



CASE STUDY

Powerline Vegetation Study

The safe operation of its 11,000 plus kilometre transmission network is the highest priority of this transmission owner and operator. With assets located in high fire danger areas, and sections of densely vegetated transmission line corridors at risk of bushfire, risk minimisation is an integral part of its asset management strategy.

The Challenge

Improving vegetation management to reduce bushfire and outage risks

Ground inspection has proven a slow and expensive method of detecting vegetation and easement encroachment. Cost and time effective aerial inspection was required to assist with:

- Vegetation easement encroachment
- Maintenance of conductor-to-vegetation clearances in all environmental conditions and line loadings
- Development of maintenance programs for effective removal of all infringement vegetation based on growth rates
- Work order preparation for maintenance crews

The Solution

LiDAR network mapping; power line and vegetation modelling; work order automation

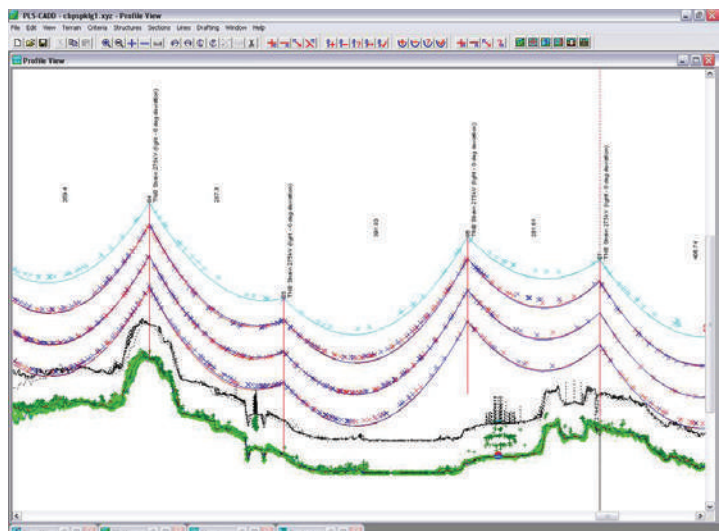
- **Precision LiDAR mapping**
vegetation and asset data across the transmission network
- **Power line modelling**
PLS-CADD using LiDAR data, load levels and weather conditions
- **Vegetation profiling**
incorporating growth rate data, possible future vegetation infringements
- **Tailored scenario modelling**
vegetation infringements under 'typical', 'excessive' and 'maximum' line load and weather conditions
- **Maintenance work orders**
contractor work orders to meet the organisation's asset management standards

Results

Improved vegetation management, efficient staff deployment and risk minimisation

- Prioritisation of vegetation maintenance tasks and efficient maintenance crew deployment
- Identification of priority infringements and creation of typical to maximum conditions risk mitigation strategies
- Complete set of PLS-CADD transmission line models, ready for use in future maintenance and management tasks
- A detailed, auditable vegetation management program that meets organisational, board and industry regulator standards
- Reduced risk of power outages, infrastructure damage and bush fires

To find out more - info@aamgroup.com



PLS-CADD model, built from captured data, shows vegetation and clearances.

