# Metering and Billing Service Standards

July 2025

seqwater
WATER FOR LIFE

#DCS1623

# Introduction

**Water is essential — it sustains life, supports our economy, and underpins the liveability of our communities. At Seqwater, we are proud to deliver safe, reliable, and high-quality bulk water to more than 3.7 million people across South East Queensland.**

As one of Australia's largest and most diverse water authorities, our operations stretch from the New South Wales border to Gympie and west to the base of the Toowoomba ranges. We manage an extensive network of assets, including dams, weirs, water treatment plants, the SEQ Water Grid, and climate-resilient infrastructure like the Gold Coast Desalination Plant and the Western Corridor Recycled Water Scheme.
Our reach and capabilities enable us to provide water security across a changing climate and growing region.

But our commitment goes beyond infrastructure — it's about people. We understand that our customers rely on us not just for water delivery, but for service that is consistent, transparent, and responsive. That's why we've developed these Metering and Billing Service Standards — to clearly define what our Retailer and Commercial Customers can expect from us and how we're accountable for delivering an excellent customer experience.

These standards reflect our values of trust, transparency, and continuous improvement. They outline how we ensure metering accuracy, manage billing practices, respond to customer needs, and work collaboratively to resolve issues. They are designed to build confidence in our processes, support timely and accurate billing outcomes, and promote satisfaction and reliability in every interaction.

At Seqwater, we live and work in the communities we serve — and we are committed to delivering services that are not only technically robust, but also customer-focused, fair, and easy to engage with.

# Metering and billing service standards

**At Seqwater, we manage a comprehensive network of 107 revenue meters—comprising both Seqwater-owned and non-Seqwater-owned assets—as well as 9 check meters.**

We are committed to delivering accurate, transparent, and reliable metering and billing services. This document outlines the standards that govern our approach to meter assurance, billing accuracy, and customer responsiveness, with the goal of fostering trust, consistency, and accountability in the delivery of bulk water services.

This Standard has been developed specifically for our Retailer and Commercial Customers, providing clarity on service expectations and our ongoing commitment to best-practice performance in metering and billing operations.

Unless expressly stated in a Bulk Water Supply Agreement or required by law, these standards do not create contractual or legally binding obligations, nor do they amend existing rights or obligations.

Nothing in this document limits Seqwater's statutory powers, discretions, or obligations under the Water Act 2000 (Qld), the Bulk Water Supply Code, or any other applicable law.

## Technical requirements of bulk supply meters

Seqwater is progressively replacing all inherited or legacy bulk supply meters with meters that meet the relevant technical and quality standards (refers to appendix A), with a target to upgrade more than 50% of the total meter fleet by the end of FY2026.

All bulk (revenue/billing) meters will be Electromagnetic Flow Meters.

Check (non-billing) meters will be either Electromagnetic or Ultrasonic Flow Meters.

- **Standard:** All upgraded bulk supply meters will utilise Krohne (Optiflux 2000/2300) Electromagnetic Flow Meters, pattern-approved in accordance with NMI R 49 or OIML R 49 Class 1, and calibrated at five points to ensure measurement accuracy.
- **Standard:** Upgraded check meters should use Krohne meters or equivalent technologies that meet the same technical standards, where practicable.

*These specifications align with Seqwater's engineering standards and may be revised as required. The Metering and Billing Service Standard will be updated to reflect any such change.*

## Meter performance assurance

All revenue meters shall undergo annual verification by technicians accredited by the meter manufacturer using certified third-party verification tools. Verification will confirm the performance of assessable parameters—such as flow coils and electronic circuitry—within 1% of initial factory calibration or set values.

Check (non-billing) meters will be verified every three years. Where a check meter temporarily functions as a primary billing meter, ad hoc verification may be requested to maintain billing accuracy.

- **Standard:** Annual verification is scheduled based on the most recent in-situ verification or installation date. A schedule will be shared with Retailer and Commercial Customers at the start of each financial year.
- **Standard:** Seqwater will issue verification certificates for revenue meters on a monthly basis, in alignment with the verification schedule.
- **Standard:** Seqwater will provide verification certificates for check meters following each three-year verification cycle. Ad hoc certification may be requested where check meters are used for billing.
- **Standard:** Verification certificates for non-Seqwater-owned billing meters must be provided annually to Seqwater by the relevant Retailer or Commercial Customer.

## Identification and notification of meter outage

Seqwater will notify affected Customers promptly upon identification of meter failures or deviations beyond acceptable tolerances, as outlined in Section 4, Clause 27 of the Code.

- **Standard:** Internal notification will occur as soon as an issue is detected but within three (3) business days of issue identification.
- **Standard:** External notification to affected Customers as soon as practicable following issue detection and no later than five (5) business days following internal notification.

