Preparing customers for hours-long outage

August 17, 2007

Parts one through three of this four-part series followed the efforts of APS crews as they prepared to refurbish the 230/4.16-kilovolt (kV) transformer at near Seligman. At the same time, crews would replace the 4.16/12-kV transformer at the Mt. Floyd Substation, which serves customers in the Seligman area in northwest Arizona. The work would take approximately 12 days but it also needed to be done with minimal outage time for APS customers in the area.

Today, the fourth and final installment – customer communications:

With careful planning and the use of the 230-kV "immobile mobile" transformer, the Seligman area customers would experience no more than an 8-hour outage. While a significant improvement compared to the 12-day refurbishment schedule, such an extensive outage meant giving them advance notice.

Advance notice especially is important for customers with special needs. This might include customers on at-home dialysis or a respirator, for example. They would need time to make arrangements like staying with friends or family who live outside the affected area, or getting a generator or battery backup for their equipment.

Dan Ray, Area Manager, Williams Customer Office, took the lead on letting customers know what was going on and when.

"More than a week before the original outage date, we sent letters to every customer on record," Ray said. "We also posted notices in several of the more prominent businesses, ran announcements on the local radio station and published an announcement in the local newspaper."

According to Ray, customer response was good. Many customers expressed their appreciation of APS letting them know what was happening.

About three weeks prior to the outage, APS also notified an area electrical co-op and the system operator for other utilities operating in northwest Arizona. These organizations would be affected by the outage as well.

For example, the co-op gets its power from a transmission line that feeds into APS' Round Valley Substation. The co-op then delivers its power from the Round Valley sub to its substation, and ultimately to its customers. Those customers include two Native American tribes.

The Round Valley Substation would be de-energized while the 230-kV and 69-kV mobile transformers were being connected to supply power to Seligman. This meant the co-op's customers also would be without power for approximately eight hours. That is why — with the expectation the information would be shared with the co-op's customers well in advance of the outage — APS provided it with the outage information.

As Ray alluded above, August 6 wasn't the original outage date, however. The original plan was for Monday, July 30.

Michael McElmury, Division Manager, Flagstaff Division, while talking in mid-July with one of the affected tribes on another matter, also shared information on the upcoming outage. Unfortunately, members of the other tribe weren't notified by the co-op until Friday, July 27, just two days prior to its start.

Concerned about the short notice and its potential effect on medically-sensitive members, tribal officials contacted **Miguel Bravo,** Community Development Consultant, who is the tribes'

point of contact at APS Community/Economic Development Department. The officials explained the notice was inadequate for those members with special needs to make alternate arrangements or contingency plans.

Bravo, in turn, contacted McElmury, for assistance.

After learning of the problem, the APS team stopped and evaluated the situation.

"We had two options," McElmury said. "We could continue with the outage as originally planned or we could postpone the work. Postponing meant rescheduling it to a date that provided the co-op's customers adequate time to make the necessary arrangements. We chose to postpone the work."

So on July 30, instead of congregating at the job site to start work, the project planning team, including members from the Energy Control Center, Substation Maintenance - North, and System Improvement Warehouses, met to devise a plan for the co-op's customers. It was a plan that would include two brief outages instead of an 8-hour one.

With the revised plan, the outages would last only as long as it took to de-energize the Round Valley sub and install jumpers and then reverse the process at the end of the Seligman outage. That way the co-op's power line could be energized while power was off at the compressor station and in Seligman. APS projected a 15 to 30 minute outage at the beginning and end of the longer outage.

Meanwhile, McElmury worked with representatives from both affected tribes to develop a mutually acceptable date to kick off the project. Of concern from the company's perspective was the need to avoid completely demobilizing the various departments, contractors and equipment that had been assembled to support the project, while working work with the tribes to ensure their concerns were addressed.

The revised plan, with the new date of August 6, was shared with the co-op, tribal representatives, members of the Arizona Corporate Commission and various state tribal agencies. Everyone expressed appreciation for APS' responsiveness.

APS also took care to keep its customers informed on the schedule change. McElmury sent them a follow-up letter explaining the outage had been postponed and letting them know the new outage date.

Ray also changed out the notices in area businesses, and contacted the community newsletter and radio station with the new dates. Unexpectedly, a community member proved a big help in getting out the new information, too.

"She had contacted our office Wednesday morning (Aug. 1) to find out what was going on," Ray said. "By the time we got to Seligman that afternoon to change the posted notices, we discovered community members had made their own notices and posted them in some of the businesses. What an asset to discover!"

During the outage, APS crews came in under their 15 to 30 minute outage projection. It took 11 minutes from the time the substation was de-energized until the co-op's line was back in service. At the end of the Seligman outage, the co-op's customers saw a 14-minute outage as the process was reversed.

And the process will be repeated tonight as crews put the Seligman Compressor Station and Mt. Floyd Substation transformers back in service.

As McElmury said, "We're pleased that with everyone's help and flexibility, we were able to take a significant public relations problem and turn it into a positive."