perthenergy

3 May 2018

Public Utilities Office
By email to PUOSubmissions@treasury.wa.gov.au

# Submission to the Public Utilities Office on its *Improving reserve capacity pricing signals – alternative capacity pricing options* consultation paper

## Introduction

Perth Energy submits this paper in response to the Public Utilities Office's (PUO) consultation paper on improving reserve capacity pricing signals – alternative pricing options. This submission should be read in conjunction with our submission on the PUO's *Improving access to the Western Power network* series of consultation papers as the design of the capacity pricing framework is intrinsically linked to the design of the network access regime and Wholesale Electricity Market (WEM) energy market.

## Overview

Perth Energy is unclear why alternative capacity pricing options are being considered at this time. We understand that the PUO has been given a mandate to push ahead with WA electricity market reforms, as demonstrated by its recent papers on improving access to the Western Power network. However, it seems counter-intuitive for the PUO to release this paper on capacity pricing options before it has established its position on the implementation of constrained network access, the allocation of capacity credits or the necessary WEM model.

Market participants were invited to provide advice on constrained access and related issues, but as yet the PUO has not responded to the proposals put forward by market participants, nor has it publicly established its position on constrained access or the WEM model. Decisions on both of these issues are inextricably linked to any position market participants may put forward on the reserve capacity mechanism (RCM). It is inefficient to seek input from market participants on capacity pricing outcomes while there remains uncertainty on such closely related issues.

Moreover, we are concerned that the issues currently being pursued by the PUO are peripheral and do not address the fundamental requirements for driving meaningful reform, which are:

- a comprehensive system-wide study of network constraints and the types of capacity and services required in each region of the SWIS;
- preparing the market to accommodate new energy technologies and innovative trading arrangements;
- introduction of locational pricing; and
- mitigating the inherent inefficiency and sub-optimal market outcomes that result from Synergy's market power.

For example, the PUO is proposing to introduce a constrained network access regime. However, as Perth Energy pointed out in its 3 April 2018 submission, constrained access alone is not sufficient to promote a sustainable level of new private investment without the appropriate pricing signals for specific types of generation in specific parts of the network. As far as we are aware, the PUO has not yet engaged Perth Energy or any other market participants in meaningful conversation on these or any other recommendations raised in the recent round of consultation.

Our concern is that while the PUO is pursuing valid reforms, it is either unwilling or not permitted to entertain the ideas put forward by market participants that would actually address the prevailing issues in the WA energy sector. This is disappointing, and we fear this consultation on alternative capacity pricing options could be similarly futile.

Nonetheless, Perth Energy presents its view on the alternative capacity pricing options below.

## Perth Energy's view on the alternative capacity pricing options

There is no clear case for substantially changing the current RCM at this point in time.

We consider some fine-tuning is required to provide more certainty if investors are to be incentivised to build new capacity. Any significant change at this stage would defer any decisions even further, with investors holding-off to see the outcomes of the new arrangements.

The purpose of the RCM is to attract sufficient new investment in electricity facilities to provide a secure supply of electricity in the South West Interconnected System (SWIS). Under the previous Government's Electricity Market Review, its position paper on the reforms to the RCM stated that:

> *There is currently a large excess of capacity within the Wholesale Electricity Market which is imposing a substantial cost on electricity consumers. The cost of this excess in the 2016-17 Capacity Year is estimated at around $116 million.*

To resolve this problem, the RCM was adjusted in 2016 by reducing demand side management (DSM) prices and introducing a steeper price curve. This removed around 500 MW of DSM capacity resources. Following this, the former Minister for Energy announced that Synergy would need to retire 280 MW of traditional generation plant.

The PUO now highlights that the resulting, Government-driven, changes have placed the market in a position where:

> *[a]s the estimated level of excess capacity for the 2018-19 capacity year is four per cent, there is an urgent need to determinate a sustainable model for the procurement and pricing of capacity.*

The 4 per cent excess is over and above the Reserve Capacity Target (RCT) which is set at a 10 per cent probability of exceedance and includes a 7.6 per cent reserve margin. In its Electricity Statement of Opportunities, the AEMO states that "[i]f all capacity offered in the 2016 and 2017 [expressions of interest processes] is assigned its proposed level of Capacity Credits, AEMO estimates there will be sufficient capacity to meet the RCT until 2023–24."[1] We consider this timeframe is sufficient to allow any necessary, more significant updates to the RCM, particularly as new renewable energy is likely to enter the market prior to this date.

Further, we consider the low level of excess capacity forecast for the 2018/19 capacity year is more likely related to the uncertainty generated by three years of unimplemented reforms and Government intervention than any issues related to the current capacity price. Investors are unlikely to commit to new capacity while the future of the WA energy market is unclear. We therefore consider publishing a roadmap of actionable reform would provide a more effective incentive for new capacity investment than substantially altering the RCM at this time.

### Option 1: Administered pricing

Perth Energy considers the PUO's administered pricing option is unlikely to deliver any material benefits to warrant the change. As the PUO points out, this option would retain the practices of centrally procuring capacity and setting the capacity price pursuant to a price curve formula. All that would potentially change is the shape of the curve.

We note that a key problem with the current RCM, is that once the slope of the 'Lantau curve' exceeds about two-to-one, Synergy has market power and sets the capacity price. Acting as a generator, Synergy has a financial incentive to retire generation capacity to increase the price to the cap of the Benchmark Reserve Capacity Price +10 per cent and therefore maximise their overall RCM revenue. Alternatively, it may retain otherwise uneconomic plant in service to minimise the capacity price paid to it (and its competitors). It is highly unlikely that any change to the price curve, except reverting to the pre-2016 price curve would address this market power issue. As is regularly acknowledged, the pre-2016 price curve was not steep enough to attract sufficient investment so the flattening of the price curve would be regressive.

