

Role of scarcity pricing in Australia

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Role of the AEMC: Rule maker and adviser



Revenue
regulation and
compliance

Reliability Panel
AEMC



Market
operation
and planning

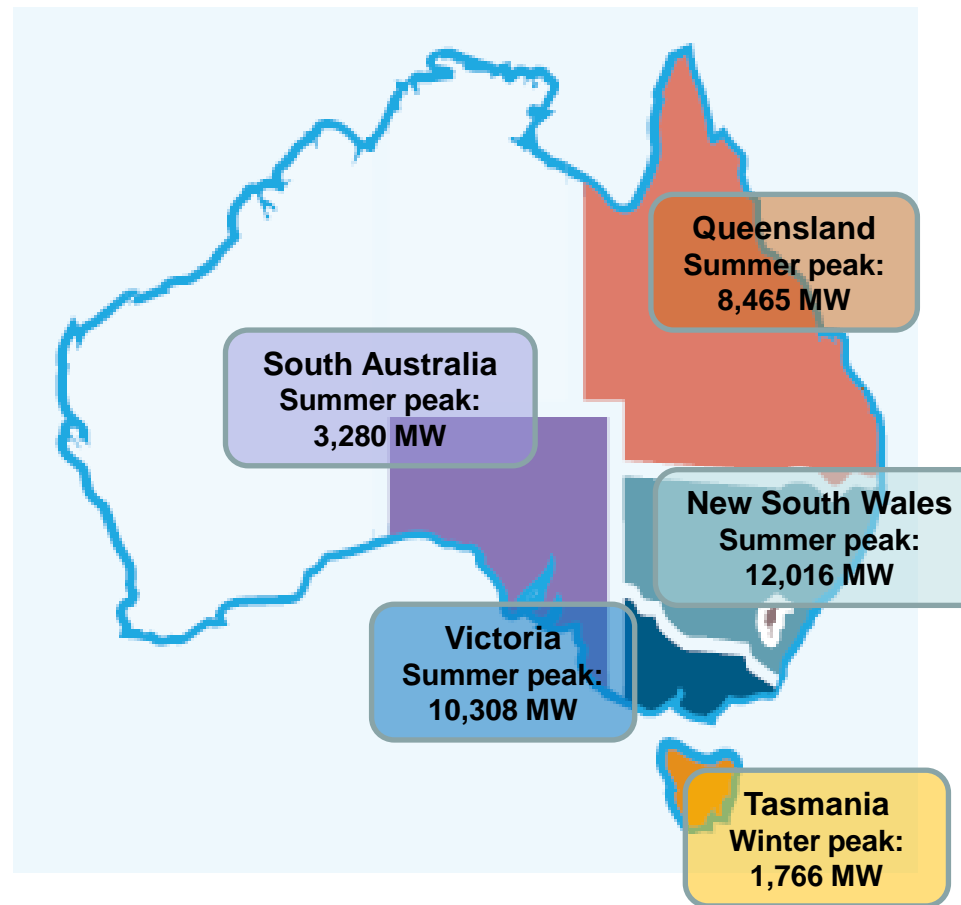
Laws & Policy

