



# CITY OF CAPETOWN

AMI PROGRAMME  
INFO PACK  
EXTERNAL STAKEHOLDERS

DECEMBER 2025

# Contents

|    |                           |    |
|----|---------------------------|----|
| 1. | ABOUT SMART METERING      | 03 |
| 2. | OVERVIEW OF THE PROGRAMME | 06 |
| 3. | BENEFITS                  | 11 |
| 4. | FAQS                      | 13 |



# ABOUT SMART METERING

---

01

# What is a smart meter and how does it differ from a mechanical meter?

**A smart meter is a modern digital device that tracks water use and sends the information automatically. It includes advanced features like remote reading, leak detection, near-real-time analysis, and compatibility with other smart systems**

## Mechanical Water Meter

- ▶ A mechanical water meter measures the volume of water flowing through a pipe without requiring electrical power.
- ▶ It works using a movable component, like a piston or turbine, that moves as water flows through the meter.
- ▶ The water usage is displayed on an analogue dial or series of dials connected to the measuring chamber by gears.
- ▶ These meters require manual reading and recording of data.



### Limitations of Mechanical Meters:

- ▶ Over time, mechanical parts can wear out, reducing accuracy.
- ▶ They do not provide detailed usage data or near-real-time monitoring like smart meters.
- ▶ Their functionality is basic, limited to measuring water flow.

## Static Smart Water Meter

- ▶ A smart water meter is a digital device that accurately measures water usage, stores the data, and sends it wirelessly to a central system. This enables efficient operations, including remote reading, monitoring, and management.
- ▶ The City of Cape Town has chosen static smart meters, which measure water flow without any moving parts. This design ensures durability and long-term reliability, avoiding issues like wear and tear seen in mechanical meters.

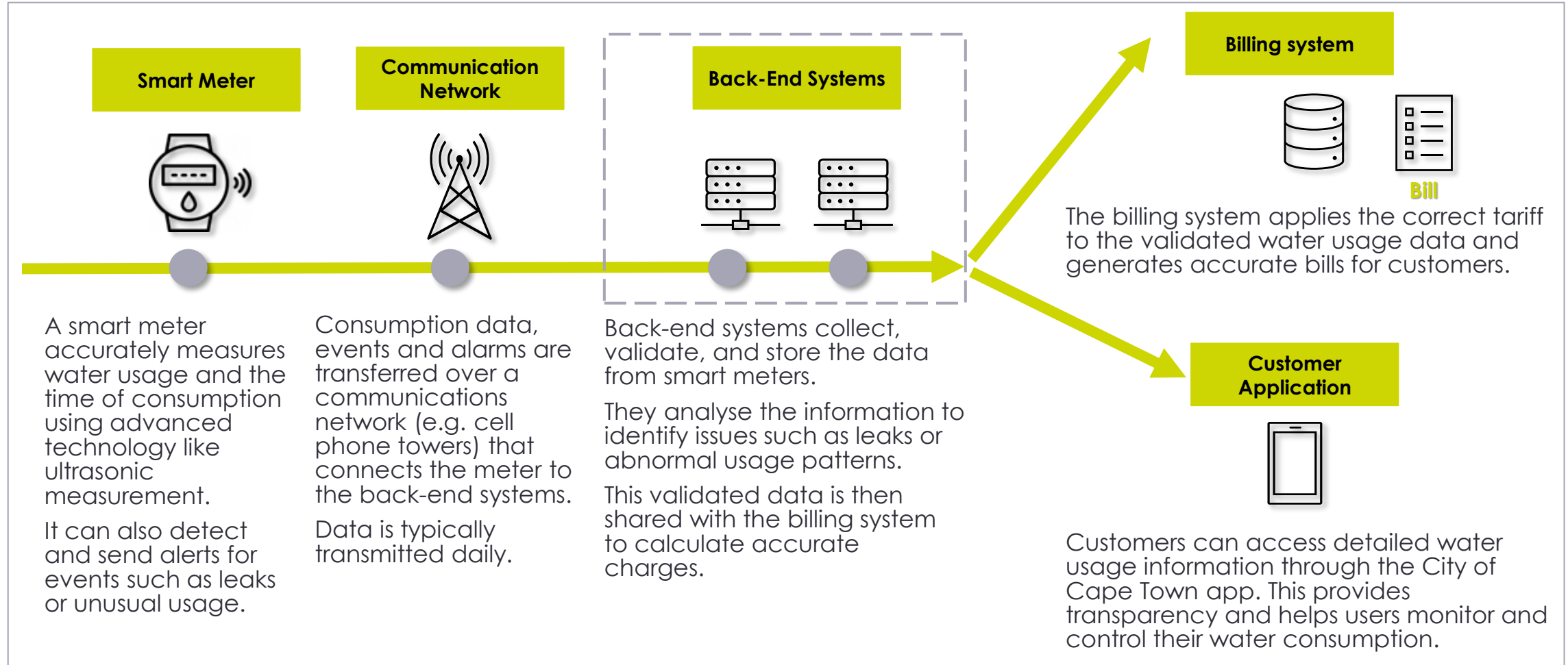
### Key Features:

