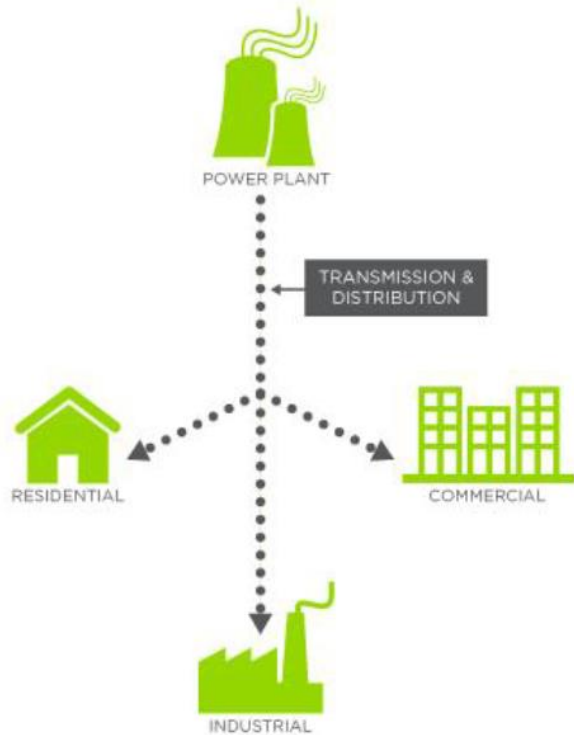


Renewable energy in NSW

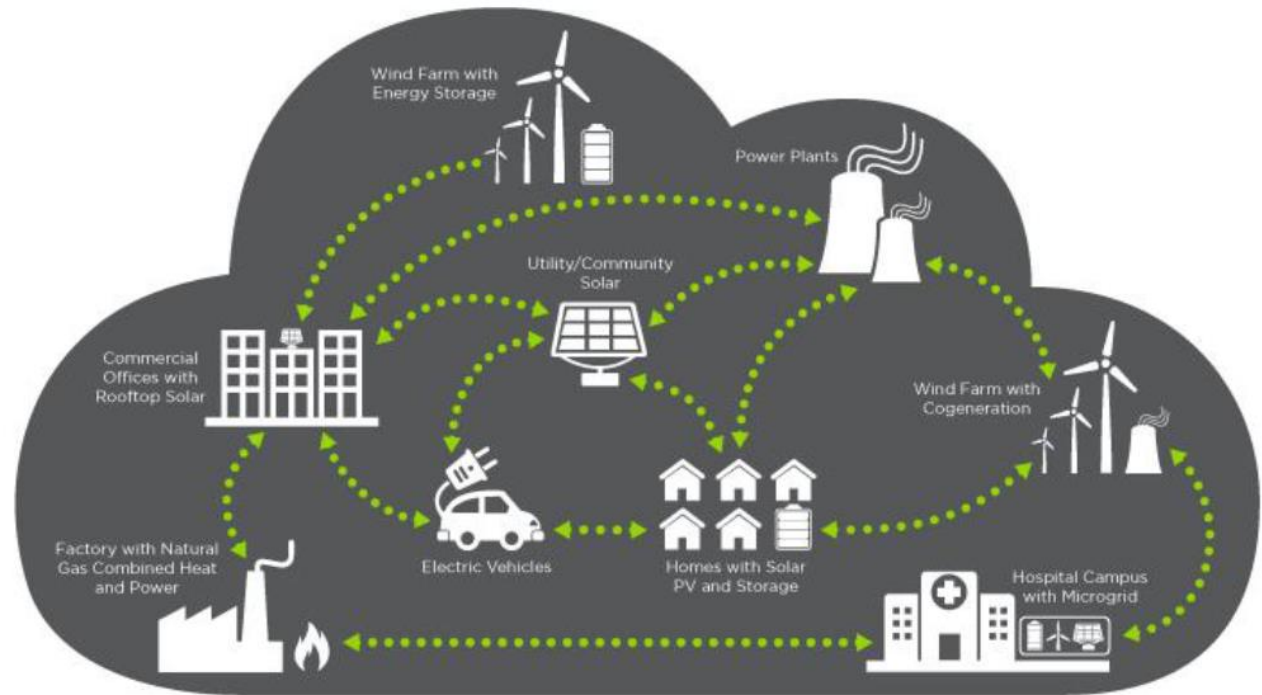
*Tim Stock Manager Sustainable Energy Programs
June 2017*

