review Committee detailing the expected financial impacts of providing new fee for service under the Water Resources (Fees) Determination.
- 38) Some jurisdictions recently raised a concern at the Regulatory Leaders Forum about their level of confidence in achieving the standard of $\pm 5\%$ accuracy for in-situ conditions for grandfathered meters. The accuracy of meters can potentially be affected by the age of the meters, whether they were pattern approved, and poor water quality.
- 39) Both the IGWC and DCCEEW have advised that no evidence or anecdotal data has been presented by jurisdictions to demonstrate the extent of the issue. There has also been no submission made to the Australia Standards Review Committee which is currently reviewing AS4747 and the MAF2.
- 40) Some ACT meters are now approaching their end of life after being installed 20+ years ago and accuracy is unknown since meters left the factory.
- 41) Accuracy testing has never been performed on meters in the ACT.
- 42) The preferred option is to maintain the precautionary principle and ensure that all meters are accuracy tested to confirm that they are operating within $\pm 5\%$ accuracy for in-situ conditions.
- 43) Access Canberra and EPSDD will work in collaboration with the Inspector-General of Water Compliance and other jurisdictions to provide input into the current review of the Australian Standards to ensure that it is appropriate for the proposed settings.

FINANCIAL IMPACT

- 44) The ACT Government is proposing to offer a \$300 rebate per meter with costs of the rebate absorbed by EPSDD within existing financial resources. ACT Government and Commonwealth Government Licence holders will not be eligible for the rebate (13 entities in total).
- 45) The rebate will assist low risk users with costs for initial accuracy testing at policy implementation. This group comprises 93 low volume Licence holders with 95 active meters. Examples include irrigation of residential gardens by private bores, community organisations, private schools, businesses, and several Pialligo rural irrigators.

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- 46) The rebate would be a one-off payment, paid during the first year of implementation. Applications for the rebate would be assessed by the EPA and where eligibility is approved, final payments would be processed by the Shared Services Finance Team.
- 47) The intent of the rebate is to improve implementation uptake and reduce the cost shock of a new policy at implementation. The minimum policy implementation costs could place a 50% cost increase above typical annual licence fees for this low-risk user group. Offering a rebate supports the low-risk users to continue to access non-potable water as an alternative to irrigating with drinking water, which in turn supports ACT water security.
- 48) There will be a financial impact to existing Licence holders as described at Attachment I. These impacts relate to minimum standards for meter installation/replacement and ongoing validation and accuracy testing requirements. In summary:
- a. ongoing validation of accuracy is approximately \$300-500 per meter every 5 years, payable to external meter validators;
 - b. if existing pipework is not visible above ground, excavation works may be required at the License holder's expense;
 - c. if a new water meter is required (e.g., installing new non-potable irrigation system, replacing a faulty meter, non-compliance with the Policy), the Licence holder bears the cost for meter replacement which may range from \$800 to over \$3000 per meter; and
 - d. all Licence holders will be required to pay meter accuracy validation fees in the first year of implementation (payable to private CMIs) and thereafter every five years, however, low risk Licence holders will be eligible to receive a \$300 rebate in the first year of implementation (subject to Cabinet agreement).
- 49) There is no change to Licence holder liability for standard ACT Government fees (annual licence administration fee of \$516.55 for 2023-2024, plus water abstraction charges based on consumption).

WELLBEING IMPACT SUMMARY

- 50) The Policy will have a positive impact by implementing a robust metering framework which will improve the confidence in water meter performance and accuracy, reduce environmental impacts of water usage and ensure water is used sustainably. A wellbeing impact assessment is in Attachment C.

- 51) The accurate measurement of water take will provide benefit in the following ways:
- a. The community – ensures transparency and equity in how water is shared, allocated and managed; greater confidence that water is being taken according to legal frameworks and licence conditions; and ensures users who take water are properly charged for their take.
 - b. Licence holders - provides confidence in water use data to demonstrate compliance with licence conditions and legislation; provides information on water use and management, pump and irrigation system performance; and identifies and measures water efficiency gains.
 - c. Environment – maintains the value and integrity of the water-sharing framework and ensures that water take complies with legal frameworks and licence conditions put in place to better manage environmental water.

CONSULTATION

External stakeholders (Licence holders)

- 52) All 180 Licence holders were consulted on the draft policy during a 4-week consultation period.
- 53) Feedback was received from 10 Licence holders. The main concern raised was related to the increased costs for compliance balanced with the proportional risk of small-scale irrigation. A summary of the submissions is provided as a Listening Report in Attachment E.
- 54) In response to consultation, the policy was finalised based on these considerations:
- a. Metering is an existing Licence requirement in the ACT;
 - b. Existing meters can be retained in service where accuracy can be demonstrated;
 - c. Expected cost for accuracy testing is \$300-\$500, payable once every 5 years per non-potable water meter. This is a reasonable cost to uphold meter accuracy to national standards and is not an unacceptable cost impost when averaged out over a period of years.
 - d. The additional costs to Licence holders for meter accuracy costs retains overall cost of licensed non-potable water irrigation as a financially viable option in preference to irrigating with fully treated drinking water;
 - e. Licence holders have the option to request a payment plan to defer payment of standard license fees if facing financial hardship;

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- f. If a Licence holder is not using non-potable water for an extended period, they have the option to render their licence temporarily inactive which avoids compliance costs associated with this policy and avoids general administration fees;
- g. The roll out dates provide a clear timeframe for when costs will be imposed and allows adequate time for Licence holders to plan for future costs;
- h. The number of available pattern approved meters has grown recently, thereby increasing market competition and choice for water users; and
- i. The EPA has the discretion to provide an extension of time where a Licence holder cannot comply with the requirements of the policy by their roll-out date, such as financial hardship.

External stakeholders (Others)

- 55) Consultation with Irrigation Australia and other state jurisdictions informed practical application of policy development, implementation and indicative costs for validating or installing meters.
- 56) The Commonwealth DCCEEW reviewed the policy to ensure that it meets the intent and requirements of the MAF2 and AS4747.

ACT Government agencies

- 57) The Office of Water worked in close collaboration with the EPA during the development of the policy and implementation plan.

MEDIA/COMMUNICATIONS

- 58) The Access Canberra Communications Team are leading policy implementation communications. The Office of Water will support the Access Canberra Communications Team as required.
- 59) The Communications on a Page is in Attachment D.

IMPLEMENTATION

- 60) The Office of Water developed an implementation plan (Attachment J) in consultation with the EPA to set tasks and responsibilities for both agencies to assist in the transition to the new requirements.
- 61) The EPA and EPSDD will continue to work through a number of outstanding matters associated with the implementation, as they are identified. These include a potential shortfall in the number of certified persons in the local region able to provide meter verification services, as well as concerns around the required accuracy standards of AS4747. The implementation plan will be

adjusted as required to manage any issues and the Minister for Water, Energy and Emissions Reduction advised.

62) See Table 1 below for implementation milestones and timeframe.

Table 1: Implementation milestones and timeframes

Milestones	Date to be completed
1. Policy comes into effect	1 December 2023
2. Phase one implementation commences from 1 January 2024	Compliance by 31 March 2024
3. Phase two implementation commences from 1 April 2024	Compliance by 30 June 2024
4. Phase three implementation commences from 1 July 2024	Compliance by 31 December 2024
5. Full implementation complete	31 June 2025

HUMAN RIGHTS IMPACT

63) It has been determined that there are no significant Human Rights implications arising from this Policy.

Minister's signature _____

Date ____/____/____

ATTACHMENTS

A	Table of comments
B	Open Access Assessment: Cabinet Decision and Wellbeing Impact Assessment summary
C	Wellbeing Impact Assessment
D	Communications on a Page
E	Non-urban Water Metering Policy
F	Listening Report
G	Preferred policy position and other options for setting threshold criteria
H	Examples of threshold criteria from other jurisdictions
I	Indicative financial impacts for Licence holders
J	Implementation plan

MINISTER FOR WATER, ENERGY AND EMISSIONS REDUCTION ERC BRIEF

23/471

Title	Non-urban Water Metering Policy
Minister	Shane Rattenbury MLA Minister for Water, Energy and Emissions Reduction
Cabinet date	Monday, 9 October 2023 <u>Monday, 23 October 2023</u>
Recommended position	SUPPORT

Submission recommendations

The Paper seeks endorsement of the update to the existing policy 'Water Meter Installation, Maintenance and Replacement Guideline' to introduce requirements and standards for existing, new and replacement meters in line with the National Framework for non-urban water metering.

It is recommended that you support all recommendations.

Issues/comment

The submission was shared with Access Canberra (Environment Protection Authority) who are supportive of the content. The Environment Planning and Sustainable Development Directorate through the Office of Water continues to liaise closely with the Environment Protection Authority on the policy Implementation Plan.

Treasury sought clarification on the basis for proposing a one off \$300 rebate at policy implementation to low risk (low volume) licence holders.

The intent of the rebate is to improve implementation uptake and reduce the cost shock of a new policy at implementation. The minimum policy implementation costs could place a 50% cost increase above typical annual licence fees for this low-risk user group. Offering a rebate supports the low-risk users to continue to access non-potable water as an alternative to irrigating with drinking water, which in turn supports ACT water security.

There is an implementation risk of not enough external certified persons being available to provide independent meter accuracy validation for the ACT. In consultation with Treasury, the policy implementation plan has considered contingency measures for ACT Government to potentially provide meter accuracy validation but in a manner that does not impede competitive neutrality for an emerging market of external certified persons to provide the service.

Wellbeing Impact Assessment

The Wellbeing Impact Assessment has been completed. The impacts are anticipated across the environment and climate and governance and institutions domains:

- positive impact on the environment
- positive impact on governance and institutions.

The sustainable management of water resources is vital for supporting social, cultural, economic and environmental outcomes. Meters enable water users to demonstrate they are using their allocation responsibly and within the rules.

Context and consultation

The ACT comes from a position of compliance strength by being the only Murray-Darling Basin jurisdiction with 100% of licensed non-potable water take being metered. Current policy requires all licence holders to

Cleared:	Fiona Wright (A/g Deputy Director General, Environment, Water and Emissions Reduction)
Prepared by:	Sara McIntyre (Water Policy Compliance Officer)

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install and maintain water meters at their own expense.

In March 2021, the Murray-Darling Basin Compliance Compact Assurance Report 2020 provided an unfavourable assessment of the ACT's progress against meeting the commitments of the Compliance Compact. The report noted that two commitments relating to metering accuracy and measurement were assessed as "Of concern".

The Office of the Inspector-General Water Compliance is the independent authority for overseeing State and Territory compliance with the implementation of the Basin Plan. The Inspector-General prioritised the accurate metering and measurement of water take across the Basin in 2021-2022 and has the power to undertake an audit or investigation of compliance with jurisdictions water resource plans.

All Basin states are required to comply with the Australian Standard AS4747 for non-urban water meter accuracy. The ACT remains the only Basin jurisdiction that has not yet adopted policy to implement the new higher level of meter accuracy required by the Inspector-General. The ACT Government has committed to developing the required policy through the *Federation Funding Agreement – Environment on Implementing Water Reform on the Murray-Darling Basin (2021-22 to 2023-24)*.

The Office of Water has worked closely with Access Canberra (Environment Protection Authority) in drafting an agreed policy and implementation plan.

Consultation with licence holders (n=180) on the draft policy was undertaken for a four-week period and feedback has been incorporated into the final policy. Small volume licence holders raised concerns about cost impact of ongoing compliance with new meter accuracy requirements. Direct education with licence holders will be undertaken by the Environment Protection Authority during the implementation of the policy to assist with compliance.

