

# Ben Bristow

Head of Grid Transformation  
(Acting)

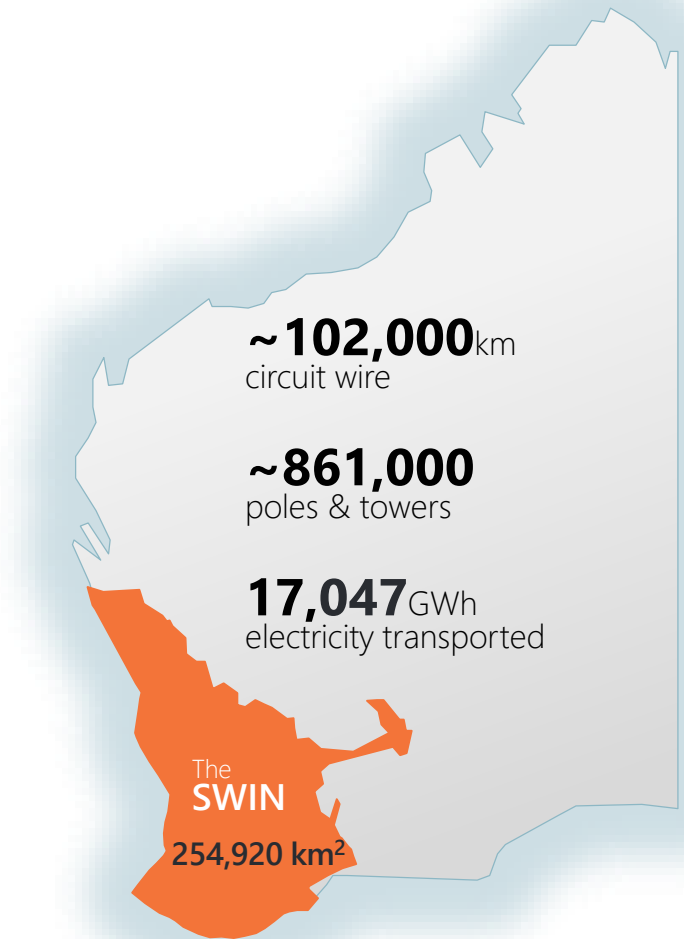
8 June 2018



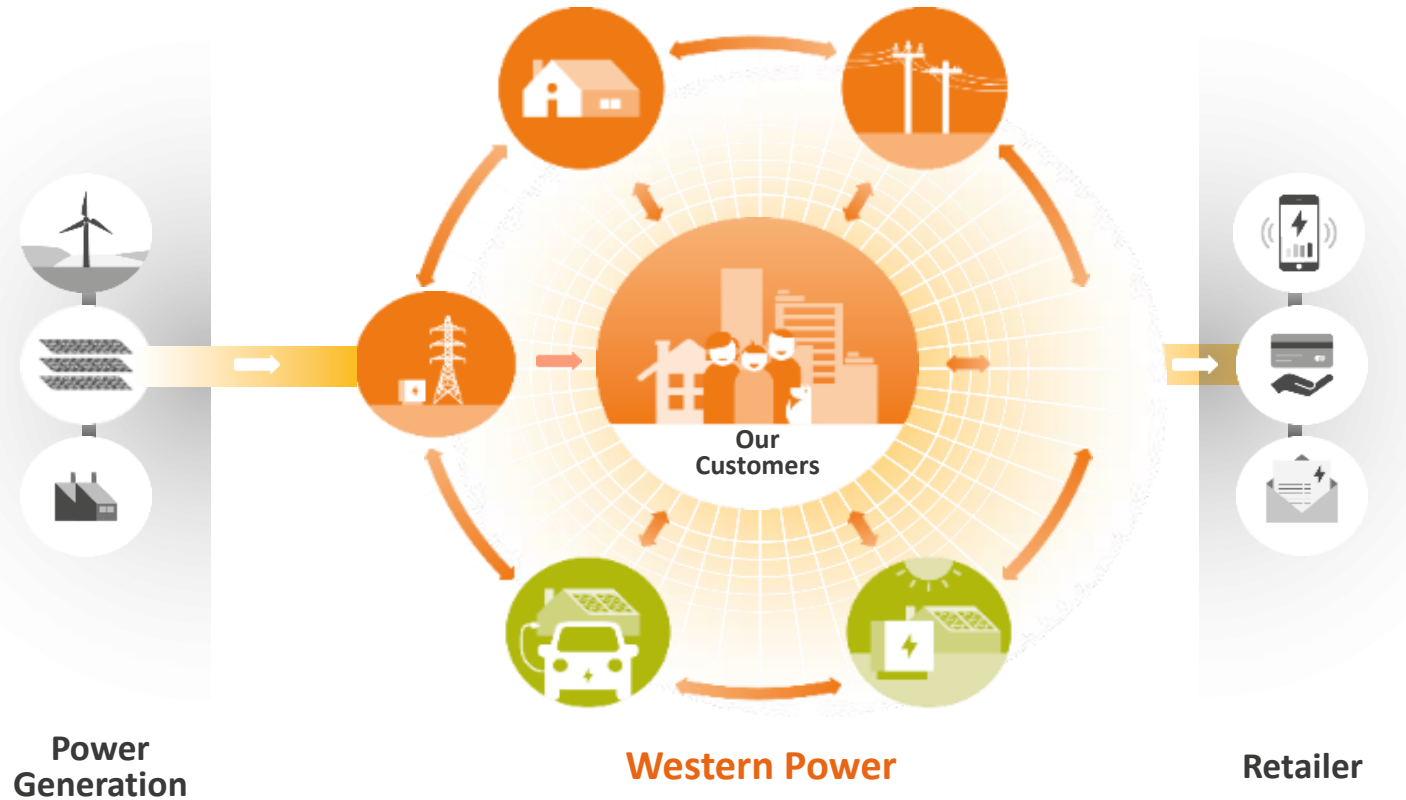
# About Western Power

- Build, maintain & operate transmission and distribution assets: South West Interconnected Network (SWIN)
- 1.1+ million customers
- ~264,000 street lights
- ~228,000 solar PV installations\*
- ~465 battery systems\*