A transformation is underway in energy

TODAY: ONE-WAY POWER SYSTEM



EMERGING: THE ENERGY CLOUD

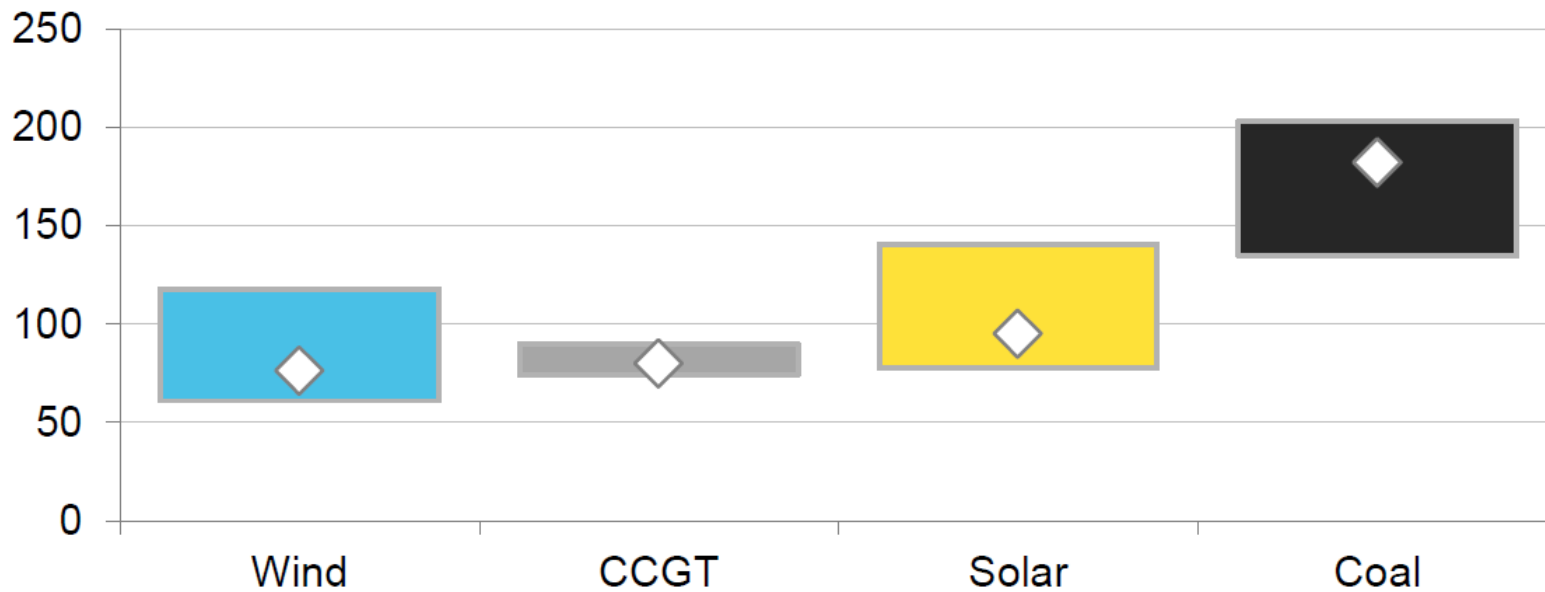


Energy supply must be met as the mix changes

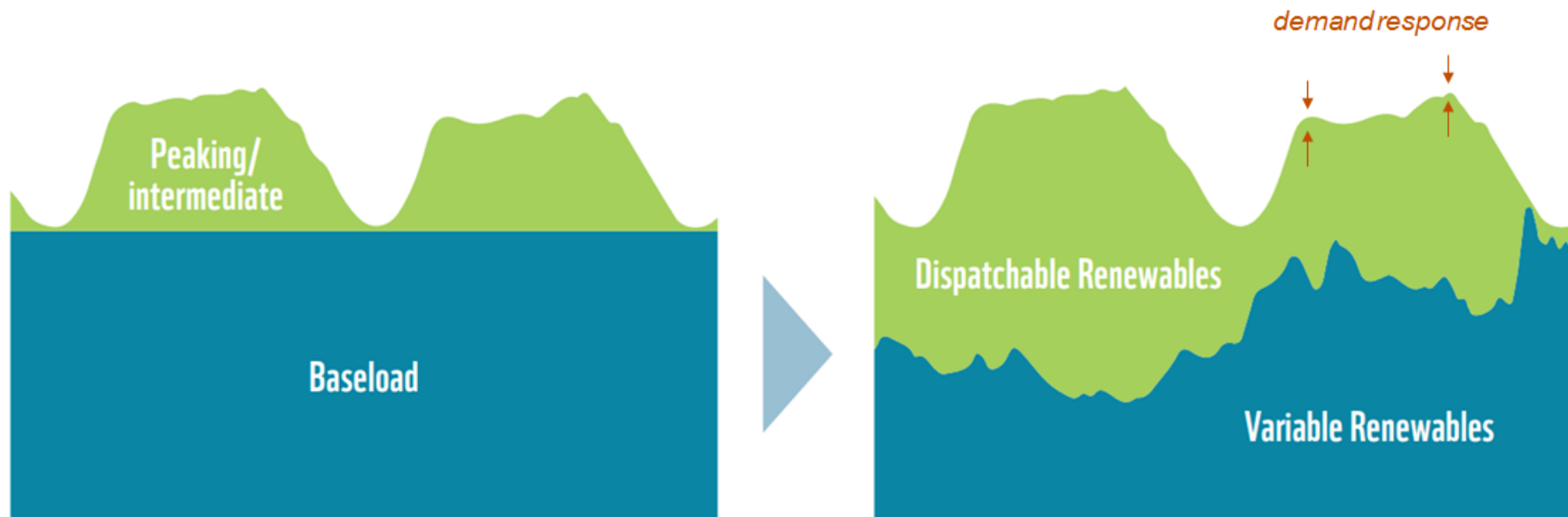
Power station	Fuel type	Commissioning	Decommissioning (announced)	Age (year)	Capacity (MW)
Eraring	Black coal	1982-84		32-34	2,880
Bayswater	Black coal	1982-84	2035	32-34	2,640
Liddell Black	Black coal	1971-73	2022	43-45	2,000
Mt Piper Black	Black coal	1993		23	1,400
Vales Point B	Black coal	1978		38	1,320

