Major Energy Users, Inc

The voice of energy consumers

AEMC Reliability Panel
Comprehensive Reliability Review

2ND Interim Report Forum 13 September 2007

Presented by David Headberry, Public Officer, MEU

The Major Energy Users Inc

- A member driven organization, comprising large energy consumers
- 20 members with operations NSW, Vic, SA, Tasmania and Queensland
- Industries cover paper and cardboard, aluminium, steel, auto manufacture and suppliers, cement, mining, plastics and chemicals, consumer electronics
- Many members are regionally based such as Whyalla, Mt Gambier, Westernport, north and western Tasmania, Pt Kembla, Newcastle and regional Queensland
- Because of this, members require MEU to ensure that views support regional and residential views as well
- MEU members represent over 7% of all electricity used in the NEM

The NEL Objective

"The national electricity market objective is to promote efficient investment in, and efficient use of, electricity services for the long-term interests of consumers of electricity with respect to price, quality, reliability and security of supply of electricity and the reliability, safety and security of the national electricity system."

The emphasis is intentional and a reminder of the raison d'être for this Reliability Review

What has changed since the last presentation from MEU (1)?

- Pool prices in June 2007 reached stellar levels and CPT was nearly broached
- Even more price volatility and therefore risk
- Contract prices for 2008 and 2009 reached levels that have created angst for many consumers
- Contracts available are even shorter term
- Competition has evaporated with many consumers getting at best one offer
- Retailers who rely on $200 and $300 caps to service the market have been left exposed
- Some generators lately have deliberately not contracted forward preferring to sell into the pool – to get better returns
- Market power of generation has been exemplified (see AER report on June 2007)

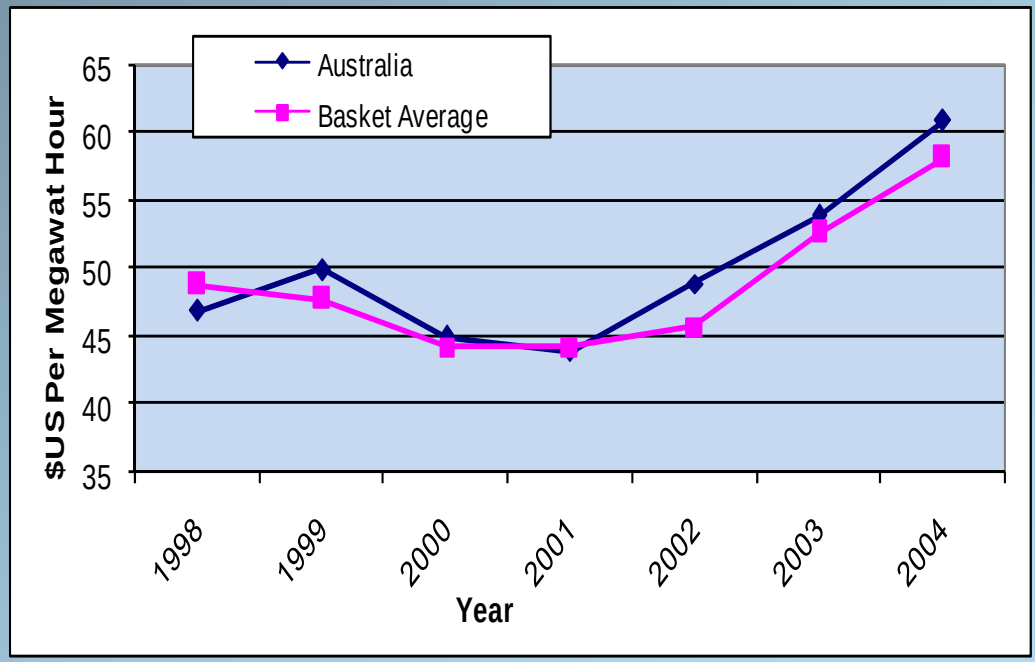
What has changed since the last presentation from MEU (2)?

- Qld government is commissioning 750 MW Kogan Creek PS
- NSW has had Owen enquiry on new generation needs (which says there is a need for new generation)
- The two Qld retailers have been sold to existing retailers – increasing horizontal re-integration
- Still too much inter-regional constraint causing price un-couplings
- Gas supply constraints in NSW and near constraints in Victoria – caused by gas fired generation
- Shortage of water for generation for Snowy, Vic and Tas hydro's
- Constraints on some coal fired generators from too little cooling water

Is the NEM competitive?

It is still argued that Australia has cheap electricity when compared with the rest of the world.