Rules & Advice

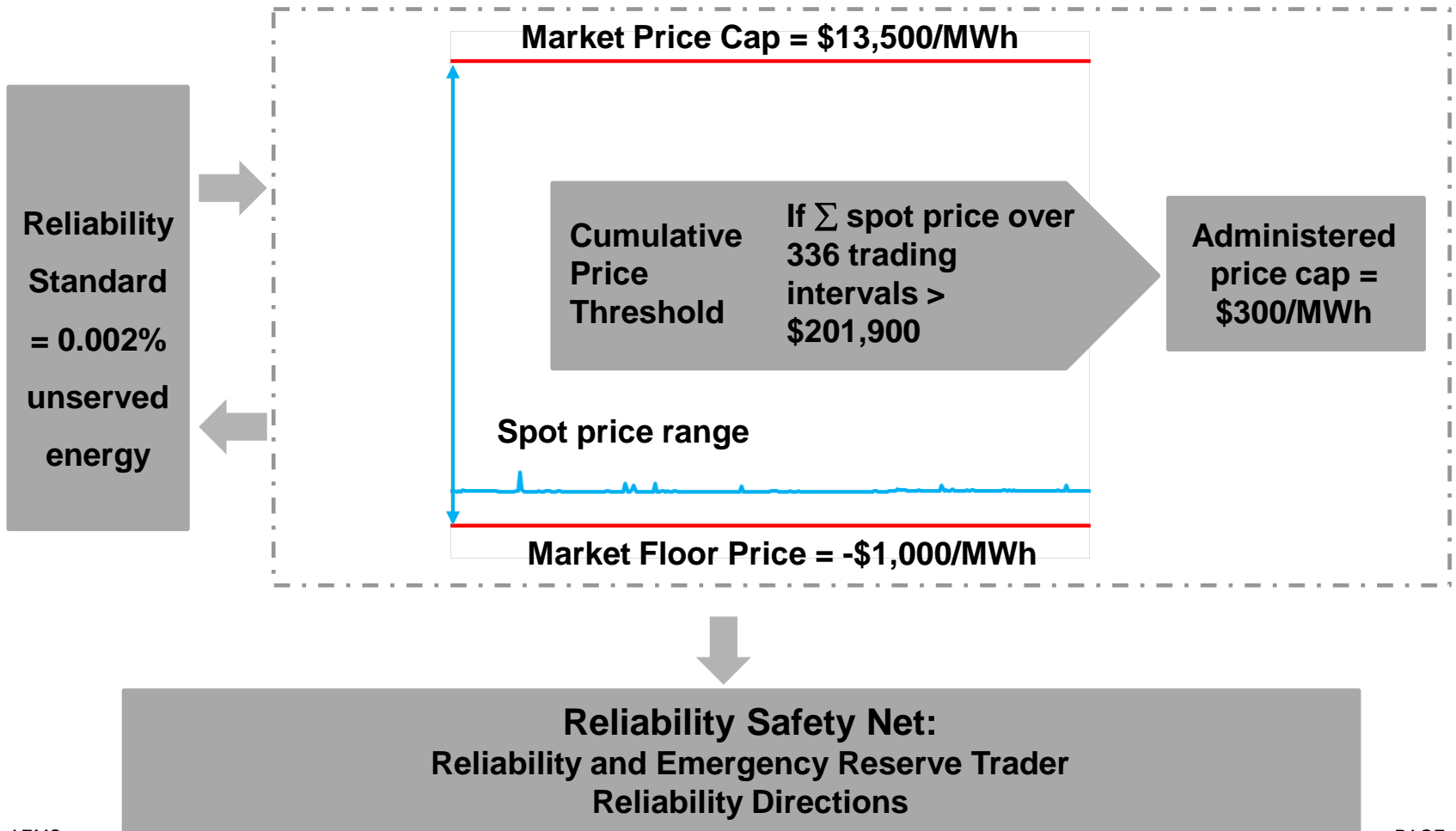
Implementation

Overview of the National Electricity Market

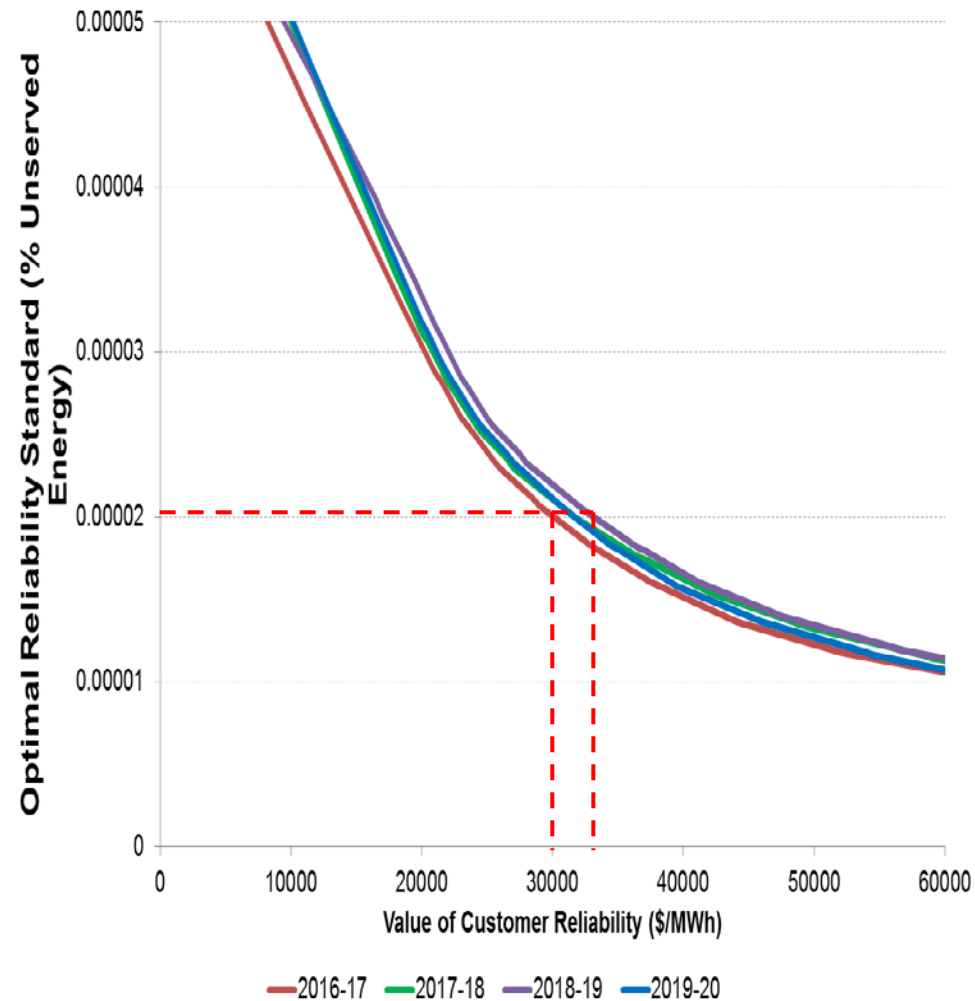
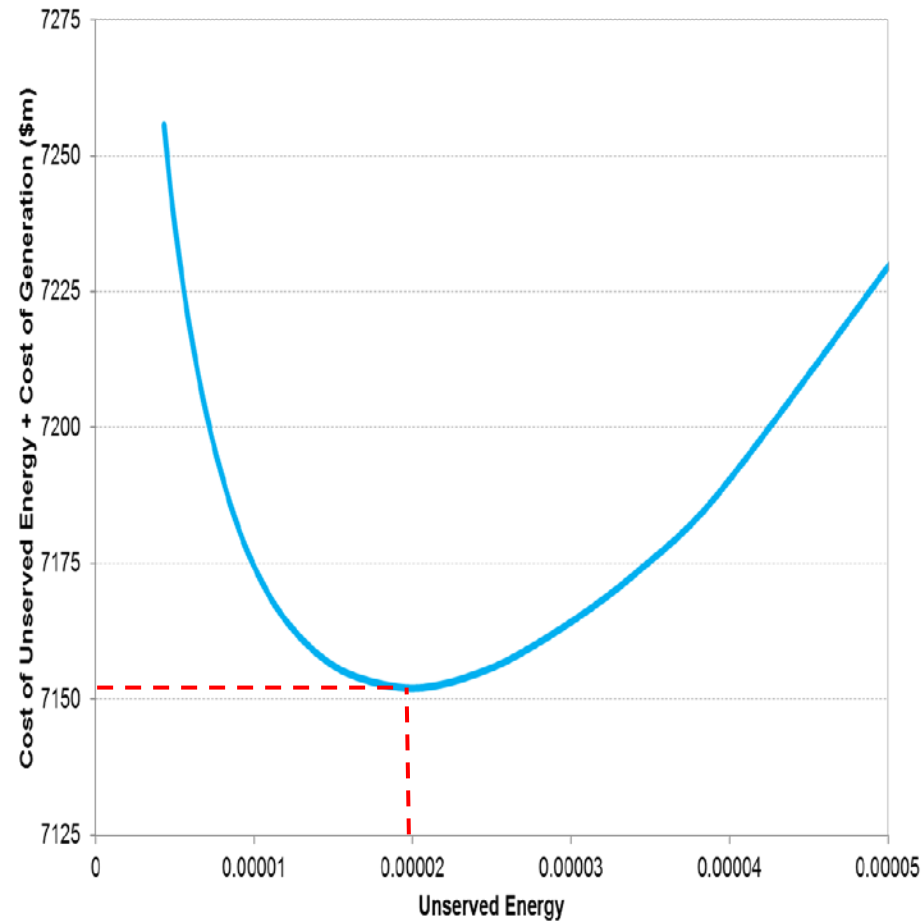
- ❑ The National Electricity Market (NEM) was established as an energy-only wholesale spot market in 1998
 - Currently one of the longest interconnected power systems in the world, around 5,000 km
 - Generation capacity of 50 GW
 - Supplies 200 TWh/year to 9 million customers
- ❑ Central dispatch every five minutes – five regional prices calculated every half hour