This highlights the second issue which is that investors are reluctant to invest in the WA market even if the capacity price is high because other factors, such as government policies and poor demand forecasts, can radically change the price over time. Investors need reasonable medium to long-term certainty if they are to invest but the constantly amended RCM has not provided anything but that.

Perth Energy supports broad reform of the RCM to cater for the advances in the WEM since market-start and the introduction of new technology in the future. We urge the PUO to ensure that any design changes effectively balance the flexibility this requires with investment certainty.

Perth Energy considers that for the RCM to attract new investment there must be a cap on the volatility for capacity prices paid to new generators until the broader reforms are implemented. We recommend the PUO put an interim arrangement in place to use the Benchmark Reserve Capacity Price, unadjusted for excess capacity for the three years to the new market and RCM arrangements are in place. This

[1] It should be note that this shortfall of 79 MW assumes no further capacity is added in the SWIS either in front of, or behind the meter. In the current context, this eventuation is almost impossible.

would assure the investor that it would not be affected by an unintended price 'crash' associated with changed Government, federal or state, policies or forecast changes.

To set the initial price in any year a market-based, competitive capacity price is optimal. However as with a capacity auction, this cannot be achieved until Synergy's market power in the RCM is resolved.

A process akin to the current administered price is still required. We consider the 2016 changes to the price curve were sufficient for the short-term and there are other factors contributing to the reduction in excess capacity, which a further change to the curve would do little to mitigate.

### Option 2: Retailer-led contracting obligation

The PUO suggests that this option would place an obligation on electricity retailers to procure capacity certificates to fully cover its exposure. These certificates could then be traded through a bulletin board or securities exchange platform.

This mechanism is reliant on:

- a sufficiently liquid market;
- an effective financial incentive regimes; and
- a meaningful penalty regime to drive compliance,

to deliver an efficient outcome.

In a market in which there is such a dominant market generator this option is unworkable.

Moreover, it is unlikely that the incentive regime under this approach will be any more successful than under the current RCM. A balance must be struck between an incentive to prudently invest in capacity to maintain the security of the SWIS, and the cost of that additional capacity.

We are not convinced that this option would better achieve the objectives of the RCM or the Wholesale Market Objectives. Also, as noted above, investors are unlikely to commit to new capacity until any new arrangement has been in place long enough to demonstrate that it works. Given the noted urgency this alone is sufficient to reject this option.

### Alternative pricing options

It is clear the needs of the electricity market are changing rapidly. When the RCM was designed it was assumed that most generation facilities would provide a range of ancillary services as an integral part of providing capacity. Even the difference in plant response times was largely ignored. This is clearly no longer true with renewable energy generators and, potentially, batteries providing a different mix of capabilities.

We recommend the RCM be re-designed to value each of the various types of capacity required in the system in a technology neutral manner. The capacity price for any facility should reflect the value-added for each attribute, including dispatchability, synchronicity, reliability, ancillary services including spinning reserve and load following capability, inertia, response time and response duration. This approach would apply a similar 'value-add' determination of capacity price as was implemented by the PUO for demand-side programs as part of the 2016 RCM reforms. The application of a similar determination of capacity value for supply-side capacity resources would return technology neutrality to the RCM.

This recommended approach requires a comprehensive system-wide study of network constraints and the types of capacity and services required in each region of the SWIS. However, this should not take longer than two years especially as AEMO has already undertaken some work. This would allow the reforms to be in place before the 2023/24 capacity year and provide a signal to investors of a workable, long-term RCM solution. AEMO has stressed the urgency for this work at recent public forums.

Further, a locational price signal is necessary to facilitate the development of traditional generation facilities in areas of the network that are not constrained. Our submission to the PUO's constrained access consultation papers outlined our preference for locational pricing signals to be included in the energy market design. However, if this is not included in the energy market, it must be incorporated into the RCM.

With a uniform capacity price, a uniform network price and a uniform energy price there are no signals for generators to be located where they will give maximum benefit. Generation investment in edge-of-grid locations behind existing transmission network constraints such as Kalgoorlie will remain inadequate.

### Demand Side Management

The value of DSM can best be determined through the comprehensive process outlined above which determines the value of each: capacity, energy and ancillary services. In the interim we consider that the current arrangements for DSM are appropriate and that the prices being offered are reasonable.

We do not believe further detailed review of DSM is warranted outside of the broader RCM reforms.

### Summary

Given the serious system concerns being raised by AEMO, we consider that the value-add of different characteristics of energy facilities with respect to capacity, energy and ancillary services need to be integrated into the energy market design as a matter of urgency. It would be preferable that this be through the energy and relevant ancillary services prices. However, if this price signal is not provided through the energy market design, it is possible to be implemented through the RCM.

Perth Energy does not consider that leaving the RCM as it is currently, Option 1, is appropriate. This will prevent any investment in the WEM for a further 4+ years. We support minor changes to the RCM price-setting arrangements, limited to those necessary to encourage any required new investment, prior to the implementation of broader reforms.

We do not consider Option 2 to be workable given the market dominance of Synergy.

These values must be determined over the coming two years to allow them to be incorporated into the market concurrently with the proposed changes to network access.

We reiterate that recommendations raised in the consultation on constrained network access must be considered by the PUO in the development of any options to reform the RCM.

Should you have any questions in relation to this submission please contact me on (08) 9420 0308 or at p.peake@perthenergy.com.au.

Regards,

Patrick Peake
General Manager EMR, Regulation