The National Electricity Market

Reliability Settings

Reliability Panel Review 2014

MEU presentation13 May 2014

by David Headberry

Public Officer

Major Energy Users Inc.

About the Major Energy Users, Inc

- The MEU comprises over 20 large energy using companies across the NEM and in WA and NT
- Industries represented include:
  - Iron and steel
  - Cement
  - Paper, pulp and cardboard
  - Fertiliser and explosives
  - Tourism & accommodation
  - Mining
- The MEU focuses on the cost, quality, reliability and sustainability of energy supplies essential for the continuing operations of the members who have invested $ billions to establish and maintain their facilities
- MEU members have a major presence in regional centres throughout Australia, e.g. Western Sydney, Newcastle, Gladstone, Port Kembla, Mount Gambier, Westernport, Geelong, Launceston, Port Pirie, Kwinana and Darwin.

The focus of the RP review

- The RP must perform its duties to comply with the NEO
- The NEO basically requires the balancing of costs to consumers against reliability, security and safety when assessed over the long term
- In this review the RP has to balance the cost to consumers with reliability; the efficient outcome is where consumers incur the lowest cost for the reliability determined
- The RP has already determined that the measure of reliability is unserved energy (USE) and that USE should not exceed 0.002% over the long term
- This means the RP has to assess the lowest cost to consumers to achieve a USE outcome of no more than 0.002% measured over a number of years.

The inputs to the RP review

- The RP has set the value for reliability standard
- The key market setting for reliability is the market price cap (MPC).
- Therefore the RP must set the MPC at the lowest value to achieve the reliability standard
- The lowest MPC needed must be assessed using
  - Market evidence
  - Modelling
- The RP was dissatisfied with the previous modelling approach (extreme peaker) as this did not reflect how the market really worked
- The RP initiated development of a new model based on how the market operates (Cap defender)

The modelling carried out so far

- The extreme peaker model is artificial and the outcomes heavily dependent on the basic input assumptions:
  - The number of hours the extreme peaker would operate each year
  - It will have no other income

  Both of which are extremely problematical
- The outcome is a another doubling of MPC to $23,000
- The model has effectively proposed MPC to increase from $10,000 in 1999 to $23,000 in 2014 – a real increase of 50%
- The cap defender model is an attempt to replicate what happens in reality but is also artificial as the inputs do not address every permutation
- The outcome of this model is a different MPC for every region ranging from 30% - 75% of the current MPC

Actions of RP and the 2014 views of participants

- In 1999, the RP decided that, based on the extreme peaker model only, MPC should be doubled to $10,000
- In 2010, again influenced by the extreme peaker model outcomes (an MPC of ~$16,000), the RP introduced a 25% increase in MPC indexed to maintain its “real” value
- The general view of submissions to this 2014 review is that the status quo should continue
- One submission considers that an increase in MPC is warranted and another that the MPC should be reduced
- Based on this apparent consensus, the RP takes the “safe” route and recommends retaining status quo
- A telling comment of the RP assessment is that the status quo keeps the MPC within the range of the two models
- What is absent is any assessment of the market evidence

The market evidence

- The AEMC has consistently stated whenever an issue is to be addressed, the market evidence has primacy
- In the 1999 review there was no market evidence
- In the 2010 review there was significant market evidence of outcomes which conflicted with AEMO forecasts and modelling
- For this 2014 review there is considerable market evidence, revised AEMO forecasting and considerable doubt on AEMO past forecasting and previous modelling
- What is clear is that the setting of MPC at $10,000 achieved a zero NEM wide value for USE from 2001 to 2010 except for one year (2009) when NEM wide USE was 0.0012.
- In 2009 USE in Victoria and SA exceeded the USE target, but when even averaged over a 2 year period, no region exceeded the target when MPC = $10,000

Generation added while MPC = $10,000

Source: AEMO 2011 ESoO page 2-6

Type	MW in 2000	MW in 2010	Increase MW	Increase %	2010 share
Black coal	17,908	20,480	2,572	14%	42.2%
Brown coal	7,165	7,375	210	3%	15.2%
Natural gas	3,485	8,722	5,237	115%	18%
Gas other	97	1,307	1,210	1247%	2.7%
Hydro	6,799	7,669	870	13%	15.8%
Liquid fuel	831	784	-47	-6%	1.6%
Biomass	187	367	180	96%	0.8%
Wind		1779	1,779		3.7%
Total	36,472	48,483	12,011	33%	

The table only shows installed capacities and excludes committed and advanced projects of another 1,330 MW of which 55% is coal, oil and gas fired

The 2010 drivers to increase MPC

- There were three drivers to increase MPC in 2010
  - The extreme peaker modelling indicating $16,000
  - AEMO 2009 ESoO forecasts that SA and Vic reliability might be at risk from 2012 onwards
  - More DSR might occur with a higher MPC
- The reasons for staying with MPC = $10,000 were
  - Investment was occurring (data shows a 33% increase in generation in the 10 years under MPC = $10,000
  - Greater volatility => higher risks to retailers and generators
  - Increased prudential costs
  - Higher consumer costs
- What has changed?
  - Extreme peaker model discredited by cap defender model
  - AEMO 2009 forecasts were wrong and the current view is no need for more investment until beyond 2020
  - DSR did occur at MPC = $10,000

Summary

- The RP must apply the NEO i.e. set the lowest cost to meet the reliability standard
- A more realistic model developed at the instigation of the RP for forecasting MPC implies that MPC should be between $3,000 and $9,000
- The reasons for increasing MPC in 2010 have been shown not to be valid
- The reasons for holding MPC at $10,000 in 2010 are still valid
- The market evidence supports MPC = $10,000 or even lower.
- What is most concerning, the RP has not considered the market evidence in its decision

Conclusions

- The use of a flawed model in 1999 and 2010 has increased volatility, higher risk premiums and higher wholesale prices
- At the same time reliability has been much better than the target – USE has been zero for almost all of the time
- This means the RP has directly and unnecessarily caused consumers higher prices than needed
- The RP must apply the NEO i.e. set the lowest cost to meet the reliability standard

Based on market evidence and better modelling, there is no substantive reason not to reduce MPC back to $10,000, as at this level USE was below the standard, investment occurred and consumers had lower costs