- ▶ Static meters provide precise water usage data, unaffected by mechanical wear.
- ▶ Data is automatically sent to a central system, eliminating the need for manual meter readings.
- ▶ The meters can detect leaks and unusual water usage patterns, helping to prevent water loss and reduce costs.
- ▶ Powered by a long-lasting battery with a lifespan of 12–15 years, ensuring minimal maintenance.
- ▶ Features a clear digital screen for easy on-site readings when necessary.
- ▶ Meters are equipped with an anti-tamper mechanism.
- ▶ Advanced encryption protects customer information and ensures data integrity.
- ▶ Compatible with smart systems for better water management and operational efficiency.
- ▶ Supports water conservation by providing detailed usage insights and enabling proactive issue resolution.
- ▶ For specific cases, such as excessive water users or repeated non-payment, remote flow restrictor valves may be installed separately. These allow controlled water supply adjustments without requiring physical intervention.



# How does a smart meter work?

**AMI is a system that connects smart meters to the utility through communication networks and secure data management systems. It enables accurate billing, quick leak detection, and real-time usage updates for customers.**  
**The diagram below explains how the system works.**



# OVERVIEW OF THE PROGRAMME

---

02

# AMI Programme on a Page

## WHAT?

The CCT's Advanced Metering Infrastructure (AMI) Programme is a complex, large scale, strategic initiative of the Water & Sanitation Directorate aimed at improving the management of water resources and services through the deployment of modern meter technology solutions.

## WHY?

This change will bring about benefits to customers, employees, the City of Cape Town, and the environment.



## MOVING FROM

The City will replace mechanical water meters over a period of 3 years for Phase I, and 10 years for Phase 2.



## MOVING TO

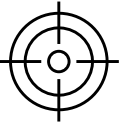
Over the next decade, a large portion of the City's more than 680,000 mechanical water meters will be replaced by AMI ultrasonic meters.



Phase 1 will focus on approximately 80,000 industrial, commercial, and high usage residential customers, and Phase 2 the remaining meters.

## STRATEGIC LINK

The AMI Programme has direct links to five strategic drivers, namely: **Financial Stability, Customer Satisfaction, Operational Excellence, Economic Imperatives and Social and Environmental Imperatives.**



## BENEFITS OF THE CHANGE

### CUSTOMERS

- Accurate, automated readings
- Increased privacy and security
- Proactively manage usage
- Improved customer satisfaction

### EMPLOYEES

- Increased automation eliminating human error
- Increased efficiency
- Opportunity for more technology-oriented jobs

### CITY OF CAPE TOWN

- Water resilience and avoiding day-zero due to better water management
- Revenue management
- Proactive issue resolution and maintenance

### ENVIRONMENT

- Water conservation due to leak detection and usage awareness
- Sustainable water management
- Reduced carbon footprint

## IMPACT OF THE CHANGE

### PROCESS

Some new or amended key processes are required to support the introduction of AMI

### TECHNOLOGY

New smart meters and the associated AMI systems will be procured / integrated

### PEOPLE



Employees upskilled to perform new processes and more technology-oriented tasks.

