

# Session 1: Materiality of the problem

Public forum: Five minute settlement



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# Key findings of Directions Paper

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- Material problem with existing 30 minute settlement
  - In principle benefits from aligning dispatch and settlement and improving price signal
  - Evidence 30 minute settlement distorts price signal
  - NEM design and current market conditions, mean benefit of improved price signal increases over time
  - Better rebidding incentives with 5 minute settlement

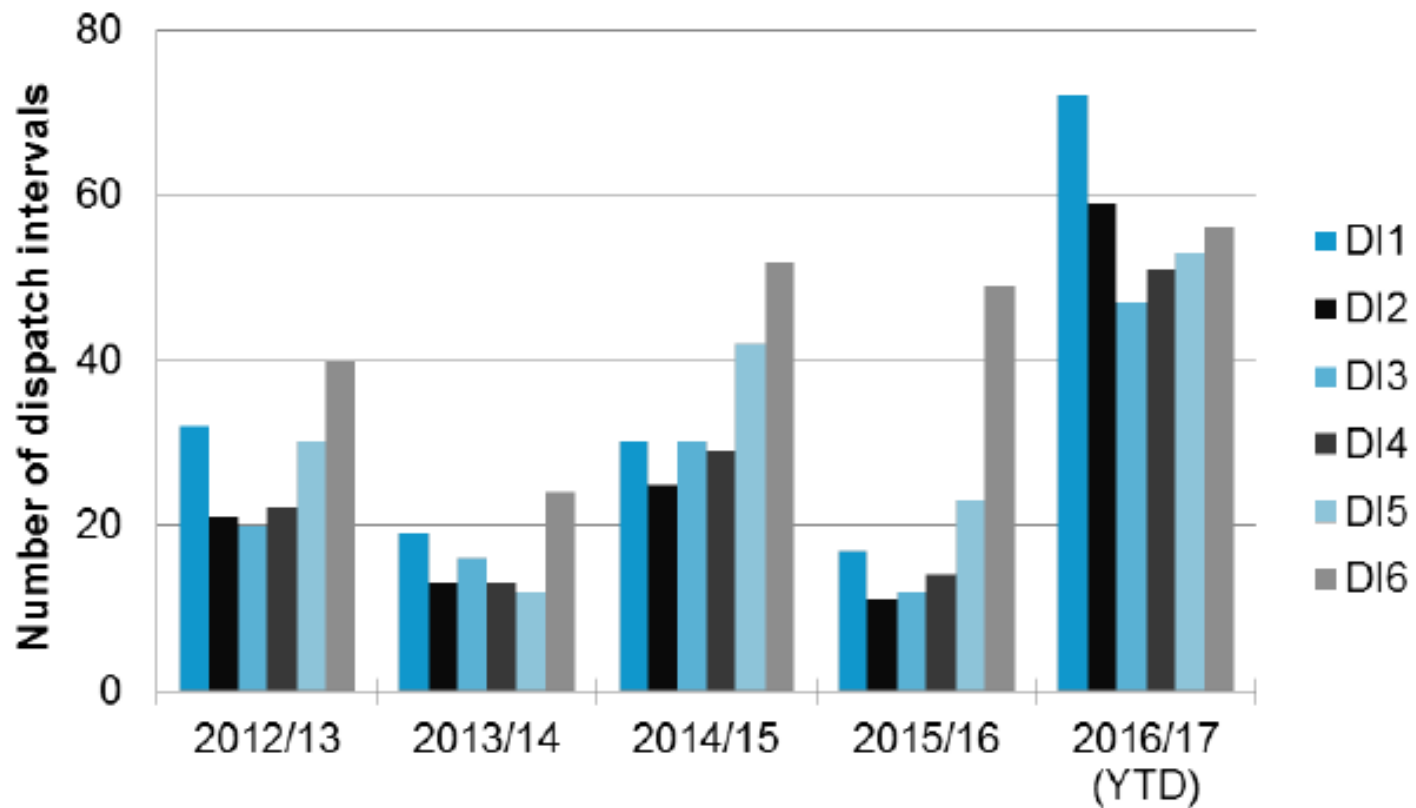
## In principle benefits

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- 30 minute settlement and price spikes
  - Incentive for DI6 price spike – BIGF rule change
  - DI1 price spike
    - incentives for “piling in” at time not valued by the power system
    - disincentive for fast and flexible response technologies
    - Potential for artificial variation not reflecting underlying market risk
- Longer term potential to distort generation mix

