



4 February 2014

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### **Review of Wholesale Electricity Generation Market**

The Energy Supply Association of Australia (esaa) welcomes the opportunity to make a submission to the Utilities Commission's (the Commission) review into wholesale electricity market arrangements.

The esaa is the peak industry body for the stationary energy sector in Australia and represents the policy positions of the Chief Executives of 36 electricity and downstream natural gas businesses. These businesses own and operate some \$120 billion in assets, employ more than 51,000 people and contribute \$16.5 billion directly to the nation's Gross Domestic Product.

The Commission has been tasked with reviewing the wholesale electricity market arrangements that are appropriate for the Northern Territory and recommending preferred arrangements.

#### **Benefits to the Northern Territory from competition**

Esaa is strongly supportive of the Northern Territory government's intent to introduce greater competition to the power sector. The potential for competition to deliver benefits to consumers is well-established. Competition in the generation sector leads to lower wholesale electricity prices on the spot market due to generators bidding against one another with the looming threat of being out bid by a rival. It also has the potential to assist in price setting for future bilateral contracts be they physical or financial.

The transition away from sole reliance on bilateral trading and the ability to trade with multiple generators and hedge risks through future contracts and a stable spot price market should promote competition in order to keep wholesale electricity prices at an efficient level.

Yet the effectiveness of the competitive dynamic cannot be guaranteed. Care must be taken in designing the market arrangements in order to maximise the benefits and minimise the risk of adverse outcomes.

#### **Existing market structures in Australia**

Currently Australia has two separate competitive wholesale electricity markets set up, the National Energy Market (NEM) and the Western Electricity Market (WEM). Rightly, the Commission’s terms of reference consider these as potential blueprints for wholesale competition in the Northern Territory. Market design is complex but is predicated on fundamental principles of economics and characteristics of a power supply system and so there is no need to “reinvent the wheel”. One note of caution, though, is that it may not be appropriate to adopt arrangements applicable to another market holus-bolus due to relevant differences between the power systems.

Most significantly, the markets vary greatly in size. Some key metrics are shown in table 1 below. Figures for the NT are an aggregate of the three main systems in the NT, which are not interconnected, unlike the regions of the NEM.

**Table 1: Market data as at 30 June 2012**

	Customer number 2011-12	Consumption (GWh) 2011-12	Installed generation capacity (MW) as at June 30 2012
<b>NEM</b>	9,261,147	179,945	48,444
<b>WEM</b>	852,218	18,304	6,303
<b>NT</b>	77,708	1,816	649

Source: EGA

The far smaller size of the NT market means that complex and radical market designs should be avoided as the setup and ongoing regulatory compliance costs will likely outweigh the benefits of efficient dispatch.

It also means that in the longer term there is likely to be greater emphasis on designing arrangements that underpin adequate capacity. This helps explain why the modestly-sized WEM has a capacity market while the larger NEM, with a greater range of generation sources does not. But in the short term there is adequate supply and a significant reserve margin, which runs the risk that some assets will be at least partially subject to financial stranding as discussed further below.

A future contract is an agreement between a generator and retailer to hedge risk. For gross wholesale markets, generators and retailers are exposed to wholesale price risk due to the fact they cannot directly contract with each other. To minimise this risk they agree in advance the price for the energy that is traded separately through the wholesale market. In net markets generators and retailers are able to enter into bilateral contracts. As they can agree the price in advance, there is no need for futures contracts to hedge risk for any energy traded this way. Currently the Northern Territory’s power supply system is based solely on a bilateral contracting system.

### **Separate Reliability Assurance and Energy Trading mechanisms**

The existing generation infrastructure owned and operated by Power and Water Corporation (PWC) is expected to maintain supply well beyond the investment horizon for new generation under any credible electricity demand forecasts. Even with the two largest units out of commission, there is expected to be adequate supply until 2019-20 for the Darwin-Katherine region, 2021-22 for the Alice Springs region

and 2021-22 for the Tennant Creek region<sup>1</sup>. This is an inevitable consequence of ensuring reliability in a small power system with few individual units. If the take up of distributed generation such as rooftop PV continues (noting that this is driven by different economics from investment in large-scale generation as it is a response to retail tariffs and available subsidies) reserve capacity could rise further.