Renewable energy is the cheapest form of new generation in Australia

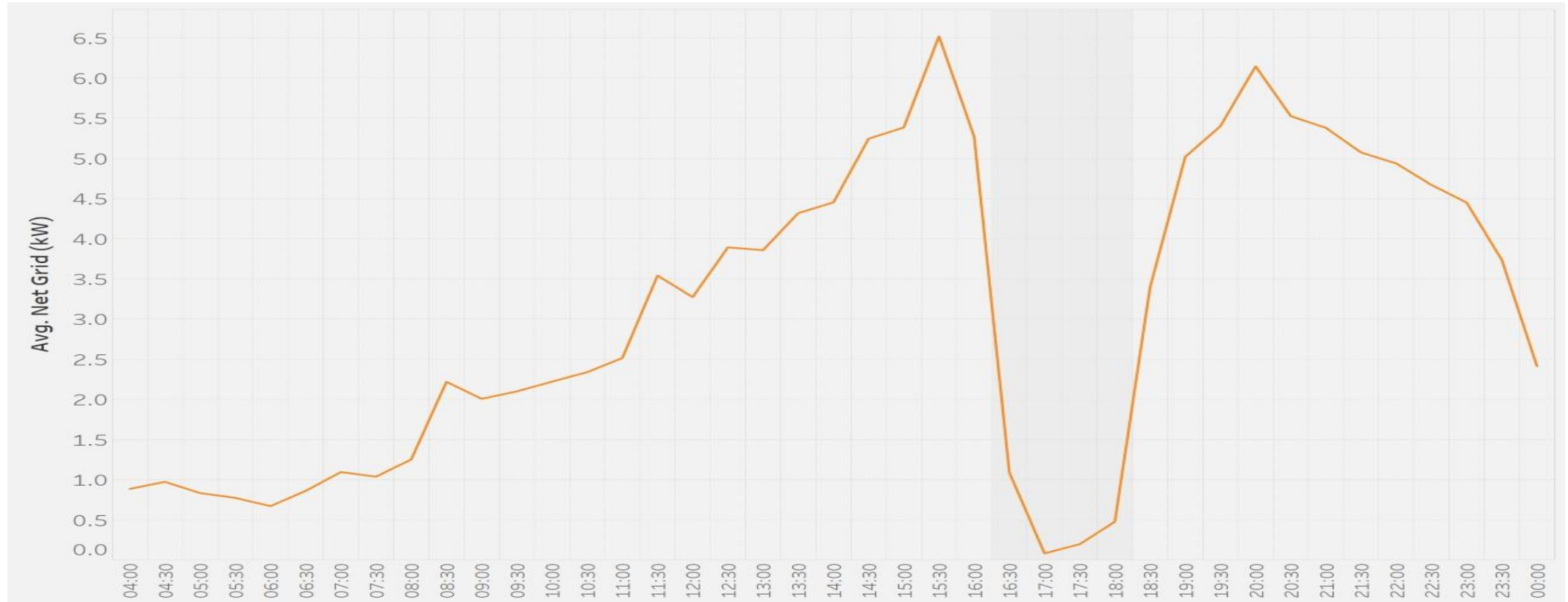
Levelised cost of energy for new build technologies in Australia (AUD/MWh) in 2017



What does it mean?