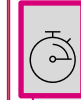
## SUCCESS



Happy Customers



Improved financial stability for CCT



Improved operational efficiency for CCT



Sustainability and Water resilience

# Programme Background

**‘By 2040, Cape Town will be a water-sensitive city that optimises and integrates the management of water resources to improve resilience, competitiveness and liveability for the prosperity of its people’**

*The City of Cape Town's Water Strategy 2018*

The City of Cape Town's Advanced Metering Infrastructure (AMI) Programme, led by the Water & Sanitation Directorate, is a large-scale initiative to enhance water management and services using modern metering technology.

Over the next decade, a large portion of the City's more than 680,000 mechanical water meters will be replaced by AMI ultrasonic meters, along with the necessary supporting infrastructure to enable the CCT to move into a more modern digital world.



The AMI system ensures accurate billing and builds trust in the city's services.

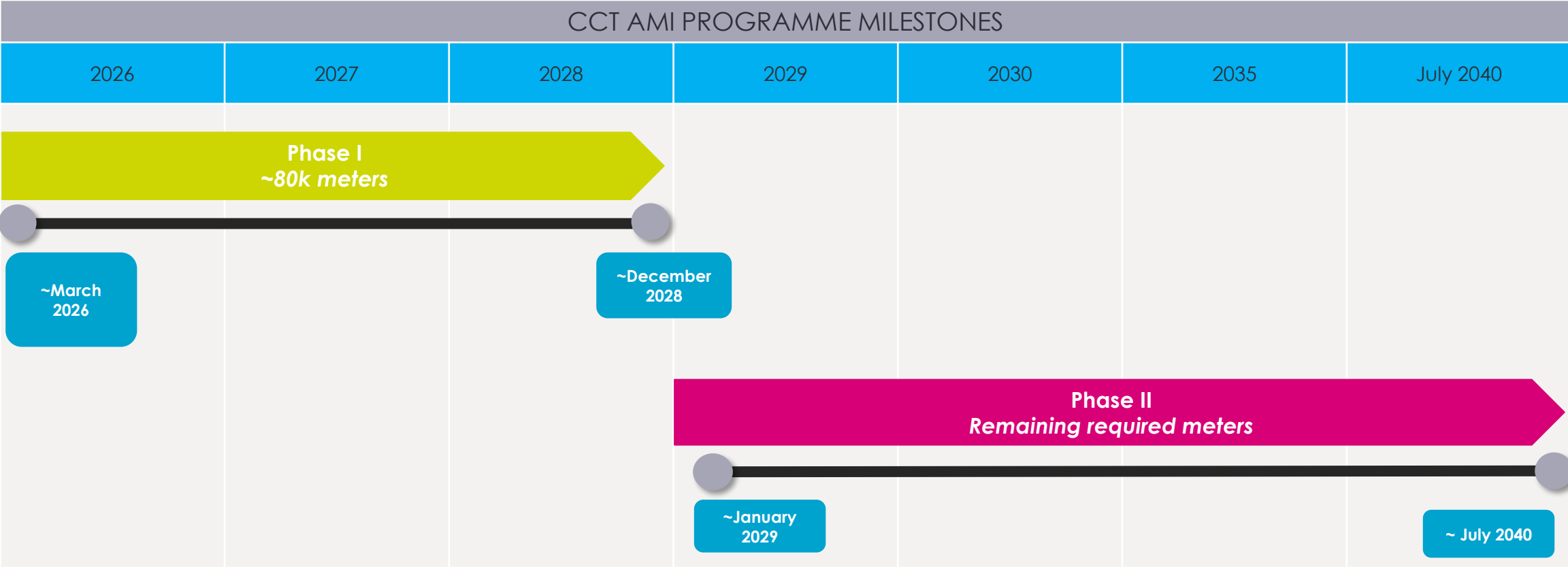
By improving water resource management and reducing losses, it promotes sustainability, tackles operational challenges, and helps restore the city's reputation while recovering lost revenue.

This comprehensive approach boosts efficiency and demonstrates the city's commitment to responsible water management and excellent customer service.