In this context, the trade-offs of energy only market and one with payments for capacity or reliability require careful consideration. The NEM, which is currently oversupplied, is largely resulting in price outcomes that do not support new investment and threaten existing plant's ability to cover its long term costs. By contrast the WEM's capacity payment model is widely considered to be oversubscribed and its design does not result in a concomitant reduction in the value ascribed to capacity. This costs either consumers or taxpayers more than necessary. Neither outcome is satisfactory.

Unfortunately there is no watertight recipe for avoiding such outcomes (although a more careful consideration of the impacts of a range of federal and state government policies would have helped) but it is important to be mindful of such risk in finalising the market design.

To entice investment, the capacity payments that are necessary would not be efficient in the short term and would result in windfall profits for existing reserve capacity. If this number were overestimated this would result in excessive payments, increasing wholesale prices with no benefit to consumers. If this was underestimated the result would be an inefficient return on investment.

The energy trading mechanism which is used in the NEM promotes competition without the need for a capacity payment. It is understandable that the customer base and load needed to meet demand in the territory is much smaller coupled with the predictable demand forecast which would result in a much smaller price band. This would leave very little room for price signals alone to promote competition in the Northern Territory Energy Market (NTEM).

### **Establishment of the Independent Market Operator Function**

Currently there are two bodies that control the separate markets in Australia, AEMO is in control of the NEM and the Independent Market Operator (IMO) is in control of the SWIS. As outlined in the Oakley Greenwood paper, the Independent Market Operator's main responsibilities include that of ensuring stable market prices and the monitoring and assessment of reliability.

PWC have a proven track record of monitoring demand and addressing reliability issues. Given that structural separation is being planned for PWC by the government, giving the market operator function to the PWC network business should be sufficiently arms' length from the generation business.

### **Proposed implementation and transitional approach**

It is important to distinguish between transitional arrangements and an incrementalist approach. The former do not appear necessary and are an unnecessary quick fix to a

long term arrangement. Accordingly they will only be an increased burden on the overall cost of this reform process.

This does not mean that radical overhaul of regulation is required. It may be feasible to set up the market largely through amendments to the existing codes such as the Control Technical Code and Retail Supply Code. This option should be explored before reverting to more significant changes, such as replacement with a new code based on the NER.

The minimum set of formal arrangements can be completed within 12 months with focused efforts according to Oakley Greenwood. These formal arrangements are the base for the NTEM. External interaction will play a pivotal role in the creation of the NTEM. Currently as stated above, all three regions in the NT are predicted to be able to cope with expected demand for several years. This process should not be subject to artificial deadlines; instead a realistic timeframe should be set out once the Commission has taken all submissions and input from stakeholders into consideration.

### **Complementary reforms**

The current competition appropriately focuses on one area of market reform; the development of competition in the wholesale electricity market. As noted this in itself is likely to entail structural changes in PWC and thus affect its network and gas businesses too. The establishment of PWC Gas group as an independent and transparent organisation to supply gas to all suppliers in the market is supported by esaa. This approach will help create confidence in a level playing field between competing generators.

There is value in considering the system in a holistic manner and recognising that a wholesale market will be supported by appropriate arrangements elsewhere. A competitive retail market is an important complement to a competitive wholesale market. In this respect the Northern Territory has taken the most important step of allowing retail contestability. In the longer term further deregulation of the retail market will support effective competition at the wholesale level.

An appropriate framework for alternatives to centralised generation is also important. The OGW report correctly notes that demand response (DR) may have a role to play. Maintaining a level playing field between generation and DR is not straightforward as evidenced by regulatory developments in both the NEM and the WEM in recent times. Additionally, distributed generation, whether in the form of rooftop PV or other technologies may play an increasing role in the NT's power system. Again, lessons can be learned from the distortions created elsewhere in Australia by poorly designed feed-in tariffs. Giving due attention to such issues alongside wholesale market reform will help to prevent unwelcome policy corrections in the future when investment decisions have been made on the basis of the existing framework.

Any questions about our submission should be addressed to Nicholas Cannard, by email to [nick.cannard@esaa.com.au](mailto:nick.cannard@esaa.com.au) or by telephone on (03) 9205 3111.

Yours sincerely

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<sup>i</sup> Utilities Commission, "POWER SYSTEM REVIEW 2011-12", April 2013, p.4,  
[http://www.utilicom.nt.gov.au/PMS/Publications/09042013%202011-12%20Power%20System%20Review%20\\_MASTER\\_%20FINAL.pdf](http://www.utilicom.nt.gov.au/PMS/Publications/09042013%202011-12%20Power%20System%20Review%20_MASTER_%20FINAL.pdf)