\* As at 1/2/18



# What we do



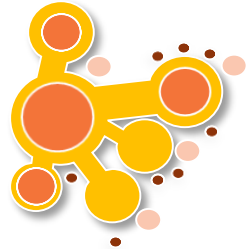
# Reshaping our network

- Network evolution is reliant on community behaviour, technology advancement rates, regulation and policy

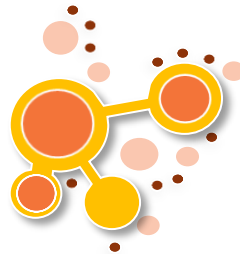
**Integrated  
Network**



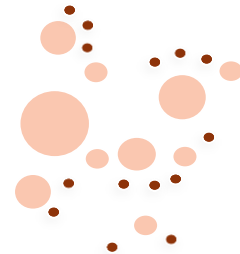
**Fringe  
Disconnection**



**Modular  
Network**



**Fully  
Decentralised**



KEY



BRANCH  
NETWORK



MESH  
NETWORK



MICROGRID



STAND-ALONE  
POWER SYSTEM (SPS)



# How we plan for the future

- What are our customers' future energy needs?
  - Forecast and analysis
- What is the most efficient way to service those needs?
  - Meshed network (traditional network)
  - Microgrids & stand-alone power systems
- What is the most efficient pathway to the future state?
  - Transition pathway
  - Maintenance & renewal strategies



# What we are doing

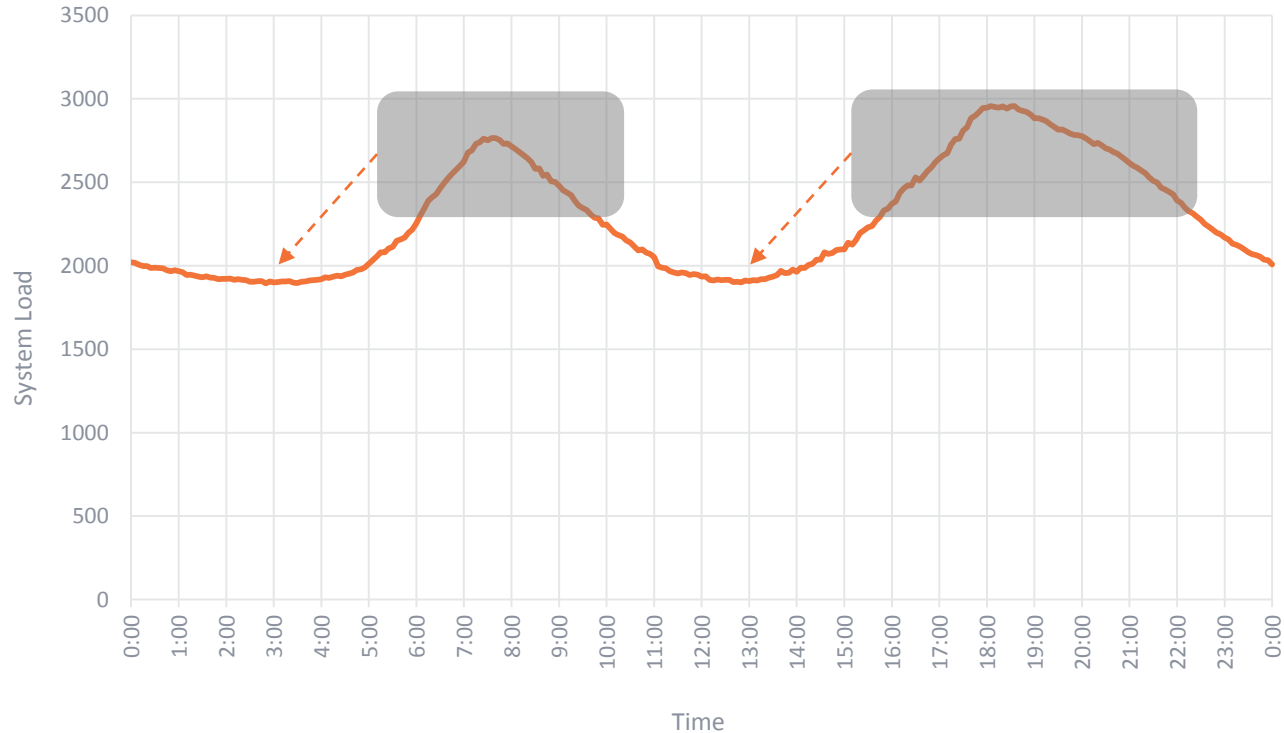
## Evolving through technology

- Microgrids
- Battery energy storage
- Stand-alone power systems
- Community power banks
- Demand management
- Preparing for electric vehicles
- Smoothing the load profile



# Smoothing the load profile

Thursday 30-May-18





**Head Office**  
363 Wellington Street  
Perth, WA 6000  
**[westernpower.com.au](http://westernpower.com.au)**

