



NEWPORT NEWS, VA DEPLOYS 130,000 MUELLER AMI METERS

The largest deployment of Remote Disconnect Meters in the U.S.

OVERVIEW

Newport News Waterworks (“Newport News”) is a regional water provider on the lower Virginia Peninsula, owned and operated by the City of Newport News, that serves over 410,000 people in Hampton, Newport News, Poquoson, York County, and part of James City County.

With a service area encompassing over 250 square miles, and over 133,000 metered accounts, Newport News plays a vital role in ensuring an adequate supply of high-quality drinking water to residents and businesses across the region.

INTRODUCTION

Eight years ago Newport News started having discussions about moving away from reading their mechanical, manually read meters every other month to go to monthly billing. Knowing they did not have adequate staffing to handle that task, the department decided to outsource its meter reading responsibilities to a third party. That led to new challenges as the contractors often had difficulty with their own staffing levels, which caused schedule and timeliness issues, resulting in the customer’s bill window being longer than 30 days and/or the utility having to estimate bills.

While this was transpiring Newport News was proactively researching and conducting a feasibility study to determine if upgrading their meter technology to AMI at that time was the right move.

Shawn Rohrbach, General Services Administrator with Newport News, said, “The timing was perfect, the old meters had been in the ground for approximately 15 to 20 years which is the life expectancy, so they needed to be replaced. The new technology offers a lot more capabilities, is more accurate, and we knew it would help reduce our costs and improve our level of service.”

One of the capabilities that Newport News was looking for was remote disconnect. The city’s major industries include shipbuilding, military, and aerospace. The transient nature of employment associated with these industries creates a high turnover housing environment. Over 50% of customer premises are rentals. There is frequent movement

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of occupants in and out of accommodations due to the demands of their profession or assignment. This creates a particular set of challenges for utility companies.

In 2018 Newport News's meter operations team performed over 90,000 service orders. 65% of those involved rolling a truck to do non-pay cut-offs and reconnects, and/or taking a meter read. "There's not a single person that likes to go and turn somebody's water off for non-payment, customers are understandably upset. Also, with the current labor shortage in our area, no one wants to perform this type of work anymore; being in a meter box, crouched down reading meters, moving dirt, and getting wet; encountering snakes and spiders, and just being in the extreme environment of the area, be it the heat, rain, or freezing temperatures," Rohrbach explains.

Newport News conducted an extensive RFP process to evaluate its options and selected Mueller Systems' patent-protected remote disconnect meters ("RDM"), AMI infrastructure – nodes, collectors and repeaters, and software service. AMI provides a way to do both remote connect/disconnect and remote on-demand readings, creating a significant saving in labor cost and avoiding the challenges of recruitment and retention. The Mueller infrastructure and software service enable Newport News to obtain high levels of connectivity with built-in redundancy for 80% of the service area so it can communicate with more than one network device. In the event of communications failure, data is automatically stored for more than a year for subsequent retrieval.

In parallel with its AMI deployment, Newport News has upgraded its customer portal, empowering customers with real-time access to their hourly, daily, and monthly water usage data. Customers can opt in to receive alarms and alerts for leak detection, enhancing awareness and conservation efforts. Rohrbach laughed and said, "A lot of local plumbers probably got an uptick in business once customers signed up to our upgraded customer portal and could see their water usage and possible water leaks!"

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**Shawn Rohrbach, General Services Administrator
Newport News Waterworks**

Other added benefits include out of town alerts for water usage or pre-arranged water turn off/on if the customer is going out of town for an extended period.

"Some customers say Big Brother is now watching my water usage and I can assure you with 133,000 customers, we have way too much work to sit here and worry about who's using water and when. Most of the time we do not investigate anybody's water usage until we get called about an issue," said Rohrbach. "We're trying to put more power in the hands of the users so they can watch their own consumption and be notified if there's a potential issue before they get a large bill. They can be the first eyes on the scene, and if it's a city issue, then they call us."

It has taken 3 years to deploy 130,000 meters, and Rohrbach is delighted with the result. The anticipated labor and operational cost reductions have been achieved. Water rates haven't changed since Newport News embarked on its AMI implementation. Rohrbach notes, "I'm not going to say the water rate will never change because there's inflation, supply chain issues, and the cost of other projects, but I can assure the public that the advanced metering infrastructure (AMI) project is not causing any more additional rate changes to our customers."



He goes on to say “Our customers now get a better service too. If a customer calls to say they have a water emergency, like a pipe burst, an employee can sit at their desk, with the customer still on the phone, and with a click of a button can turn their water off in under 45 seconds.”

“This voyage hasn’t been all rainbows and unicorns. We have had plenty of trials and tribulations and head-scratching moments but for every problem we’ve encountered, we’ve produced a viable solution, with help from the installers, the distributor, and a host of people at Mueller who have worked on the CS integration, project management, software development, and technical support.

**Shawn Rohrbach, General Services Administrator
Newport News Waterworks**

It’s not only the technology selection but the provider selection that matters. Rohrbach is happy with the choices that Newport News saying, “This voyage hasn’t been all rainbows and unicorns. We have had plenty of trials and tribulations and head-scratching moments but for every problem we’ve encountered, we’ve produced a viable solution, with help from the installers, the distributor, and a host of people at Mueller who have worked on the CS integration, project management, software development, and technical support. It was a team effort and it’s the collective efforts that have propelled this project forward and made it the success it is today. I should also mention the Newport News team who have spent countless hours either in the field, on a conference call, testing and correcting behind the scenes, making big decisions, and believing in the overall vision. We’ve refined our own processes too and we’ve definitely moved the utility forward. Thus far, our strategy has proven effective and overall, we have had a successful project.”



ABOUT MUELLER

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