Cleared: Fiona Wright (A/g Deputy Director General, Environment, Water and Emissions Reduction)
Prepared by: Sara McIntyre (Water Policy Compliance Officer)

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EXPOSURE DRAFT COMMENTS – 23/471

Exposure circulation undertaken: Full exposure circulation

Reason for exception: N/A

Dates circulated: 31 August 2023 – 6 September 2023

Directorate	Comment	Response
CMTEDD	CMTEDD understands that this submission seeks to establish a framework to assist the ACT to comply with an agreement with the Commonwealth requiring 300 non-urban water meters to be accuracy tested by June 2025. Despite this agreement with the Commonwealth, a new obligation to require water meter testing will need to include scope/flexibility to ensure licence holders are not in breach of the law if a shortage of water meter testing services in the region prevents them from complying within the required timeframe. However, there may be a risk of unintended regulatory burden if licence holders are required to report their non-compliance and/or seek an exemption from the requirement to comply by June 2025, for the reason that they have been unable to access testing services. Should the Government determine to provide water meter testing services, Treasury can help EPSDD to establish a fee framework to support this. Should Government not seek to provide these services, Treasury suggests early engagement with the	New sub-heading ‘Policy implementation risks for the ACT Government’ added to consolidate commentary, particularly on water testing services. It is not known if the ACT will experience the same shortage of certified meter installer and validators (CMIs) as NSW until policy implementation commences. Paragraphs 33 and 34 added to outline risk for the ACT and measures that can be put in place throughout policy implementation. There will be close engagement with the first round of Licence holders to determine if there is a shortfall in CMIs. Where a shortfall is identified, a quick response can be employed to give Licence holders an extension of time to comply and to allow government to consider what degree of intervention may be required. Paragraph 35 updated to remove ‘will’ and to emphasis that this is only an option for further consideration if required.

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Commonwealth to explore the possibility of a longer transition period that would ensure licensees have sufficient time to comply with the new obligation. Should a longer transition period not be supported by the Commonwealth, Treasury recommends consideration of a tender process to acquire a service provider to provide water meter testing services to all licencees. Adiditonally, the wording in Para. 35 suggests the ACT <u>will</u> offer a service in competition with market provider. The Submission should make clear that this is an option for further assessment which would also go to the above points. The submission states that a metering validation fee will also be added to standard Government fees for Licence holders in the first year of implementation. CMTEDD understands this is a remnant of the previous discussions to implement a fee for service for EPA-provided services in order to address market capacity concerns. EPSDD has advised this reference will be removed to account for the fact a fee for service model may be considered as a risk mitigation option in the implementation planning but is <u>not</u> currently a preferred option. CMTEDD also notes that the submission seeks Cabinet agreement to the implementation plan and milestones. CMTEDD suggest this recommendation be removed and that the following (or similar) be added for Cabinet noting: • <i>“Cabinet note:</i> ○ <i>the draft implementation plan at Attachment [xx] and that EPSDD will finalise this plan in concert with other key</i>	Metering validation fee removed. A fee for service will be considered if the ACT experiences a shortfall in the number of certified meter installers and validators. Changes made to recommendations for Cabinet noting. Paragraph 43 added. Paragraph 59 added to emphasis that the implementation plan (<u>Attachment J</u>) will be adjusted as required to manage any issues.
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	<i>stakeholders over coming months; and</i> ○ <i>That EPSDD has identified market capacity issues in delivering metering validation services in other jurisdictions and that the implementation plan will consider a range of mitigation strategies to manage this risk which may include:</i> <i>Regular monitoring of market capacity</i> <i>Government procuring services via a panel or similar to undertake validation at Licence holders expense</i> <i>The EPA directly providing validation services (least preferred due to competitive neutrality concerns)</i> <i>Liaison with the Commonwealth on compliance and deadlines to manage expectations and seek extensions if needed.</i> ○ <i>EPSDD will work with Treasury and EPA to determine the optimal risk mitigation strategies”</i> CMTEDD further notes the proposal for a Non-Urban Water Metering Policy has been developed by EPSDD to provide that the ACT meets a national standard to which the ACT has formally committed. There has been close collaboration with the Environment Protection Authority (EPA) and an appropriate weight given to regulatory concerns throughout.	
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	The EPA and EPSDD continue to work through a number of outstanding matters associated with the implementation and design of this Policy, as they are identified. These include a current shortfall in the number of certified persons in the local region able to provide meter verification services, as well as concerns around the required accuracy standards of the new Policy. In response to these issues, the government is exploring options for the EPA to assist in the delivery of the validation service within the ACT and AC is collaborating with EPSDD, the Inspector-General of Water Compliance and other jurisdictions to provide input to a current review of the Australian Standard aiming to ensure that it is appropriate for the proposed settings.	
JACS	Supported.	
HD	Supported.	
CHS	Supported.	
EDU	Supported.	
TCCS	Supported.	
CSD	Supported.	
MPC	Supported.	
Statutory Office Holder	Supported.	

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	CMTEDD also suggests that Attachment I - Indicative Financial Impacts for Licence Holders be updated to reflect the impact of the \$300 rebate to the low-risk users. CMTEDD notes the submission has included a range of mitigation strategies for reducing the risks of a shortage in certified meter installers and validators. Despite this, Treasury considers that there remains a risk of unintended regulatory burden being placed on licence holders should they be required to report their non-compliance and/or seek an exemption from the requirement to comply by June 2025. To further mitigate these risks, CMTEDD suggests that EPSDD proactively engage with licence holders and ensure a clear and easy to follow process that assists licence holders to understand and comply with their obligations or seek assistance if they have difficulties meeting the timeframes.	• There is mutual agreement that EPA as the regulator and licence administrator remains the primary point of contact for communication with licence holders for the Non-urban Metering Policy. • The Office of Water will continue to provide policy support in collaboration with EPA to prepare for policy implementation. The risks raised by CMTEDD (self-reporting of non-compliance; seeking exemption; compliance by June 2025) are noted for further consideration by the Office of Water and the EPA. • The EPA will take the regulatory lead on compliance processes for policy implementation in harmony with existing Access Canberra regulatory protocols.
JACS	Supported.	N/A
HD	Supported.	N/A
CHS	Supported.	N/A
EDU	Supported.	N/A
TCCS	Supported.	N/A
CSD	Supported.	N/A
EPSD	Supported.	N/A
MPC	Supported.	N/A

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Statutory Office Holder	Supported.	N/A
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FINAL COMMENTS - 23/471

Final circulation undertaken: 2 day final circulation

Reason for exception: N/A

Dates circulated: Provide dates circulated

Directorate	Comment	Response
CMTEDD	Following discussion with EPSDD, CMTEDD understands that the proposed rebate to low-risk users would be funded from EPSDD's existing resources. As such, CMTEDD requests the submission be amended in time for the ERC meeting date so that: - o paragraph 2c is updated to state that the cost of the rebates will be absorbed by EPSDD; - o paragraph 44 is amended to reflect that the submission is no longer seeking agreement to additional appropriation; and - o Table 1 in the financial impact section is removed. CMTEDD considers that the submission would benefit from additional information to justify the \$300 rebate to low-risk users. The submission could look to expand on the types of users that fall under the low-risk category, and to explain why government assistance is considered necessary for this group of users. CMTEDD also suggests that Attachment I - Indicative Financial Impacts for Licence Holders be updated to reflect	Paragraph 2c amended and renumbered as new 2b; Paragraph 44 amended; and table deleted per CMTEDD comment. Minor editing to update correct cross-reference to table. Content added at paragraph 45 to explain types of low risk users. Content added at paragraph 47 to explain basis of validating government assistance to low risk users. Content added to Attachment I to describe impact of \$300 rebate for low-risk users. In response to CMTEDD comments on unintended regulatory burden. • EPSDD through the Office of Water continues to liaise closely with CMTEDD Access Canberra (Environment Protection Authority) on the policy Implementation Plan.

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OPEN ACCESS ASSESSMENT: CABINET DECISION AND WELLBEING IMPACT ASSESSMENT SUMMARY

The Chief Minister must proactively release the information described in section 23 of the *Freedom of Information Act 2016* (the FOI Act) unless the information is contrary to the public interest in accordance with sections 16 and 17, and schedules 1 and 2 of the FOI Act. Please refer to the Cabinet Sharepoint Site for further guidance on what is within the scope of Open Access requirements.

If you believe that release of this information is within the scope of Open Access requirements and would be contrary to the public interest, please complete Part B.

PART A: Release proposed

Number and title of decision: 23/471 – Non-urban Water Metering Policy

Proposed summary of the decision for public release

Cabinet agreed to adopt the Non-urban Water Metering Policy which delivers on the ACT's commitment to improve metering standards under the National Framework for non-urban water metering. The Policy provides an acceptable level of confidence in water meter performance, ensures greater coverage of pattern approved water meters which comply with the relevant standards, and uses a risk management approach to prioritise metering implementation.

Proposed summary of the Wellbeing Impact Assessment for public release

The Non-urban Water Metering Policy builds on existing water metering requirements to strengthen water measurement and enhance the regulatory approach and demonstrates the ACT's commitment to National Framework for non-urban water metering. It provides a robust metering framework which will improve the confidence in water meter performance and accuracy, reduce environmental impacts of water usage and ensure water is used sustainably.

Attachments for release

Summary of the decision	Release through the Open Access website?	Release by Directorate?
Summary of the decision	Yes	No
<u>Attachment A</u> Table of final agency comments		
<u>Attachment B</u> Open Access Assessment – Decision Summary		
<u>Attachment C</u> Wellbeing Impact Assessment	Yes	No
<u>Attachment D</u> Communications-on-a-page	No	No
<u>Attachment E</u> Non-urban Water Metering Policy	No	No
<u>Attachment F</u>	No	No

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Summary of submissions		
<u>Attachment G</u> Options for setting threshold criteria	No	No
<u>Attachment H</u> Examples of threshold criteria from other jurisdictions	Yes	No
<u>Attachment I</u> Indicative financial impacts for licence holders	No	No
<u>Attachment J</u> Implementation plan	Yes	No

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WELLBEING IMPACT ASSESSMENT

Non-urban Water Metering Policy	EPSDD	Wellbeing Impact 1
Purpose of proposal This proposal seeks agreement to update the existing policy '<i>Water Meter Installation, Maintenance and Replacement Guideline</i>' to introduce requirements and standards for existing, new and replacement meters in line with the National Framework for non-urban water metering.		
Impact description The updating of this policy builds on the existing non-potable water metering requirements to strengthen water measurement and enhance the regulatory approach. The policy will: - ensure an acceptable level of confidence in meter performance and accuracy; - align with the National Framework for non-urban water metering (2009), including the Metrological Assurance Framework 2 (MAF2) and Australian Standard 4747: Meters for non-urban water supply (AS4747) - adopt a staged risk-based approach to implementing new metering requirements by prioritising implementation for high risk water take. The benefits of improved non-potable water metering accuracy have been balanced with costs for Licence holders by: - using a staged risk-based regulatory approach by prioritising the implementation of new metering requirements for high risk water take - allowing adequate time for implementation where possible to ensure future costs can be considered within water users' overall expenses - setting standards to enable existing meters to be retained in service - using a risk-based approach to exempt the application of telemetry, which would be a new cost to water users Overall, the proposal will have a positive impact for the ACT community as it will continue to provide assurance that water is being managed sustainably for the benefit of both the community and the environment. Licence holders will continue to be responsible for all costs associated with the supply, installation and maintenance of water meters. The proposal will have a negative impact for Licence holders who are required to install a new or replacement pattern approved water meter. Some modifications may also be required to existing pipework and fittings to ensure that the pattern approved meter is installed in accordance with the manufacturer's specifications and AS4747. There will also be a minor negative impact for Licence holders with ongoing costs to demonstrate the accuracy of existing meters, with expected costs to be between \$300 and \$500 every five years. However, in some cases, non-potable water meters may inadvertently be over-reading water usage and the validation of the meter may result in less water use being recorded. Water bills will become more accurate and financial savings may be made, as well as a lower environmental impact overall.		
Who is affected? The proposal will affect 1802 holders of a Licence to Take Water issued under the <i>Water Resources Act 2007</i>. Licence holders range from commercial and industrial businesses, rural properties, Commonwealth and ACT Government directorates, sporting and recreation clubs, as well as private suburban-residences. Water meters supplied by Icon Water to measure treated drinking water are out of scope.		
Wellbeing domain Environment and climate The primary wellbeing domains impacted by this proposal are environment and climate and governance and institutions.		
Timeframe		

WELLBEING IMPACT ASSESSMENT

Between one and five years

The policy commences on 1 December 2023 and must be fully implemented by June 2025.

Evidence base and data

What do we know now?

The National Water Initiative (2004), the National Framework for non-urban water metering (2009) and the Murray-Darling Basin Compliance Compact (2018) requires jurisdictional governments, including the ACT, to implement consistent metering standards for non-urban water take to ensure relative equity around water sharing and the protection of water resources.

Licensed non-potable water users in the ACT have been required to install water meters to account for surface water use and groundwater use since 1998. The ACT government has committed to strengthening its water metering policy to improve the standard of measurement for non-urban water.

