Advanced Metering Infrastructure (AMI) Pilot Project FAQ

About the Smart Meter Pilot

Q1: What is Advanced Metering Infrastructure (AMI) in the context of water utilities?

AMI is a modern metering system that uses secure two-way communication between smart water meters and the Water Authority. It allows automatic meter readings, leak detection, remote service functions, and detailed analytics. This eliminates the need for manual meter reading and improves efficiency for both customers and the utility

Q2: What is an AMI Pilot Project?

A pilot is a limited-scale trial where smart meters and communication technologies are installed in selected areas. It helps the Water Authority evaluate technical performance, billing integration, and customer benefits before expanding throughout its distribution systems.

Q3: How long will the pilot project run?

The pilot is scheduled to run for up to 8 months from installation. Data collected will guide decisions on full deployment.

Q4: How are customers selected for the pilot?

To ensure smart devices are installed in the widest possible range of scenarios, pilot participants will be selected from study within the study areas of Eastern George Town and North Sound Estates. This will allow the Water Authority to evaluate meter performance, communication uptime, and leak detection capabilities in flood-prone areas and in locations where there may be interference from vegetation, buildings and other physical barriers.

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About the Smart Meter Pilot

Q5: Can customers opt out of the pilot?

No. The pilot is the first step toward replacing all mechanical meters with smart meters as part of a modernisation programme.

How the Smart Meter Technology Works

Q6: What are smart meters?

Smart meters measure water using advanced, solid-state technology with no moving parts, which ensures long-term accuracy. Many customers already have similar technology installed at their home or business through their electricity utility's smart meter—the same basic principle, just measuring electricity instead of water. Unlike most mechanical meters, which require manual readings in the field and can wear down, smart meters send readings automatically to the water utility through secure digital signals.

Aquana LLC Valve

Sensus Smart Meter

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How the Smart Meter Technology Works

Q7: What are remotely operated valves?
A remotely operated valve is a device built into, or installed alongside, smart meters that allows the Water Authority to turn water service on or off from a central location. Controlled with secure digital signals, it helps protect staff and systems during emergencies, restore service quickly, and efficiently manage accounts for non-payment, seasonal use, or when customers move in or out.

Q8: Will the new meters affect my water pressure?
No. Smart meters are designed to measure usage without restricting water flow or reducing pressure.

Q9: What types of meters and communication technology are being tested?
Two types of smart meters are being tested, both using solid-state technology but with different designs. They transmit data either through a cellular network (on a lower bandwidth than mobile phones) or a secure radio frequency network.

Q10: What happens if the signal is low or lost?
Smart meters store consumption data internally. If a signal is weak or temporarily lost, the data is transmitted once the connection is restored, ensuring no readings are lost. There is also the option of collecting readings using a mobile collection device from a vehicle.

Q11: Will the meters slow down my internet connection?
No. Meters send very small data packets only a few times per day. This communication uses negligible bandwidth and does not interfere with home internet or mobile services.

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How AMI Affects You (Financially)

Q12: Will my water rates increase because of AMI?
No. Water rates will not increase as a result of AMI, but the bill amount might increase slightly if usage is maintained at the same level due to increased meter accuracy. Smart meters measure water more precisely, ensuring fairness. Unlike mechanical meters, which can wear over time and slightly under-record usage, smart meters maintain stable accuracy throughout their service life.

Q13: Does this mean existing meters were inaccurate?
No. The Water Authority has maintained its mechanical meters within industry accuracy standards. However, mechanical meters naturally wear over time, and manufacturers are moving towards smart meters, which maintain their accuracy over the life of the meter and offer additional features.

Q14: Will customers bear the cost of upgrading meters?
No. The new meters are being installed at no additional cost to customers.

Q15: How will smart meters impact billing?
The billing system remains the same. The difference is in how readings are collected: automatically instead of manually. This means bills are based on more accurate and timely data, reducing the need for estimates.

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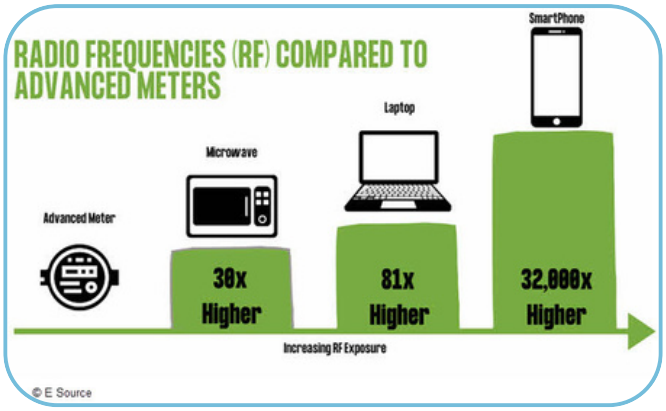
Your Safety and Privacy

Q16: Do the smart meters comply with safety standards?

Yes. All meters meet internationally recognised safety standards, including NSF/ANSI/CAN 61 (drinking water system components) and NSF/ANSI 372 (lead-free certification). Additionally, the energy emitted by smart meters is much lower than that of other common devices such as microwaves, laptops, and cell phones.



Q17: How is my data kept secure?

Water usage data is encrypted and transmitted using industry-standard protocols. The Water Authority complies with the Cayman Islands Data Protection Act (2021 Revision), which governs how customer data is collected, stored, and used. No personal data will be collected or shared.

Q18: Are there laws about surveillance through meters?

Yes. The Water Authority operates under the Data Protection Act, which prohibits the collection of unnecessary personal information. Only essential consumption data is recorded, and it cannot be used to track personal activities inside the home.

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What to Expect with AMI

Q19: Can the Water Authority shut off my water without my consent?
The Authority can only disconnect service under the same conditions that exist today, such as for non-payment, repairs, emergencies, or at the customer's request. A formal notification process is followed, giving customers time to pay or arrange a payment plan. In emergencies, water may need to be turned off quickly to protect health, safety, or the water supply.

Q20: Will jobs be lost because of AMI?
No. AMI modernises the workforce. Field staff will continue to play a key role in audits, installations, and troubleshooting. Instead of eliminating jobs, AMI creates opportunities for staff to develop new skills in system management, customer support, and technical operations.

Q21: How will this AMI project benefit customers?
Customers will see:

- More accurate bills with fewer estimates.
- Early leak detection to avoid costly surprises.
- Faster, improved service from customer support teams.
- Better access to usage data, helping households and businesses manage consumption, upon full-scale rollout.

Q22: Where should I direct questions about AMI?

- You can email ***ami@waterauthority.ky*** or call our customer service team for assistance.