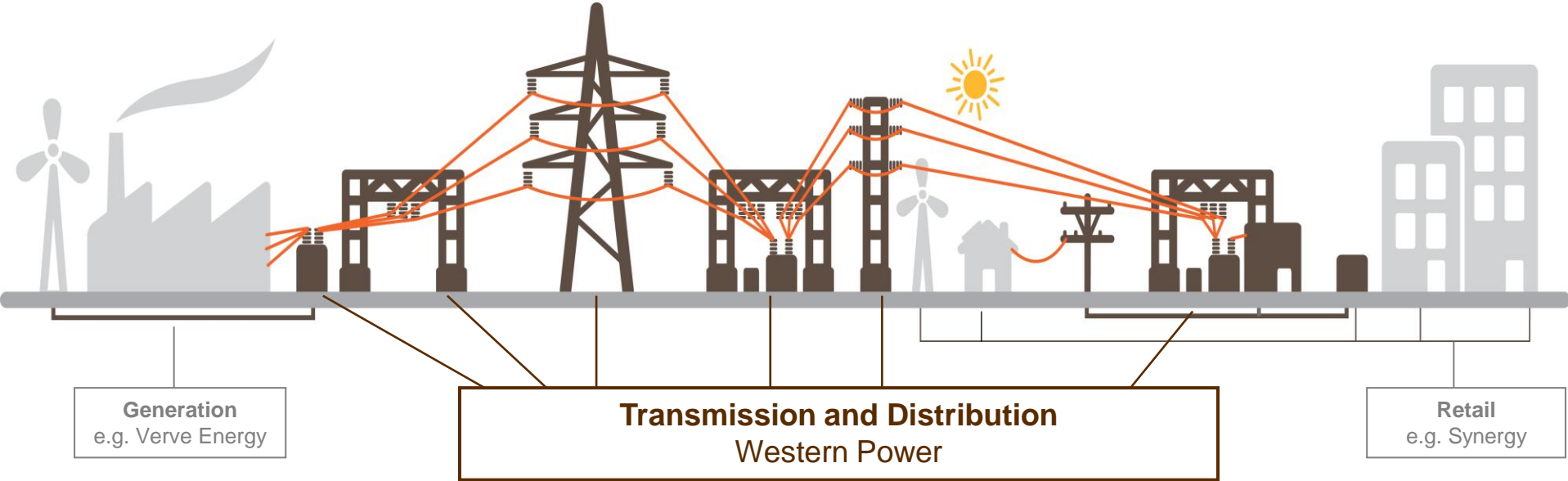


Western Power in the Mid West

Douglas Thomson
Transmission Planning and
Projects Manager



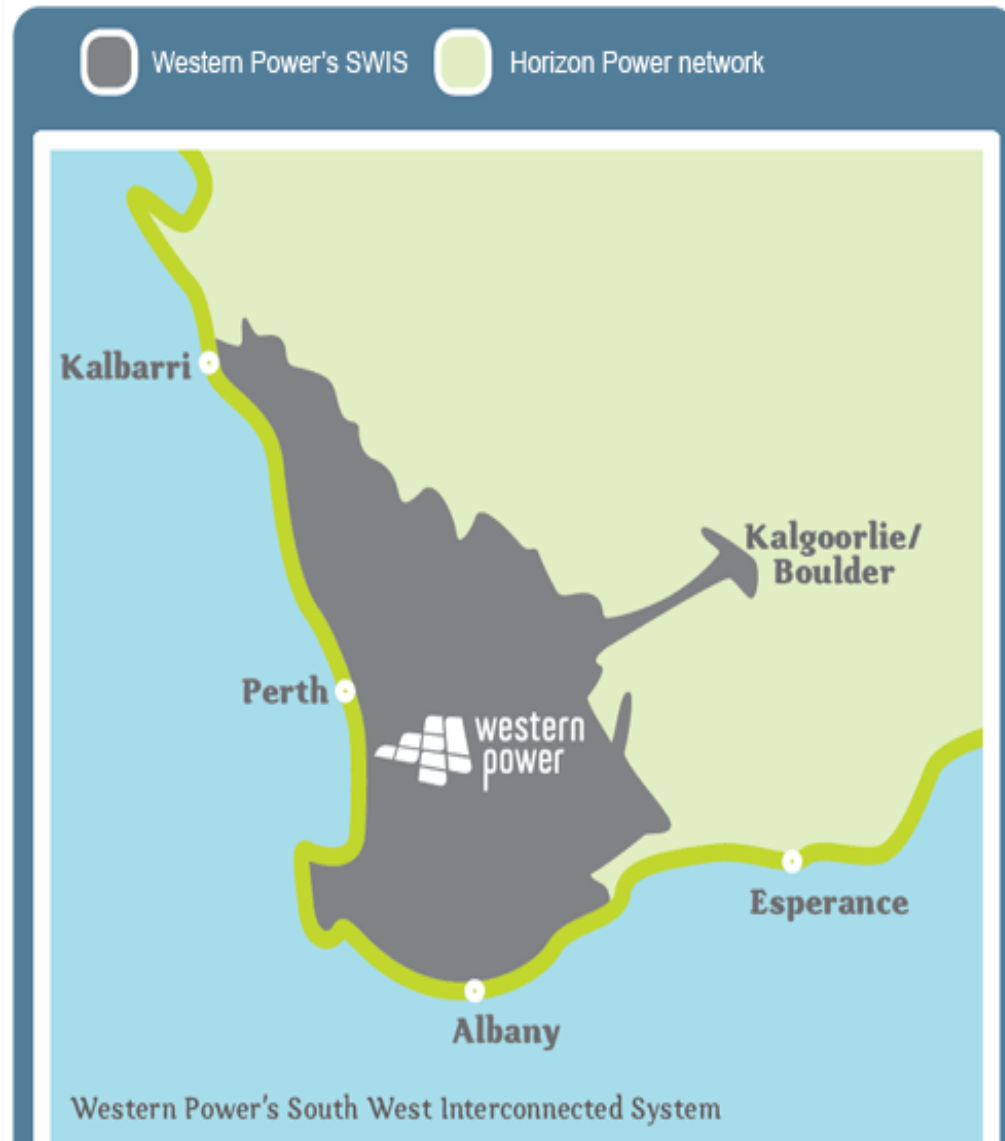
Western Power



Our network & our customers

The Western Power network

- 95 000 km of powerlines
- 787,000 power poles and towers
- 224,000 streetlights
- 13,500 distribution substations
- 125 zone substations
- 24 terminal substations
- Covers around 330,000km²
- 22,000 new connections each year.
- 840, 000 connected properties
- One of the largest islanded networks in the world



