



CASE STUDY: COOKS BEACH HOLIDAY RESORT

Cooks Beach Holiday Resort is a large resort and camp near Whitianga. It underwent an extensive upgrade and opened as a new resort in late 2009, with all contractors working against very tight timeframes to open in time for the summer season.

PROJECT SCOPE

Northpower was contracted to provide overall project management for the electrical works and to supply, deliver, install, connect and commission all electrical distribution and power supplies throughout the resort.

CHALLENGES

The main challenge was the tight timeframe, with this volume of work normally scheduled for four months being completed in just two months, despite adverse weather conditions and a tsunami warning.

This project presented the technical challenge of integrating HV and LV applications on site, using non-standard equipment. Due to the nature of the project involving different consultants and contractors, good communication, documentation and coordination between the parties were essential.

SOLUTIONS

Northpower began by negotiating with the network provider, Powerco, to increase the HV capacity to the site by the installation of a new ground-mount 500kVA transformer.

FACTS AND FIGURES

- 120m of HV cable
- 10,800m of LV cable
- 62 camp site power supply pillars
- 8 camp site distribution boards
- 5 power supply pits

The project involved installation of a new LV main switchboard, with associated distribution boards feeding 64 new residential units, 8 existing units, 84 camp sites, manager's residence, water treatment plant, heated swimming pools, shop, cafe, ablution blocks, kitchens and walkway lighting. Northpower also installed a new 10kVA UPS system in parallel as a back-up for essential services, and provided facilitation for wireless communications antennae.

The nature and timeframes of this project meant that the Northpower team needed to be adaptable, ensuring that all materials were ordered ahead of time and coordination with other contractors was maintained. The team split the project into two sub-projects, based around HV and LV supply. With a range

of technical challenges to overcome, new drawings were created for the site, and the team came up with an innovative solution by using different circuit layouts to integrate the HV and LV applications.

The camp site distribution boards were imported from Denmark and supplied by a local distributor, but were not feasible for use in their original form. The Northpower team provided purpose-built modifications and designed a new mounting procedure. Internal wiring for each site was also custom-made for each unit and its application.

RESULTS

The project was completed on time, despite weather-related delays, and on budget, with a high quality end result. Technical difficulties were overcome through the use of innovative design skills and a "can do" attitude. Ongoing communication with all on-site consultants and contractors enabled the Northpower team to ensure that the tight roll-out schedule was met.