*These notification standards are subject to exceptions during major or emergency supply events, or in situations where operational capacity is significantly constrained, which may result in extended response times.*

## Resolution and remediation of meter issues

Seqwater is committed to resolving meter faults promptly to minimise service disruptions. Affected Customers will be informed of progress and any potential delays throughout the remediation process. Alternative billing arrangements will be implemented as required, in accordance with the Volume Calculation Methodology (PRO-02583).

- **Standard:** High-impact meters (>15 ML/day): Remediation within 2 weeks.
- **Standard:** Moderate-impact meters (5–15 ML/day): Remediation within 4 weeks.
- **Standard:** Low-impact meters (<5 ML/day): Remediation within 8 weeks.
- **Standard:** Where delays occur, an internal escalation process will be triggered, and revised timeframes will be communicated within five (5) business days. This may also prompt a review of interim billing arrangements.

*These standards do not apply in scenarios where a full meter replacement is required. Such instances may involve extended lead times due to manufacturing and compliance factors associated with transitioning from legacy infrastructure.*

## Billing timelines

Seqwater is committed to timely invoice issuance, alongside continuous improvement in invoice layout and content to enhance communication and transparency.

- **Standard:** Monthly invoices issued within seven (7) business days of the start of each month.
- **Standard:** June invoices will be issued within four (4) business days of 30 June each year to assist with end-of-financial-year processes.

*These standards are subject to exceptions during major or emergency supply events, or in situations where operational capacity is significantly constrained, which may result in extended response times.*



## Billing data request

Seqwater provides prompt and transparent responses to all invoice-related enquiries, including those concerning non-revenue water adjustments during commissioning or operational events.

For all enquiries, please contact: BulkWaterMetering@seqwater.com.au

- **Standard:** For planned or known events (e.g., meter maintenance), Seqwater will respond within two (2) business days of receiving the enquiry.
- **Standard:** For unplanned or emergency events (e.g., pipeline bursts), a response will be provided prior to the next invoice cycle.

## Billing estimation

Where actual meter readings are unavailable, Seqwater will apply its Volume Calculation Methodology (VCM), in accordance with PRO-02583, to ensure a consistent and transparent estimation process.

- **Standard:** Where VCM Method 3 is to be applied, estimation approaches will be reviewed and agreed with affected Customers at least one (1) month before any planned meter replacement project.

If agreed thresholds (volume or duration) are exceeded due to unforeseen delays, Seqwater will consult with affected Customers to review and confirm the most appropriate estimation method.

## Billing visibility

Seqwater is committed to providing transparency in the calculation of billing volumes and any applicable water loss adjustments. A Water Loss Agreement—developed in consultation with our Customers—ensures that bulk system losses are appropriately factored into billable volumes. This agreement is reviewed every three (3) years in accordance with (PRO-02583).

- **Standard:** A Water Loss Letter will be issued to Retailer Customers within the first three (3) weeks of July each financial year. This letter will include the water loss adjustment data applied to monthly invoices.

Please refer to the "Helpful Terms" under Appendix D for further details on Metering and Billing Service Standard definitions.

# Appendix:

# Supporting detail - metering and billing standards

## Meter Assurance Activities

To give our Customers confidence in the accuracy of billing data, we apply a structured program of assurance activities throughout each meter's lifecycle. This includes design, commissioning, and ongoing performance monitoring—ensuring data integrity every step of the way.

### Asset assurance

We ensure all bulk meters are selected from our Preferred Equipment List. This guarantees compatibility with our operational systems and supports our strategic approach to asset management. For you, our Retailer customer, this means reliable infrastructure aligned with robust performance expectations.

### Design assurance

To meet the technical and functional needs of bulk (billing) meters, all designs and installations must comply with Engineering Standard M-SPE-STD-006. This ensures each installation is fit for purpose—supporting both revenue billing and operational requirements—giving you confidence in system integrity from the ground up.

### Pre-commissioning assurance

Before installation, every meter is supported by a Factory Calibration Certificate from the manufacturer, confirming it is pattern-approved in accordance with NMI R 49 or OIML R 49 Class 1. Each meter is calibrated at five measurement points under controlled conditions to verify accuracy, ensuring reliable billing data from the outset.



### Commissioning assurance

We undertake a rigorous commissioning process to validate each meter's performance under actual operating conditions. This includes:

- Commissioning electromagnetic flow meters per M-PRO-STD-001 – Commissioning of Electromagnetic Flow Meters for Potable Water Supply.
- Acquiring an in-situ verification certificate from the meter manufacturer's technician following installation.
- Conducting either a Volumetric Drop Test or In-Series Flow Comparison to confirm in-field accuracy
- Developing an Uncertainty Budget in accordance with ISO 5168.
- Documenting all activities using M-TMP-STD-003 – Electromagnetic Flow Meter Commissioning ITP Template.

