

## CASE STUDY

# Badger<sup>®</sup> ORION<sup>®</sup>

## Radio Frequency System



*Badger Meter's ORION Radio Frequency System*

## Concord, New Hampshire Invests in Badger<sup>®</sup> Meters for the Long-Term

*By: Dave Marsh*

The residents of Concord, New Hampshire strongly believe in getting the most out of an investment. In fact, Concord is the home of the state capital building that was completed in 1818. Today it is the oldest state house in the nation in which the state legislature continues to meet in the same chambers that were built for it about 190 years ago. That's getting a solid return from an investment.

In 2005 Concord decided to invest in a new water system and turned to Badger Meter to upgrade its meters with the Badger ORION Automatic Meter Reading (AMR) technology. However, this was after the city had reaped an extremely good return from its earlier investment in Badger Meter's TRACE<sup>®</sup> AMR System.

"The TRACE system worked well for us," said Rob Young, Water Department Supervisor, "But it was time for us to make a change because the batteries in our meters were approaching the end of their service life. So we decided to upgrade TRACE equipped meters with ORIONs when they needed to be replaced."

Young has years of experience working with Badger Meter because he worked in the General Services Department in the 1990s when it began adding TRACE-equipped meters to the water system comprised primarily of Badger's ACCESSplus<sup>®</sup>-equipped meters. At the time, the ACCESSplus system was Badger's new technology that allowed meters to be read over the telephone lines. ACCESSplus-equipped meters were programmed to call Concord's General Services Department at a specified time to download customer water usage data, which was used to generate customer invoices. Concord was very pleased with the performance of the ACCESSplus meters, but there have been a many changes to the phone system since Concord used the ACCESSplus system to connect to it. First, many water customers have replaced their land lines with cell phones, undermining the productivity of using phone lines to read meters. Second, reliability became problematic because over time phone lines tend to corrode, which increased Concord's maintenance costs.

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CONCORD CASE



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## Case Study: *Concord New Hampshire Invests in Badger® Meters for the Long-Term*

“I’ve been very impressed with Badger Meter’s service over the years and the products work well. In fact we still have 4,000 ACCESSplus®-equipped meters in our system,” said Young.

As with many communities, Concord has been challenged by managing its increasing population with a limited budget. In fact, Concord’s population has doubled in size in the 15 years since the TRACE® system was installed. And over the years Badger AMR equipped meters have been instrumental to Concord in helping it improve productivity so it could accommodate its growing population without increasing the staff size.

“We’re a believer in AMR technology,” said Young. “Concord’s population is much larger than it was when we installed our first

TRACE meters. Since then, in spite of many more customers to serve, we’ve decreased the size of the water department instead of increasing it. Improving productivity by doing more with less is what it is all about.”

Young said the Badger ORION® System has helped Concord improve meter reader productivity, which freed up readers to service customers in other ways. “First, AMR meters are more reliable than our ACCESSplus meters because they were dependent on the phone lines, which developed into a fundamental reliability issue in recent years. Many of our customers have switched over to cell phones, and as a result we could no longer transmit data over the phone lines,” said Young. “Both the TRACE and ORION systems allow us to quickly and easily read our meters by merely driving down the streets past customer addresses. Our new

ORION system is even better than TRACE because they can be read from twice the distance and they offer many features that will help us better manage our water resources. The bottom line for us is that AMR technology is not only easier to use, it’s much more reliable. We saved a lot of money by reducing the number of return visits to customer locations to reread meters.”

Over the years Badger meters have proven to be a sound investment for Concord. Badger AMR technology has already delivered the long life and performance Concord has learned to expect from Badger, and with its recent upgrade to Badger ORION AMR meters, Concord will continue to receive benefits for years to come. ■