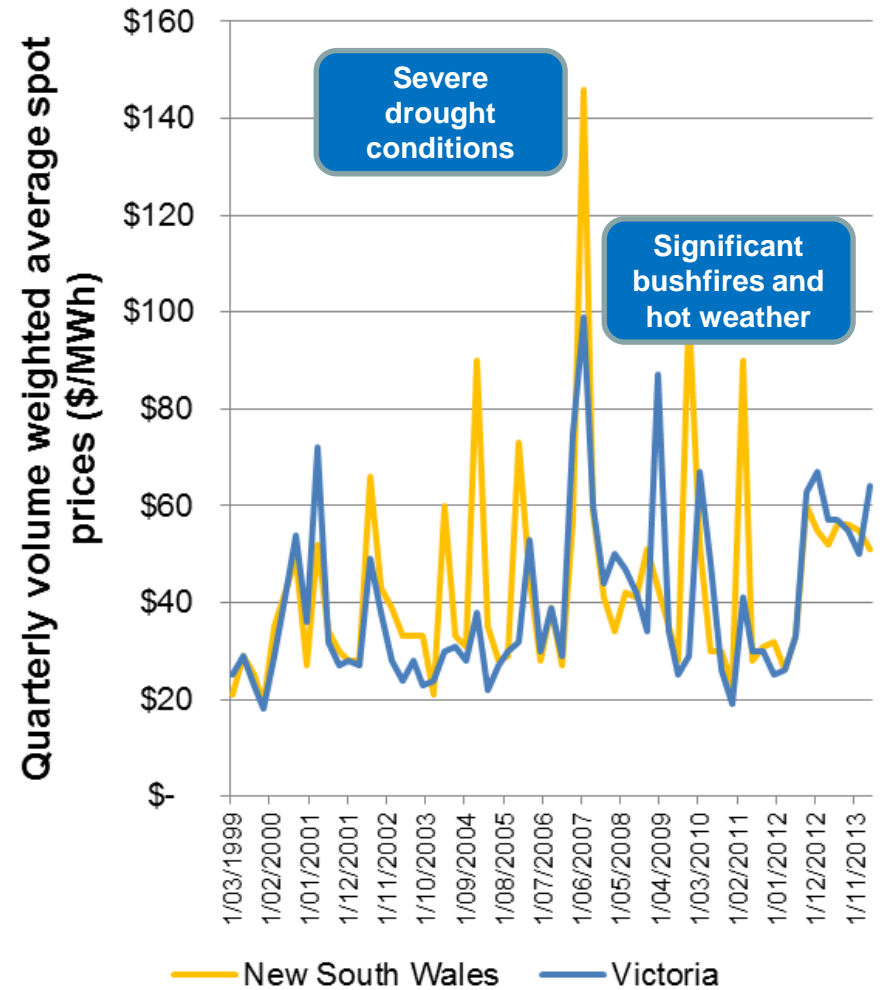
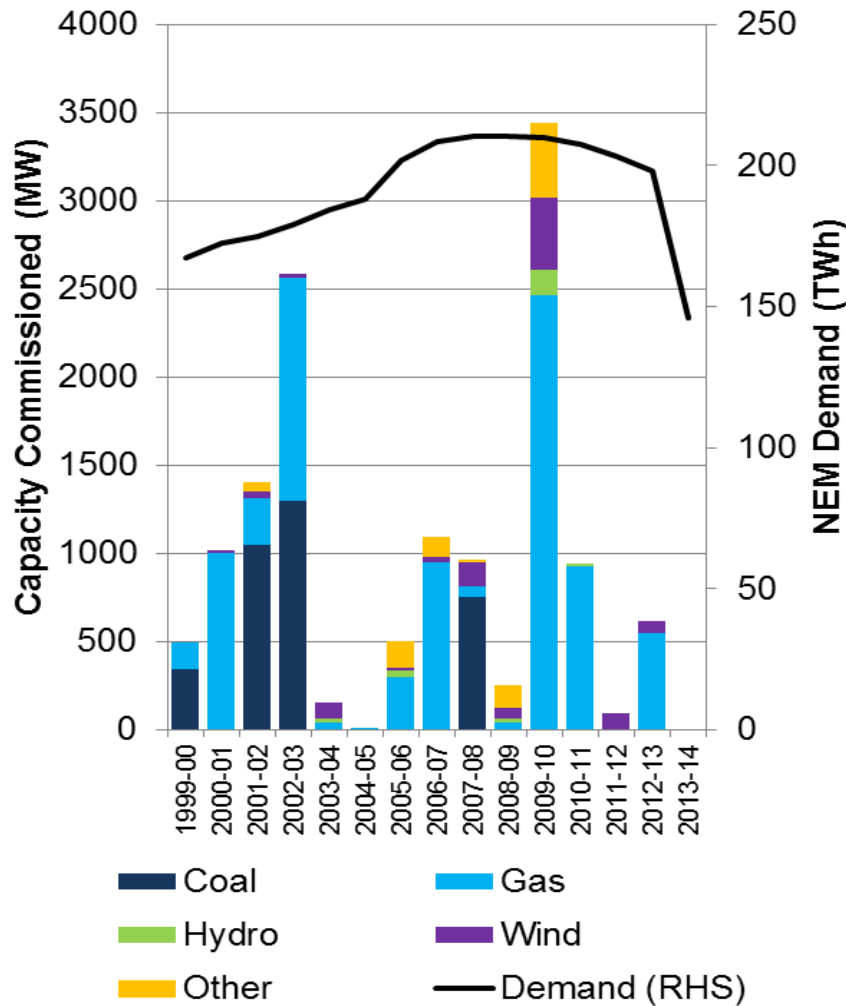
Scarcity pricing is only revenue source for generators