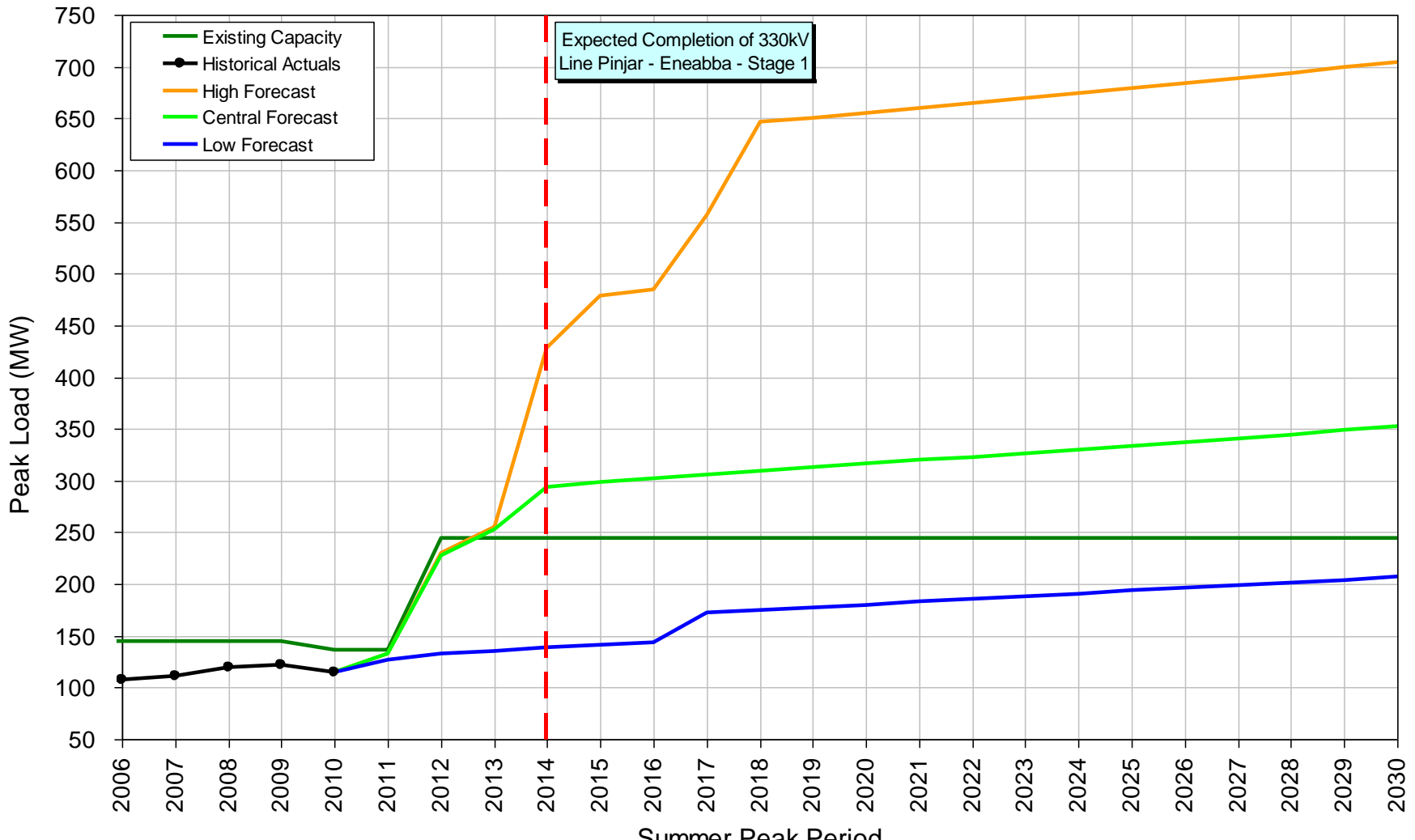
Changing landscape

- Increasing demand for electricity – delivered reliably and cheaply
- Growing peak demand and an increasing focus on energy efficiency
- An increasing proportion of Renewable Energy
- More distributed generation
- Smart Energy future
- Investment considerations



Western Power forecast – Mid West

MID WEST REGION PEAK LOAD FORECAST
(17/02/2011 DM#6429512)