Demand management emerging at peaks

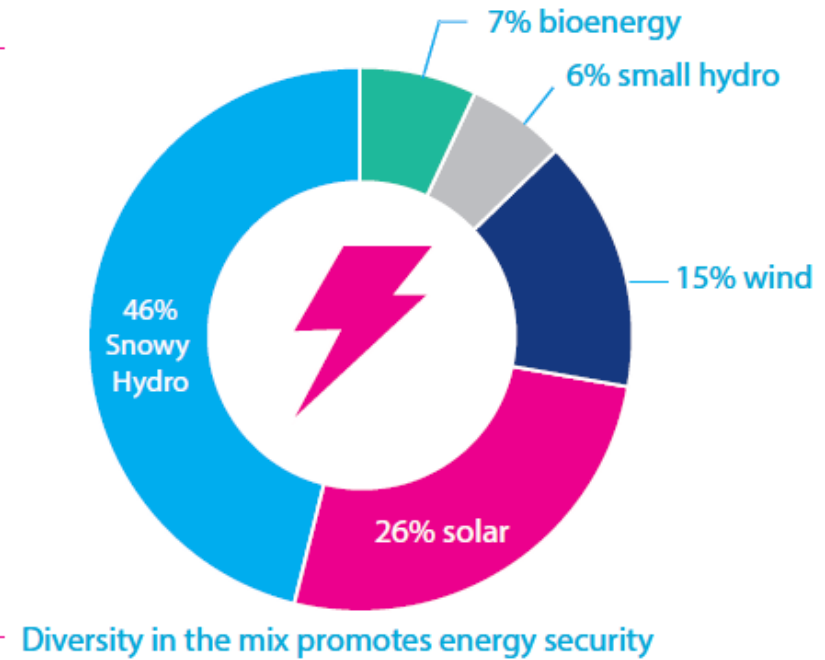
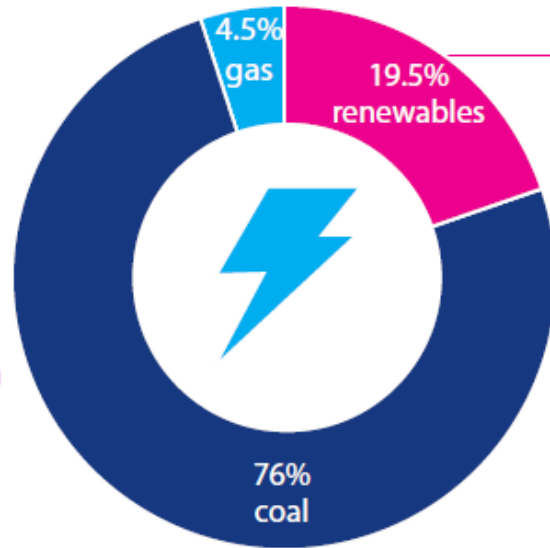


