

Watts in store? The future of energy supply

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About us

Operator and manager of the NSW electricity transmission network, we supply:



3 million homes and 30,000 businesses



12,900 km transmission lines



99 substations



2,300 km optical fibre

Keeping you and your way of life connected -
24/7

Legend

- 500 kV Transmission Lines
- 330 kV Transmission Lines
- 220 kV Transmission Lines
- 132 kV Transmission Lines
- 330 kV Underground Cable
- Customer Exchange Point
- Interstate Exchange Point
- 500 kV Substations
- 330 kV Substations
- 220 kV Substations
- 132 kV Substations
- TransGrid Office



The future of energy supply

- > **Complex:** diverse and dynamic supply chain
- > **Smarter:** greater control over supply and use
- > **Greener:** renewables become competitive
- > **Local:** more embedded (renewable) generation
- > **Storage** plays a crucial role(s)

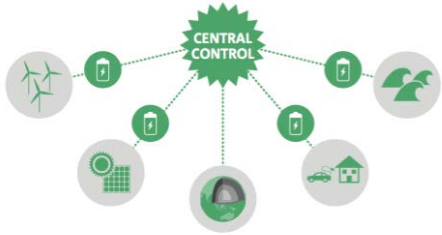
The value of the grid

- > Pathway to a low carbon economy is through the right-sized grid
- > Renewables such as solar PV will support demand – but there will still be a gap
- > The grid is the most efficient way to transport energy



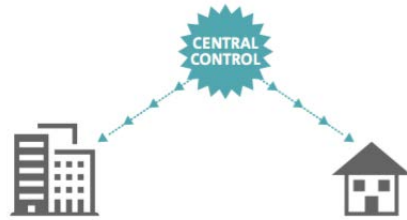
Scenarios

Renewables thrive



2015-25

Set and forget



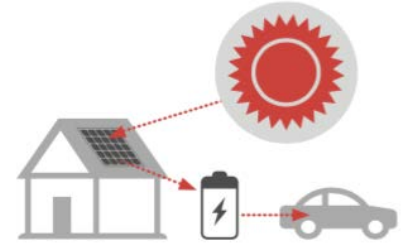
2020-30

Rise of the prosumer



2025-35

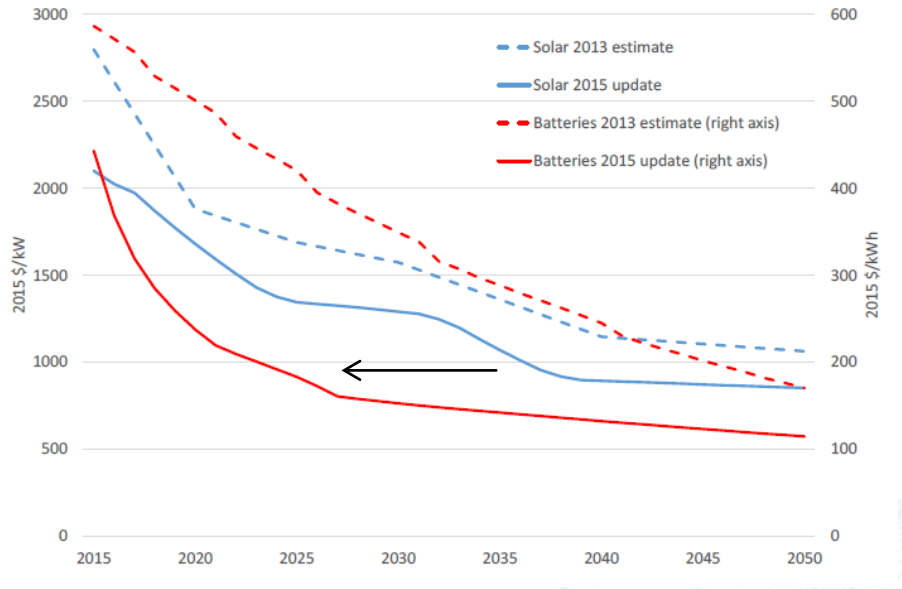
Leaving the grid



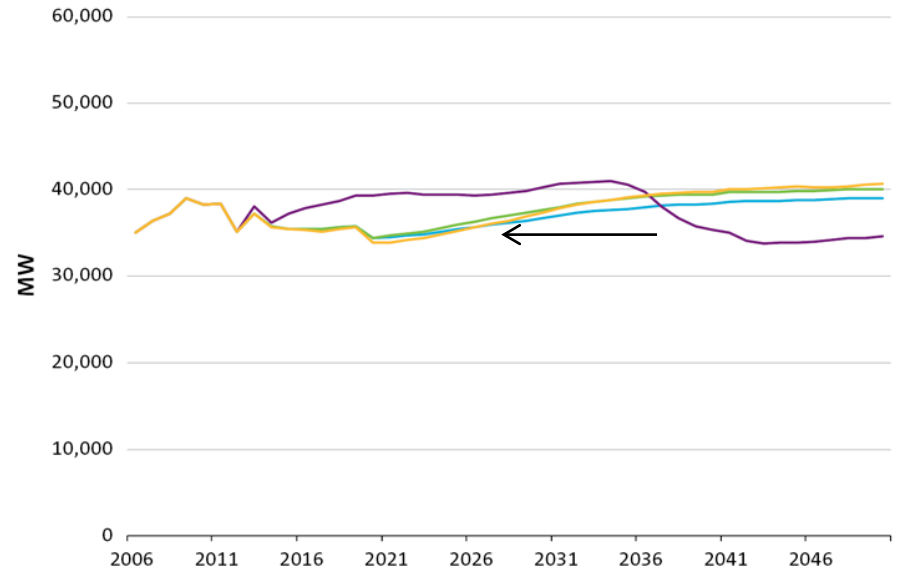
2030-40

Speed

Already 20% cheaper than expected



Networks role critical but evolved



Storage

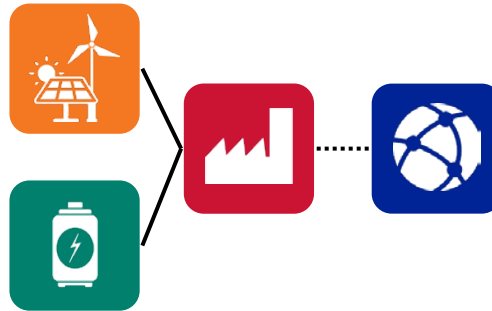
Other applications

Network power quality,
selling back to the grid



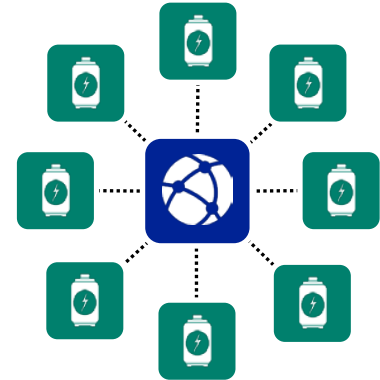
Local sustainable generation

Rely on on-site renewable generation,
grid for balancing and backup
Lower site energy bills



Right sized grid

Real-time, direct with customer
network peak shaving
Statewide energy savings





iDemand

- > Live monitor updates every five seconds
- > Research - historic data can be downloaded at one minute intervals
- > Opens conversation on how storage and demand management integrated into the NEM

transgrid.com.au/iDemand