

Project Profile

Upgrade of Stockwell Substations One, Two and Three



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| Client | SA Power Networks |
| Location | Swan Reach, Stockwell, SA |
| Duration | 8 weeks |
| Contract | Upgrade of three high voltage pump substations |
| Cost | \$140,000 |

Project Overview

McMahon Services were engaged by SA Power Networks to undertake this high risk project at the Stockwell Substation, in Swan Reach, South Australia. The project involved the installation of new high voltage service conduit provisions, the upgrade of the high voltage supply in pump stations switching yards one, two and three and contaminated soil disposal.

The project scope was as follows:

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- › GPR and physical location of the existing underground 33kva electrical assets in existing switching yards, completed via pot holing;
- › Excavation of new service trenches to each of the three pump station switching yards;
- › Installation of new conduit provisions for the high voltage cables;
- › Concrete coring into existing high voltage pits;
- › Grouting in conduit provisions;
- › Constructed new concrete footings for cable stands into pump station high voltage switching yards;
- › Soil classifications and disposal at off-site at licensed facility;
- › Installation of security gates.

During the physical location of existing services, McMahon Services identified an alternate method that could be used. By changing the method of excavation from mechanical excavation to hydro non-destructive excavation, this reduced the risk of the new plant being able to damage the existing infrastructure by removing it completely. This method of excavation also allowed McMahon Services to complete these works without needing to hold electrical outages at each of the substations, as originally programmed.

Contaminated soil was identified through on-site soil testing at pump station two, in order for the project to stay on schedule McMahon Services worked with SA Power Networks, to build a lined storage bund inside the pump station two switching yard. This allowed for the soil to dry prior to the soil being taken to an off-site licensed facility.