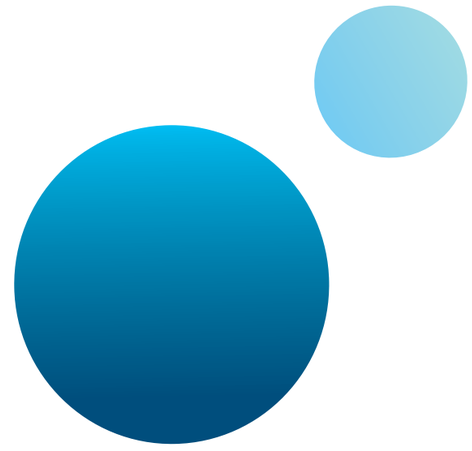
This thorough process ensures that the meters supporting your billing data are dependable, traceable, and meet industry best practice

### Asset performance assurance

Maintaining metering integrity doesn't stop at commissioning. Our ongoing assurance activities include:

- Annual verification of all revenue meters by manufacturer-approved technicians, with certificates retained for audit.
- Flow Meter Renewal Program, aligned with our Condition Management Strategy, to support long-term asset health and timely meter replacement.

These efforts help safeguard against data drift and ensure your billing remains fair and accurate over the life of the asset.



## Non-Seqwater-owned meter assurance

Where revenue meters are not owned by Seqwater, the responsibility for assurance rests with you as the Retailer customer. In line with the Code and contractual obligations, we ask that you:

- Provide verification certificates when meters are calibrated or tested.
- Maintain appropriate assurance over meters in use for billing purposes.

**Table 1 The current non-Seqwater-owned meters within the Seqwater network**

| Item | Meter description | Meter owner | Retailer customer billed by meter |
|---|---|---|---|
| 1 | M-163-D 'Albert River Crossing' | Logan City Council | Logan City Council & City of Gold Coast |
| 2 | M-081-D 'Lowood - Minden Road" | Urban Utilities | Urban Utilities |
| 3 | M-082-D 'Export to Warrill View' | Urban Utilities | Urban Utilities |
| 4 | M-179-D 'Bypass from Lockyer Valley Region' (Lowood Zone) | Urban Utilities | Urban Utilities |

## How can you support us?

To help Seqwater deliver metering services that are accurate, efficient, and future-ready, we invite your support in the following ways:

- Nominate critical meters for billing to help prioritise assurance and renewal planning
- Notify Seqwater via ROMM of upcoming planned shutdowns—enabling meter replacements to be coordinated during outages and reducing service disruptions
- Facilitate shutdown access, where possible, to support proactive meter replacements. This reduces the risk of urgent works, avoids reliance on estimated billing, and prevents delays due to compliance constraints.

In cases where urgent replacement is needed but access is delayed, we will work with you to explore alternative interim approaches—such as revised commissioning methods – that meet our combined needs until meters are able to be replaced.



# Identification and notification of meter outage

At Seqwater, we actively monitor metering performance through daily analysis designed to detect anomalies and potential outages. For high-importance assets—such as large revenue meters—alarm thresholds are built into our SCADA system to automatically flag potential faults. This early detection process helps maintain the accuracy of your billing data and minimises downtime.

## Ongoing data quality assurance

To ensure the reliability of metered data used for billing, Seqwater undertakes regular data quality assurance activities, including:

- Historical volume checks – comparing meter totaliser readings against expected usage patterns.
- Review of high-impact meters – analysing both instantaneous and totalised flow data to detect anomalies.
- Additional checks, as required:
  - Check meter comparison – validating billing meter data against check meters, where available.
  - Mass balances – assessing total inflows versus outflows across multiple meters in a network segment.
  - Zone total comparisons – aggregating flow data from several meters and comparing it with zone totals.
  - Retailer shared pen comparisons – aligning Seqwater meter data with that of shared operational meters owned by retailers.
  - Balance tank mass balances – comparing inflow and outflow volumes for meters feeding a balance tank and validating the data against observed tank level changes.

## Additional metering and billing assurance

Further assurance is delivered through a combination of:

- Internal audits as part of Seqwater's assurance program
- Independent external audits conducted by the Queensland Audit Office
- Continuous SCADA-based alarm monitoring for high-criticality meters

These mechanisms reinforce our commitment to delivering transparent, auditable, and trustworthy billing info.

## How can you support us?

We value your partnership in maintaining the integrity of the bulk metering network. If you identify any discrepancies, data concerns, or unusual trends in your meter readings, please let us know by contacting the Bulk Water Metering Team at: **BulkWaterMetering@seqwater.com.au**. Your timely notification allows us to investigate and resolve issues promptly minimising the risk of extended outages or billing anomalies.

