CASE STUDY
COMMERCIAL & INDUSTRIAL

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Medical Center Chooses Vista Switchgear for Electrical System Upgrade

S&C Featured Solution: Vista®Underground Distribution Switchgear

Location: Southwestern United States

Customer Challenge

A medical center in the U.S. Southwest needed to upgrade its electric system as part of a large infrastructure project. The upgrade would include a new substation with 12 feeders that converts the voltage from 138 kV to 13.2 kV, along with a significant amount of self-generation.

To improve service reliability, the 13.2-kV feeders would be relocated underground, in six looped feeds to the buildings. Each loop would include an open point so that, under normal conditions, each feeder would serve half of the loop.

The requisite switchgear for this project would need to be automated and allow paralleling of the utility sources and self-generation. It would also need to provide real-time reporting of voltages, current, switch positions, etc., via a fiber-optic link to the medical center's SCADA system.

Because paralleling of the sources and/or the self-generation could result in available fault current in excess of 30 kA, metal-clad breaker switchgear seemed mandatory for the application. But when it was determined such gear would increase cost estimates three-fold, the medical center decided to look at other options.

S&C Solution

S&C's Vista Underground Distribution Switchgear was investigated for the application. Vista switchgear provides all the functionality of breaker gear—but at much lower cost. Just one problem: Vista switchgear has a 25-kA fault-interrupting rating.

After reviewing its own operating guidelines, the medical center concluded a 25-kA fault-interrupting rating would be more than sufficient for the application. It subsequently specified 10 units of Vista switchgear in a variety of models, including Remote Supervisory Pad-Mounted Style Model 532 and Model 523, and split-bus configuration Source-Transfer Pad-Mounted Style Model 523. The seven units are shown below.

Figure 1. The main entrance of the medical center.

Results

Once the project was successfully completed, another two Vista switchgear units were purchased, bringing the total to 12. Today, the Vista switchgear provides economical, reliable switching and protection to the medical center electrical loads.

Vista switchgear installation at location 1.

Vista switchgear installation at location 2.

Vista switchgear installation at location 3.

Vista switchgear installation at location 4.