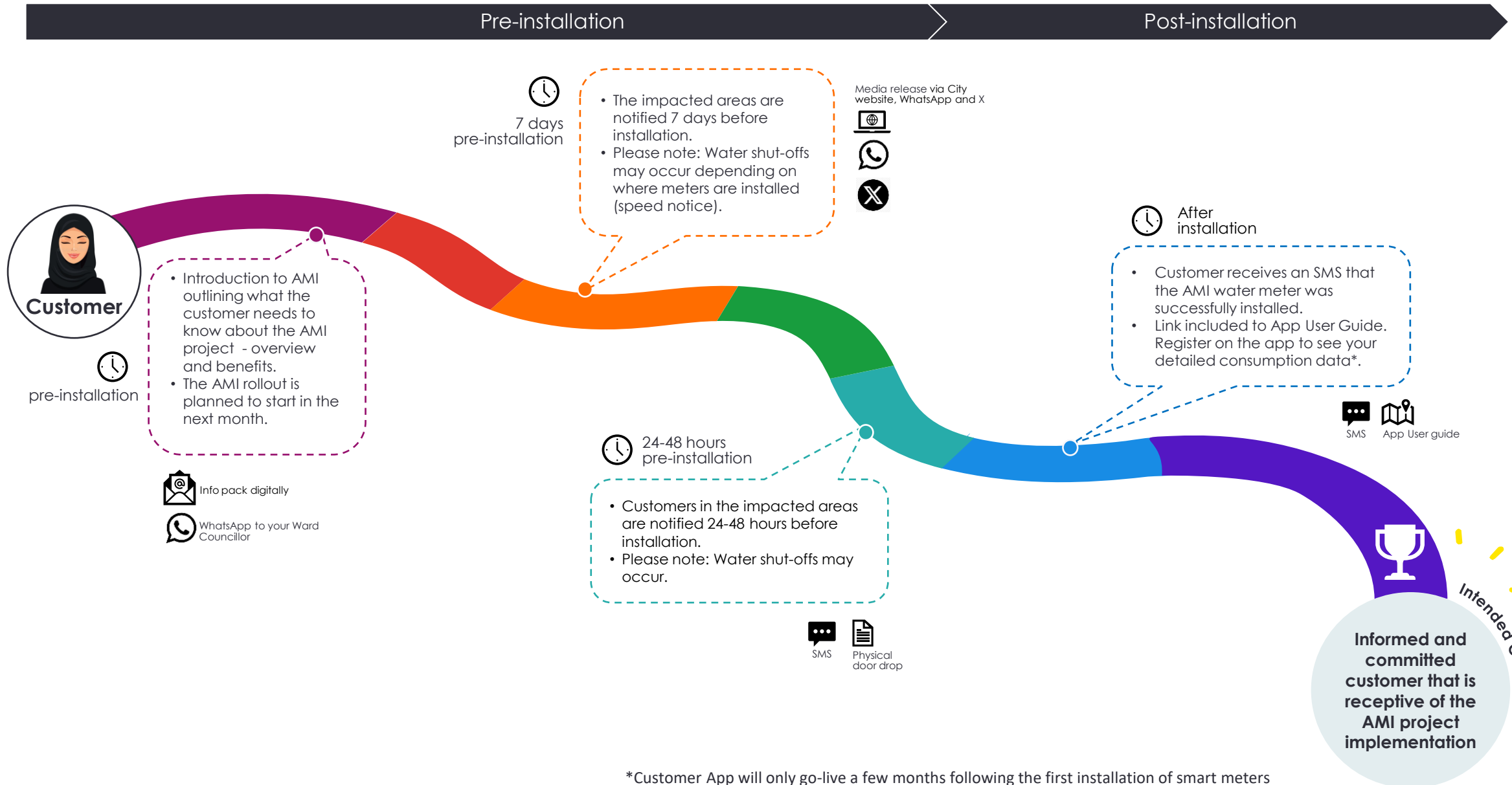
# Rollout schedule (post tender cancellation)

The programme has been broken down into 2 Phases:

- The first phase will run over three years with the procurement of the AMI system and installation of approximately 80,000 smart static meters. This phase will be targeted primarily at industrial, commercial and high-usage residential customers. Customers may experience water shut-offs as a result which is dependent on where the meters will be installed.
- Phase II is scheduled to run for 10 years during which the remaining smart meters will be installed.
- Meters of all sizes will be upgraded to smart meters.



