

**AEMC Review
of
Energy Market Frameworks
in
Light of Climate Change Policies**

A view of the First Interim Report
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The Basic Premise

- The energy market frameworks are intended to ensure the most economically efficient way of providing energy
- But Climate Change Policies are a major governmental intervention in the energy markets and energy consumers are expected to foot the costs for this intervention
- There is no argument that energy markets must look at the most economically efficient way of achieving these policies but the most efficient energy markets are still required
- It is simply not acceptable to assume the current market structure design and Rules are able to deliver the most efficient outcomes under such massive interventions
- But this aspect has not been tested by the AEMC – it has merely addressed those aspects that they see are affected



The AEMC View of Issues

| | ISSUE | AEMC view |
|---|---|--|
| 1 | Convergence of gas and electricity markets | Not an issue, arbitrage issues ignored |
| 2 | Generation capacity in the short term | Short falls are possible |
| 3 | Investing to meet reliability standards and increase use of renewables | Not an issue, except market settings |
| 4 | Operating the system with increased intermittent generation | Not an issue |
| 5 | Connecting new generators to energy networks | Bilateral negotiations are not sufficient |
| 6 | Augmenting networks and managing congestion | Congestion is an issue |
| 7 | Retailing | Not enough flexibility, risk with price caps and RoLR |
| 8 | Financing new energy investment | Not an issue, except GFC |

The AEMC view

- The energy markets are generally robust enough to accommodate the CPRS and xRET
- A bit of tweaking is needed:
 - Short term reliability is an issue so NEMMCo needs the ability to enter into some short term contracting of capacity, along with better DSP
 - The approach of bilateral contracting for connecting new (remote) generation needs to be modified
 - Increased congestion is expected and needs to be managed
 - Inter-regional TUoS cost allocation needs adjustment
 - Retail price caps need to go, or be modified



What the AEMC does not address

- CPRS and xRET are massive market interventions
- To accommodate them will result in:
 - More base and mid rank gas fired generation replacing coal fired, causing redundant electricity network assets
 - More gas peakers to back up intermittent generation
 - More connections and augmentation to the gas and electricity networks
 - Lower load factors on gas and electricity networks causing more augmentation
 - Reduced economic and thermal efficiencies
 - Arbitrage potential between gas and electricity increasing, and when gas supply is insufficient it is always the same (large) consumers who are constrained off
 - Locational signals for new generation being further watered down
- All these add significantly to the associated costs and risk incurred by consumers



New risks to be faced

- **Headline costs for CPRS and xRET have been provided by Garnaut and Treasury, but not the associated market costs**
- **CRA points out that blackouts in SA could increase, citing one scenario of 4 times the current level for the next 8 years**
- **Roam makes the point that increased reliance on gas will expose the electricity market to catastrophic failures in gas supply**
- **CRA states price volatility in gas and electricity will increase, with attendant risk premiums (or retailer exits) to manage these**
- **Reliability of supply is more at risk – already there is concern about the energy only market providing good signals and these concerns will increase**
- **The NEM and VicGas markets are still comparatively illiquid, and the increased risks will reduce liquidity further**
- **What happens to the (increased) network costs if large consumers are driven to leave (eg Nyrstar), self generate (eg BlueScope) or increase imports/reduce local production (many companies) – this is economically inefficient**



Reliability is an issue

CRA provided a heavily conditioned report on reliability

- Theoretically an energy only market should [work] but investors have to take a long term view
- They opine only a limited number of investments are driven by market incentives and their assessment is based on investors having a long term view and forecast of the future
- [MEU observes the performance in the SA market does not give confidence timely investment is certain – compare this to the WEM]
- There is a risk of significant within day short term shortages
- The new generation mix might not provide enough standby reserve as commercial incentives for standby plant might not be present
- VoLL is on the cusp of too low [increasing VoLL increases risk]
- They assume that if demand elasticity and new technology can be forecast far enough out, the market will adapt



Where are the approaches to encourage...

- **Reduction of carbon footprint**
 - The current dispatch process has shown a reduction in overall generation thermal efficiency => increased carbon emission per unit
- **Demand side participation**
 - Is noted as needed but there are few details (separate report just released)
 - NEMMCo is to have more Reserve Trader powers, implying a need for capacity payments like the WEM
 - The Rules incentivise augmentation over DSP
- **Energy efficiency**
 - Allowing less restraint on generator location will increase transport losses
- **Retail competition**
 - Retailers are already withdrawing from markets due to the high risks (eg SA market), but risks are likely to increase



The MEU is very concerned

- The First Interim Report states the current markets are OK but tweaking on some aspects will be needed.
- The AEMC has made no attempt to indicate the cost implications of integrating CPRS and xRET, but clearly major costs have been identified in their review, above the headline costs for CPRS and xRET
- Consultants have indicated gas prices have been forecast to rise and therefore discourage gas firing
- The expected increases in associated costs are akin to a new form of energy input tax
- The AEMC accepts there will be greater risks but does not assess the impact or the resultant costs
- Reliability of supply is at risk
- The AEMC review must advise MCE of these increases in costs and risks, and of the reduction in reliability