Setting the standard and value of reliability

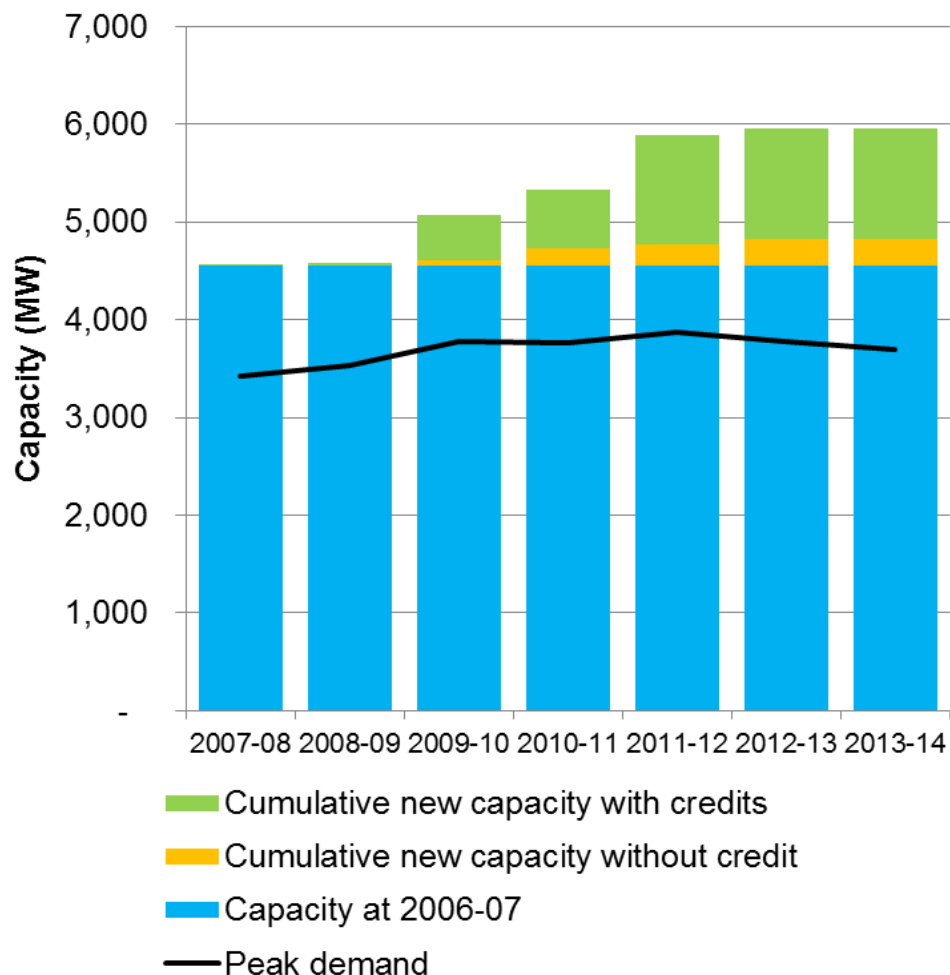


Energy-only market has delivered benefits



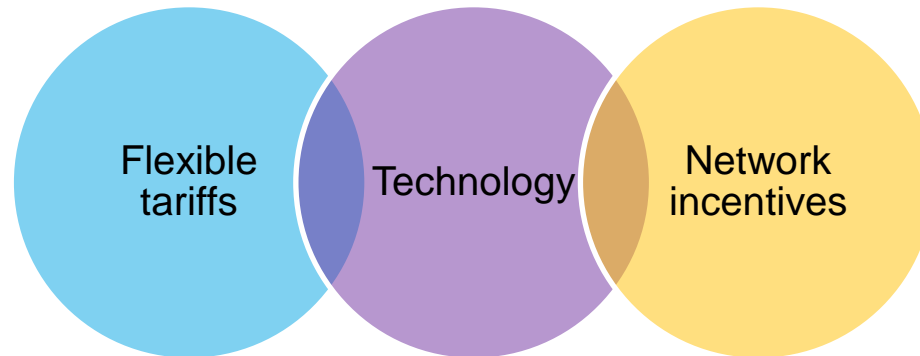
Western Australia has taken a different approach

- The South West Interconnected System covers part of the state
 - 840,000 customers with peak demand of 3,702 MW in 2013-14
- Introduced a wholesale market with a capacity mechanism in 2006 to facilitate competition
 - Incumbent government-owned generator had nearly 90% market share
 - Isolated network without interconnection
- Significant excess capacity procured - estimated costs of \$26 million in 2011-12
- Government now reviewing market giving plateauing demand



Demand-side participation required for efficient signals

Power of choice: lowest cost combination of demand and supply



What we found:

- ❑ Flat distribution tariffs do not signal costs at different times
- ❑ Accumulation meters limit dynamic pricing options
- ❑ Networks not encouraged to signal peak costs nor invest in demand options instead of capital projects