Accurate water measurement benefits water users, communities, industry, and government by:

- providing the data to support transparency and assurance that water is being appropriately managed and shared;
- providing confidence that water take complies with water plan requirements, including those to protect environmental flows;
- enabling non-potable water users to demonstrate that they are meeting their regulatory requirements;
- providing water take data to better inform water resource management decisions; and
- providing timely information about available water to support water markets and water trading.

What do we need to know?

There are ~~307~~ 290 non-potable water meters currently in use. Data is not available on how many of these meters are pattern approved or about the accuracy of these meters.

The implementation of the policy will provide the data needed to measure the progress of the ACT towards National requirements of having AS4747 compliant meters or suitable grandfathering arrangements.

Accountability and evaluation – how will we know this proposal has been successful?

- Progress towards the implementation of the MAF2 and improved metering accuracy is reported by each jurisdiction and is published on the Inspector General of Water Compliance's (IGWC) website. The Office of Water will continue to work with the IGWC to ensure that the government continues to meet its commitments through the implementation of the non-urban water metering policy.
- Other jurisdictions have developed similar policies and are at different stages of policy implementation. The ACT can draw on their experiences and make adjustments to suit the ACT context.
- The Environment Protection Authority (EPA) will implement the policy and monitor ongoing compliance and enforcement. EPA will provide annual reporting to the IGWC.

Key relationships

Agency representatives from Access Canberra (EPA) have provided input into the policy development. The Office of Water will continue to work with the EPA throughout the implementation of the policy to identify potential issues or information gaps.

Public consultation with Licence holders was undertaken in May 2023. Submissions were considered in the final policy position and details are provided in the Cabinet submission documentation.

What is government's involvement/interest?	The ACT Government will release an updated non-urban water metering policy to deliver consistent water metering standards as agreed under the National Framework for non-urban water metering (2009), and the Murray-Darling Basin Compliance Compact (2018).		
Why are we communicating on this issue?	To raise awareness of and support compliance with the updated policy, noting license holders have financial responsibility for meter installation and maintenance costs.		
Does it cross over other Directorates/agencies?	CMTEDD – Access Canberra	Spokesperson	Shane Rattenbury, Minister for Water, Energy and Emissions Reduction Geoffrey Rutledge, Deputy Director-General, EPSDD Executive Group Manager, Environment, Heritage and Water, Bren Burkevics Emma Humphreys, Senior Director Office of Water, EPSDD
Communications project tier	Tier 3		

Target audiences

Primary	• Holders of a Licence to take Water in the ACT
Key influencers/stakeholders	• Irrigation Australia • Icon Water
ACTPS (if relevant)	• Access Canberra • Government license holders

Key Messages

- The ACT Government is committed to achieving its vision for water management over the next thirty years which sees a community working together, managing water wisely to support a vibrant, sustainable and thriving region.
- The introduction of improved standards for non-urban water metering brings the ACT into alignment with other states and territories to regulate water meters for non-urban water supply under the National Water Initiative and the National Framework for Non-Urban Water Metering.
- Following consultation with ACT licence holders, the new standards will ensure water taken from our rivers and groundwater systems can be measured and monitored accurately to support industry transparency and public confidence while supporting the health of our waterways. The new requirements will be phased in over the next 12 months to ensure licence holders have time to comply with the new rules. For more information, visit [URL TBC](#).

Action plan

Date	Communications collateral	Distribution	Responsibility
Prior to project launch			
September 2023	Distribute consultation Listening Report to license holders	Email	EPA / AC Comms
September/ October 2023	Review and update current web content	• Water Meter Requirements (act.gov.au) • Related resources (act.gov.au) • Water regulation	AC Comms / EPA / EPSDD Comms
30 October	Stakeholder communication: • Provide embargoed copy of policy to licence holders and Irrigation Australia.	Email	Office of Water
Launch day – 1 November			
1 November	Publish link to policy	Environment website & Access Canberra website	EPSDD Comms/ AC Comms
Ongoing	Follow up direct communication to licence holders throughout the 12-month transition	Email	Policy reminders: Office of Water Regulation: EPA

Attachment A: Talking Points

- The ACT Government is committed to achieving its vision for water management over the next thirty years which sees a community working together, managing water wisely to support a vibrant, sustainable and thriving region.
- The introduction of improved standards for non-urban water metering brings the ACT into alignment with other states and territories to regulate water meters for non-urban water supply under the National Water Initiative and the National Framework for Non-Urban Water Metering.
- Following consultation with ACT licence holders, the new standards will ensure water taken from our rivers and groundwater systems can be measured and monitored accurately to support industry transparency and public confidence while supporting the health of our waterways.
- The new requirements will be phased in over the next 12 months to ensure licence holders have time to comply with the new rules. For more information, visit [URL TBC](#).

Policy details

- The revised standards include new reporting requirements for when a water meter is installed, revalidated, repaired, removed or relocated. This includes requirements for:
 - use of pattern approved meters
 - validation of meter installations by a certified person
 - ongoing meter maintenance and accuracy testing
 - improved reporting and notification requirements for licence holders.
- From 1 December 2023, any new or replacement water meters must comply with the requirements of the MAF2 and AS 4747 for water meter selection, installation, validation and maintenance.
- Existing meters installed before 1 December 2023 must be pattern approved or able to demonstrate that they are accurate.
- Under the policy, existing meters can be retained where accuracy can be demonstrated.
- The government is exploring options for providing some of the required services such as basic meter validation and accuracy testing.

Background/ sensitivities

- Under the framework, water users from all jurisdictions may incur new compliance costs. The Environment Protection Authority consulted with licence holders on the draft policy including associated costs. We have considered all feedback provided through this process and where possible, reflected in the final policy.



Non-urban Water Metering Policy

AUSTRALIAN CAPITAL TERRITORY

Draft

July 2023

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Version history

Version number	Document date	Document status	Summary of changes
1	March 2023	Draft for consultation	Content prepared
2	June 2023	Draft for adoption	Minor edits including: • Implementation date of policy changed from 1 July 2023 to 1 December 2023 • Definition of ‘accuracy testing’ and ‘validation’ refined in Glossary • Section 2: Objectives refined and section renumbered • Heading ‘Scope’ changed to ‘Application of Policy’ and section renumbered • Section 3: Application of policy refined • Requirements in Section 4.2: Meter location refined • Requirements for general maintenance changed from ‘at any time’ to ‘as required’ in Sections 9.1 and 9.2 • Requirement for report changed from ‘can’ to ‘must’ in Section 10: Requirements for certified persons and competent persons • Section 12: Compliance with Policy updated to include certified persons
3	September 2023	Draft for adoption	• ‘Field conditions’ changed to ‘in-situ conditions’ for consistency throughout document • Section 5.2: text changed from ‘A new certificate is required once every five years’ to ‘no more than five (5) years before the rollout date’.

Review of policy

This policy will be reviewed every 5 years, or as required, to ensure that it remains consistent with the National Metering Framework and the requirements of Australian Standard 4747: Meters for non-urban water supply.

For more information contact the Environment Protection Authority on 13 22 81 or email environment.protection@act.gov.au.

Glossary

Accuracy testing - the process of confirming that a meter is operating within the maximum permissible error of $\pm 5\%$ accuracy for in-situ conditions.

AS 4747 – Australian Standard 4747: Meters for non-urban water supply.

Authorised officer - an officer authorised under Section 14 of the *Environment Protection Act 1997*.

Certified person - a person with the qualifications, skills or experience to carry out work in relation to metering equipment and is certified by an accredited organisation¹⁸ to undertake meter installation, maintenance and validation activities in accordance with Australian Standards. A current listing of Certified persons can be found in the Member Directory on Irrigation Australia's website www.irrigationaustralia.com.au

Competent person - a person employed in the meter or irrigation industry with the qualifications, skills or experience to carry out work in relation to metering equipment.

EPA – the ACT Environment Protection Authority.

Grandfathering - applies to meters installed before 1 December 2023 which are exempt from the installation and validation requirements of AS4747 for non-urban water metering.

Licence holder - the holder of a licence to take water issued under Part 5 of the *Water Resources Act 1997*.

Manufacturer's seal - a metal wire installed at the time of manufacture of the meter that connects the meter to the meter body to detect any interference with the operation of a meter and the metering equipment.

Meter - a water meter required to be installed through a condition of a licence to take water.

ML – megalitre (equivalent to 1,000,000 litres).

Metering equipment - includes the meter itself and any ancillary wiring, pipework, telemetry equipment or apparatus (where installed) and any supporting structure.

Non-urban water meters – the National Framework for Non-Urban Water Metering has defined non-urban water meters as any meter which measures water take from regulated and unregulated surface water and groundwater systems for the purposes of monitoring compliance with water entitlements and for resource management activities.

It does not include stream gauging stations or groundwater infrastructure used for resource monitoring, or meters used in urban supply and distribution systems where raw or potable water is supplied under a Standard Customer Contract by water utility (e.g. Icon Water) or non-drinking water is supplied under a Customer Contract.

Pattern approved meter - a water meter that has passed the relevant pattern approval process and has a pattern approval certificate issued by the National Measurement Institute.

Policy - the Non-urban Water Metering Policy.

¹⁸ At the time of writing this policy, Irrigation Australia is the only nationally registered training organisation for closed conduit meters

Tamper - as defined in the *Water Resources Act 2007*.

Tamper evident seal - a seal with a unique identification number, purchased through Irrigation Australia, which is applied by certified person to detect any interference with the operation a meter and the metering equipment.

Telemetry - a device that transmits readings (in this instance a pulse or a group of pulses from the water meter) to a central data store where it can be reviewed in near-real time.

Totaliser – displays the accumulated total and total volume of flow through a meter over time.

Validation - a set of activities that includes inspecting the meter to check that it is pattern approved or has a certificate issued by a recognised and accredited testing institution, and that it has been installed and maintained in a manner that provides an acceptable level of confidence that the meter will operate within a range of error under normal operating conditions.

1. Introduction

The National Framework for non-urban water metering (2009)² and the Murray-Darling Basin Compliance Compact (2018)³ were developed from the National Water Initiative to improve water management across Australia. This framework provides a nationally consistent metering standard to improve confidence in water meter performance and accuracy.

The updated Metrological Assurance Framework 2 (MAF2)⁴ is a part of the National Framework which describes the principles to improve the measurement and metering of water taken. The MAF2 is supported by meter standards specified by Australian Standard 4747 - Meters for non-urban water supply (AS4747) that covers the installation, validation, maintenance and verification of meters.

Each state and territory is required to develop its own policy that implements these metering standards to ensure equity around water sharing, improved and continuing confidence in meter performance and water accounting, and the protection of water resources.

In the ACT, the Environment Protection Authority (the EPA) regulates the abstraction of water resources through the *Water Resources Act 2007*. All licensed water take has been required to be metered to account for water use since the introduction of the legislation in 1998.

To ensure continued confidence with water metering requirements, this Non-urban Water Metering Policy has been developed to provide standard requirements for water meter selection, installation and maintenance in the ACT. It delivers on key requirements of the MAF2 and AS4747.

2. Objectives

The objectives of the Policy are to:

- Provide a set of standards for the installation, maintenance and replacement of water meters that ensure an acceptable level of confidence in meter performance and accuracy; and
- Use a staged risk-based regulatory approach by prioritising the implementation of new metering requirements for high risk water take; and
- Uphold community confidence in water resource management and accounting.

² National Framework for Non-urban Water Metering (2009) available from <https://webarchive.nla.gov.au/awa/20130905194923/http://www.environment.gov.au/water/publications/agriculture/pubs/national-framework-for-non-urban-water-metering.pdf>

³ Murray-Darling Basin Compliance Compact available from <https://www.mdba.gov.au/sites/default/files/Basin-Compliance-Compact-180702-D18-31184.pdf>

⁴ Metrological Assurance Framework 2 available from <https://www.dcceew.gov.au/water/policy/policy/nwi/nonurban-water-metering-framework>

3. Application of the policy

The National Framework for Non-Urban Water Metering defines non-urban water meters as any meter which measures take from regulated and unregulated surface water and groundwater systems for the purposes of monitoring compliance with water entitlements and for resource management activities.

This policy applies to all water abstraction in the ACT that is required to be licensed under the *Water Resources Act 2007*⁵.

The policy does not apply to:

- Water take that is exempt from the requirement for a licence to take water⁶; or
- Stream gauging stations or groundwater infrastructure used for resource monitoring; or
- Meters used in urban supply and distribution systems where raw or potable water is supplied under a Standard Customer Contract by water utility (e.g. Icon Water) or non-drinking water is supplied under a Customer Contract.