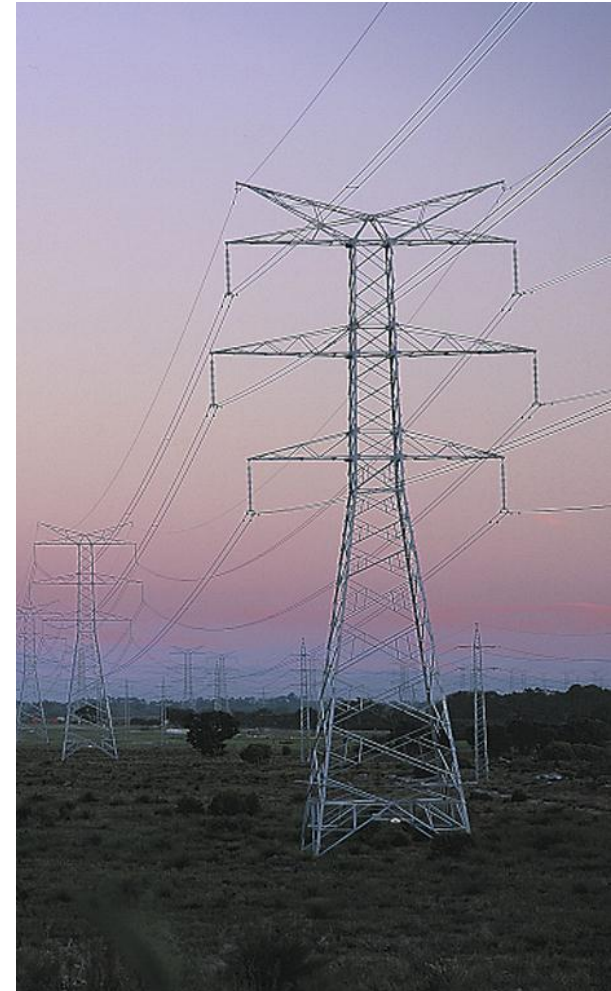
Western Power's Mid West Energy Project

- Long term solution
- Facilitates connection of renewable generation
- Connects major loads
- Two-stage development:
 - Stage 1 (southern section)
 - Stage 2 (northern section)



