Comprehensive Reliability Review

Second Interim Report
Forum 13 September 2007

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Reliability Subgroup

2nd interim report conclusions

- NGF has submitted to both consultation stages
- NGF mostly supports conclusions on the reliability measurement parameters:
  - Current form of standard;
  - 0.002% on average measured regionally over time
  - Explicit exclusion of IR and security events
- NGF objects to NEMMCO publishing forecasts of duration & depth of possible shortfalls
  - Multiple simulation models create a small number of hypothetical "doomsday" scenarios
    - When considered in isolation these have no meaning
    - Their presentation creates a dangerous distraction, misleading stakeholders, e.g. media

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What impact has the drought really had?

- Supply shortage and some associated price increase
- No reliability issue
  - NEMMCO second report shows limited USE issue in one region
- Reserve margins reduced
  - No reliability issue looking back
  - No reliability issue looking forward
  - No reserve trader for the summer

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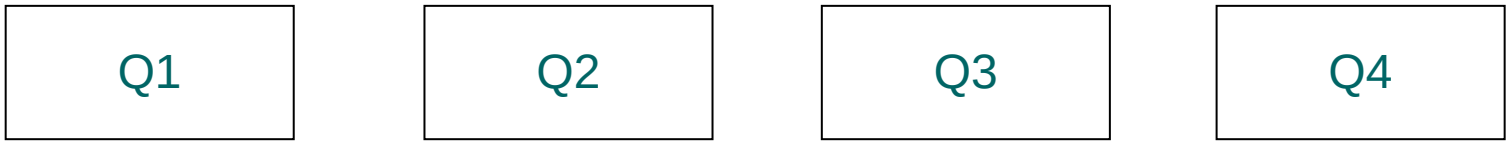
The Problem with Energy Forecasting



- Forecast for Q4 energy constraint depends on:
  - Energy used in Q1, Q2, Q3
  - Prices in Q1, Q2, Q3
  - Plant outages in Q1, Q2, Q3
  - Rainfall in Q1, Q2, Q3
  - Alternative sources of energy supply

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Practical Examples

- Thermal plant energy “limits”
  - Vic & NSW coal generators draw from shared reservoirs
    - They can purchase additional supplies from other users
  - Gas plant will have to provide their contracted gas supplies
    - But they can buy more later if they really want it
    - And what about oil?
- Tasmanian Hydro Experience
  - Tasmania has always been energy constrained
  - Major review by Tasmanian regulator for “magic” indicator
  - Proposed indicators all cried wolf every year or missed the real droughts
  - Need a case by case assessment

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A Multi Market Problem

- There is no discrete solution to these energy limits
  - Its all a function of electricity price, not fuel or water availability
    - Price forecasting neither a role nor skill of NEMMCO
  - Assessing energy reliability requires price modeling of the entire electricity, gas and irrigation markets
    - Unrealistic

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Energy Reserve Trader

- Draft rules point to reserve trader based on energy trigger
- This is seriously impractical
  - Analysis of energy position is very imprecise
  - Plant required for size of energy shortfall will be large in contrast to small, short duration capacity reserves needed
- Draft rules require energy model for each scheduled generator

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Possible solutions

- MT PASA
  - Include capacity limits based on drought continuing
- NEMMCO Drought report
  - Has limited use by energy traders in decision making
  - Some value for other stakeholders
  - Low impact on generators in information provision
- Generator Energy Model
  - Highly intrusive and impractical
  - Quarterly generation plan highly price dependent
- Cost benefit needed for which ever solution is adopted

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Other Issues

- These arrangements should be triggered when drought conditions exist and not be evergreen
- Cost/benefit analysis is crucial
  - Generators bear the cost
  - What value is the benefit and to whom?

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Summary

- No reliability problem only supply shortage giving price increase
- Issue is multi market and complex
- Preferred solution is NEMMCO drought report done quarterly when NEMMCO Board sees drought is an issue
- Generator energy model is unwarranted, intrusive and impractical

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