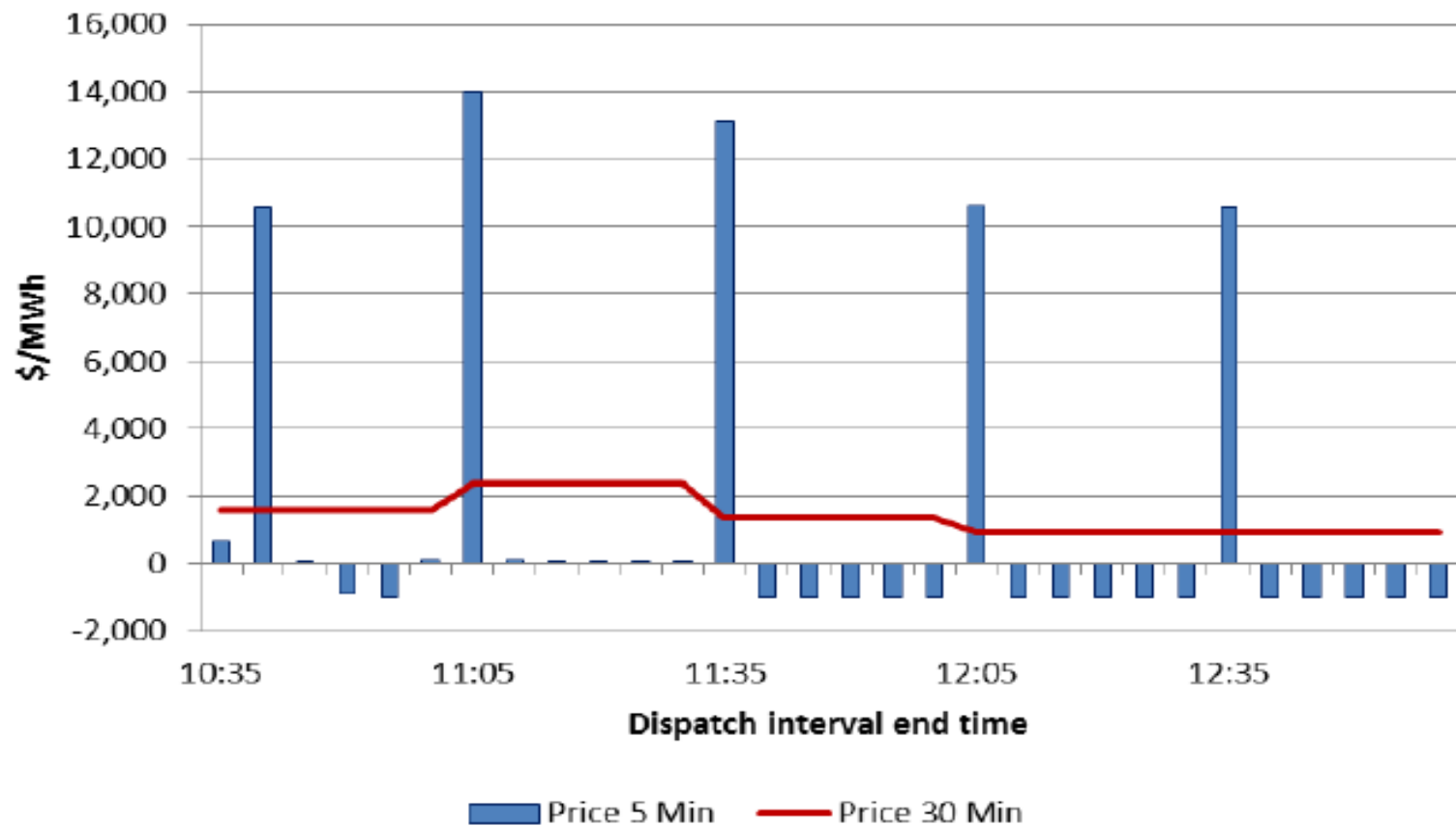
# Existing distortions in the NEM

**Figure 4.12** Distribution of price spikes >\$2,000 in Queensland and South Australia



# Existing distortions in the NEM

**Figure 3.4** 21 March 2017 South Australia prices



# NEM design and market conditions

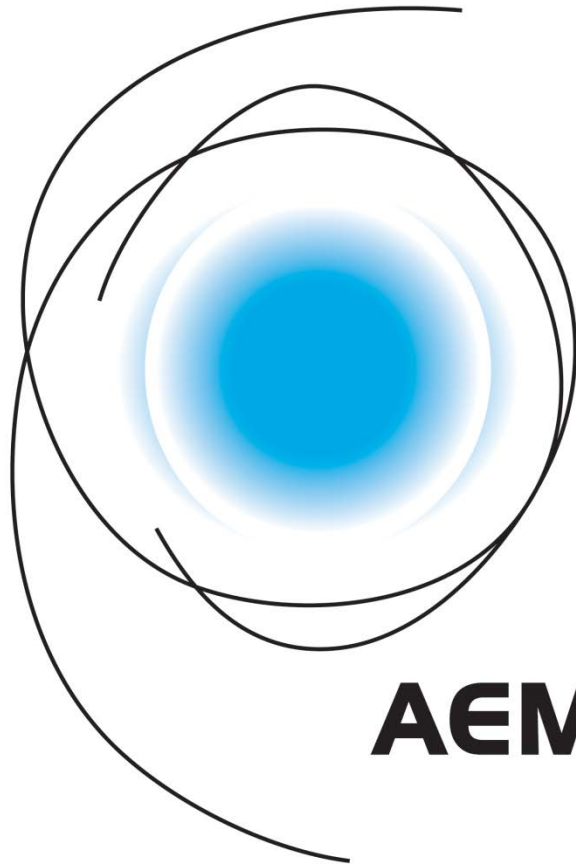
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- NEM design and market conditions
  - Benefits of alignment recognised in US 2016 FERC order, benefits potentially greater in Australia
  - Signals need for flexible and fast response to support increased penetration of intermittent generation (eg wind & solar)
  - Future investment need requires the right signals
- Issues still exist with rebidding (previous slide)

# Questions

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- How material are price signal inefficiencies under 30 minute settlement?
- What extent would five minute settlement address inefficiency in price signals from 30 minute settlement?
- How does ageing generation, evolving technology and intermittent generation affect assessment of five v 30 settlement?
- What types of generator bidding would emerge under five v 30 minute settlement?



**AEMC**