This policy replaces the EPA “Water Meter Installation, Maintenance and Replacement Guideline”, dated March 2015.

4. Standards for new and replacement meters

This section outlines the standards for all new and replacement meters installed on or after 1 December 2023. From this date, any new or replacement water meter must comply with the requirements of Australian Standard 4747: Meters for non-urban water supply (AS 4747) for water meter selection, installation, validation and maintenance.

4.1 Meter selection

All new and replacement meters must be pattern approved. Pattern approved meters have been tested in an accredited laboratory to ensure they operate accurately under a range of environmental and operating conditions and comply with AS 4747.

A list of AS4747 compliant, pattern approved meters is available from the Australian Government’s website⁷. This list will be updated from time to time as more meters receive pattern approval.

⁵ Note: the definition of ‘urban residential property’ in the Water Resources Act 2007 does not apply in the application of this policy.

⁶ As defined in Section 28(2) of the *Water Resources Act 2007*

⁷ At the time of writing, a list of pattern approved meters is available from the Department of Climate Change, Energy, the Environment and Water (DCCEEW)
<https://www.dcceew.gov.au/sites/default/files/documents/pattern-approved-meters-list-nov2022.pdf>

Meters must:

- Be fit for purpose and suited to the intended purpose, installation configuration and operating conditions (such as water quality conditions and flow rates); and
- Have a local totalising display that indicates the water used in metric units. The preferred units are kilolitres (kL) or cubic meters (m³). For larger water meters the scale of the display can be kL x 10 or m³ x 10.

It should be noted that, although connection to telemetry is not required at this stage⁸, it is likely that it will be required across the Murray Darling Basin by 2025.

It is advisable that licence holders consult with a hydrometric specialist prior to the selection and purchase of a pattern approved water meter.

4.2 Meter location

The following requirements should be taken into consideration when choosing the location for a water meter to ensure it is installed and operated correctly. A water meter should be:

- Installed as close as reasonably practicable to the water extraction point and located upstream of any valves (except air valves), tees, take/offs, diversions or branches;
- Installed above ground with inlet and outlet pipes visible at all times;
- If above ground installation is unavoidable, an underground installation must not be more than one metre below ground level with inlet and outlet pipes visible at all times;
- Installed in a location that allows for safe access to read the meter;
- Accessible at all times (subject to security arrangements which may prevent access to unauthorised persons) and clear of vegetation and landscaping to allow easy visibility for manually reading the meter and viewing the serial number;
- Adequately supported to ensure that the full weight of the meter and its associated pipework is structurally stable and that no leakage occurs under all operating conditions; and
- Protected from the risk of damage due to environmental conditions (such as vibration, corrosion, fogging, flooding, frost and freezing) or from damage from vehicles, livestock and vandalism.

4.3 Meter installation and validation

A licence holder is responsible for ensuring that all licensed water extraction passes through a meter(s) and that separate metering systems are installed to measure groundwater and surface water components (where required).

A new or replacement meter must be installed in accordance with the pattern approval certificate⁹. The pattern approval certificate outlines the installation requirements,

⁸ Appendix C contains key points on why telemetry is not required at this stage

including correct flow direction orientation and the required lengths of pipework upstream and downstream of the meter.

While a meter can be installed by any person including a licence holder or competent person, the meter and its installation must be validated by a certified person within 28 days of installation and before taking water (whichever is first) to certify that it complies with the requirements of the pattern approval certificate, MAF2 and AS4747.

The certified person must issue a completed validation certificate¹⁰ within 7 days of completing the work. The certificate must be submitted by the licence holder via email to environment.protection@act.gov.au within 14 days of receiving it.

If a meter is not installed correctly and cannot be validated by a certified person, the installation will need to be rectified at cost to the licence holder. The validation process will also need to be repeated.

4.4 Tamper-evident seals

Metering equipment must have tamper-evident seals installed at the time of validation. The seal will be provided¹¹ and installed by the certified person to ensure the meter or any ancillary pipework cannot be removed without breaking the seals.

Refer to Section 6 for more information on tamper-evident seals.

5. Standards for Existing Meters

This section applies to existing meters installed before 1 December 2023. Any meter installed on or after this date must meet the new meter standards set in Section 4 (unless exempt as detailed in Section 8).

Existing meters installed before 1 December 2023 must be accuracy tested before the relevant rollout date in Appendix B. A meter can remain in service where it can be demonstrated that it is accurate to within $\pm 5\%$ for in-situ conditions and complies with this policy.

Where a meter does not meet the requirements below, it will either need to be repaired and validated so that it is accurate or replaced in accordance with the requirements for new and replacement meters (as outlined in Section 4).

⁹ At the time of writing, a list of pattern approved meters is available from the Department of Climate Change, Energy, the Environment and Water (DCCEEW)

<https://www.dcceew.gov.au/sites/default/files/documents/pattern-approved-meters-list-nov2022.pdf>

¹⁰ Template available at <https://www.accesscanberra.act.gov.au/s/article/water-resources-licensing-tab-overview>

¹¹ Seals can only be purchased through Irrigation Australia by a certified person
https://www.irrigationaustralia.com.au/Web/Shop/Water_Meter_Seals.aspx

5.1 Pattern approved meters

Where a licence holder intends to continue using an existing pattern approved meter, it must meet each of the following criteria:

- The meter is suitable for the particular application and within its functional life of the meter, with consideration given to the age, usage, wear, expected reliability, physical condition, and operating conditions (eg. environmental or water quality) of the meter;
- The meter is validated by a certified person every five years;
- Documentation is provided to show that the meter is pattern approved and has been validated as required; and
- The tamper evident seal(s) is intact.

Note: If the tamper evident seal(s) are not intact, they must be replaced by a certified person as outlined in section 6.

5.2 Non-pattern approved meters

Where a licence holder intends to continue using an existing non-pattern approved meter, it must meet each of the following criteria:

- The meter is suitable for the particular application and within its functional life of the meter, with consideration given to the age, usage, wear, expected reliability, physical condition, and operating conditions (e.g. environmental or water quality) of the meter;
- A certificate is provided to show that the meter accuracy has been confirmed by a certified person to within $\pm 5\%$ accuracy for in-situ conditions no more than five (5) years before the rollout date. If certified accuracy has not been confirmed, the meter must be tested in accordance with Section 9 of this policy; and
- The manufacturer's tamper evident seal(s) is intact. If the manufacturer's seal is broken, the meter is considered to be faulty and it must be tested in accordance with Section 9 of this policy.

A certified person may confirm that a meter is operating within $\pm 5\%$ accuracy for in-situ conditions by using in-situ volumetric measurement, in-series metering with another temporary pattern approved meter, or any other method outlined in AS4747.

6. Tamper evident seals

A tamper evident seal is installed on a meter or any adjacent components to prove the integrity of the meter and show if a water meter or any adjacent components have been dismantled, altered or removed ('tampered' with).

A tamper evident seal must have a unique serial number which is recorded on the validation certificate¹². It is the responsibility of the certified person to provide and install seals to the meter installation to ensure the meter or any ancillary pipework cannot be removed without breaking the seals.

A tamper evident seal should be installed in a location where it is protected from the risk of damage or deterioration due to environmental conditions.

A certified person can break and replace a tamper evident seal. However, the EPA may approve the breaking of a seal by a non-certified person in certain situations, such as when a meter needs to be removed for testing. Approval must be given in writing by the EPA before the seal is broken. Requests can be submitted by email to environment.protection@act.gov.au.

A meter must be re-validated if the tamper evident seal is broken by maintenance or broken or removed by a person who is not a certified person. Minor maintenance, such as battery replacement where removal of the battery does not alter the meter totaliser or cleaning of the external parts of the meter, does not require validation if the tamper evident seal remains in place.

7. Telemetry

Telemetry involves automatically recording data and sending it electronically from the meter to an information technology (IT) system in another place for monitoring and recording.

Although connection to telemetry is not required at time of commencement of this policy¹³, it is likely that it will be required across the Murray Darling Basin by 2025.

Pattern approved meters are fitted with pulse output capability to enable future connection of ancillary equipment such as telemetry.

There is no requirement for telemetry capability to be added to existing meters at time of commencement of this policy. The benefits of requiring telemetry capability on every existing meter will need to be balanced with the significant costs required by licence holders to retrospectively install fully automated telemetry.

It is advisable that licence holders consult with a hydrometric specialist prior to the selection and purchase of a pattern approved water meter.

¹² Seals may be purchased by a certified person through an official supplier such as Irrigation Australia

¹³ Appendix C contains key points on why telemetry is not required at this stage

8. Exemptions for metering requirements

All licensed water use is required to be metered in the ACT. However, the following circumstances may be exempt from the metering requirements (subject to written approval by the EPA) where:

- No pumping infrastructure is installed and water cannot be taken;
- The use of water carts and water usage record keeping has been approved through the licence to take water;
- A meter was purchased prior to 1 December 2023 but has not been installed since the time of purchase (evidence of proof of purchase is required); or
- There is no pattern approved meter listed on the Australian Government’s website¹⁴ for a particular application.

A request for an exemption to the metering requirements can be submitted by email to environment.protection@act.gov.au. Exemptions will be assessed on a case by case basis and will generally be granted for a short time period, with the aim to work towards compliance with this policy. Exemption requests must be approved in writing by the EPA.

9. Maintenance, testing and repair of meters

Ongoing maintenance of a water meter is required to provide an acceptable level of confidence that a meter continues to operate within the maximum permissible limits of error and is maintained in good working order.

All maintenance procedures must comply with the MAF2, AS 4747 and the pattern approval certification (or manufacturer’s specifications for non-pattern approved meters).

The maintenance requirements, including who is permitted to perform maintenance works, are outlined in Appendix A. These are key maintenance activities only and other maintenance work must be performed as required to ensure that the accuracy and integrity of the meter is maintained.

A brief summary of the requirements is provided below.

9.1 Maintenance of meters installed after 1 December 2023

A licence holder is required to undertake the following activities to ensure that the meter is measuring accurately and maintained in good working order.

- Undertake general maintenance as required to keep the area clear of vegetation and debris, check for damage and ensure the meter display is clear and legible.

¹⁴ At the time of writing, a list of pattern approved meters is available from the Department of Climate Change, Energy, the Environment and Water (DCCEEW) <https://www.dcceew.gov.au/sites/default/files/documents/pattern-approved-meters-list-nov2022.pdf>

- Conduct regular inspections to ensure the site remains safe and accessible, the meter is maintained in good working order and that the tamper evident seals remain intact.
- Ensure that the meter is validated by a certified person every five (5) years to ensure that the meter and metering equipment remain accurate and to perform any maintenance/service on the meter. The validation certificate, together with photographs of the meter installation and tamper-evident seals, must be provided within 14 days of receiving it, unless it has been provided by the certified person.
- Notify the EPA within five (5) working days of becoming aware of faults with meter installation or meter accuracy.
- Remedy faults of meter installation or meter accuracy within 28 days.
- Use a certified person to perform maintenance work where tamper evident seals will be broken or where meter accuracy will be affected.
- Keep a log of all maintenance activities carried out on a meter and metering equipment for a period of five (5) years, including all instances when a tamper-evident seal or manufacturer's seal is broken.

9.2 Maintenance of meters installed before 1 December 2023

Consistent with the grandfathering provisions in the MAF2, meters installed before 1 December 2023 are exempt from mandatory validations where it can be demonstrated that the meter is accurate to within $\pm 5\%$ accuracy for in-situ conditions and complies with this policy. All other maintenance provisions are the same as for meters installed after this date.

A licence holder is required to undertake the following activities to ensure that the meter is measuring accurately and maintained in good working order.

- Undertake general maintenance as required to keep the area clear of vegetation and debris, check for damage and ensure the meter display is clear and legible.
- Conduct regular inspections to ensure the site remains safe and accessible, the meter is maintained in good working order and that the tamper evident seals remain intact.
- Ensure that the meter is accuracy tested by a certified person every five (5) years to confirm that the meter is operating within $\pm 5\%$ accuracy for in-situ conditions.
- Provide a certificate of accuracy, together with photographs of the meter installation and tamper-evident seals, to confirm the accuracy of the meter.
- Fix faults within 28 days (and notify the EPA within five (5) working days of becoming aware of the fault).
- Use a certified person to perform maintenance work where tamper evident seals will be broken or where meter accuracy will be affected.
- Keep a log of all maintenance activities carried out on a meter and metering equipment for a period of five (5) years, including all instances when a tamper-evident seal or manufacturer's seal is broken.