The NSW energy sector

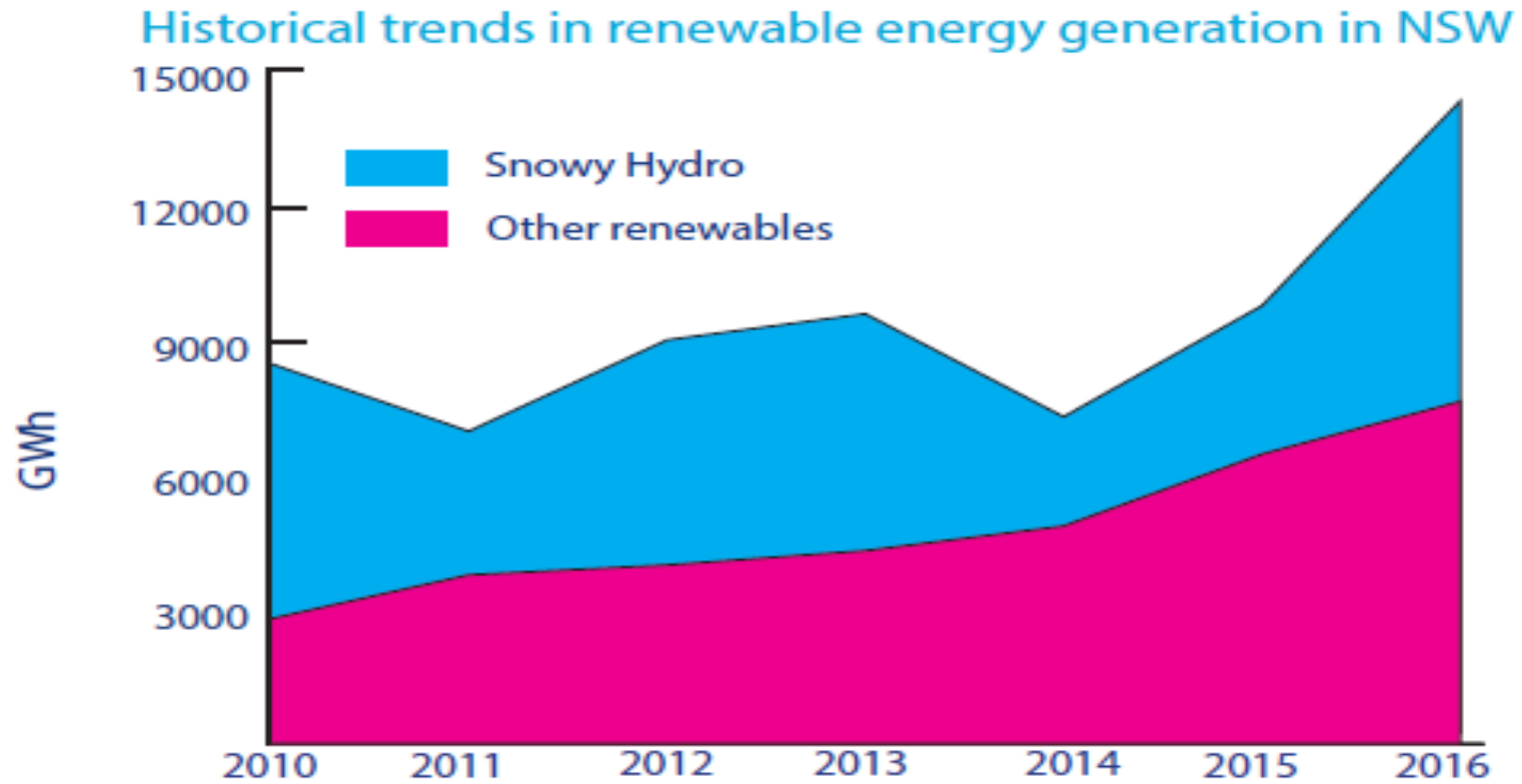
NSW electricity mix

Renewable energy made a record-breaking contribution to the mix in 2016 at

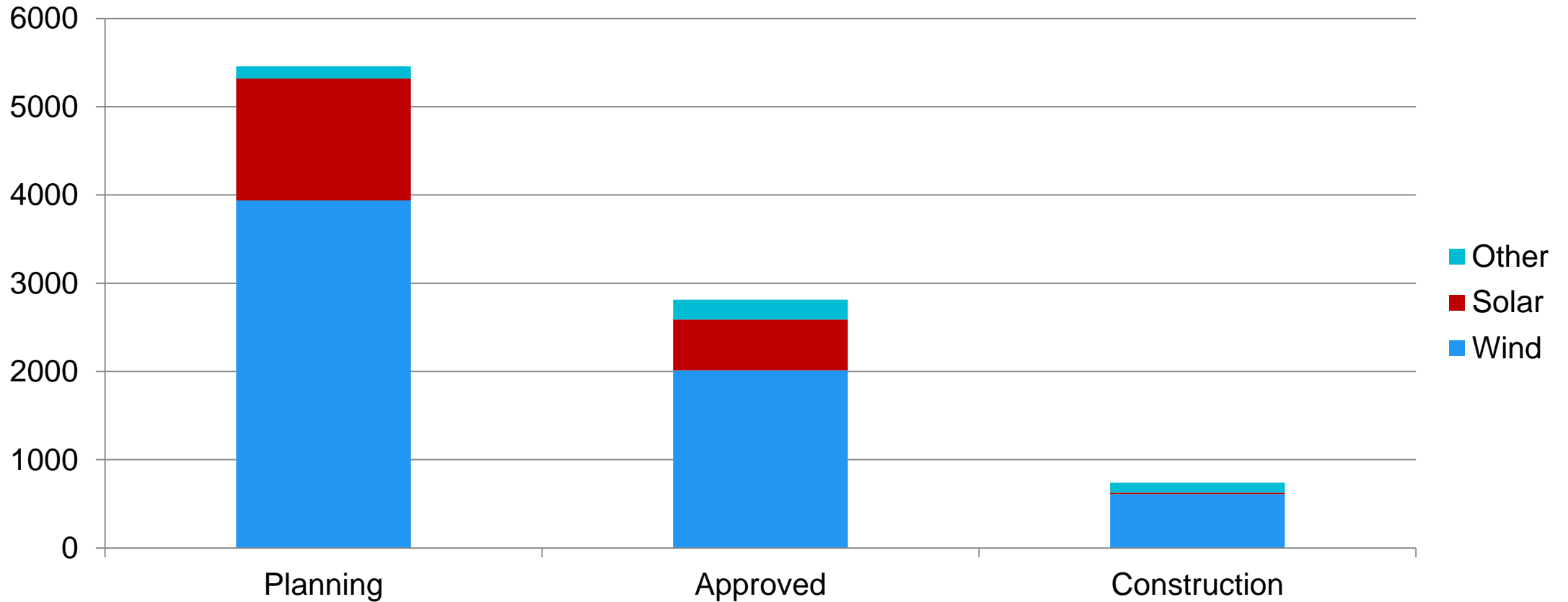