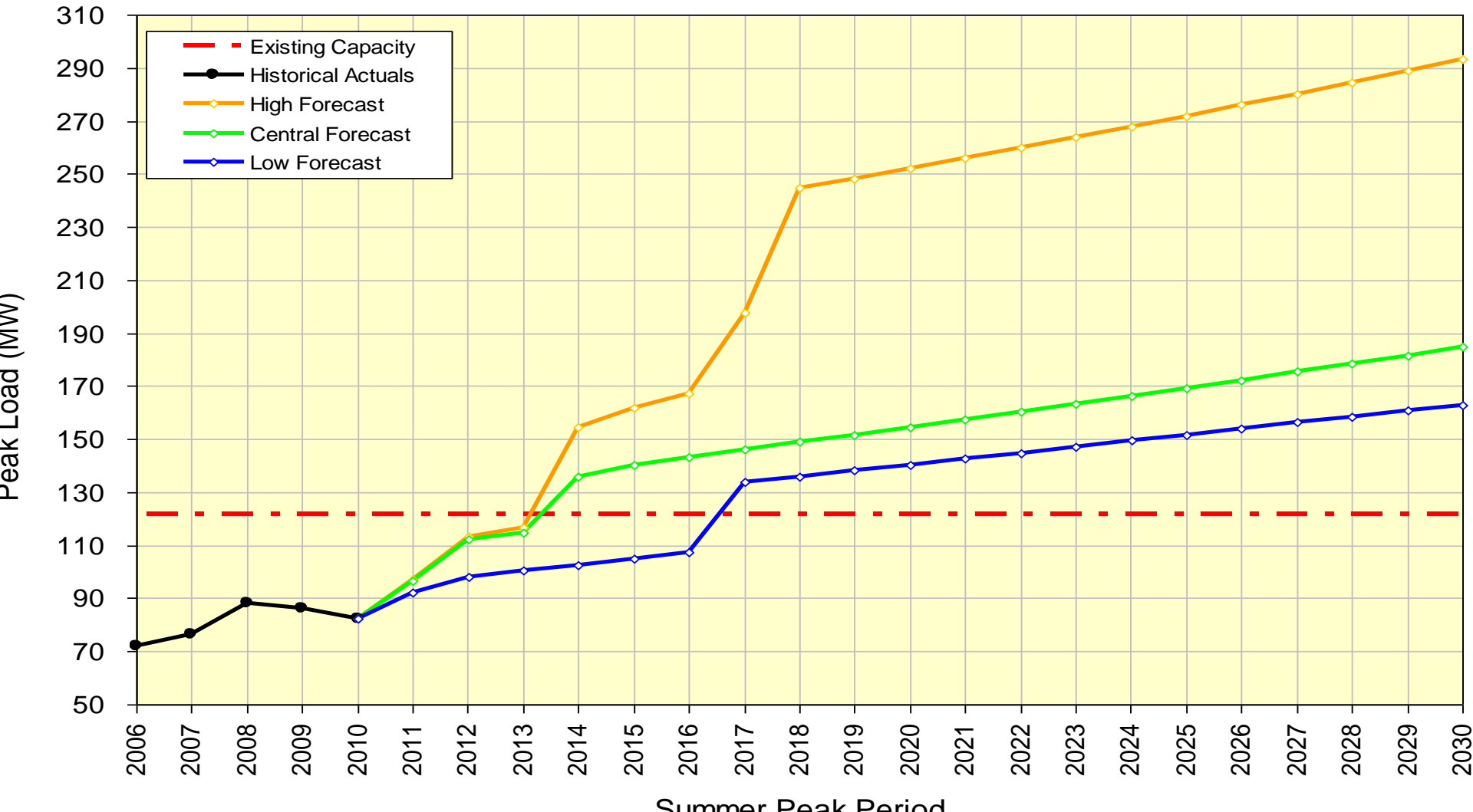
MWEP Stage 1

- Connects Neerabup (Perth) to Three Springs
- New Facilities Investment Test Submission
- Regulatory Test approval received in February 2011
- Project completion – Q1, 2014



Western Power's Forecast - Geraldton

GERALDTON REGION PEAK LOAD FORECAST (20/05/2010)



MWEP Stage 2

Key drivers:

- Load growth in the Geraldton region from existing customers,
- Load growth from major new customers;
- Potential new generators seeking connection to the grid.



**Network
projects**

Connecting people with energy



Network Capacity Mapping Tool

Western Power: Home - Windows Internet Explorer
http://www.westernpower.com.au/#
western power

Site search
enter search keywords GO

Site menu
Jump to Select from below

Line washing
We are conducting powerline maintenance on regional transmission lines
Find out more

Having accessibility issues?
Customer service

Residential customers

- > Your connection
- > Your meter
- > Renewable energy systems

Business customers

- > Your connection
- > Your meter
- > Renewable energy
- > Suppliers & tenders
- > Oversized vehicles

Land developers & designers

- > Application process
- > Small residential & commercial subdivision
- > Large subdivisions
- > Guidelines & manuals

Safety

- > Electrical accidents
- > Trees & powerlines
- > Safety at home