9.3 Meter accuracy testing

A licence holder must arrange for the accuracy of the meter to be tested if the meter is suspected to be operating inaccurately or if the tamper-evident seal or manufacturer's seal are broken by an unauthorised person.

Where the meter is removed and tested in laboratory conditions, it must operate within $\pm 2.5\%$ accuracy across the full flow rate range. Alternatively, in-situ testing can be used where the testing will provide reliable results to show that meter operates with the accuracy requirement of $\pm 5\%$ accuracy for in-situ conditions.

If the meter is outside relevant acceptable accuracy limits when tested, the meter must not be used until the meter is either:

- Repaired and it is demonstrated through a certificate of accuracy that the meter operates within acceptable accuracy limits; or
- A certificate is provided by a certified person to show that the meter accuracy has been confirmed to within $\pm 5\%$ accuracy for in-situ conditions; or
- Replaced with a pattern approved meter that is compliant with Section 4 of this policy.

A certified person may confirm that a meter is operating within $\pm 5\%$ accuracy for in-situ conditions by using in-situ volumetric measurement, in-series metering with another temporary pattern approved meter, or any other method outlined in AS4747.

9.4 Repair of faulty meters

A licence holder must notify the EPA within five (5) working days of detecting a malfunction in which the meter is unable to accurately record water use.

A meter must be repaired, replaced or reinstalled within 28 days of notifying the EPA of the fault. If the meter cannot be repaired within that time, the licence holder must apply to the EPA for an extension in writing and include the reasons why the repair cannot be completed within that time, and provide the date by which meter repair is expected to be completed.

Once repaired, the meter must be either:

- If installed after 1 December 2023, revalidated by a certified person if the repair works affect the accuracy of the meter or if tamper evident seals are broken or removed by an unauthorised person; or
- If installed before 1 December 2023, tested for accuracy by a certified person if the repair works affect the accuracy of the meter or if the manufacturer's seal is broken by an unauthorised person.

The licence holder must provide a copy of the validation certificate or certificate of accuracy to the EPA within 14 days of receiving it, together with the first available meter reading after the meter is repaired.

If the meter cannot be repaired, it must be replaced with a meter in accordance with Section 4 of this policy.

10. Requirements for certified persons and competent persons

Competent persons and certified persons must report if they know or reasonably suspect that a meter or metering equipment they are installing, or carrying out work on, has been tampered with, within five (5) working days.

A report must be made to the EPA by email to environment.protection@act.gov.au.

11. Notification requirements for licence holders

A licence holder is responsible for notifying the EPA when the following circumstances apply.

- A new or replacement meter is installed.
- A meter is revalidated.
- A fault is detected and/or repairs are undertaken on a meter.
- Maintenance activities are completed.
- A meter has been removed or relocated.

Notifications should be provided to the EPA by email to environment.protection@act.gov.au and must be provided within the timeframes specified below.

11.1 Installation of a new or replacement meter

A licence holder must notify the EPA that a new or replacement meter has been installed within 14 days of installation. The notification must include the following information.

- A completed validation certificate confirming that the meter has been approved for use (unless it has been provided by the Certified person).
- The location of the meter using GPS coordinates (and if applicable, the colloquial name given to the meter location).
- The date the meter was installed.
- The make, size, type and serial number of the meter.
- Name and contact details of the installer.
- Licence to take water (licence number) to which the meter relates.
- Unique identification number on tamper evident seal(s) installed on meter and/or metering equipment.
- Photographs and/or a diagram of the meter fitted on pipe-work, together with dimensions showing lengths of clear pipe before and after the water meter up to the first off-take.
- The meter reading at the time of installation.

11.2 Revalidation of an existing meter

A licence holder must notify the EPA when revalidation of a meter is completed. The notification must include the following information.

- A completed validation certificate confirming that the meter has been approved for use (unless it has been provided by the Certified person).
- The make, size, type and serial number of the meter.
- Licence number to which the meter relates.
- Unique identification number on any new or replaced tamper evident seal(s) installed on the metering equipment.
- The meter reading at the time of revalidation.

11.3 Faulty meters, repair work and testing

A licence holder must notify the EPA within five (5) working days of detecting a meter malfunction in which the meter is unable to accurately record water use. The notification must include the following information.

- Licence holder's name.
- Licence number to which the meter relates.
- The location of the meter using GPS coordinates (and if applicable, the colloquial name given to the meter location).
- The make, size, type and serial number of the meter.
- Date the fault was suspected or identified.
- Last available meter reading before the meter became faulty (or if not known, the current meter reading).

For repairs and testing, the following additional information must be included within 14 days of the repair work being completed.

- Date of repair work and a description of the repair work.
- Name and contact details of repairer.
- Date of removal and meter reading at time of removal.
- If tested, the name and contact details of tester, whether the test was performed in a laboratory or in-situ, and a certificate of accuracy if approved for use.
- Date of reinstallation and meter reading at time of reinstallation.
- Unique identification number on any new or replaced tamper evident seal(s) installed on the metering equipment.

11.4 Maintenance inspections

A licence holder must notify the EPA when a 5-yearly maintenance inspection has been undertaken. The notification must include:

- Date of maintenance inspection.
- Licence holder's name.
- Licence number to which the meter relates.
- The location of the meter using GPS coordinates (and if applicable, the colloquial name given to the meter location)
- The make, size, type and serial number of the meter.
- A certificate of accuracy (for meters installed prior to 1 December 2023).
- A completed validation certificate confirming that the meter has been approved for use (for meters installed after 1 December 2023).
- The information listed in Section 9.4 if repair works are undertaken.
- Unique identification number on any new or replaced tamper evident seal(s) installed on the metering equipment.
- The meter reading at the time of maintenance inspection.

11.5 Permanent removal or relocation of a meter

A licence holder must notify the EPA when a meter is permanently removed or relocated for use at another location. The notification must include the following information.

- Date of removal or relocation.
- Licence holder's name.
- Licence number to which the meter relates.
- The location of the meter using GPS coordinates (and if applicable, the colloquial name given to the meter location).
- The make, size, type and serial number of the meter.
- The meter reading at the time of permanent removal or relocation.
- If relocated, the information listed in Section 11.1.

12. Compliance with policy

Licence holders and certified persons must comply with the requirements of this policy.

A water meter and metering equipment can be inspected by an authorised officer to confirm compliance with this policy and with the *Water Resources Act 2007*. Inspections may be undertaken in consultation with the licence holder and arranged at a mutually suitable time, where possible.

The EPA may direct a licence holder to test a meter to verify that the meter is operating within acceptable accuracy limits, or undertake other works, where:

- It is reasonably suspected that the meter is not operating within acceptable accuracy limits;
- Tamper-evident seals are broken by an unauthorised person; or
- Maintenance activities that will affect the accuracy of the meter are undertaken by an unauthorised person.

Enforcement action may be taken by the EPA in accordance with the Access Canberra Accountability Commitment¹⁵ to ensure compliance with this Policy.

Penalties may apply for certain offences under the *Water Resources Act 2007*, including but not limited to:

- Contravening conditions of a licence to take water, not installing a water meter, not maintaining a water meter in working condition, and not giving water meter data to the EPA; and
- Water meter tampering.

¹⁵ Access Canberra's Accountability Commitment can be found here <https://www.accesscanberra.act.gov.au/s/article/about-access-canberra-tab-access-canberra-accountability-commitment>

Appendix A - Maintenance Schedules

Maintenance schedule for meters installed after 1 December 2023

The following tables present maintenance schedules for license holders with meters installed after 1 December 2023. Please note that if any maintenance activities affect or may affect the accuracy of the meter, or if tamper evident seals are broken by an unauthorised person, then the meter must be tested to ensure it continues to operate within acceptable accuracy limits in accordance with section 9 of this policy.

	Annual inspection	5 Yearly inspection	Who can perform work
Preventative maintenance			
Site is safe and accessible for employees, contractors or visitors to inspect and perform work	✓	✓	Licence holder or competent person
General cleaning to suction clear the equipment, clean solar panel, check for damage and clear the area around the clear of vegetation and debris	✓	✓	Licence holder or competent person
Meter, pipework and other fittings within the metering equipment have structural integrity and there are no leaks	✓	✓	Licence holder or competent person
Tamper evident seal is present and intact	✓	✓	Licence holder or competent person
Meter display is clear and legible	✓	✓	Licence holder or competent person
Meter appears to be in good working order and rotation of totaliser is working correctly when pump is started and water is flowing	✓	✓	Licence holder or competent person
Batteries and/or solar panel are working, replace as required or as specified by the manufacturer ¹⁶	✓	✓	Licence holder or competent person
For electronic meters – there are no error messages on display or obvious faults	✓	✓	Licence holder or competent person
Corrective maintenance			
Weather-proof tamper evident seals are intact		✓	Certified person
Internal pipe is clear of damage, corrosion, material deposits or misalignments		✓	Certified person
Electrical cables and communication cables appear to be in good condition		✓	Certified person
If telemetry is installed - telemetry pole, antenna and any other infrastructure appear to be in good condition		✓	Certified person
Basic maintenance as specified by the manufacturer and pattern approval requirements		✓	Certified person
Validation		✓	Certified person
Tolerance assessment on components		✓	Certified person
For electronic meters – check software version and configuration, electronic check against internal reference source that is set at the time of calibration (as per manufacturer's requirements)		✓	Certified person
Fix a mechanical failure		✓	Certified person
Replace flow meter or flow computer		✓	Certified person

¹⁶ Where battery replacement involves the breaking of the tamper evident seal, the replacement must be carried out by a certified person

	Annual inspection	5 Yearly inspection	Who can perform work
Replace Printed Circuit Board (PCB), electrical component		✓	Certified person
Software upgrade or change configuration		✓	Certified person
If telemetry is installed - effective signal transfer between transmitter, sensor and data logger and no fault notifications		✓	Certified person
Provide maintenance report after completing all maintenance activities in this Schedule	✓		Licence holder
Provide meter validation certificate to EPA after completing all maintenance activities in this Schedule	✓	✓	Licence holder

Maintenance schedule for meters installed before 1 December 2023

The following tables present maintenance schedules for license holders with meters installed before 1 December 2023. Please note if a manufacturer's seal or tamper evident seal is broken as part of maintenance, or at any other time, it must be replaced with an approved tamper evident seal by a certified person. A validation may be completed in place of the 5 yearly inspection to approve the meter and metering equipment for use.

	Annual inspection	5 Yearly inspection	Who can perform work
Preventative maintenance			
Site is safe and accessible for employees, contractors or visitors to inspect and perform work	✓	✓	Licence holder or competent person
General cleaning to suction clear the equipment, clean solar panel, check for damage and clear the area around the clear of vegetation and debris	✓	✓	Licence holder or competent person
Meter, pipework and other fittings within the metering equipment have structural integrity and there are no leaks	✓	✓	Licence holder or competent person
Tamper evident seal (or manufacturer's seal) is present and intact	✓	✓	Licence holder or competent person
Meter display is clear and legible	✓	✓	Licence holder or competent person
Meter appears to be in good working order and rotation of totaliser is working correctly when pump is started and water is flowing	✓	✓	Licence holder or competent person
Batteries and/or solar panel are working, replace as required or as specified by the manufacturer ¹⁷	✓	✓	Licence holder or competent person
For electronic meters – there are no error messages on display or obvious faults	✓	✓	Licence holder or competent person
Corrective maintenance			
Meter pipework and other fittings within the metering equipment have structural integrity and there are no leaks		✓	Licence holder or competent person
Weather-proof tamper evident seals are intact		✓	Licence holder or competent person
Internal pipe is clear of damage, corrosion, material deposits or misalignments		✓	Licence holder or competent person
Electrical cables and communication cables appear to		✓	Licence holder or

¹⁷ Where battery replacement involves the breaking of the tamper evident seal, the replacement must be carried out by a certified person

	Annual inspection	5 Yearly inspection	Who can perform work
be in good condition			competent person
If telemetry is installed - telemetry pole, antenna and any other infrastructure appear to be in good condition		✓	Licence holder or competent person
Basic maintenance as specified by the manufacturer and pattern approval requirements		✓	Licence holder or competent person
Perform volumetric or simulated testing (in situ accuracy testing to ensure meter is operating within $\pm 5\%$ accuracy)		✓	Certified person
Tolerance assessment on components		✓	Certified person
For electronic meters – check software version and configuration, electronic check against internal reference source that is set at the time of calibration (as per manufacturer's requirements)		✓	Certified person
Fix a mechanical failure		✓	Certified person
Replace flow meter or flow computer		✓	Certified person
Replace Printed Circuit Board (PCB), electrical component		✓	Certified person
Software upgrade or change configuration		✓	Certified person
If telemetry is installed - effective signal transfer between transmitter, sensor and data logger and no fault notifications		✓	Licence holder or competent person
Provide completed 5-yearly inspection report or meter validation certificate to EPA after completing all maintenance activities in this Schedule		✓	Licence holder

Appendix B - Roll out dates

This policy recognises that there are water meters installed at time of policy commencement that will initially not meet the requirements of the national metering standards. Transitional periods are provided to ensure licence holders have time to comply with the new rules.

