Santee Cooper provides electricity to a BP chemical plant via a 230kV feeder line in a remote area on the Cooper River. The plant operates continuously year around and power shutdowns are very expensive for the plant. Termite damage to 4 structures was extensive, leading to section loss up to 75%. The required repairs needed to be performed with energized power lines and limited disruption to the fragile poles.

The strengthening of the poles was achieved by wrapping with PileMedic PLG60.60 FRP pile jackets and the annular space was filled with QuakeBond 320LV low viscosity resin. This allowed the resin to flow into the badly deteriorated pole, restoring it beyond its original capacity. A final UV protectant coating was then applied over the repaired pole to prevent UV degradation of the jacket.

The installation crew overcame numerous technical obstacles including accommodating for stub poles, pole enforcers, cross bracing and larger section voids than anticipated. The client doubled the work scope in the middle of the job by adding 3 additional poles nearby. Technicians were able to remove stub pole anchor bolts sequentially as they worked their way up the pole and allow lower sections to cure prior to removing upper anchor bolts. This maintained structural stability in the poles for the duration of the project. Job was completed on time with a 4 man crew in a 3 week timeframe.

Owner: Santee Cooper  Engineer of Record: QuakeWrap, Inc.  Installer: FRP Construction, LLC