

REMOTE HEALTH ENGINEERING: IMPLEMENTING PROACTIVE MAINTENANCE AND COMPLIANCE METHODS THAT WORK

engineers **DMA**

Presented by: **Duncan Stegmann**
Building Services Electrical Engineer
www.linkedin.com/in/duncanstegmann



OVERVIEW

- REMOTENESS
- WHAT ABOUT AUSTRALIAN STANDARDS?
- MAINTENANCE PRACTICES
- CASE STUDIES

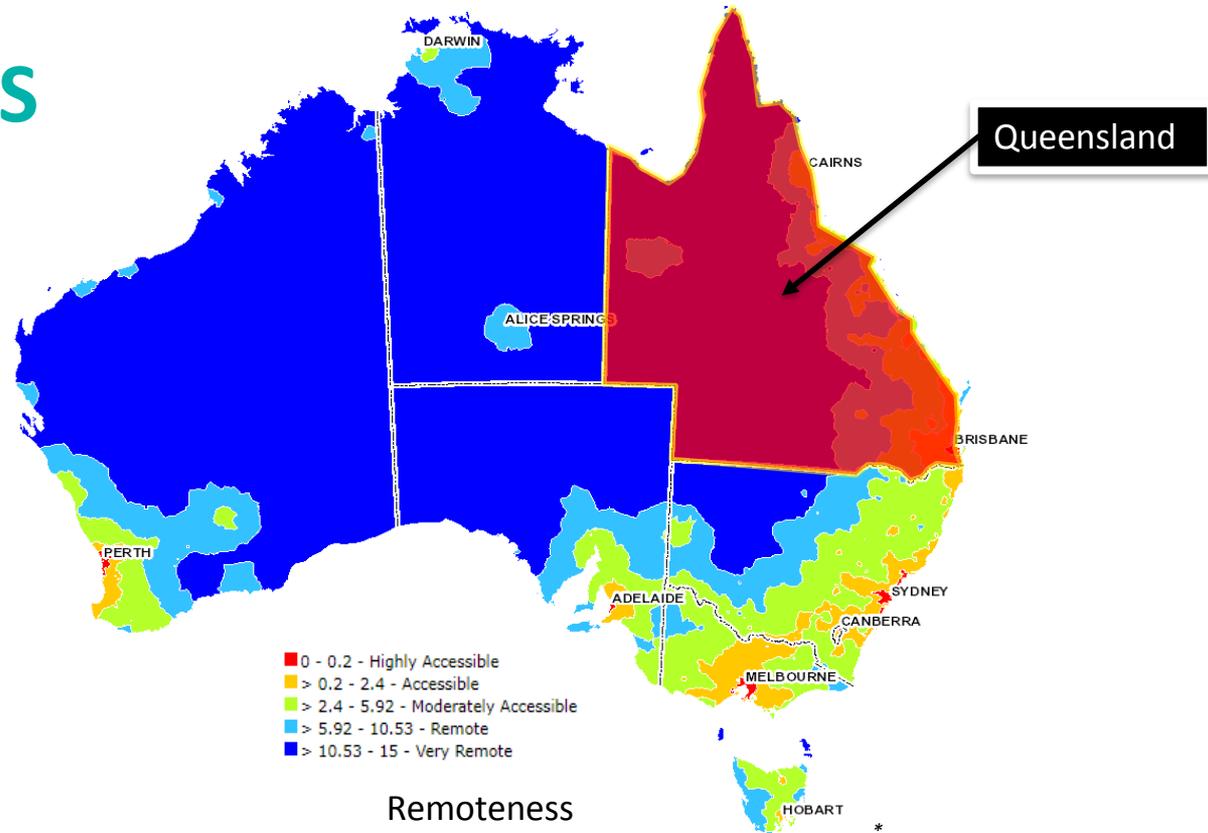


REMOTENESS

Australia is a country renowned for its vast remote area.

Remote Australia covers about 85% of the country's land mass.

As at June 2015, 2.21% of Australians lived in remote or very remote areas.





