



# GIVING WATER CUSTOMERS A STRONGER SENSE OF SECURITY

Water comes in. Water goes out. That's the way it's supposed to be. But when it comes in or goes out where it shouldn't, there's a problem – particularly with unhappy customers.

Residential customers have certain expectations. When they twist a knob or valve, water flows from the tap or hose. Likewise, when they pull down a handle, water is sent on its way. What they usually don't expect are leaks that raise their water bill, or a "backflow event" that could potentially contaminate their water system.

Before a costly leak develops, or a backflow security breach contaminates a water system, water utilities can help protect their customers by choosing an E-Coder®-based automatic meter reading system from Neptune. With the E-Coder utilities have a tool designed to solve the customer's problems before they arise. The E-Coder provides detailed, value-added data right at the meter – including leak, tamper and reverse flow detection.

## Technology to Stop Leaks

A few drops here, a few drops there. Sometimes it escapes a customer's notice. Worse, it can escape the notice of conventional 6-digit encoders many utilities use. That's because conventional encoders generally provide 50-gallon remote resolution, with the smallest increments no less than 10 gallons. Most leaks begin at much lower volumes, so by the time the leak is detected, it's been going on a lot longer.

Neptune's solid state E-Coder goes further so the leak won't. Utilizing 8-digit resolution, the E-Coder can provide resolution down to 1/10<sup>th</sup> of a gallon. This enhanced precision can identify in minutes a leak that might otherwise be detected several hours or days later, or even logged as normal consumption.

When customers in Opelika, Alabama, complained about high water bills and asked for a more proactive approach, Opelika Utilities brought in Neptune and the E-Coder. Outfitted with R900® radio frequency transmitters, the new System not only identified the leaks when they started, but flagged consumption levels for each 15-minute interval over 24 hours. The result? Opelika Utilities was able to print the leak information on its bills, and within two billing cycles, leak occurrences were reduced from 28 to 11 percent. Customers even thanked Opelika Utilities for the notices.

## Turning Back a Breach

Customers who enjoy the good life in the Florida Keys also enjoy the added security their utility – with the help of Neptune – provides. With so many waterfront properties and so much saltwater around, all it takes is a misplaced garden hose to let saltwater into pipes and compromise a water system. Not to mention that in the event of a storm, the customers can go from having the ocean in their backyard to *having the ocean in their backyard*.

But the E-Coder PLUS data includes 35-day reverse flow monitoring, and can alert utilities such as the Florida Keys Aqueduct Authority when seawater, or any other cause, creates a backflow breach. At present, the authority is in the process of deploying 44,000 E-Coders to better serve the Keys' residents.

Neptune's E-Coder, paired with an R900 radio frequency transmitter, saves time in quickly identifying reverse flow and helps protect customers' water supply. After a simple transmission of data, water can be shut off before the breach becomes a significant problem.

## Money Well Saved – Along with Peace of Mind

Generally, residential customers don't mind paying water bills as long as they know what they're paying for. Using the advanced technology of Neptune's E-Coder-based AMR, utilities can detect leaks before they force drastic billing adjustments and backflow events before they cause contamination of drinking water.

In a period of escalating gas prices and a troubled economy, conserving resources becomes a top priority. Neptune provides utilities the tools to minimize water loss and offer customers the security of knowing that someone is looking out for them.



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