19.5%



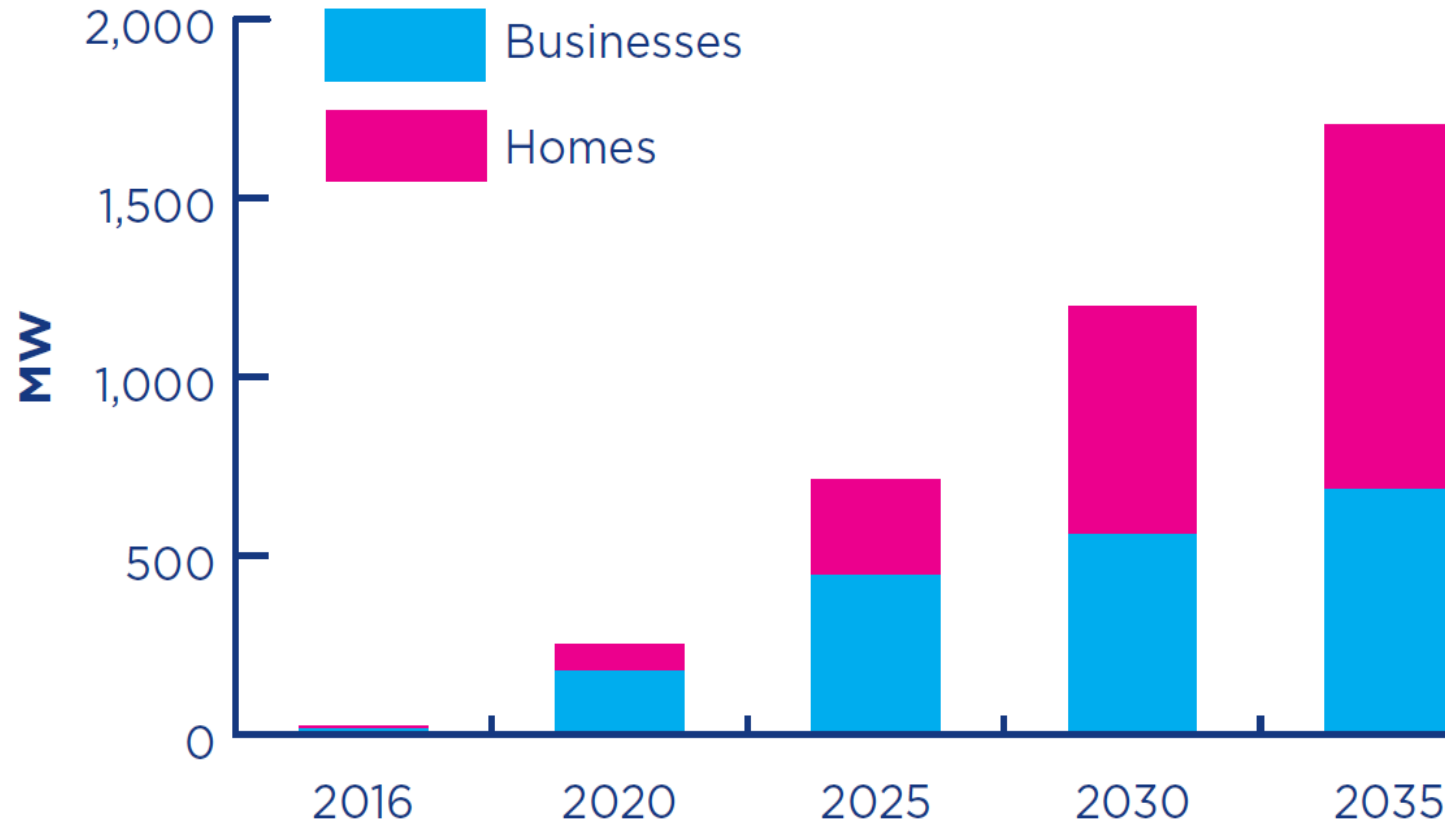
The NSW energy sector



NSW has a substantial pipeline of large-scale renewable energy projects

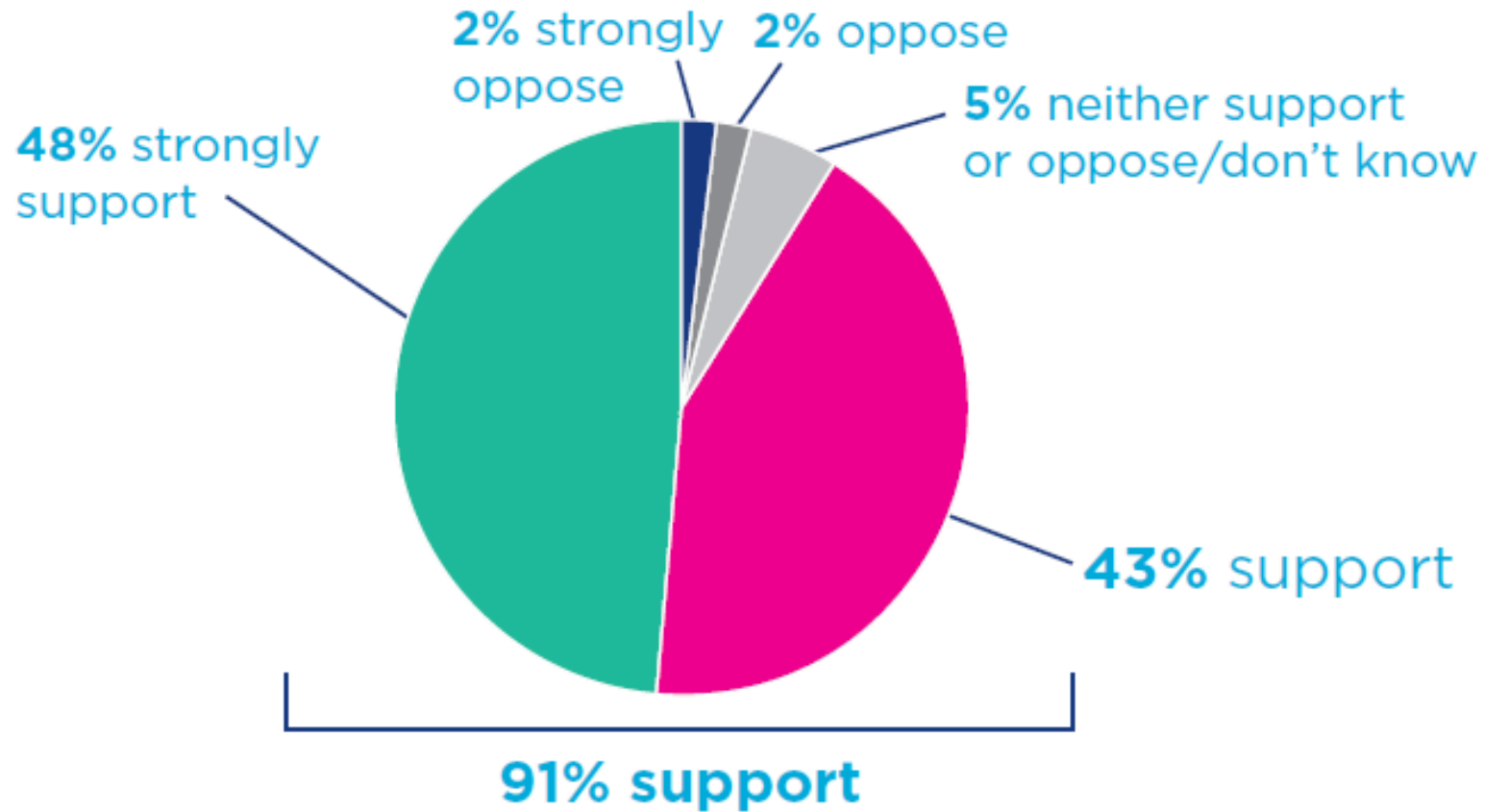


NSW is suited to batteries in homes and businesses



Solar penetration, consumer preferences, rates of technological adoption and tariff structures – make NSW suited to BTM energy storage.

