

COMPLEX STUDY COMPLETED WITH CONSERVATIVE ASSUMPTIONS

Pioneer Power Group was tasked with performing short-circuit, coordination, and arc flash studies for a medium-sized commercial facility. During the data-gathering phase of the project, the customer realized that they were missing significant data sources required for study completion.

CHALLENGES



During every project, Pioneer Power Group works closely with the customer to obtain all data points required for study completion. Under normal circumstances, any missing information is relayed to the customer, and subsequent correspondence typically yields all information needed to proceed with the study report.



However, in this particular project, it became clear that the contractor was unable to provide significant portions of the required data. This included critical data such as the utility fault information, information on existing breakers, inaccurate cable information, and missing submittal information for ATSs and generator breakers. Repeated efforts by the customer and Pioneer Power Group were made to obtain the missing or incomplete information over the course of the project. Eventually, Pioneer Power Group suggested an alternative approach to move forward with the study that the customer ultimately agreed to pursue.









OUR SOLUTION



In response to this information stalemate, Pioneer Power Group worked with the customer to craft conservative assumptions to complete the system model for the studies. The solutions provided were customized specifically to meet the needs of the project in question. For example, to account for the missing utility fault information, the maximum available fault current was estimated using the trip rating of the service entrance switchboard's main breaker. Accounting for the missing information in this manner allowed our engineers to maintain a conservative approach while providing realistic estimates and ensuring that safety was not compromised in the process.



Once the assumptions were formulated and written up for each piece of missing information, our team provided the required data list to the customer for review and approval. After review, the customer agreed to move forward with the study based on the outlined assumptions. These assumptions were also cataloged in the study report for the customer and engineer of record for future reference.

RESULTS



By identifying missing data and then crafting conservative assumptions to complete the system model for the study, a completed report was submitted within the original project timeline. Although critical data was missing, this approach enabled Pioneer Power Group to deliver a safe and accurate report in a timely fashion. The client was pleased to have this report in hand for future reference when working with the contractor. This was particularly important to the client since the contractor had proven so difficult to work with in terms of providing critical study data. Pioneer Power Group was able to provide a study report to address the client's immediate needs and was thereby able to provide the client with a tool for future interactions with the contractor.



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