

Roseberry Substation

Scottsboro Electric Power Board



FISHER ARNOLD

PROJECT EXPERIENCE

Scottsboro Electric Power Board asked Fisher Arnold to evaluate the condition and capacity of the present equipment at the Roseberry Substation. This included two Power Transformers rated 10/13.3/16.6/18 MVA and 46:13 kV, one 48:3 kV, a 1200 amp Breaker, two Voltage Regulators rated 546 Amps at 7620 bolts, and four Distribution Breakers rated 1200 Amps at 15.5 kV.

We recommended the replacement of the Power Transformers, Distribution Breakers, control house and relays due to age and lack of firm capacity of the station. 15/20/25 MVA units were included in this recommendation. Additionally, the Voltage Regulators were replaced due to being overloaded during a Single Power Transformer contingency. The addition of two 46 kV breakers, one for each Power Transformer, increased reliability by allowing the substation to be operated in a Split Bus configuration. This essentially creates two substations, and should a power outage occur, only half of the station would be de-energized and customers would not lose all power.