Recent MEU research shows this is clearly not the case, and given the basket average includes countries with nuclear in the mix, the comparison is more stark



The data has been sourced from the IEA. The data covers electricity delivered to industrial users. The basket includes data from Canada, US, UK, New Zealand, Germany, France, South Korea and Thailand. Japan has been excluded as its energy costs are significantly higher and as such impacts the sample. There is no data for Australia beyond 2004.

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MEU observations of the market

- At the last presentation MEU observed there are many issues blamed for the market performing badly for consumers (including retail price caps, ETEF and BPA, insufficient disaggregation of NSW and Qld generators)
- To these we can now add drought, constraints in gas supply/infrastructure, and government interference
- Despite all of the negatives observed previously and now added from the past 12 months, the view persists that it is not the market design that might be wrong
- Yet to ensure reliability of power supplies, we see more and more intervention in generation supply (eg Owen enquiry, Kogan Creek, reserve trader cum RERM)
- We also see consumers being required to pay increasingly exorbitant amounts for power

Reliability and generators out of service

- During 2007 there has been a large number of generators out of service, particularly in NSW and Qld
- Coal fired
  - MM4, VP6, WW8, BW4 LD4 in NSW (total > 2000 MW in 13000 MW)
  - SBB(1), GD(1), TR(2), MM(2) in Qld (total >1500 MW in 7000 MW)
  - The AER noted that MacGen's Back Water 1 plant was available within 24 hours notice but was not switched on until 21 June.
- Hydro
  - Southern hydro in Vic
  - Tas Hydro in Tas
- SA and Vic baseload generation has been available most of the time, as was pumped storage in Snowy and Wivenhoe
- A significant proportion of generation lost in NSW and Qld was not forecast (extended maintenance, cooling water, etc) and neither were the hydro schemes
- These are multiple contingency events, yet reliability was maintained – at a high cost
- There was no market signal for new generation prior to 2007 except in NSW which did nothing except to encourage price rebidding. See AER report on June 2007, naming MacGen repricing

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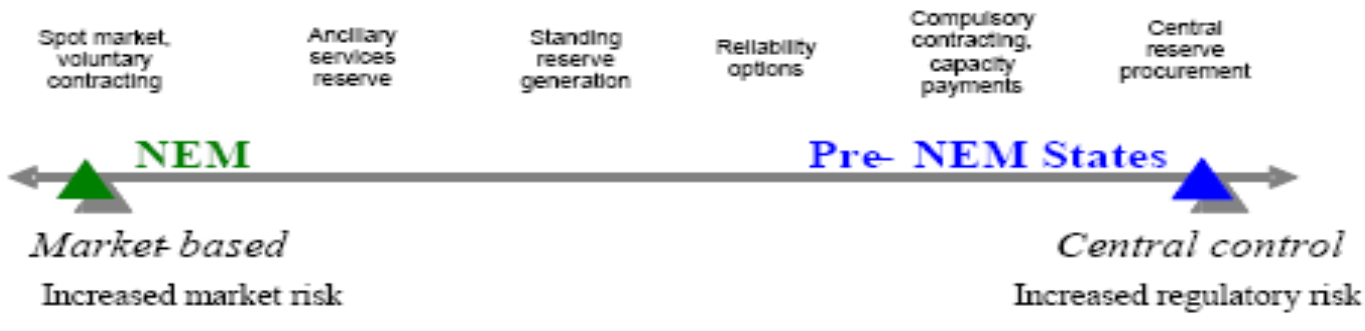
What is the Reliability Panel response to consumer concerns?

- NEMMCo will still be able to issue “reliability directions”
- The NEMMCo approach to forecasting needs to be refined, by adding to MT PASA, the new “Energy Adequacy Assessment Projection” (EAAP) which is a quarterly two year look ahead
- The Reserve Trader should be scrapped and replaced with Reliability Emergency Reserve Mechanism (RERM) which changes the RT from a 6 month program to a 9 month program
- RERM is still an interim tool and will be phased out
- And waiting in the wings, VoLL might have to increase

The RP continuum

Figure 2.3



- The RP provides a view that the NEM will operate well on a totally market based approach
- But it overlooks the fact that unlike consumers electing to not have (say) bananas, consumers have little choice in using electricity and a demand side response is based on ex post data, not ex ante
- NSW and Qld governments have realised that reliability is not served by the current market, and losing supply is not acceptable

