Retailer view of Demand Side Response

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Agenda

The intractable problem?

How to value Demand side

Role of technology & Industry structure

Relevant markets

Changes required in legislation

The intractable problem

- Demand side response, Demand management on the agenda since 1992
  - Market design allowed for scheduled loads
  - No limit on retail activities
  - Some activity at major customers
- Little activity for commercial and residential customers
  - AGL remote control trial in 2001
  - Energy Users Association “pool” trial in 2003
- Issue is time, inclination and understanding
  - Need to understand the “should”
- Not a regulatory issue

How do you value demand side response

- What is the long term value of less peaky load
  - How is the benefit seen
  - Who gets it
- What is the value of controllable load
  - How is it seen
  - Who gets it
- Network charges
  - Short term impacts
  - Long term impacts
  - Controllability and certainty
- RET/SRET/FIT etc

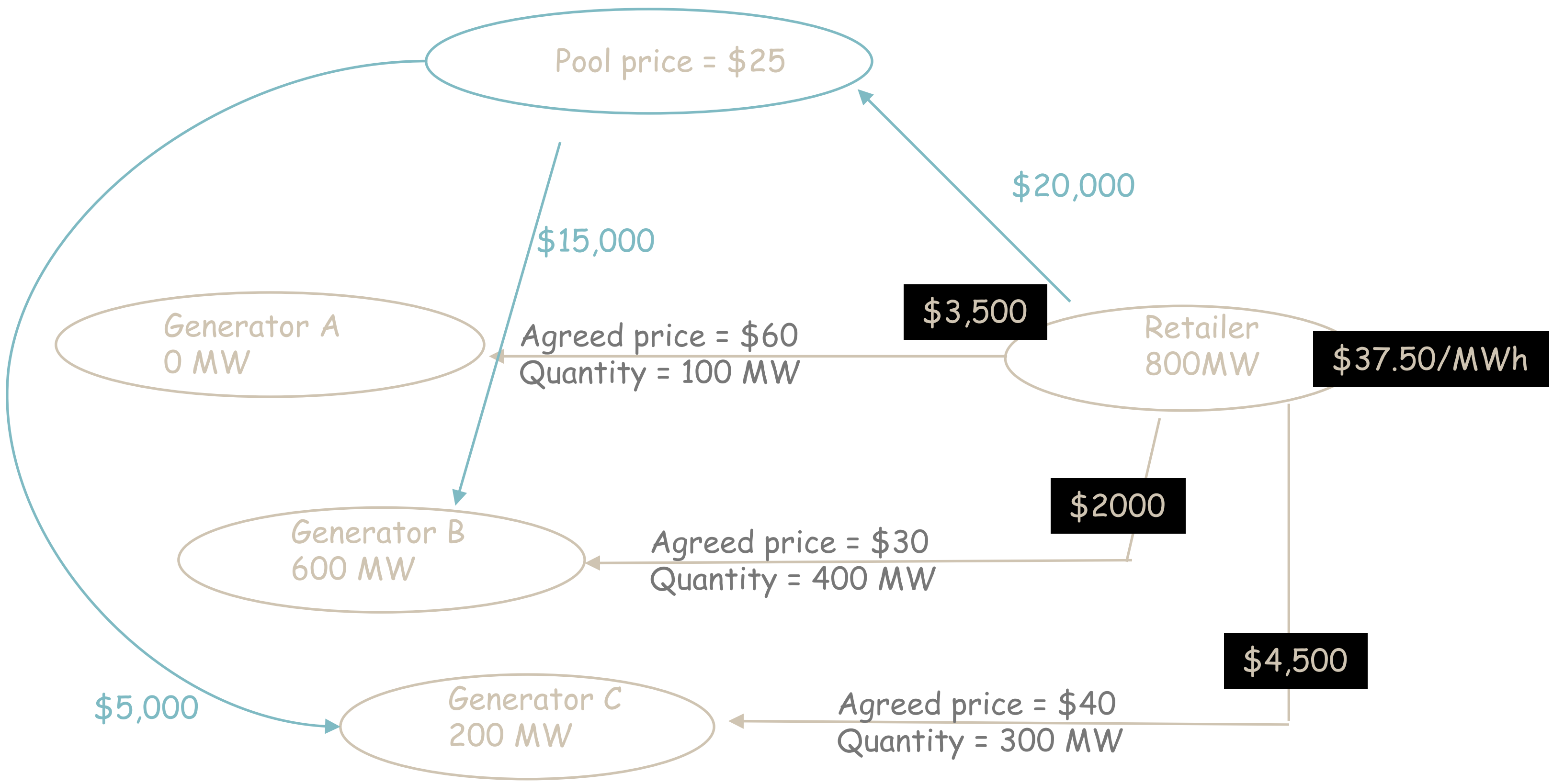
Counter-intuitive pricing – News last week