The requirement to upgrade water meters to pattern approved is being rolled out in stages until December 2024, using a risk-based approach to ensure that the largest water users are approached first to become compliant with this policy and national metering standards. Different roll out dates apply depending on the type of water and the licensed volume. Once fully implemented, the metering rules will apply consistent metering requirements across the ACT.

Licence holders must demonstrate compliance with this policy by the respective roll out dates provided below.

Stage	Risk Category	Surface water	Groundwater	Roll out date
1	High risk	Licensed volume equal to or more than 100ML	Licensed volume of equal to or more than 50ML	31 March 2024
2	Moderate risk	Licensed volume more than 30ML but less than 100ML	Licensed volume more than 5ML but less than 50ML	30 June 2024
3	Low risk	Licensed volume less than or equal to 30ML	Licensed volume less than or equal to 5ML	31 December 2024

Note: 1 ML = 1,000,000 litres

For the purposes of this policy, high risk water take is defined by:

- high volume of water take across a small number of licences,
- permitted use of water has a higher potential for over extraction (eg. agricultural and horticultural irrigation),
- multiple meters at one or multiple sites,
- highest volumes of groundwater extraction are located in fully or overallocated sub-water management areas, or
- considerable impact on low flows during dry periods for surface water extraction.

Low risk water take is defined by:

- low volume of water take across a large number of licences, with total take being less than 10% of all licensed water allocated,
- permitted use of water has a lower potential for over extraction (eg. urban residential),
- there is generally one meter at one site,
- smallest volumes of groundwater use are located in fully or overallocated sub-water management areas, or
- low risk of impact on low flows during dry periods for surface water extraction.

Appendix C - Alignment with the Murray-Darling Basin Compliance Compact

Table 1: Alignment with the Compact

Action	Requirement	Response
3.2 Meter accuracy		
3.2 (i)	All new and replacement meters to comply with AS4747 including pattern approval and verification, by no later than June 2025.	This policy requires that: - new or replacement meters are to comply with AS4747, including pattern approval and validation from 1 December 2023; and - existing meters must be verified with a certificate of accuracy to within $\pm 5\%$ accuracy for in-situ conditions or replaced with a new AS4747 compliant meter.
3.2 (ii)	Commencing immediately, and until June 2025: a. All new and replacement meters to comply with AS4747 where available. b. Where an AS4747 compliant meter is not available the use of an interim meter that has been verified with a manufacturer's certificate of accuracy to within $\pm 5\%$ accuracy is acceptable.	
3.2 (iii)	When an existing meter no longer meets $\pm 5\%$ accuracy in the field it must be repaired and validated so that it is accurate to within $\pm 5\%$ accuracy in the field or replaced (see 3.2(i)).	Meter accuracy testing is required when: - tampering is suspected or identified; - seals are broken by an unauthorised person; or - any meter is suspected to be operating inaccurately. A meter must be tested and not used until the meter is either: - repaired and it is demonstrated through a certificate of accuracy that the meter operates within acceptable accuracy limits; or - replaced with a new AS4747 compliant meter. This policy will also introduce new requirements for meter maintenance and an improved process for repairing faulty meters which will assist to detect issues earlier that could affect meter accuracy.
3.2 (iv)	All meters to be periodically validated consistent with the requirements of AS4747.	This policy has the following requirements. - Meters installed after 1 December 2023 are required to be periodically validated by a certified person. - Meters installed before 1 December 2023 are exempt from periodic validation as they are 'grandfathered', however they are subject to periodic accuracy testing.

Action	Requirement	Response
3.2 (v)	Any exemptions to 3.2(i) to 3.2(iv) made by the state to be supported by a justification published on the relevant state agency website.	Meters installed before 1 December 2023 are exempt from the pattern approval and validation requirements of AS 4747 as this is permitted under the National Framework for Non-urban Water Metering. This policy puts in place interim measures to ensure that these meters remain accurate.
3.3 Meter coverage		
3.3 (i)	All take via water entitlements to be metered by June 2025 and a plan for achieving this.	This policy requires all licensed water take to be metered except in certain circumstances as described in section 8.
3.3 (ii)	Any exemptions to 3.3(i) made by the state to be supported by a justification, such as a regulatory impact assessment, published on the relevant state agency website.	
3.3 (iii)	The basis upon which meter thresholds have been set.	
3.4 Transmission of data		
3.4 (i)	A program to progressively automate the reporting of take, regardless of how that is measured, no later than 2025.	The installation of telemetry for non-urban meters in the ACT would be a costly exercise which would provide minimal benefit for the relative costs for the following reasons. • The ACT is a small geographical area, with all metering sites being accessible within a 40-minute drive from the city centre. Over 84 percent of groundwater licences are located within the residential suburbs of the ACT, and 66 percent for surface water licences. • All water take in the ACT has been required to be metered since 1998. This means there is a high level of confidence in existing water accounting and measurement across the ACT. • There is already a well-established requirement for licence holders to self-read their meters at a set frequency (once a year for low risk users, monthly for high risk users). This could be improved with a functionality for licence holders to submit their meter readings through an online form. • Licensed volumes in the ACT are relatively small volume (and few numbers of licences) compared to other jurisdictions, for example, 72 percent of groundwater licences are for 10ML or less, and 45 percent of surface water licences are for 20ML or less. These licensed volumes are considered to be low-moderate risk in terms of resource use and potential non-compliance. Note: The ACT will reassess this position if the level of risk to the resource changes in the future or where required telemetry becomes mandatory under the Compliance Compact.
3.4 (ii)	Any exemptions to 3.4(i) made by the state to be supported by a justification published on the relevant state agency website.	

3.5 High risk take		
3.5	The highest risk take, including large users in the Barwon–Darling, to be accurately metered by December 2019 and will publish what constitutes highest risk in their metering policies. High risk take should also be telemetered by December 2019 with any exemptions published.	All licensed water use must be metered in the ACT. Exemptions are limited to specific types of water take prescribed by legislation (e.g. stock and domestic riparian rights). The staged roll out of the policy targets largest ACT non-urban water users first. As described above, the installation of telemetry for non-urban meters is not required in the ACT at this time due to the significant costs that would be imposed on licence holders and the minimal benefits it would achieve.
3.6 Timetable for installation		
3.6	A timetable for the installation of new meters and telemetry, and auditing and maintenance of the metering fleet to meet the above requirements.	The timetable for the installation of new meters is outlined in the policy: • From 1 December 2023, all new and replacement meters must be AS4747 compliant. • Meters installed prior 1 December 2023 must be confirmed as accurate or replaced with a AS4747 compliant meter by the relevant roll out date. The timetable for maintenance of meters is outlined in the policy: • All meters must be inspected annually by the licence holder; • Meters installed after 1 December 2023 are subject to validation requirements every five years which must be performed by a certified person; • Meters installed prior to 1 December 2023 are subject to accuracy testing every five years which can be performed by a certified person; • Any meter which is suspected to be faulty must be accuracy tested and repaired or replaced as required; and • A meter must be tested when a tamper proof seal is broken. As described above, the installation of telemetry is not required in the ACT at this time due to the significant costs that would be imposed on licence holders and the minimal benefits it would achieve.

LISTENING REPORT

NON-URBAN WATER METERING POLICY

Under the National Framework for Non-Urban Water Metering, the standards for water meters are being improved across the Murray Darling Basin. This will ensure water taken from rivers and groundwater systems can be measured and monitored accurately and supports the health of our waterways.

The ACT Government, along with other Murray-Darling Basin Governments, has agreed to implement new standards for water meters under the National Framework. To meet this commitment, a Non-Urban Water Metering Policy has been developed. This Policy will replace the 'Water Meter Installation, Maintenance and Replacement Guideline' and includes new requirements for:

- a. use of pattern approved meters,
- b. validation of meter installations by a certified person,
- c. ongoing meter maintenance and accuracy testing, and
- d. improved reporting and notification requirements for licence holders.

The Policy applies to all water abstraction in the ACT that is licensed under the Water Resources Act 2007. Treated drinking water supplied by Icon Water is out of scope.

A Licence to Take Water under the Water Resources Act 2007 requires a water meter to be installed at each extraction point to account for water taken. There are currently 180 active licences and 290 non-potable water meters in use that meet the policy definition. Licence holders are responsible for the costs associated with the installation, maintenance and reading of a water meter.

THE CONVERSATION

Targeted stakeholder consultation with Licence holders was conducted from 12 April to 10 May 2023. A cover letter, executive summary of the proposed changes and an outline of estimated costs were sent to all Licence holders with an invitation to provide written responses via email.

WHO WE ENGAGED

All 180 holders of a Licence to Take Water under the *Water Resources Act 2007* were invited to respond to the consultation process. Examples of Licence holders include ACT and Commonwealth Governments, golf clubs, plant nurseries, primary producers, rural land holders and small private gardens.

From the 180 License holders, 10 items of written feedback were received.

Key insights from the community

Increased cost of compliance

1. There was opposition from seven (7) small-scale irrigation and small groundwater users on the new metering requirements. Concerns were associated with increased compliance costs, sufficiency of existing metering and excessive requirements for small scale water use.
2. One (1) submission suggested that the ACT Government should bear the cost of metering compliance and believes that the annual administration fee exceeds the costs of servicing his licence.

Benefit of improved metering

3. Four (4) submissions believed that the existing metering requirements are adequate for small scale water users as the current standards ensure compliance with water use while balancing feasible compliance costs.

National Framework for Non-urban Water Metering

4. There was support from two (2) submissions for the intent of the National Framework for Non-urban Water Metering to manage water responsibility and support healthy waterways.

WHAT'S NEXT?

The insights from consultation have been considered when finalising the draft Non-urban Water Metering Policy. The draft Policy will be presented to Cabinet for consideration in 2023 and then made publicly available.

Key Timings

12 April to 10 May 2023 – Targeted consultation with License holders

October 2023 – Policy presented to Cabinet for consideration

1 December 2023 – Commence staged policy implementation

June 2025 – Full policy implementation

THANK YOU FOR YOUR FEEDBACK

ATTACHMENT G: Preferred policy position and other options for setting threshold criteria

Preferred policy position - Maintain 100% metering coverage and focus on improving accuracy and measurement

What policy implementation looks like

- All 180 non-potable Licence holders will need to comply with the Policy requirements;
- All 209 operational meters will be tested for accuracy by the relevant roll-out date;
- Existing meters can remain in service where accuracy can be demonstrated; and
- Inaccurate/non-functioning meters need to be repaired or replaced with pattern approved meters.

Who will be exempt?

- Nil exemption. Policy applies to all Licence holders and all non-potable water meters.

Benefits

- 84% of groundwater Licences are in 'at risk*' Water Management Areas (WMAs).
** deemed at risk because WMAs are overallocated or fully allocated.*
- The level of accuracy of existing meters is unknown for several reasons:
 - Age of meters;
 - There is currently no requirement for meters to be tested or serviced during meter lifetime;
 - Plumbing arrangements and installations are not usually inspected before they are put into operation. Some installations are buried which prevents compliance inspections being undertaken; and
 - Compliance inspections have been affected by several factors over the last 5 years, including the Covid pandemic and staff shortages.
- Supports a water trading framework which is likely to require pattern approved meters before a trade can be approved.
- Provides the best outcome for the protection and sustainable management of water resources and meets the objectives of the *Water Resources Act 2007*.
- Increases public confidence in measuring water take.
- There could be a reduction in the amount of water abstraction charge (WAC) invoiced to some Licence holders (based on consumption) if a meter has been reading higher.

Sensitivities

- Increased purchase and installation costs for pattern approved meters, where applicable, as well as ongoing compliance costs for regular meter validation and accuracy testing.
- Large pulse of work for EPA Inspectors to initially implement the policy but will taper off to 'business as usual' after implementation stage.

Table 1 below outlines other options considered, but not included in Policy.