# Customer journey – Communications: Pre-, During & Post-installation



\*Customer App will only go-live a few months following the first installation of smart meters

# BENEFITS

---

03

# Benefits of the AMI Programme

The AMI programme will provide benefits to a wide range of stakeholders, including customers, landlords and tenants, the environment and the City of Cape Town. These benefits are highlighted below:

| Benefits | Customer                                                                                                                                                                                                                                                                                                                                              | Landlords/<br>Tenants                                                                                                                                                                                                                                 | Environment                                                                                                                                                                                                                                                           | CCT                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|          |                                                                                                                                                                                                                                                                      |                                                                                                                                                                     |                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                  |
|          | <ul style="list-style-type: none"><li>• No manual readings - more privacy &amp; security</li><li>• Automatic readings remove human error</li><li>• Alerts and leak detection save water &amp; money</li><li>• Anti-tamper meter mechanism</li><li>• Customer app gives remote, transparent data access to help manage usage &amp; cut costs</li></ul> | <ul style="list-style-type: none"><li>• Track tenant water use and easily detect suspected leaks</li><li>• Option to charge extra for events</li><li>• Tenants billed for actual usage</li><li>• Accurate consumption data reduces disputes</li></ul> | <ul style="list-style-type: none"><li>• Enables company sustainability reporting</li><li>• Fewer vehicles on the roads reading meters mean reduced carbon footprint</li><li>• Leak detection saves water</li><li>• Detailed data encourages usage reduction</li></ul> | <ul style="list-style-type: none"><li>• Better water management</li><li>• Automation increases efficiency</li><li>• Digital tech reduces technical issues</li><li>• Enables demand forecasting and leak detection</li><li>• Educates communities on water conservation</li><li>• Transparent data builds trust and satisfaction</li><li>• Real-time anomaly detection prevents incidents i.e. main bursts</li></ul> |
|          |                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                     |
|          |                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                     |

# FAQs

---

# 05

## About The AMI Programme

### What is the AMI Programme?



The Advanced Metering Infrastructure (AMI) Programme is a long term City initiative to digitise Cape Town's water network by introducing smart water meters and associated systems across the city. The programme helps the City improve water management, reduce losses, and strengthen service delivery through accurate, real-time information about how water is used.



### Why is the City introducing smart water meters?

This initiative supports the City's goal of building a digitally enabled, efficient, and sustainable water system. Smart water meters automatically record water use and securely send readings to the City's systems. This allows City teams to: Detect leaks and faults early; Improve the accuracy of billing; Plan water supply more effectively; and Reduce operational costs and non-revenue water. For customers, this means more accurate bills, quicker fault response, and the future ability to track personal water usage through the enhanced customer app.

### What are the main benefits for customers?



- More accurate billing based on actual water use.
- Early leak detection and faster resolution of faults.
- Reduced need for estimated or manual readings.
- Access to your water-use information through the City's Mobile App in future.
- Contribution to a more sustainable and efficient water network for all residents.



### What are the timeframes?

The AMI programme is scheduled to be implemented over the next ten years, with installations happening in phases across different areas. Phases are determined by available budget, currently the first phase will run for three years, deploying approximately 80,000 meters. Timeframes to replace the balance of City of Cape Town water meters are still to be determined. Specific timelines for your area will be communicated in advance.

### Who manages the AMI Programme?



The AMI Programme is managed by the Water and Sanitation Directorate in collaboration with wider City Directorates. Together they will oversee the planning, installation, data management, and system integration to ensure that Cape Town's digital water network operates safely and reliably.

## About The AMI Programme

**When will I receive my meter?**



Residents will receive clear communication regarding their anticipated installation when this is scheduled in their area and updates will be shared through:

- The City of Cape Town website;
- Mobile notifications and community notices; and
- Social-media channels and ward-councillor updates.