# Helpful terms

**Table 2 The defined terms and abbreviations apply to this Metering and Billing Service Standards**

| Defined terms and abbreviations | Definitions |
|---|---|
| Bulk Supply Meter | A water meter formally nominated as a revenue meter for bulk water supply purposes. It may function as a bulk supply point meter or a bulk transfer meter within the distribution network. Bulk Supply Meters are integral to billing algorithms, defining demand zones, and quantifying the volume of water supplied to Customers for invoicing and regulatory reporting purposes. |
| BWSA | Bulk Water Supply Agreement (A document made by the Minister, under the Water Act 2000 (Qld) to which Seqwater and Customer are parties for the supply of bulk water). |
| Customer | For the purposes of this service standard, customers are defined as Retailer and Commercial Customers. The current list of Seqwater's Retailer and Commercial Customers is:<br>• Retailer Customers:<br>• City of Gold Coast<br>• Logan City Council<br>• Redland City Council<br>• Unitywater<br>• Urban Utilities<br>• Commercial Customers:<br>• Australian Food Corporation Pty Ltd<br>• Greenmountain Group Pty Ltd<br>• CleanCo Queensland Ltd<br>• Stanwell Corporation Ltd<br>• Toowoomba Regional Council |
| Code | Means the Bulk Water Supply Code made by the Minister pursuant to section 360M of the Water Act 2000 (Qld). |
| Contractural obligations | The obligated provisions outlined in the BWSA and associated Operating Protocols between Seqwater and its Customers. |
| Check meter | Meters in series with the Bulk Supply Meter and not used primarily used for billing purposes. Check meters may be used in accordance with the Seqwater Volume Calculation Methodology Procedure in instances where the Bulk Supply Meter is not operating or outside of tolerance. |
| Engineering Standard | Engineering Standard M-SPE-STD-006 Bulk Supply Meters for Potable Water (SPE-00322). |
| High-impact meters | Meters with a nominal diameter greater than DN600 and an average daily flow rate exceeding 15 megalitres per day (ML/day) |
| Krohne (Optiflux 2000/2300) | Krohne, specifically the Optiflux 2000/2300 model, is Seqwater's current preferred manufacturer for flow measurement equipment (Engineering Standard X-LST-STD-001 Seqwater Preferred Equipment Register). These models are selected for their accuracy and compatibility with Seqwater's operational standards. |
| Low-impact meters | Meters with a nominal diameter of DN300 or smaller and an average daily flow rate of less than 5 megalitres per day (ML/day). |
| Moderate-impact meters | Meters with a nominal diameter greater than DN300 and up to DN600), and an average daily flow rate between 5 and 15 megalitres per day (ML/day). |
| Non-Seqwater Owned Meter | A Non-Seqwater Owned Meter is a Bulk Supply Meter that is owned by a Customer of Seqwater. These meters are integrated into Seqwater's billing algorithm, enabling the accurate calculation of water usage for invoicing and demand zone allocation. |
| NMI | National Measurement Institute, Australia |
| NMI R 49 | NMI R 49-1 Water meters for cold potable water and hot water, Part 1: Metrological and technical requirements |
| Planned maintenance activities | Scheduled maintenance activities that involve the replacement of meters, valves or any other assets to ensure system reliability and optimal performance. |
| OIML | International Organisation of Legal Metrology |
| OIML R 49 | Water meters intended for the metering of cold potable water. NMI R 49-1 is adapted by the Australian National Meter Institute (NMI) from OIML R 49-1, published by the International Organisation of Legal Metrology |
| ROMM | Regional Operations Managers Meeting. A working group formed to exchange information and to facilitate a collaborative process between the parties. |
| SCADA | Supervisory Control and Data Acquisition |
| SEQ | South East Queensland |
| VCM | Volume Calculation Methodology |
| Verification | A check that the flow meter's coils, communications, and other accessible parameters are still operating within +/- 1% the original factory setpoints by the flow meter's manufacturers, third party certified, verification tool. |

# Reference documents

**Table 3 The list of reference Seqwater documents**

| Asset standard document number | Document title |
|---|---|
| SPE-00322 | Engineering Standard M-PRO-STD-006: Bulk Supply Meters for Potable Water |
| PRO-01845 | Procedure M-PRO-STD-001: Commissioning of Electromagnetic Flow Meters for Potable Water Supply |
| TEM-00153 | Template M-TMP-STD-003: Electromagnetic Flow Meter Commissioning ITP Template |
| REG-01074 | Engineering Standard X-LST-STD-001 Seqwater Preferred Equipment Register |
| PRO-02583 | Volume Calculation Methodology Procedure |



# Contact us

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