- QUEENSLAND households will be penalised with higher power prices for keeping their air-conditioners off over summer.
- The state's electricity price regulator, the Queensland Competition Authority, yesterday announced a 6.6 per cent increase in power prices from July 1.
- lower than expected power consumption over the disaster-affected summer meant distributors did not recoup their investment costs.
- Those costs have now been attached to electricity prices for 2011-12, meaning households will pay extra for not using enough power this financial year. "Between 2009 and 2010 the load decreased by 2.13 per cent, reflecting the more benign temperatures during the latter months of 2010," the QCA said in a statement

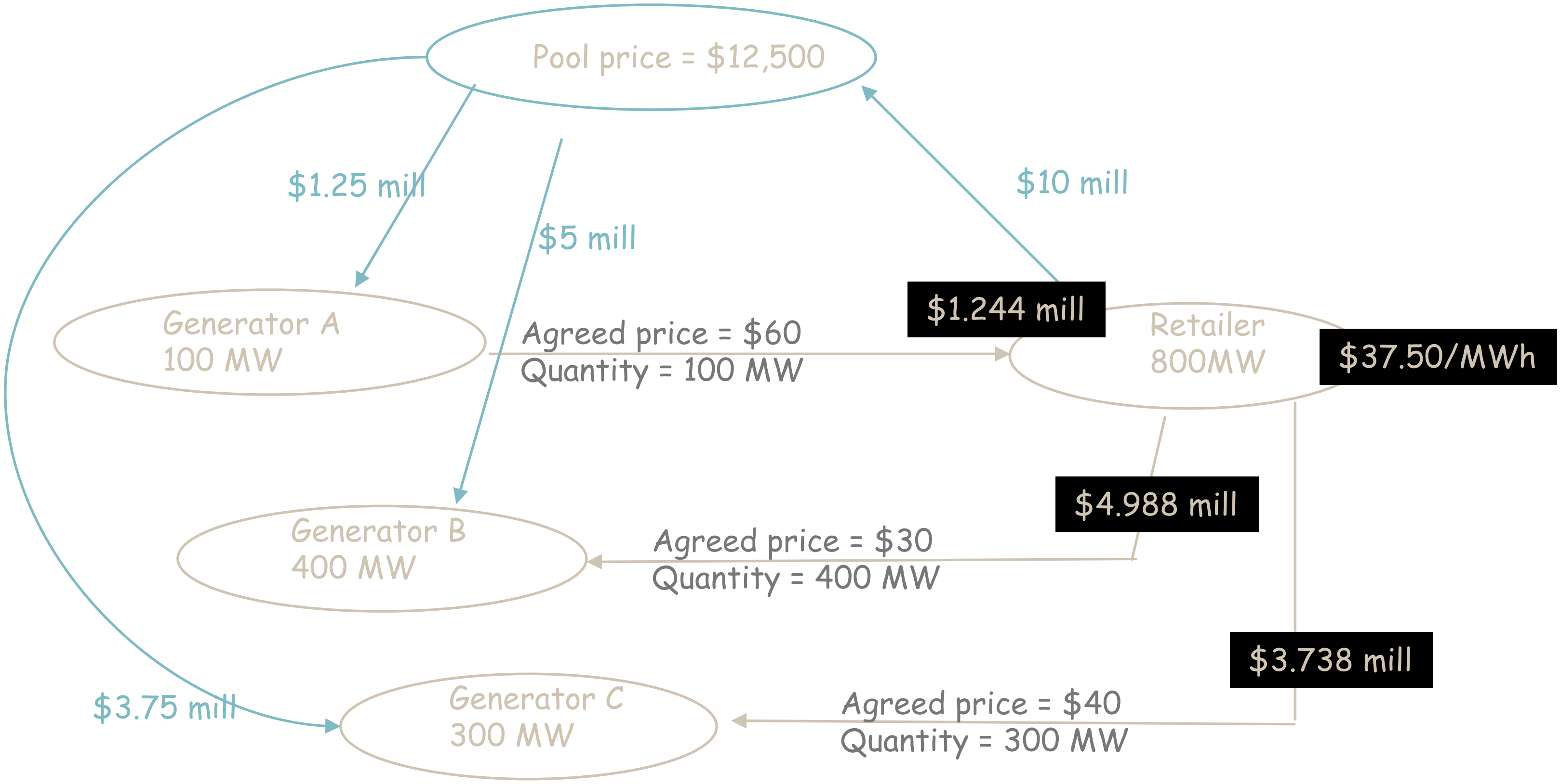
Spot and contract markets

- Costs incurred by retailers are a combination of:
  - hedge contract prices paid to generators (swap, cap and other derivative costs); and
  - the pool price for energy purchases not covered by hedge contracts, including pool prices below the cap strike prices
- Spot and contract prices reflect:
  - the costs and returns for existing generating assets;
  - the supply/demand balance; and
  - the peakiness of the load and the volatility of demand.
- Prudent retailers enter hedge contracts to allow them to manage wholesale price risks. These contracts include a risk premium for volatility, providing an incentive for generators to hedge

