

10+ YEARS OF RENEWED SERVICE RELIABILITY FOR SALT RIVER PROJECT WITH SOUTHWIRE'S NOVINIUM UNDERGROUND SERVICES REJUVENATION

COMPANY: SALT RIVER PROJECT
LOCATION: TEMPE, AZ USA
WEBSITE: WWW.SRPNET.COM
CABLE LENGTH: 937,015 FEET
CABLE SIZES: #2 STRANDED XLPE

METHOD: Hybrid rejuvenation with iUPR and SPR processes using CableCure[®] 732 fluid.

HIGHLIGHTS

- Utility serves more than a million customers in Phoenix, Arizona
- Rejuvenated 83.3% of the cable addressed in projects (vs. replacement)
- Post-project cable failure rate of less than 1 percent

OVERVIEW

The Salt River Project (SRP), a utility serving south Phoenix, Ariz., has a large population of aging feeder and URD cable. With numerous replacement projects, SRP saw its cost of line maintenance rising faster than the budget could handle. SRP decided to try Southwire's Novinium Underground Services cable rejuvenation and has experienced a less than 1 percent failure rate on the treated cable.

THE COMPANY AND SITUATION

Based in Tempe, Arizona, the Salt River Project (SRP) serves more than a million customers across the southern Phoenix metropolitan area.

In the mid 1990's, SRP used the same three-strike replacement criterion for both feeder and URD cable. This approach failed to factor in the far greater impact that feeder cable failures have on system reliability. Recognizing this shortcoming, and striving to improve system reliability, SRP began to focus their attention on feeder cables. This caused another unwelcome consequence: an increase in URD failures.

SRP's long-term asset management plan called for replacing all their feeder and URD cable over a 30-year period. Yet in the short-term, SRP knew it had to address the reliability of both its feeder and URD networks within budget limitations.

EVALUATION PROCESS

To maximize cost-efficiency, SRP began implementing a new plan in the mid-2000's. While feeder cable replacement was still the priority, they also began rejuvenating URD cable. SRP determined that for them, rejuvenation's financial break-even point is five years.

"We are seeing cable failure rates of less than 1 percent. Through cable rejuvenation, we are significantly improving SRP's bottom line."

- Richard Hudson
Engineering Supervisor Salt River Project

SOLUTION

SRP chose to rejuvenate the least-reliable feeder cable using a hybrid approach of Improved Unsustained Rejuvenation (iUPR) and Sustained Pressure Rejuvenation (SPR) injection processes with CableCure[®] 732 injection fluid. This strategy allows SRP to delay replacement of faulty cable while extending the cable life by decades. To date, the utility has rejuvenated 780,805 feet or 83.3% of the potential URD cable.

RESULTS

The rejuvenated cable was restored to like-new condition. Southwire's Novinium Underground Services processes are significantly improving SRP's bottom line. The utility is confident that by including rejuvenation in the asset management plan, they are achieving the highest reliability at the lowest cost for customers. SRP has experienced a rejuvenated cable failure rate of less than 1 percent using the hybrid approach.

