

WE'RE THERE FOR SOUTHWEST GAS

MOBILTEX

INTRODUCTION

Cost-effective IOT technology from Mobiltex® is helping Southwest Gas remotely monitor its cathodic protection system and deliver reliable service to more than two million customers.

Founded in 1931, the Southwest Gas Corporation provides natural gas service to Arizona, Nevada, and parts of California, reaching more than two million customers.

Natural gas accounts for more than 35% of electricity generation in the United States. For this large energy company, ensuring uninterrupted, quality service is important for residential and industrial customers, but also to critical services, such as hospitals and hotels.

“Maintaining healthy infrastructure and ensuring redundancy helps prevent outages,” says Walt Dail, a Southwest Gas employee of 25 years. “Protecting our systems is a matter of homeland security. If a major system fails due to corrosion service could be interrupted to thousands of customers. That’s why Southwest Gas is constantly monitoring and upgrading piping systems to ensure safe and dependable service to all our customers.”

“Protecting our systems is a matter of homeland security. If a major system fails due to corrosion service could be interrupted to thousands of customers.”

CHALLENGE: CONTROLLING CORROSION IN NATURAL GAS PIPELINES

Corroded steel pipes can be the cause of system failure and costly outages in natural gas transmission and distribution networks. According to a 2002 study produced by NACE International, corrosion costs the US oil and gas exploration and production industry \$1.4 billion per year.

To mitigate the threat of corrosion, Southwest Gas employs cathodic protection (CP). “A pipe can last five years or 100 years, and CP can make all the difference,” says Dail, a NACE-certified Corrosion Technician.

While CP can extend the useful life of pipeline infrastructure, CP systems can be expensive to monitor – especially in when they’re in remote locations. To take readings, inspection teams have to travel to each rectifier to read and record the levels. For some Southwest Gas sites, this involved four-hour drives deep into the Mojave Desert every other month. This regular process took time and resources. Long gaps between inspections also meant failures took longer to find, which delayed repairs and put the infrastructure at risk of corrosion.



RMU3 installed in a rectifier cabinet

SOLUTION: RELIABLE, AFFORDABLE REMOTE MONITORING

To close the gap between inspections, Southwest Gas determined a need for a reliable remote monitoring system. After conducting due diligence and pilots with competing technologies, the company selected Mobiltex in 2009.

Mobiltex's cost-sensitive, fixed-function RMU3 Remote Monitoring Unit and GPS Interrupter allows Southwest Gas to monitor CP systems from the cloud. The RMU3s are paired with corView, Mobiltex's smart, secure web interface, which give inspection teams access to up-to-the-minute measurement data and the ability to interrupt the system.

"We no longer need to make long trips to rectifier sites every other month," Dail explains. "Instead, the Mobiltex system notifies our team immediately if there is an issue. This means we can act quickly and accurately prioritize our work."

The RMU3 has proven itself in extreme conditions. "A few days after inspecting a site and installing a new RMU3, lightning took out the rectifier," Dail says. "Thanks to its robust design, the RMU3 was still functioning. As a result, we were able to respond swiftly. Our team fixed the rectifier within two days. Without the RMU3, we wouldn't have caught the problem until the next inspection – two months later. That's hugely valuable."

Dail has spent the past eight years in the company's CP department in Las Vegas. "I've installed close to 100 RMU3 units in our three districts. It takes less than a day – the equipment is easy and fast to install, and the program interface is simple." What's more, he adds, is that Mobiltex provides reliable service and support. "The team has been quick to solve any issues."



CorTalk® RMU3 Remote Monitoring Unit



Rectifier with communications module

RESULTS: BEST VALUE ON THE MARKET

While much of the Southwest Gas network is now monitored, Dail is aiming for full coverage, including upgrading older units to accommodate new communication configurations. Mobiltex solutions are part of the specifications for all planned pipeline infrastructure.

"As a remote monitoring specialist, I keep close watch of the industry," Dail says. "Competitors' products are usually bigger and more expensive. In my opinion, Mobiltex has the best equipment for the best value on the market. Working with Mobiltex has saved us time, money, and resources, allowing our team to focus on priority issues and maintain a healthy network for our customers."

"The Mobiltex system notifies our team immediately if there is an issue. This means we can act quickly and accurately prioritize our work."