Renewable energy enjoys strong support



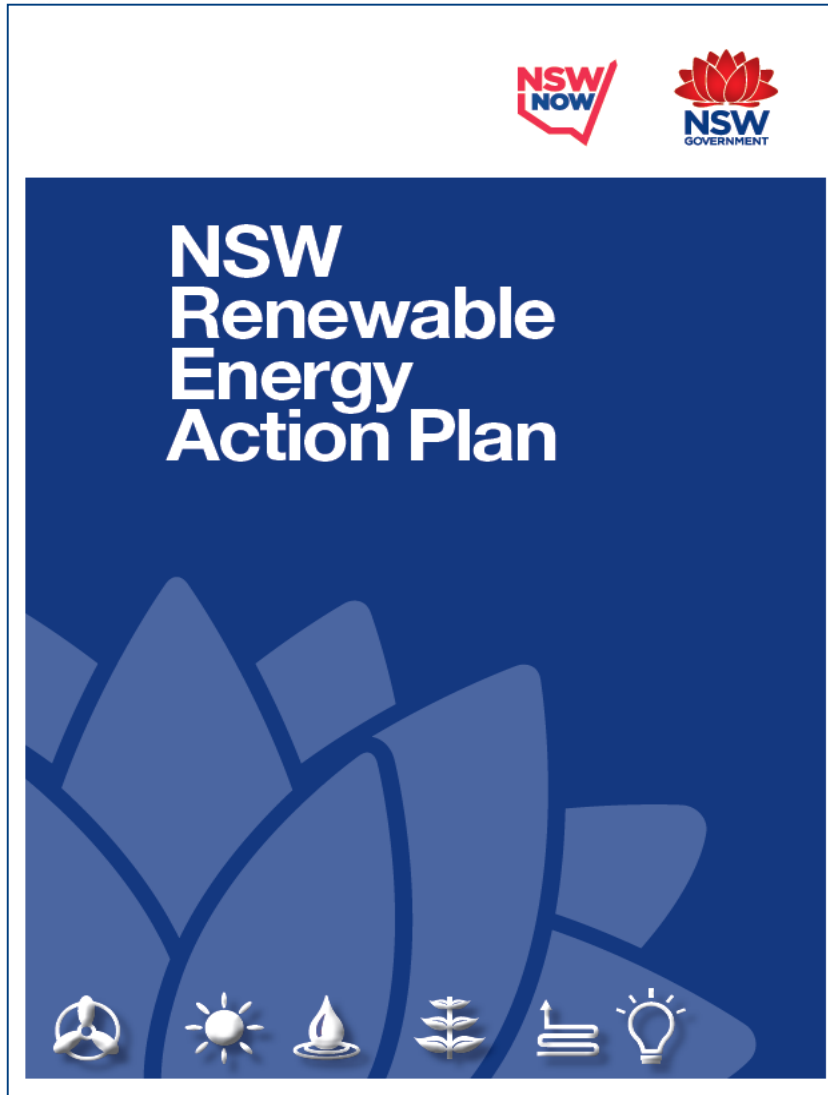
NSW Government Leadership

Government leadership in NSW

- Aspiration net-zero emissions by 2050
- Government-retailer 50MW solar offtake agreement
- Sydney Metro North-West tender – renewable energy procurement
- Voluntary, market-led roll out of smart meters
- NSW Government Resource Efficiency Policy
- Wind Planning Guidelines



NSW Renewable Energy Action Plan



The Government's standing position on renewable energy

1. Attract investment
2. Build community support
3. Grow expertise



Clean energy strategies for business program

- NSW Government is providing funding support to 20 businesses wishing to achieve net zero emissions or 100% renewable energy
- Each business will develop a 'clean energy strategy' with tangible steps for achieving strong targets, with support from expert advisers
- Key areas of interest so far are corporate PPAs for renewable energy and innovative options for bioenergy
- NSW Government will share findings and case studies in the second half of 2017

Agri Australis	AMP Capital	Bega Valley Shire Council	Brookfarm
Charles Sturt University	CHEP Australia	De Bortoli Wines	Fujitsu Australia
Gundagai Meat Processors	Interface Australia	LION	Propertylink
Qantas Airways	Stone & Wood Brewing Co	Sydney Zoo	TAFE NSW Western Institute
Taronga Zoo	Tradies	Unilever Australia	Warrigal Care



NSW Climate Change Policy Framework

Aspiration objectives:

1. Achieve net zero emissions by 2050
2. NSW more resilient to a changing climate

Environmental funding package:

1. \$200m - Accelerating advanced energy
2. \$200m - National leadership in energy productivity
3. \$100m – Adapting to a changing climate



- credible way for organisations to voluntarily purchase government accredited renewable energy
- support renewables and reduce their environmental impact
- drives investment in renewables by increasing demand for Large-scale Generation Certificates (LGCs)
- Improve environment ratings Greenstar and NABERS

GreenPower Connect

All the existing benefits of standard Greenpower plus:

- reduction in administration costs for large purchases of renewable energy
- direct linkage with a specific project





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Planning &
Environment