

A first-of-its-kind transformer refurbishment project

APS' Energy Control Center, Substation Maintenance-North, and System Improvements Warehouse personnel recently took on a challenging assignment. During the next four days, *Newsline* will provide you a front-row seat as the three organizations, with support from many others, take on this first-of-its-kind project.

Today, Part One – setting the stage:

The job:

1. Refurbish the 230/4.16 kilovolt (kV) transformer at El Paso Natural Gas' Seligman Compressor Station;
2. Replace the adjacent 4.16/12-kV transformer at the Mt. Floyd Substation, which serves the town of Seligman in northwest Arizona.

The additional considerations:

1. The compressor station and substation are approximately 10 miles from the town of Seligman
2. The refurbishment requires taking the 230/4.16-kV transformer out of service for approximately 12 days.
3. The transformer powers the El Paso Natural Gas facility that pressurizes the natural gas line serving northern Arizona.
4. The transformer's 4.16-kV also feeds the Mt. Floyd transformer, which steps up the voltage to 12-kV to serve customers in and around Seligman.
5. There are no alternate distribution sources to pick up the customer load during an outage.

The challenge: Take the two transformers out of service, do the maintenance work needed and return them to service with minimal outage time for APS customers.

The solution: For the 12-day work schedule, use the company's mobile 230-kV transformer and a mobile 69-kV transformer to provide electricity to Seligman-area customers. And, use generators to supply power to the El Paso facility.

Sounds simple on paper. In reality, it was anything but.

Tomorrow, Part Two – the plan.

Source: APS *Newsline*, 08/14/07