**Do I need to apply for a smart water meter?**

Customers do not need to apply to receive a smart water meter. When your area is scheduled for installation, you will receive advanced notice with details about the date and process.

**How was the sequence of installation determined?**



The installation plan is carefully coordinated and scheduled for operational reasons. Rollout begins in areas where the City can gain the most immediate operational benefit. A prioritization sequence was based on a number of metrics analysed, including consumption, aging infrastructure, meter readability/accessibility, and geospatial route planning. This has determined a systematic route through strategic areas which include accounts which match targeted criteria. This approach ensures that the programme runs smoothly, delivers early performance results, and builds the capacity needed for citywide rollout.



**Can I get my meter sooner than scheduled?**

The meter installation plan follows a deliberate, optimised schedule based on factors like meter age and area logistics. Sticking to this plan saves costs, aims to realise benefits and limits disruption by grouping installations (for instance, completing all homes in one street together).

**Can I choose to opt-out?**



The installation of smart water meters is part of the City's ongoing programme to upgrade and digitise municipal infrastructure. Each water meter is a City-owned asset that must be periodically maintained or replaced to meet new technical standards. For that reason, all existing meters will, over time, be replaced with smart water meters as part of the City's normal asset-replacement and improvement cycle. Customers do not need to apply or opt in, nor do they have the option to opt-out, as assets are owned and managed by the City. The upgrade will happen automatically when the City reaches your area according to the installation plan.

## About The AMI Programme

**How are smart water meters powered?**



The smart water meter is powered by a long-life battery, designed to provide reliable operation for up to 15 years without needing replacement. This battery life is typically aligned with the warranty period, ensuring consistent performance throughout the meter's guaranteed lifespan. The battery is fixed inside and cannot be removed, attempts to remove will destroy the battery. Additionally, the battery voltage is unsuitable for any other appliances.



**Will load shedding affect the system?**

The AMI system is designed to be resilient, but load shedding could temporarily affect the communication network, not the meter. The smart water meters will still record data, as they are battery-powered, and will upload this data once the network is restored.

**How will vandalism and theft of the smart water meters be prevented?**



The smart water meter physical infrastructure will be equipped with an anti-tampering mechanism, which will be in the form of a lockable protective cover, to reduce the risk of theft, tampering, or vandalism. Larger meters will be in a lockable chamber. The physical meter is powered by a battery that is fixed inside and cannot be removed, attempts to remove will destroy the battery. Additionally, the battery voltage is unsuitable for any other appliances. Data is transmitted via eSIM technology rather than a physical sim card which could be removed. The meter is made from plastic which has no value. Meters have the capability to detect any movement (including tilt) and an alert will be generated. The value of the smart meter is not in the meter itself but rather the data it provides. Therefore, the meter is considered to be of no value, which will deter any attempts at theft.

## Smart Water Meter Installation – Before Installation

**How will I know when my smart water meter will be installed?**



You will receive a notification with your bill via e-Services 30 days before installation, as well as a notice 7 days and 48 hours before your scheduled installation via the relevant communication channels. Ward councillors will also be equipped with important information.



**Do I need to be home for the installation to take place?**

If the meter is inside your property, installers will require access to the property to successfully install the new smart water meter. Therefore, someone will need to be home to provide access. However, if the meter is outside your property (e.g. on the pavement), installers will not require access, and you do not need to be home. Customers whose meter is inside the property will be notified of the scheduled replacement date. In the event that access is not granted, the customer will be notified of the intended date for the AML meter to be installed outside the property, and the intended date for the conventional meter to be collected.

**Will my water supply be interrupted?**



You may temporarily experience low or no water pressure during installation. The duration of the interruption depends on the complexity of the installation. Most simple installations take approximately one hour, whereas larger or more complex setups may take longer, up to six hours. Service interruption may be area-wide, or on an individual basis – dependent on the complexity of the installation.



**Will I be charged for installation?**

No. Installation and all associated costs are covered by the City of Cape Town.