- > Safety outside
- > Safety at work

Working near powerlines

- > Working near powerlines
- > Excavating near powerlines or cables
- > Dial before you dig

Network projects

- > Powerline & substation projects
- > Smart grid
- > Underground power

Western Power - Mozilla Firefox
http://beta-w.landgate.wa.gov.au/projects/WP/indexkh.php

Network Capacity Mapping Tool

Layers

- Base Layer
- Landgate
- Forecast Remaining Capacity by Areas (by year)
- Forecast Remaining Capacity 2011 (WP-009)
- Forecast Remaining Capacity 2012 (WP-010)
- Forecast Remaining Capacity 2013 (WP-011)
- Forecast Remaining Capacity 2014 (WP-012)
- Forecast Remaining Capacity 2015 (WP-013)
- Forecast Remaining Capacity 2016 (WP-014)
- Forecast Remaining Capacity 2017 (WP-015)
- Forecast Remaining Capacity 2018 (WP-016)
- Forecast Remaining Capacity 2019 (WP-017)
- Forecast Remaining Capacity 2020 (WP-018)
- Forecast Remaining Capacity 2021 (WP-019)

Legend

Drawing Layer

Markup Layer

Forecast Remaining Capacity 2011 (WP-009)

- < 5 MVA
- 5 <= x < 10 MVA
- 10 <= x < 15 MVA
- 15 <= x < 20 MVA
- 20 <= x < 25 MVA
- 25 <= x < 30 MVA
- => 30 MVA

MapData © 1998 - 2011

http://beta-w.landgate.wa.gov.au/projects/WP/indexkh.php

Additional information

Western Power's website
www.westernpower.com.au

Annual Planning Report

Strategic Energy Initiative