Table 1: Other options considered, but not included in Policy, for potential metering exemption threshold

	Option	What it looks like	Who would be exempt	Pros	Cons
1.	Threshold set by low risk permitted use	Urban residential use and stock and domestic use would be exempt from policy requirements. <i>Note: stock and domestic with a supplementary activity such as irrigation would not be exempt and must comply with policy requirements</i>	38 % of Licence holders would be exempt from policy requirements - Urban residential use: 52 Licences for groundwater - licensed volume ranges from 0.5ML to 4ML per year - total volume allocated is 61ML per year - Stock and domestic use 17 Licences for groundwater - licensed volume ranges from 1ML to 10ML per year - total volume allocated is 88.5ML per year	COMPLIANCE - Water take for those below the threshold could continue to be measured through a non-pattern approved meter, or as otherwise specified in conditions in the Licence. - Removes the confusion around the definition of non-urban metering and the application to meters located on urban residential properties. COMMUNITY - Reduced costs for metering and validation for small low-risk users by not requiring pattern approved meters. - Possible reduction in water abstraction charge (WAC) for meters that have been over-reading water take. - No increase to compliance costs for small licensed volumes will be balanced with benefit to the resource, where they are located in a sub water management area that this no considered to be 'at risk' due to overallocation or full allocation of water.	COMPLIANCE 100% metering coverage has been in place since 1998 and would be reduced to 62%. COMMUNITY - Reduced meter coverage may reduce public's confidence that water is being managed in a sustainable way. - Water trading is likely to require pattern approved meters before the trade can be approved. ENVIRONMENT - All urban residential Licences are located in overallocated or fully allocated sub water management areas. - The sustainable extraction limit of an aquifer is usually much less than the rate of annual recharge, or renewal. - Effects of groundwater over-use may not be detected for several decades because of slow renewal and movement of the resource.

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				ENVIRONMENT • Permitted use is considered to have the lowest risk of overuse under the Disallowable Instrument 'Reasonable Use Guidelines'. • Small, allocated volumes with most not using their full licensed volume in an average rainfall year. • Urban residential use – no new entitlements being issued so there can be no increase in amount allocated. • Stock and domestic – the maximum entitlements that can be granted is limited to 10ML, and there is not expected to be significant increase in entitlements as properties are well established. • Offers some protection of resource as exempt volumes are small (total of 149.5ML). • There is low competition and consumption in most of the sub water management areas for stock and domestic use (Gudgenby, Upper Murrumbidgee and Paddys).	
2.	Threshold set by licensed volume of 5 ML or less	Small licensed volumes are exempt from policy requirements, mainly being urban residential, stock and domestic and community organisations	52% of Licence holders would be exempt from policy requirements Groundwater: • 84 Licences would be exempt (total number of	COMPLIANCE • Water take for those below the threshold could continue to be measured through a non-pattern approved meter, or as otherwise specified in conditions in the Licence.	COMPLIANCE • 100% metering coverage has been in place since 1998 and would be reduced to 48%. COMMUNITY

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	Option	What it looks like	Who would be exempt	Pros	Cons
			active Licences is 182) • Total licensed volume – 159ML annually • Main uses – urban residential gardens, stock and domestic with agricultural/horticultural irrigation, and irrigation of parklands, sportsgrounds and urban open spaces Surface water: • 10 Licences would be exempt (total number of active Licences is 182) • Total licensed volume – 28.5ML annually • Main uses – irrigation, commercial/industrial	• Aligns with approaches taken by other jurisdictions (see Attachment H). • Removes the confusion around the definition of non-urban metering and the application to meters located on urban residential properties. COMMUNITY • Reduced costs for metering and validation for small licensed volumes by not requiring pattern approved meters. • Possible reduction in water abstraction charge (WAC) for meters that have been over-reading water take. • Licence conditions can require a basic meter (non-pattern approved) or other means of measurement for water accounting. • No increase to compliance costs for small licensed volumes will be balanced with benefit to the resource, where they are located in a sub water management area that this no considered to be 'at risk' due to overallocation or full allocation of water. ENVIRONMENT	• Reduced meter coverage may reduce public's confidence that water is being managed in a sustainable way. • Water trading is likely to require pattern approved meters before the trade can be approved. ENVIRONMENT • All urban residential Licences are located in fully allocated WMAs or over allocated WMA. • The sustainable extraction limit of an aquifer is usually much less than the rate of annual recharge, or renewal. • Effects of groundwater over-use may not be detected for several decades because of slow renewal and movement of the resource.

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Attachment H: Examples of threshold criteria from other jurisdictions

State	Threshold criteria	Other considerations
NSW	• Surface water - All works that take or may be used to take water are required to have a meter, except pumps less than 100mm as authorised by the authority. • Groundwater - All works that take or may be used to take water are required to have a meter, except water bores with a diameter* less than 200mm as authorised by the authority. • All licensed water use in 'at risk'** groundwater sources must be metered regardless of the size of the bore (unless water is taken under a basic landholder right). <i>** deemed at risk because they are overallocated or at risk of overallocation.</i>	• All existing works which are already metered will continue to be metered • Meters are owned by licence holders • Improving meter coverage is a key policy target
VIC	• Surface water – unregulated system - licenced volume of ≤ 10 megalitres per year • Surface water – regulated system – annual use of ≤ 10 megalitres per year • Groundwater – licenced volume of ≤ 20 megalitres per year	• Meters are owned by water corporations • The VIC policy is an overarching document -water corporations develop their own metering action plans with their own thresholds • These thresholds have been in place since 2004 and successive policies have maintained grandfathering arrangements
SA	• All water use is metered - can be licensed for 200 KL for domestic use for a bed and breakfast (ACT minimum is 500 KL) • Flexibility provisions and exemptions apply by WMA, for example: • Eastern Mount Lofty Ranges – dam less than 2ML capacity (excluding high risk dams), dams used for stock and domestic purposes • River Murray prescribed watercourse – allocation less than 5000 KL for stock and domestic purposes (automatic flexibility does not apply where there is a second use) • Special flexibility applies in certain circumstances, eg. inactive works, sites that are difficult to meter	• Meters are owned by licence holders • Water usage not required for billing (a levy is charged based on the entitlement volume) • Water use is reported as the full allocated volume

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State	Threshold criteria	Other considerations
QLD	• Volumetric entitlements to take 5ML or less, as specified on the entitlement, will not require metering. • However, where a water plan states a different minimum measurement threshold for a water plan area or part of a plan area, the threshold stated in the water plan will apply • Metering will not be required (exemptions) for entitlements to take water for the following low-risk activities: – stock and domestic – public amenities – educational facilities • Where a volumetric entitlement is inactive, i.e. water has not been or is not currently being taken under the entitlement, metering will not be required to be in place for that entitlement. An entitlement becomes inactive if water is not taken for over 12 months	• Any entitlement that was a metered entitlement at the commencement of the policy will continue to be metered • Meters are owned by licence holders • Improving meter coverage is a key policy target

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ATTACHMENT I – INDICATIVE FINANCIAL IMPACTS FOR LICENCE HOLDERS

SUMMARY OF COSTS

The following total costs are expected for Licence holders.

- **NEW** Accuracy test or validation – approx. \$300-\$500 per meter every five years. Almost half of Licence holders have one active meter only.
- **NEW** Meter repairs and replacement as required – cost varies depending on specific site conditions, the type of work to be performed and the type of equipment to be repaired or replaced. Costs range from \$800 to \$3,000+ for meter replacement, if required.
- Existing annual administration fee of \$516.55 (payable for 2023-2024).
- Existing annual water abstraction fee (WAC) of \$0.334 per kilolitre (payable for 2023-2024).

Impacted stakeholders	• All Licence holders (180 in total) will be subject to <u>new</u> costs to demonstrate accuracy of their meter • Water meters are privately owned, purchased and maintained at the Licence holders' cost. The policy will not change this.
Quantum of water meters	• 290 ACT water meters currently in use (active) • Approx. 50% of Licences have 1 meter • Approx. 5% of Licences have more than 5 meters in total
Meter validation costs – <u>at policy implementation</u>	• Upfront cost between \$300-\$500 per meter for meter validation testing payable by 31 December 2024, total cost dependent on number of water meters per Licence
Meter validation costs - <u>ongoing</u>	• Approx \$300-500 per meter, payable every 5 years, for meter validation testing, total cost dependent on number of water meters per Licence • Ongoing maintenance
New water meter	• Cost to purchase meter ranges from \$800 to \$3,000+. Installation costs are dependent on specific site conditions, the type of work to be performed and the type of equipment to be repaired or replaced.
Costs payable to	• All costs payable to water meter validators or meter installers that are certified by Irrigation Australia Limited

The ACT Government is proposing to offer a \$300 rebate per meter with costs of the rebate absorbed by EPSDD. ACT Government and Commonwealth Government Licence holders will not be eligible for the rebate.

The rebate will assist low risk users with costs for initial accuracy testing at policy implementation. This group comprises ~~10693~~ low volume Licence holders with ~~11795~~ active meters that measure irrigation of residential gardens by private bores, community organisations, private schools, businesses, and several Pialligo rural irrigators ~~and several~~

Government entities.

The rebate would be a one-off payment, paid during the first year of implementation.

BACKGROUND

The new Non-urban Water Metering Policy (the policy) is being rolled out in stages between December 2023 and December 2024 to provide time for Licence holders to prepare for compliance costs associated with accuracy testing and/or meter repair and replacement.

A risk-based approach applies to policy implementation roll-out. Large water users, which pose a higher risk to the resource, are required to demonstrate compliance first.

The costs of water meters¹ vary by size and location so the following costs are provided as a broad estimate.

- Every existing meter is to be tested for accuracy or validated by the roll out date – cost varies between \$300 and \$500 per meter.
- Where a meter is verified as accurate or a validation certificate is issued - another test is required in 5 years, or earlier where a fault is suspected.
- Where a meter cannot be verified as accurate or a validation certificate cannot be issued – maintenance or repairs are required and costs for this will vary with labour and parts.
- Where repairs do not fix the fault, the meter must be replaced with a new pattern approved meter. The cost to supply and install a pattern approved meter can range from \$800 to \$3,000 for small meters (up to 200mm) to over \$10,000 for larger or bespoke meters (used by large irrigators in other jurisdictions).

The typical service life for pattern approved meters is 15 to 20 years so it is anticipated that numerous meters will be able to remain in service where their accuracy can be verified.

Please note the estimated costs are indicative only, and there are many factors that will influence how much it may cost to demonstrate the accuracy of a meter or the installation of a new meter, including:

- site conditions, such as ease of access to the meter;
- if existing pipework is visible above ground or whether excavation works are required at the Licensee's expense;
- if additional works are required to install a replacement meter;
- type of meter (electronic or mechanical meter); and
- travel costs for a certified installer to travel from a regional NSW area to the ACT (dependent on total kilometres travelled). It is expected that travel costs will be either reduced or eliminated as more local ACT-based installers become certified.