**How will I be able to identify authorised city installers?**



Authorised installers will:

- Wear company-branded uniforms and the required personal protective equipment (PPE).
- Carry identification cards.
- Arrive in marked vehicles.
- Have the appropriate service order number for you to validate if needed. If unsure, contact the City at 0860 103 089 to verify.

Smart Water Meter Installation – During Installation

**What happens during installation?**



The installation team may temporarily turn off your water, remove the old water meter, install the new smart water meter, flush the pipes to clear air or debris, and reinstate the site if required. The new water meter is tested and connected to the network. Water is then restored if it was switched off.



**How long does installation take?**

Most simple installations take approximately one hour. Larger or more complex setups are likely to take longer.

**What safety measures are in place?**



Installers follow strict safety procedures. Work follows the Occupational Health and Safety Act, with the application of barriers for pedestrian and vehicular traffic safety as applicable. Please keep pets indoors and maintain a safe distance while work is underway.



**Can I use water during installation?**

You may temporarily experience low or no water pressure during installation.

## Smart Water Meter Installation – After Installation



**When will my new water meter start working?**

Your new smart water meter will work immediately after installation. The meter begins recording and transmitting data right away.

**What happens to the old meter?**



The old mechanical meter remains City property. It will be safely removed and disposed of in accordance with City procedures.



**What if I experience problems (for example leaks or no water)?**

Call 0860 103 089 or log a fault via e-Services. A technician will inspect and resolve the issue.

**Will my billing cycle change?**



Your billing cycle remains the same. The new smart water meter simply ensures accurate, automated readings instead of manual meter reads.

## Billing, Tariffs and Payment

**Will water tariffs change because of smart water meters?**



The introduction of smart water meters does not change the City's existing water tariffs. Tariffs are reviewed and approved each year through the City's normal budget and public participation process, which considers operational and infrastructure needs across the water system. Like all municipal services, the City's investment in new technology - such as smart meters and data systems — is funded through its overall water services budget. This is part of ensuring long-term efficiency and sustainability, not a separate “AMI charge.”



**Do I need to pay any direct costs for the replacement of my meter to a smart water meter?**

No. You will not be asked to pay upfront or make any direct payment for your new smart water meter. The cost of installing and operating smart meters is included in the City's long-term capital and operating budgets - the same way other infrastructure upgrades (like pipes, pumps, or treatment plants) are funded. Customers will continue paying their normal water bills; there is no once-off or additional fee for meter installation or for data transmission.

**Will the billing process change?**



No. Your billing and payment processes will stay the same. The only difference is that your new smart water meter will automatically send more accurate readings to the City's billing system. This means:

- No more manual readings and reduced estimated bills.
- You can continue paying your account using all the same methods as before (EFT etc.).



**Will my bill increase after the new meter is installed?**

Older mechanical meters sometimes under-record usage due to degrading of the meter. If this scenario applies to your old meter, the new smart water meter may initially reflect higher usage that better represents your actual water use. Thus, your bill may change if the new meter records more accurate consumption than the old one.

## Billing, Tariffs and Payment

**What should I do if I think my bill is higher than expected?**



If your bill seems higher than expected:

1. Check for visible leaks or dripping taps.
2. Compare your bill with previous months.
3. View your detailed water consumption on the customer app once available
4. If the issue remains, contact the City's Water Services Call Centre on 0860 103 089 or log a query online at [www.capetown.gov.za/servicerequests](http://www.capetown.gov.za/servicerequests).

A technician may be assigned to investigate and verify your meter reading.



**Does the payment due date or method change?**

No. You will continue receiving your bills at the usual time, and all existing payment methods remain available. Your payment due dates and account number will stay the same.

## Data Protection and Privacy

**Is my personal data protected?**



Yes. The City fully complies with the Protection of Personal Information Act (POPIA). All smart water meter data is encrypted and securely transmitted through the City's systems.



**Who can access my meter data?**

Only authorised City staff and approved technical partners can access your data - strictly for operational and billing purposes.

**Can anyone else see my usage data?**



No. Your data is private and not shared publicly. Aggregated (non-personal) data may be used for City planning and reporting.



**What data does the smart water meter collect?**

The smart water meter records water usage volume, flow rates, and system events like leaks. No personal information is collected.