Consumers and reliability

- Consumers are generally satisfied with the current reliability achieved, and view any reduction as unacceptable for a first world economy
- The current level of 0.002% for USE is seen as appropriate
- Against this backdrop, the reserves forecast by NEMMCo have been adequate to maintain this level of reliability
- Every year of the NEM except 2005/06, NEMMCo has forecast availability less than the reliability standard, and this has been demonstrated as true except for 2001/02 (RP table 1)
- In the IR 2, the RP supports criticism of supposed NEMMCo conservatism

Views on reliability

- The RP notes that a market cannot always accommodate “exogenous” events, and therefore reliability is not certain to be at the benchmark
- But consumers assume that power will be available to 0.002% USE so that their investments can be productive
- The market based solution has not provided this certainty and Reserve Trader/RERM is the outcome
- NSW and Qld gov’ts have addressed the issue in an interventionist way, because they see the potential for increased USE
- The RP notes that NEMMCo is conservative, but this conservatism has resulted in USE being 0.002%, but there is asymmetry of impact from not being conservative

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The Reliability Standard

- Consumers see that 0.002% USE as a benchmark has provided adequate reliability and that this is relatively consistent internationally, although other forms (eg LOLP, LOLE) are used
- The RP sees the continued use of USE is appropriate as a target but that performance be assessed in retrospect over the previous decade
- It must be a forward looking measure to assess the availability of future supplies
- Its performance must be assessed in light of the immediate needs, to signal future generation and transmission investment which all take time to implement
- The RP has decided that certain outages should not be assessed within USE. This disregards the consumer impact which is that power has been lost regardless of cause (eg the Victorian bushfire in 2007 was a failure to take precautions, not an Act of God, generator IR impacts will still stop power supplies)

The RERM

- Is the Reserve Trader rebadged, with some (good) refinements
- Looks ahead by 9 months (not 6 as now)
- This is still too short to allow construction of a new generator – therefore the outcome is from existing generators or DSR
- Issues:
  - Lack of strong competition for RERM bids
  - If a RERM bid is lower cost than a bid from the market, allow NEMMCo to dispatch it as a market bid
  - DSR is seen as a logical option but it is based on a consumer being less productive

The VoLL threat

- **"On balance, the Panel has formed a preliminary view that raising VoLL at this stage is not the preferred approach and that other options should be considered first. However, given the risks identified, if other options for the reliability mechanisms are not progressed, then an increase in the level of VoLL may need to be contemplated in order to provide the necessary market signals for investment." (RP page 36)**
- **The RP has not addressed the consequences of raising VoLL, which would/could act against the outcome desired (eg increasing VoLL increases risks of operating in the NEM impacting new generation)**
- **MEU has offered a solution which provides greater certainty for new generation and reduces the risks inherent in increasing VoLL**

The CPT and reviews

- CPT is a market risk mitigation approach and was implemented in the 1999 decision of RP at the request of retailers
- ERAA now says this doesn't work, and points out that there was an instance in June 2007 which almost triggered administered prices resulting from CPT being exceeded
- The RP response is to have an AEMC review
- MEU does not object to a review of CPT, but queries if one near miss in seven years, is sufficient to trigger a review – or is there a deeper issue?

- There is a plan to set VoLL and CPT on a three year basis, not annually
- Currently changes are made annually for three years hence, to allow time to manage the changes
- More explanation is required of the proposal
- Does three year assessments meet investor certainty and consumer needs?
- A three year window allows the time only to decide and build a peaking gas turbine plant, so allowing for three year reviews could mean that needed plant could be delayed by up to six years, rather than three.

In Interim Report 2, the RP proposes to

- Hold USE at 0.002%, but exclude exogenous impacts (eg bush fires, IR)
- Have USE as a forward target, not a forward cap
- Set USE on a long term historic average
- Support NEMMCo to develop better forecasting
- Marginally improve Reserve Trader with RERM
- Marginally improve MT PASA with EAAP
- Look at better ST PASA arrangements
- Look at the level of CPT
- Consider the concept of increasing VoLL, due to a lack of other levers
- Set VoLL and CPT every three years – with lead in construction time this can stretch effectively to a 6 year time impact

The issues the Reliability Panel should look at:-

- Alternatives to increasing VoLL – there are major downsides to increasing VoLL – how often does this need to be said???
- Implementing a process which gives future certainty of supply to match a forward looking reliability standard
- The need for allowing time to implement needed investment – all actions proposed are short term, even VoLL!

Our bottom line is that the Reliability Panel (unlike gov’ts of years past) does not face any ultimate accountability – so it needs to address the issue of reliability with real rigour!