

UDCS Consulting Project Summary

The Company

UDCS Consulting provides

- survey and
- engineering consultancy

services to the

- electricity
- infrastructure
- mining
- commercial sectors

The primary works being undertaken are in reticulation, distribution and transmission of power, water and gas.

Our Clients

Domestic and foreign Utilities
Major construction companies
Government & Private asset owners.

Services Offered

Engineering Survey
Electrical Distribution Design
Sub-transmission OH Design
Sub-transmission UG Design
Substation Design
Preparation of environmental reviews
Developer initiated Design
Solar Power and Lighting Design
Road Lighting Design
HV Auditing (QLD ESO)

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22kV OHL Rating Study Adelaide River NT



Key Staff

Surveyor:	Phil Tebbutt
Design Engineer:	Nina Killeen Kerry Prickett



Project Scope

Power & Water engaged UDCS Consulting to provide detailed survey and design services to undertake rating study on 50km of 22kV feeder supplying the Adelaide River area south of Darwin.

The client required a detailed assessment of existing network capacity and realistic options for upgrading the network in the short term.

The studies included the:

- detailed survey of approximately 50km of OHL utilising traditional and GPS techniques.
- Development of a digital terrain and conductor model in PLS Cadd™.

Rating Study Method

There are three main components to determining feeder ratings: 1) Data Capture, 2) Data Processing and Line Modeling and 3) Rating Analysis and reporting.

The studies were carried out to meet static operational design limits with digital terrain and conductor models established using PLS Cadd™. The studies were conducted in line with ESAA publications D(b)5-1987 "Current Rating of Overhead Line Conductors" and C(b)1 – 2006 "Guidelines for Design and Maintenance of Overhead Distribution and Transmission Lines".

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