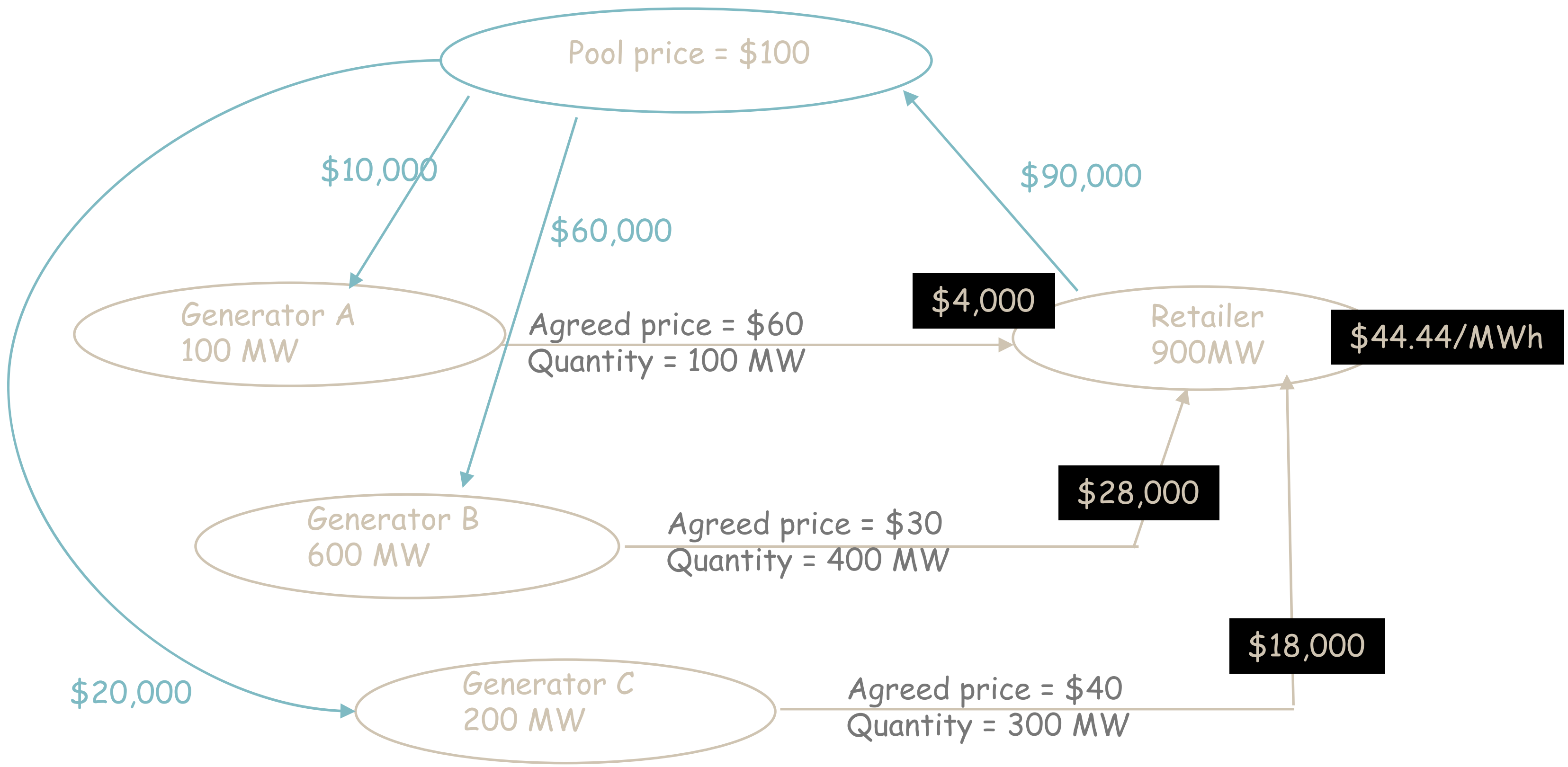
Net settlement - low price



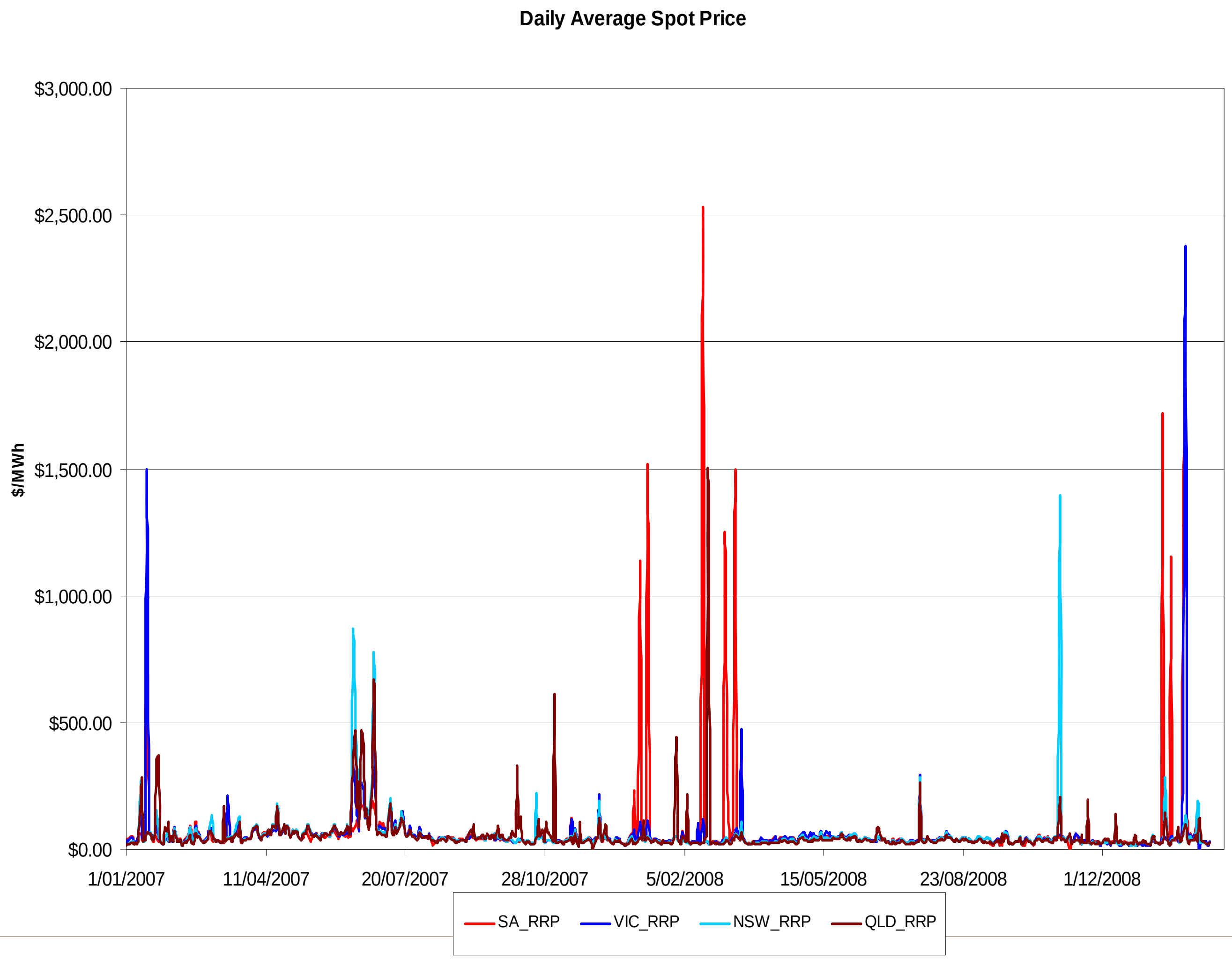
Net settlement - extreme price



Net settlements - high demand



Spot prices are subject to short term fluctuations but are stable in long run



Technology and Industry structure

Technology

- Smart metering
- Distributed generation/cogeneration/trigeneration
- Energy storage
- What is next

Structure

- Advisors/consultants/Brokers/advocates
- Meter Data Providers
- Customer Functions Service provider
- Meter Provider
- Retailer

Relevant markets

There are three relevant markets for DSR

- Energy market
  - Replaces caps
  - Reduces volatility
- Reserves market
  - Where generation is too expensive
  - Should be left to market (caps)
- Ancillary services
  - Definite possibility
  - Needs metering

Changes required in legislation

- Ensure open access
- Remove retail price caps
- Allow free development of the retail market
- Remove excessive FIT