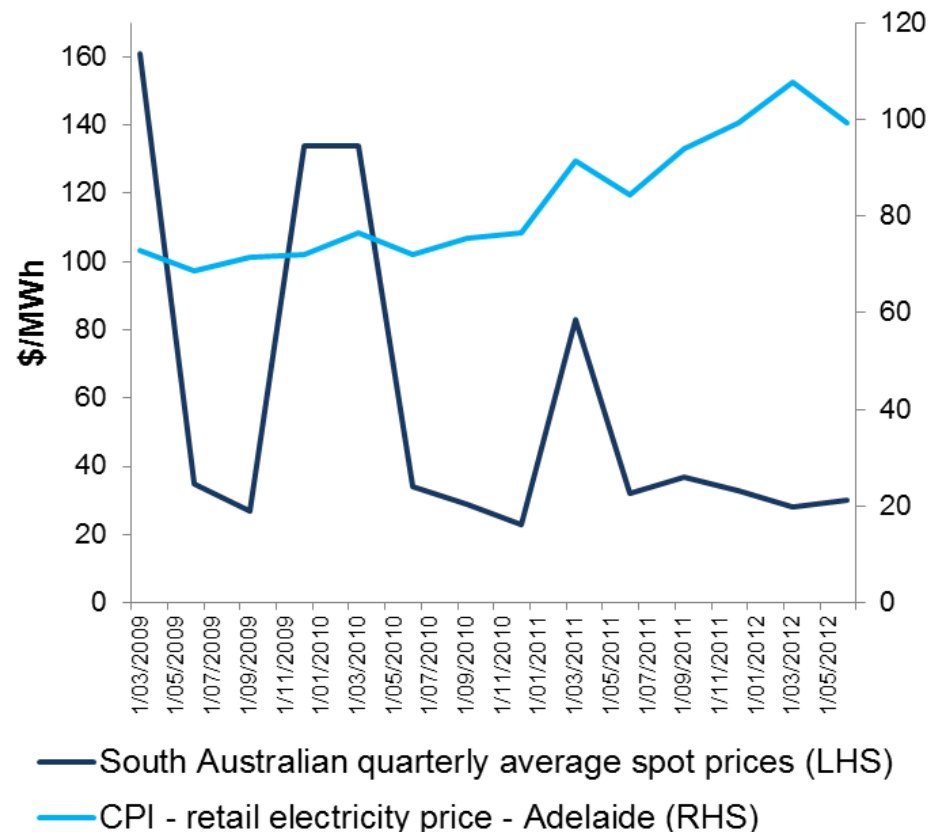
What we are doing:

- ❑ Reforming volume-based distribution tariffs
- ❑ Introducing a framework for competitive provision of smart meters
- ❑ Addressing incentives in the regulatory framework to investigate demand side options and non-network options

Energy-only market requires commitment

- ❑ Policies in other portfolio areas can create perverse energy market outcomes
- ❑ The Renewable Energy Target requires electricity retailers to buy a proportion of supply from renewable sources. Acts as an effective subsidy for renewables
- ❑ This has resulted in renewable generation entering the market when demand declining
 - Led to downward pressure on wholesale prices
 - Retail prices include subsidy cost
- ❑ Growing wedge between falling wholesale prices but increasing retail prices

South Australian quarterly wholesale electricity prices vs Retail electricity CPI - Adelaide



Strategic priorities for energy market development



Consumer priority:
strengthening
consumer participation
and continuing to
promote competitive
retail markets

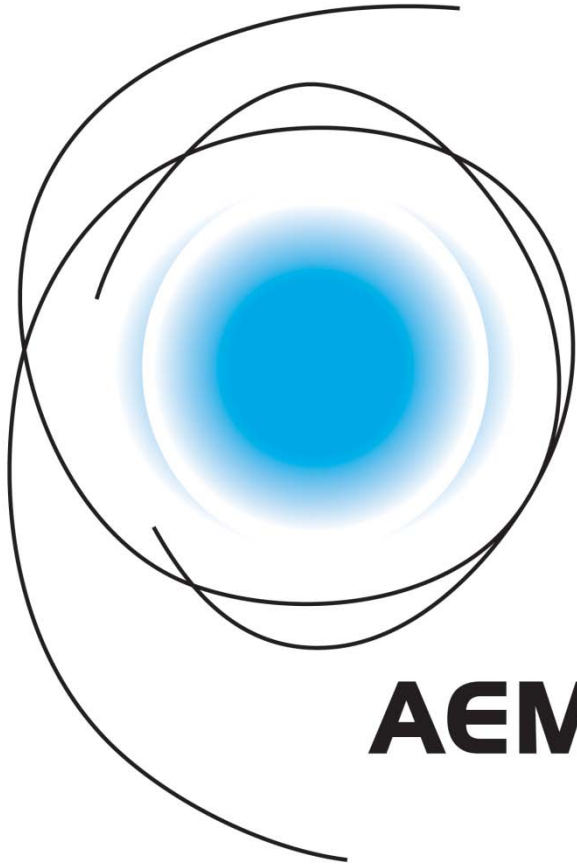


Gas priority:
promoting the
development of efficient
gas markets



Market priority:
market arrangements
that encourage efficient
investment and
flexibility





AEMC