

Sureline®

Application Report

Location: Streaky Bay, SA
Project: Installation of SURELINE®
steel poles
Date: August 2007

South Australian success for SURELINE® power poles

Installation of BlueScope Steel's SURELINE® steel power poles has been carried out on South Australia's west coast following the success of field trials in many other parts of Australia.

South Australia has used Stobie poles, composite concrete and steel, for the majority of its requirements since they were invented by Adelaide Electricity Supply Company engineer, James Stobie, in 1924.

Bob Gore, Senior Standards and Investigations Officer of ETSA Utilities, South Australia's electricity distributor, has been involved in the investigation of alternative pole types as part of ETSA Utilities' ongoing efforts to reduce costs and improve efficiency.



**BLUESCOPE
STEEL**

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*John Aplin, Asset Manager
Country North for ETSA
Utilities*



The 11KV extension delivers power to an expanding abalone farm.

“I had been aware of the SURELINE® steel pole solution for some time and from a technical point of view it met our requirements, at least on paper,” he said. “We installed a single SURELINE® pole in the Adelaide metropolitan area in 2006. Following this trial, it was proposed that we conduct a more extensive trial in a rural application.”

Because of its widespread use of Stobie poles, ETSA Utilities does not have a history of problems relating to termite attack, but it does have extensive experience of ground line protection requirements related to corrosion.

“History tells us that our Stobie poles are good for 50 to 60 years in the ground without any treatment,” Bob Gore said. “The research results of accelerated testing carried out by BlueScope Steel on the SURELINE® poles looked impressive, but again, we would like to get our own experience.”

John Aplin, Asset Manager Country North for ETSA Utilities, supervised a 4.3 kilometres addition to ETSA Utilities infrastructure which involved the use of 36 SURELINE® poles to link to ETSA Utilities’ 11kV line near the town of Streaky Bay.

“BlueScope Steel’s SURELINE® steel power poles were delivered on a single semi-trailer, whereas the same number of Stobie poles would have required two or three.

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Four Stobie poles were used as brace poles and on major direction changes along the route, with the 36 SURELINE® poles acting as line poles.

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"About 85 to 90 per cent of our work has involved erecting Stobie poles for ETSA Utilities, so working with the SURELINE® poles was a first for us," Clare Crane Hire site supervisor, Lachie Brereton said.

"We used a seven tonne Proline crane-borer to position each pole, which was probably an overkill in the circumstances, because the SURELINE® poles are much lighter than the Stobies.

"BlueScope Steel provided on site advice about handling techniques and we certainly noticed how easy it was to manoeuvre the SURELINE® poles.

"Our crew bored the holes and stood the poles at an average of ten poles per day."

Above: All holes for the poles' pitchfork arms had been pre-drilled by BlueScope Steel.

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Clare Crane Hire has been carrying out construction work for ETSA Utilities for more than 15 years. Based on that experience Lachie Brereton estimated that completing the Streaky Bay installation using Stobie poles would have taken an additional day.

"All the holes for the pitchfork arms had been pre-drilled by BlueScope Steel and we were supplied with mounting brackets to make it easy to dress the poles," he said.

"Our crew enjoyed working with poles which are so easy to manoeuvre. Once they have been lowered into the ground you just need a spirit level and a firm push to get them completely vertical."

Stringing of the 11kV line was done by an ETSA Utilities' crew using standard operating procedures.

"For relatively long runs in more remote areas SURELINE® poles seem to have the potential to keep down your transportation costs," ETSA Utilities' John Aplin said.



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1800 800 789
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