Role of scarcity pricing in Australia


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Role of the AEMC: Rule maker and adviser

- Revenue regulation and compliance
- Market operation and planning
- Laws & Policy
- Rules & Advice
- Implementation
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

Market Price Cap = $13,500/MWh

Market Floor Price = -$1,000/MWh

Reliability Standard = 0.002% unserved energy

Reliability Safety Net: Reliability and Emergency Reserve Trader Reliability Directions

Administered price cap = $300/MWh

Cumulative Price Threshold: If $\sum$ spot price over 336 trading intervals > $201,900
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
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