

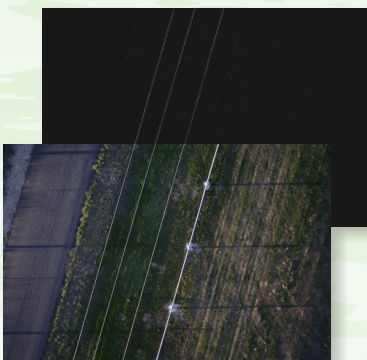
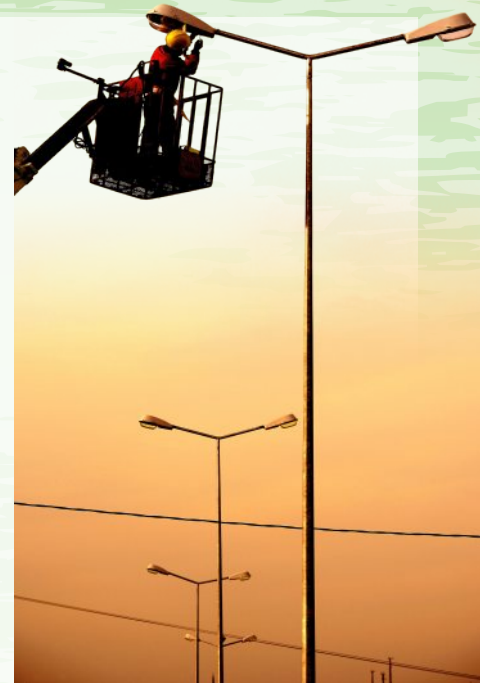
## ENERGY & UTILITIES

There are 14 electrical transmission and distribution organisations currently operating in Australia with a regulated asset base of \$26.28 billion and a capital expenditure of \$13.26 billion. Capital works currently under construction in South East Queensland alone is in excess of \$4.75 billion. Delivery of this power is by way of a vast infrastructure including 750,000km of lines, 4.5 million power poles and approximately 16,000 towers.

Effective management of the network and its ability to meet safety, reliability and quality of service demands is an increasingly difficult and challenging task in the context of ageing infrastructure, increasing power demands and bushfire risk (climate change), security, political and societal demands (carbon footprint), regulatory and legislative reforms and the financial realities around bottom line returns.

Transmission and distribution organisations need and seek technologies that will support and assist them in meeting challenges in the following key areas

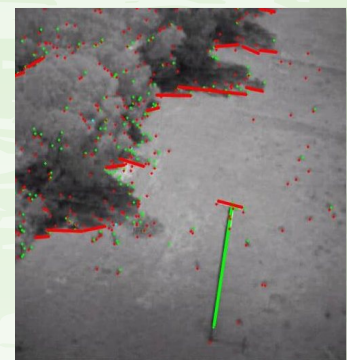
- the transformation to an intelligent utility network paradigm whereby utilities can view the health and status of the entire network in near real time and implement cost effective and optimised asset management practice.
- better understanding of climate change and carbon neutral strategies and adaptation of the network and information management needs to meet these changes.
- liaising and securing support with the developing national energy sector regulator to facilitate and underpin a culture of innovation in emerging technologies and a nationally coordinated approach to research investment.



Powerline detection and automated removal of artefacts, in this case a parallel fence-line



Height estimation algorithms based on optical-flow



Power pole extraction and geo-location

### Further information

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