IFHE 2018
BRISBANE, AUSTRALIA



6-11 OCTOBER 2018
BRISBANE CONVENTION
& EXHIBITION CENTRE

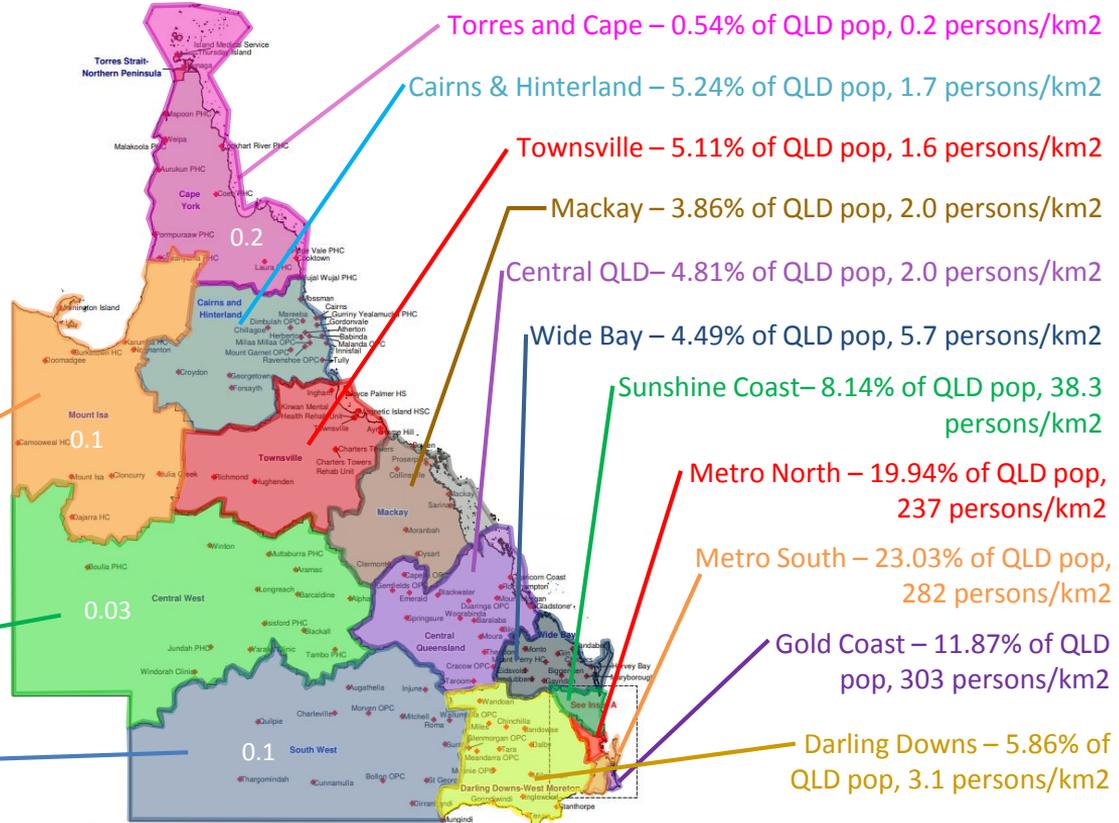


#IFHEcongress2018



REMOTENESS

QLD pop as at 2016 = 4,719,925

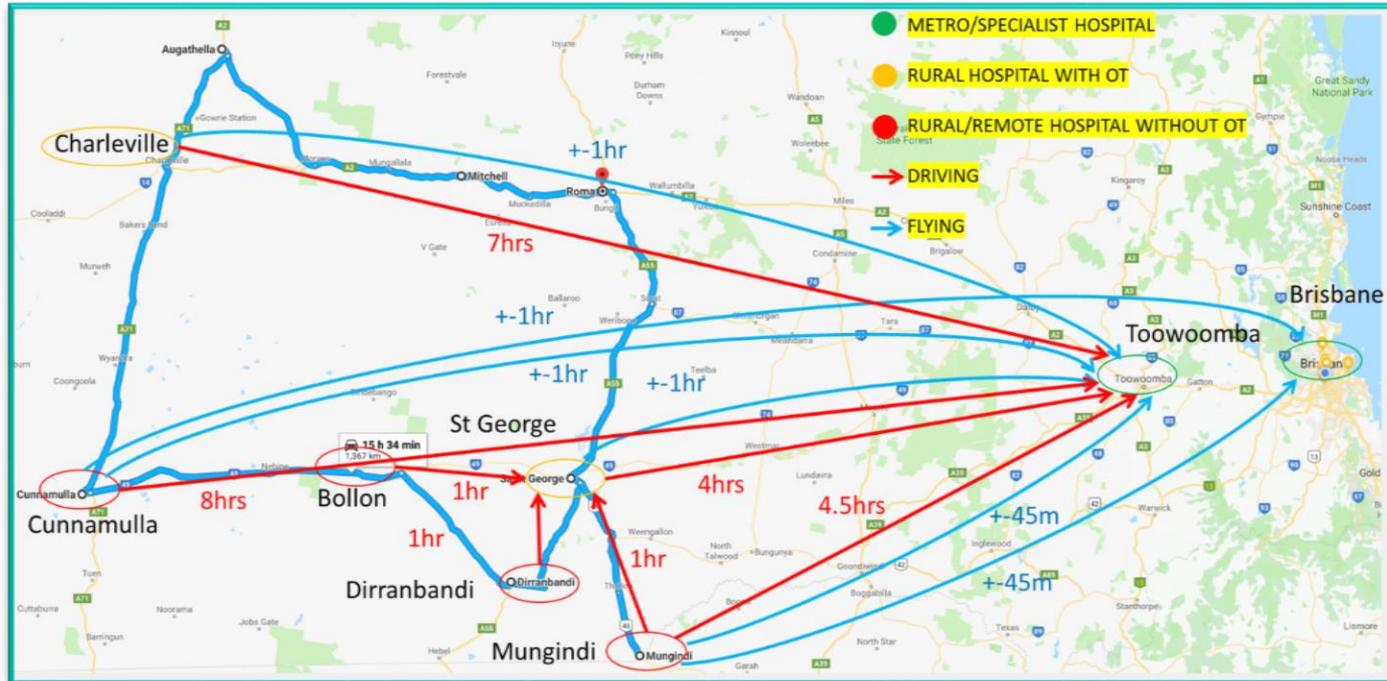


Prepared by: Statistical Output, Health Statistics Centre, 10 December 2010
Health Service Districts and Facilities as at 1 November 2010





REMOTENESS



AUSTRALIAN STANDARDS

- What about standards?
 - What do we mean?
 - CIR
- Why don't they?
- What about risks?



AGEING INFRASTRUCTURE





AGEING INFRASTRUCTURE



AGEING INFRASTRUCTURE

Incandescent 60W



Yearly running cost: \$16

Energy Used: 60W

Brightness (Lumens): 800

Bulb Lifetime: 1000 Hours

CFL 20W



Yearly running cost: \$5.35

Energy Used: 20W

Brightness (Lumens): 800

Bulb Lifetime: 5,000 Hours

LED 9W

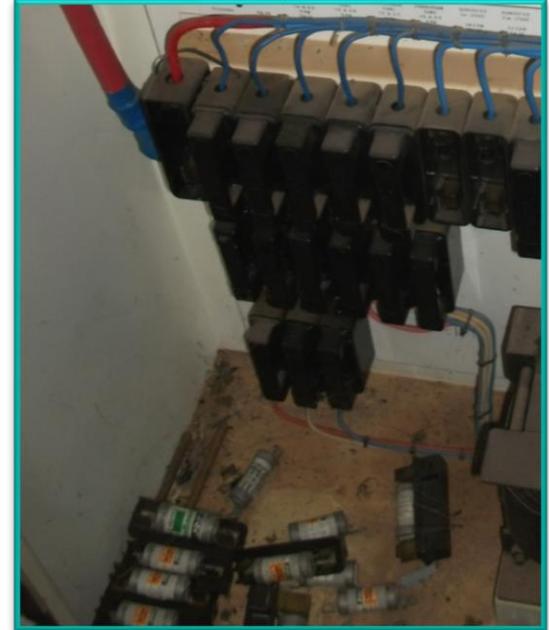


Yearly running cost: \$2.41

Energy Used: 9W

Brightness (Lumens): 800

Bulb Lifetime: 50,000 Hours+



MAINTENANCE PRACTICES

Reactive / Responsive emergency-based maintenance

Proactive / Planned / Preventive / Condition-based Maintenance

Forward Maintenance Plans

CASE STUDY – Generator Testing



CASE STUDY – Backup Power



Points to reflect on

- Collate data
- Serviceability
- Patient care

THANK YOU, QUESTIONS?

REFERENCES

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*Figure from ARIA+ 2011 (The University of Adelaide, 2013, The University of Adelaide, 2018, Queensland Government Statistician's Office, 2018, and Queensland Government - Queensland Health, 2015) Available: http://www.spatialonline.com.au/ARIA_2011/

**Photo Copyright: Ian Fraser. Available: <http://ianfrasertalkingnaturally.blogspot.com/2015/04/considering-kangaroos.html>

***Prepared by: Statistical Output, Health Statistics Centre, 10 December 2010 Health Service Districts and Facilities as at 1 November 2010 Available: https://www.health.qld.gov.au/_data/assets/pdf_file/0035/358865/hsd2010_hosp.pdf

****Images from Our Walkabout Available: <http://www.ourwalkabout.com/2009/10/26/the-wave/>

***** Images from Charlston Lights Available: <http://www.charlstonlights.com/blog/led-light-bulbs-buying-guide>

