

CASE STUDY / GREENFIELD SUBSTATION CONSTRUCTION

STEPPING UP TO COMPLETE A COMPLICATED PROJECT SAFELY

After a utility began work on a greenfield substation, the project hit an unforeseen snag that left it paused in varying stages of execution. With only a few months left to complete construction, the utility turned to Burns & McDonnell for a self-perform solution that would turn the project around.



COMMUNICATION AND COORDINATION DELIVER A CHALLENGING PROJECT SAFELY

Effective collaboration across an integrated team executed a greenfield substation on a tight time frame with zero recordable incidents.

CHALLENGE

A utility embarked on a project to build a four-breaker 69-kV ring bus greenfield substation. After kicking off the project and beginning construction, the utility's subcontractor experienced a setback that removed the subcontractor from the process. To see that the substation was completed before the generating plant cut the line, the utility turned to Burns & McDonnell and our construction subsidiary, Ref-Chem, to finish the project safely and within budget.

SOLUTION

We began work immediately to assemble a new on-site team, evaluate the status of the partially executed project and develop a phased construction plan to meet the client's firm back feed date of Feb. 14, 2020. Within two weeks, we were up and running to use the full two-month time frame allotted to meet the initial project need date.

With every aspect of the project at differing stages of execution, we determined a standard, linear approach to construction and testing would not accommodate the tightened timeline. Instead, we leaned on the

constant communication and ongoing coordination and flexibility afforded by an integrated team approach to execute in phases. This allowed us to sectionalize aspects of the testing and commissioning of each electrical and mechanical installation to capitalize fully on the limited time available.

We collaborated directly with the client to determine if the previously conducted work met its needs and our safety standards, and established a fluid plan to achieve both moving forward. During twice-daily meetings on-site with the client and field personnel, we discussed the work to be executed each day and plans to make up work that hadn't been completed.

RESULTS

Despite inclement winter weather and upfront challenges from transitioning a partially executed project, we delivered the completed substation with multiple transmission, distribution and remote-end tie-ins on time, on budget and with zero recordable incidents.

PROJECT STATS

CLIENT

Confidential

LOCATION

Southern U.S.

2

MONTHS TO MEET
IMMEDIATE NEED DATE

0

RECORDABLE INCIDENTS