



CASE STUDY: Orion 66kV Springston to Brookside project

Christchurch based network company Orion is strengthening its rural supply capacity through the construction of a 66kV line around the southern and western regions of its network.

OVERHEAD

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PROJECT SCOPE

Stages 2 and 3 of this project comprised more than 12kms of overhead line construction between the Orion substation at Brookside, and the Transpower substation at Springston. The project included all aspects of construction, from material procurement, pole setting, conductor installation, consumer connections, site safety management and community liaison. Much of the work used live line techniques to maximise continuity of electricity supply to customers during the construction period.

THE CHALLENGES

Connetics had to anticipate a number of ground conditions. Much of the construction route was alongside open channels, with a high water table. Dealing with these issues required access over private land and the installation of innovative pole setting solutions.

Although experienced in 66kV construction, Connetics had to prepare for working with much larger and heavier poles, up to 17 metres in length.

OUR RESPONSE

Connetics identified the key drainage issues during the tender process. Allowances were made for a number of poles to be fitted with a concrete sleeve. Feedback during the walk-through phase also identified access issues, leading to a refinement of construction details.



SOLUTIONS

Connetics was able to gear up for the project with the addition of a new vehicle fitted out for 66kV work. To deal with the surface water, a number of go-by structures were constructed next to poles in the wettest areas. These simple structures diverted water away from the base of the poles, allowing the ground to be compacted to specification.

Generators were supplied to businesses considered to be at-risk, the crews maintained open communication with the residents throughout the project.

It was necessary to take a proactive approach to community relations and identify steps needed to minimise the impact of the work on the local farming community.

RESULTS

This project reached the end of Stage 3 on time and on budget. The challenges relating to water table and sizeable pole structures were overcome. Connetics maintained goodwill with the community and kept the client fully informed.

"The resources available to Connetics for large high voltage distribution overhead works enabled this project to be completed to a high standard of workmanship. The successful completion of this project allowed the new Springston GXP to be commissioned on time."

Mike Miles
Orion New Zealand Limited