Select Committee into the Resilience of Electricity Infrastructure in a Warming World
Submission 19

I would like the committee to please consider the following points in making it's deliberations on the strategies required to achieve resilience in the National Electricity Infrastructure:

1 - implement emission reduction targets that provide an effective and appropriate response to the known climate science and the risks that this science articulates

2 - acknowledge the benefits that could be achieved by utilising Smart Grid technologies so that demands across the entire network can be managed more efficiently and at lower cost (e.g. provide the ability to dynamically respond to spikes in demand without the need to constantly run thermal generators at levels required for only brief periods. This could be achieved by dynamically drawing down on unused capacity elsewhere in the network)

3 - consider the implications for both demand and storage management for mass uptake of battery powered vehicles over coming decades. (challenges posed by new demands to charge large numbers overnight and opportunities provided by large amounts of distributed energy storage that could form part of a greater Smart Grid.

4 - take into consideration the escalating financial risk for any investment in new coal and gas infrastructure and recognise that these could quickly become stranded assets for likely investors in view of the rapid price reduction trends in renewable alternatives.

5 - be aware that any consideration of Nuclear energy options needs to also factor in:

- the high establishment costs
- the long lead time (>5 years minimum) required to develop such assets
- the public resistance that could be expected as to the placement of these assets
- the lack of a workforce with the knowledge and skills necessary to build and run such assets in Australia and consequent reliance onforeign workers
- the challenges in waste management that could be expected going forward
- the environmental and human health risks posed should an accident occur over the lifetime of the asset. (bearing in mind ongoing challenges faced in Fukushima)

Thankyou.
Regards
Robert Adams