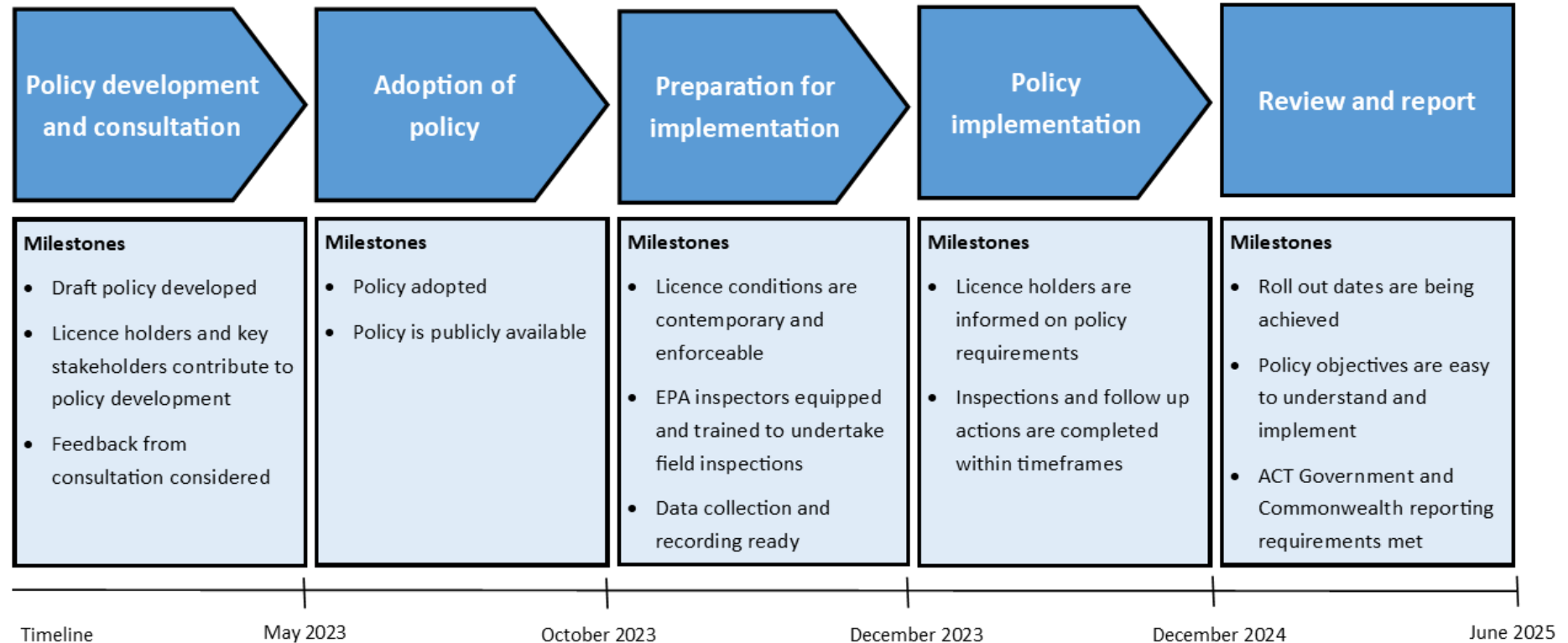
The above costs also do not incorporate telemetry as this is not a mandatory requirement at this time. Telemetry can cost between \$500 and \$2,000 when installed with a new meter,

¹ These costs have been taken from the 'NSW Water Reform Action Plan, Water take measurement and metering, consultation paper, March 2018', the Victorian 'Preparing non-urban water meter action plans, Guidelines for Water Corporations' and verified in conversations with local certified installers.

depending on the sophistication of the telemetry and the communication options. It can cost up to \$12,000 when retrofitted to existing meters.

Attachment J- Implementation Plan for Non-urban Water Metering Policy

1. Summary of Key Milestones



2. Purpose

The purpose of the Implementation Plan is to identify the key tasks and communication strategies for implementing the Non-urban Water Metering Policy.

3. Outcomes

The outcomes of this Implementation Plan are detailed in Table 1. The outcomes and success criteria detailed in this section reflect the delivery of key milestones, as outlined in Section 7.

Table 1: Outcomes and success criteria

Outcome	Success Criteria
Number of pattern approved meters is identified	The number of pattern approved meters can be accurately reported
Accuracy of existing meters is known	Increased confidence that the take of water is accurately and reliably measured
Meters are upgraded as required	New and replacement meters are installed in accordance with policy requirements
Reporting requirements are met	Reporting is accurate and is provided in a timely manner

4. Assumptions

The Implementation Plan will:

- have strong leadership and access to the skills and capability required to deliver the plan in the time scheduled;
- be appropriately resourced to ensure it delivers on-ground outcomes;
- have ongoing cooperation and support from key stakeholders throughout its operation; and
- have Executive support of the policy intent and direction.

5. Constraints

The following constraints have been identified that may impact the progress of the implementation plan:

- No additional budget has been allocated to this project.
- The capacity and/or willingness of key stakeholders, including Licence holders, to engage in the implementation plan may impact efficacy.
- Availability of certified persons to undertake accuracy testing and meter repairs.

6. Tracking Progress

EPA will report on Implementation of the Policy to the Inspector General of Water Compliance (IGWC).

Implementation of the Policy will be monitored by the IGWC.

Office of Water will have general oversight of Policy implementation.

Within the five year cycle of the policy, there may be the need to adapt as policy is implemented, external service provider market buy-in is better understood, or compliance approaches change and national reporting becomes routine.

7. Key Milestones

The key implementation milestones are outlined in Table 2.

Table 2: Key Milestones

	Action	Tasks	Responsible	Timeframe	Progress	Result
1	Consultation with licence holders and other key stakeholders on draft policy	Prepare consultation letter/email to stakeholders to advise of draft policy and seek feedback. Stakeholders include: • Licence holders • ACT Rural Landholders Association • Monaro Golf Association • Irrigation Australia • Inspector-General of Water Compliance • Department of Climate Change, Energy and Water	OoW/Access Canberra Comms Team	May 2023 4-week consultation period	Complete	Licence holders and key stakeholders opportunity to contribute to Policy development
		Snapshot document with a summary of the main requirements of the Policy and link to full detailed Policy sent with consultation letter.	OoW	May 2023	Complete	
2	Adoption of final policy	Consider submissions when finalising policy	OoW	June 2023	Complete	Submissions received are incorporated into final policy where appropriate
		Provide response to submissions	OoW	June 2023	Complete	
		Prepare and finalise Cabinet submission for policy agreement	OoW	June – October 2023	Progressing	Cabinet agrees to the policy and implementation plan
		Seek advice from Comms Team on corporate branding and graphic design requirements	OoW/AC Comms Team	July 2023	Not started	Document is consistent with corporate branding
3	Policy accepted by Cabinet	Cabinet submission approved	Cabinet	October 2023	Progressing	Final policy adopted
		Publish policy on Access Canberra website (Water resourcing licensing page) and supersede previous water metering guideline	EPA/AC Web Team	October 2023	Not started	Document is publicly available

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4	Update licence conditions	Amend all (182) Licence holder licence conditions to specify: - New conditions of Policy 5-yearly validation and accuracy testing requirements - repairs and maintenance - notification and reporting requirements - Update existing conditions to reference new Policy test new conditions and elements of offence for enforceability	EPA	October 2023 (after adoption of policy by Cabinet)	Not started	Licence amendments and administration tasks are completed at least one month before first roll out date Conditions reference the new policy and are enforceable
		Consultation with licence holders on proposed amendments to licence conditions (in accordance with S55 of <i>Water Resources Act</i>)	EPA	October/November 2023	Not started	
		Consider submissions when finalising new conditions	EPA	October/November 2023	Not started	
		Update Licenses with amended conditions	EPA	October/November 2023	Not started	
		Update database with new details	EPA	October/November 2023	Not started	
		Send licence to licence holders, including response to any submissions received	EPA	October/November 2023	Not started	
		Update public register with new Licenses	EPA	October/November 2023	Not started	
5	Training for staff	Register for 'Meter Installation & Validation' training through Irrigation Australia	EPA	EPA staff attended in March 2023	Complete	Staff are: - confident working alone in the field - able to undertake duties as an authorised officer - able to carry out an inspection of a water meter and surrounding equipment able to complete data entry as required
		Consider undertaking meter inspections with another jurisdiction	OoW/EPA	As opportunity arises	Not started	
		Ensure staff are familiar with EPA's 'Working Alone in Field Policy' and workplace health and safety requirements	EPA	Before Policy Implementation	Progress unknown – EPA to advise	
		Ensure staff are familiar with WRIS database and able to enter data accurately and in line with business rules	EPA	Before October 2023	Progress unknown – EPA to advise	
		Admin check - authorised officer ID cards, vehicle pin, PPE, mobile phone with access to Survey123, tools (gloves, screwdriver etc.)	EPA	Before October 2023	Progress unknown – EPA to advise	
		Identify new data fields to be captured in WRIS for each meter (see point 10 for Metering	EPA	October-December 2023	Not started	

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4	Update licence conditions	Amend all (182) Licence holder licence conditions to specify: - New conditions of Policy 5-yearly validation and accuracy testing requirements - repairs and maintenance - notification and reporting requirements - Update existing conditions to reference new Policy test new conditions and elements of offence for enforceability	EPA	October 2023 (after adoption of policy by Cabinet)	Not started	Licence amendments and administration tasks are completed at least one month before first roll out date Conditions reference the new policy and are enforceable
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		Consider undertaking meter inspections with another jurisdiction	OoW/EPA	As opportunity arises	Not started	
		Ensure staff are familiar with EPA's 'Working Alone in Field Policy' and workplace health and safety requirements	EPA	Before Policy Implementation	Progress unknown – EPA to advise	
		Ensure staff are familiar with WRIS database and able to enter data accurately and in line with business rules	EPA	Before October 2023	Progress unknown – EPA to advise	
		Admin check - authorised officer ID cards, vehicle pin, PPE, mobile phone with access to Survey123, tools (gloves, screwdriver etc.)	EPA	Before October 2023	Progress unknown – EPA to advise	

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6	Data collection and database preparation	Identify new data fields to be captured in WRIS for each meter (see point 10 for Metering report card metrics) • Meter info – brand, size, installation date • Number of AS4747 compliant meters • Number of grandfathered meters • Date of last validation • Date of last accuracy test • Due dates for validation and accuracy testing • Status of repairs and faults • Compliance actions	EPA	October-December 2023	Not started	Accurate and timely data is recorded and reporting commitments can be met
		Create data fields in database, including query for reporting	EPA	Before December 2023	Not started	
7(a)	Commencement of accuracy testing	Licence holders engage certified persons to undertake accuracy testing	Licence holders	As per staged rollout	Not started	Licence holders are prepared for their roll out date and can meet the requirements of the policy
		Offer onsite visits to licence holders who require assistance or further advice to comply	EPA	As required	As required	
7(b)		In event of shortfall of meter validators, commence a tender process to source independent certified persons	OoW/EPA/Treasury	As required	As required	
7(c)		In the event of an unsuccessful tender process, EPA to complete accuracy testing	OoW/EPA/Treasury	As required	As required	
8	Inspections and data collection	Inspection templates developed as required	EPA	January 2024	As required	Accurate and consistent data is recorded during field inspections and entered into database for ongoing administration of licence and to meet reporting requirements
		Update inspection survey in Survey123 as required	EPA	January 2024	Not started	
		Water meters and metering installations are inspected for compliance	EPA	From March 2024 and as per staged rollout	Not started	
		Follow up inspections undertaken within 28 days of initial inspection	EPA	Within 28 days of initial inspection	As required	
		Enforcement procedure actions completed and compliance with policy achieved	EPA	In accordance with Access Canberra policies	As required	
		Data entry completed by EPA inspectors to capture inspection details, compliance actions and reporting data (see Point 9 below)	EPA	At time of inspection	As required	
		Ongoing inspections are built into workplans and become business as usual as per policy	EPA and/or licence holder	Ongoing from March 2024, then is BAU	Not yet started	

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9	Review progress	Review progress to achieve compliance by roll out dates: - How many licences have been inspected/accuracy tested? - How many comply? - Is there a sufficient supply of meter validators to meet compliance dates? Are the dates still achievable?	OoW	From March 2024, with ongoing monitoring through entire implementation	Not started	Policy objectives are achievable and easy to understand and implement for both the EPA and licence holders
		Review policy content: - Are the requirements achievable? - Is Policy easily understood by EPA and licence holders?	OoW	From March 2024, with ongoing monitoring through entire implementation	Not started	
		Identify any additional resources required	EPA	As required	As required	
10	Reporting	Include progress of policy implementation in EPA annual report: - Number of grandfathered meters - Number of pattern approved meters - Percentage metering coverage	EPA	In line with current annual reporting requirements	As required	Reporting is provided with required timeframe
		'Metering Report Card Metrics' reporting to IGWC (template provided by IGWC). Minimum data required (noting that the Report Card may be updated by IGWC each year): - Water take: - Volume of water take - Percentage of water take not metered - Meters: - No of pattern approved, or AS4747 compliant, meters in use - Percentage of water take measured by pattern approved, or AS4747 compliant, meters - No of meters in use not pattern approved, including Grandfathered meters - Percentage of water take measured by meters that are not pattern approved.	EPA	End of financial year	As required	
		Progress of policy implementation to MDBA as required by the Federation Funding Agreement	OoW	In line with Federation Funding Agreement	As required	

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10	Reporting (continued)	Monthly meetings with OoW Project Manager and EPA Assistant Director, Water Regulation to: • Track status of implementation plan by due dates • Identify implementation risks by summarizing actions due in next 30-60 days (after meeting) • Provide monthly report to Senior Directors	OoW/EPA	Commenced July 2023		
		Report to Executive (EPSDD and Access Canberra) where required, such as: • Delays with policy implementation • Resourcing issues • Success stories • Potential policy changes	OoW/EPA	As required	As required	