



# Addressing water scarcity in Sardinia with Intelis<sup>®</sup> wSource<sup>™</sup> smart meters

Around the world, water conservation is critical to preserve adequate water supplies today and in the future. About half of the world's 8 billion people face severe water scarcity—with another 25% experiencing extremely high water stress and using over 80% of their renewable water supply each year<sup>1</sup>.

## THE CHALLENGE

Sardinia, an island in Italy, is grappling with the impacts of climate disruption and facing substantial actual water losses, with about 53% attributed to water pipes that are leaking—which is nearly twice the global average for water lost to leaks in the distribution system at around 30%. These factors—the importance of conservation, increasing water scarcity issues and water wasted to leaks each year—underscore the urgency to reduce non-revenue water (NRW) in Sardinia and across the rest of the world.

## THE SOLUTION

Abbanoa S.p.A., which provides water service to a population of 1.6 million individuals, has been working with Itron to reduce non-revenue water in Sardinia for many years. To date, Abbanoa has incorporated 400,000 Itron mechanical meters—40,000 of which feature communication modules. Metering service points is a key step in getting a handle on NRW and usage in general, as well as

improvements in revenue assurance. But technology continues to advance.

In 2022, Abbanoa initiated the shift towards solid-state water meters that collect more detailed data, more frequently, to monitor the overall health of the water distribution network and deliver a billing service that is both more efficient and more precise for customers.

Itron partnered with Abbanoa in this inaugural project for solid-state water meters by supplying its leading Intelis<sup>®</sup> wSource<sup>™</sup> smart meters. Due to the hot and dry summer conditions and high number of leaking water pipes in Sardinia, there was a need for a meter that could withstand the harsh weather conditions and detect household leaks faster, more reliably and with greater accuracy. The Intelis wSource meter is built to last with brass hydraulics and a robust, reinforced casing that can withstand the extreme temperatures that Sardinia faces during the summer months.

## CUSTOMER

Abbanoa S.p.A.

## SERVICE TERRITORY

Sardinia, Italy

## GOALS

- » Reduce non-revenue water
- » Streamline operations
- » Improve customer satisfaction

## SOLUTION

- » Intelis wSource smart meter

## BENEFITS

- » 5% revenue increase
- » Lower operating costs
- » Better customer experience
- » More accurate billing

## RELATED PRODUCTS

- » [Intelis wSource Brochure](#)
- » [Intelis wSource Product Video](#)
- » [Temetra](#)
- » [Temetra Analysis](#)

<sup>1</sup>United Nations World Water Development Report 2024.



Leveraging ultrasonic technology with no moving parts to measure consumption, the Intelis wSource ensures sustained high accuracy even in water conditions containing particles, limestone, or chlorine. It identifies various factors affecting water revenue losses, such as meter tampering anomalies, and swiftly detects household leaks and reverse flow with enhanced sensitivity at low flow rates.

The Intelis wSource hybrid communications module preserves the meter's battery life and simplifies the transition between AMR and AMI, streamlining data collection processes. The two-way communication capability allows for remote data collection, enabling up to 2,500 consumption readings per day compared to just 200 with traditional manual methods.

## CONCLUSION

Transitioning to solid-state water metering provides advantages in measurement accuracy, leading to fairer billing through reduced measurement errors. Additionally, it enhances revenue protection for water utilities and can help streamline operations with built-in communication options.

The introduction of 180,000 Intelis wSource meters is a pivotal element in Abbanoa's plan to mitigate non-revenue water, especially given Sardinia's pressing water scarcity concerns.

Itron is dedicated to aiding water conservation efforts through a comprehensive array of solutions, including devices like water meters and analytics platforms. All Itron solutions have demonstrated their efficacy in the field, providing enduring support to water utilities in their sustained efforts to minimize water losses.



*Enhancing service to end users through precise water consumption measurement will yield substantial benefits in the billing process, aligning it with actual consumption. Anticipating a 5% revenue increase from the accuracy gains of the static meter, we aim to streamline operations, reduce costs, and potentially introduce new services like consumption consulting and alarms for end users.*

**ABBANOVA S.p.A.**

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