**How long is my data stored?**



Data is stored in secure City systems and retained in accordance with data retention policies and national regulations.

## City Mobile App and Customer Access

**What is the City's Customer App and will I be able to see my water usage?**



The existing City of CT Mobile App is being enhanced to include smart water meter functionality for the first time. This will allow residents to see their daily water usage and track consumption trends directly on their mobile phones. The app is part of the City's broader digital journey - connecting customers to their services through a single, secure platform.



**When will this new functionality be available?**

The app features linked to smart water metering will be introduced in due course as rollout commences and system testing is complete. The City is taking a phased approach to ensure that data integration, security, and performance all meet the required standards before public launch. Once ready, the City will formally communicate the launch date and user instructions through the relevant communication channels.

**What will I be able to do on the app?**



Once activated, customers will be able to:

- Access daily water usage reports for their property
- View historical consumption
- View helpful events and alerts related to your water consumption
- Track the status of logged queries

In future, the City may add more features but these will be introduced gradually as the system evolves.



**How will I link my smart water meter to the app?**

To protect your privacy, customers will first need to grant permission for the app to access their smart water meter data. Here's how it will work:

1. Log into/register on the City's e-Services Portal. (<https://eservices.capetown.gov.za/irj/portal>)
2. Click on the Smart Meter Access tile.
3. View your Business Partner (BP) number and the meters linked to your account.
4. Select which meters you want to link to the app
5. A secure token number will be sent to you (via SMS or email) once generated and ready to be entered into the app.
6. Enter that token number in the City Mobile App to complete the linking of your meter and start viewing your water usage data.

This process ensures that only you (or people you authorise) can view your smart water meter information.

## City Mobile App and Customer Access

**Why do I need to grant permission?**



Your water usage data is private information protected under the Protection of Personal Information Act (POPIA). The City requires your consent to display your consumption data through digital platforms. The secure token process ensures that access is both controlled and traceable, giving you full ownership of who can view your data.



**Will I be charged to use the app or to view my consumption?**

The app is free to download, there are no subscription fees nor in-app purchases. Standard mobile data usage charges may apply. Accessing your own water usage consumption through the City Mobile App is free of charge and included as part of your normal municipal service.

**Is the app secure?**



Yes. The app has been developed in line with the City's strict cybersecurity and data protection standards. All communication between the app and the City's metering systems is encrypted.



**What should I do if my app shows unusual or very high usage?**

Unusually high or abnormal consumption may indicate a leak or continuous water flow on your property. The app will alert you if these anomalies are detected, allowing you to take action early - for example, by checking taps, toilets, or garden irrigation systems. If you're unsure, you can also report the issue through the app or contact the City on 0860 103 089.

**How will the Mobile App benefit me as a customer?**



The City Mobile App facilitates:

- Awareness and control: You will see how much water you use daily and where you can reduce consumption.
- Early detection of abnormal consumption.
- Transparency: No more waiting for your bill to understand your usage.
- Convenience: All your key City services in one place.
- Empowerment: Data helps you manage water use, plan ahead and contribute to a more water-resilient Cape Town.

## City Mobile App and Customer Access

**How does this help the City?**



For the City, customer access through the app supports fault reporting, improved operational visibility, and stronger collaboration between customers and the City. It will support accurate demand forecasting and early leak detection, while also educating communities on responsible water use. Data transparency builds public trust and satisfaction, and real-time anomaly detection helps prevent major incidents such as main bursts.



**What if I don't have a smartphone or prefer not to use the app?**

You will continue to receive your water bill as usual and your consumption will still be recorded accurately. The app is an additional, voluntary tool for customers who want to track their detailed usage directly - it does not replace existing billing or communication channels.

**What additional benefits will the app bring in future?**



The City plans to expand its digital services over the coming years. Future updates may include:

- Integration with electricity and other municipal services
- Personalised usage insights and recommendations

All new features will be introduced gradually and communicated to ensure a smooth and user-friendly experience.



For queries on the AMI Programme please email:  
**[Water@capetown.gov.za](mailto:Water@capetown.gov.za)**