Submission to ERA Review of The Wholesale Electricity Market

Perth Energy Pty Ltd
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1. INTRODUCTION

There has been frequent headline news about electricity price increases for most of 2007. Further price rises are scheduled over the next 4 years and the odds are that additional price increases will come on top of and beyond that. This price path is due to a number of factors including:

- Cost pressures generated by the resources boom in WA
- Catch-up capital expenditures in the SWIS on network infrastructure and power generation capacity
- The jumps in fuel prices for industrial and power generation use
- Environmental costs being incorporated in end use energy pricing

The Office of Energy has shown policy competence in advising the Government to raise tariffs across the board in July this year, and the Government has shown political courage in doing so at this early stage of the new market. They have averted the potential of a California style market meltdown that could happen if they had kept gazetted tariffs unchanged despite sustained large increases in the wholesale cost of power.

The 2000 California crisis was brought about by capped retail tariffs in the face of significant increases in wholesale Pool prices, driven by aggressive generator bidding. The State owned retailers went bankrupt as a result, the wholesale market was shut down and the State Government had to subsequently use the public owned water utility to issue bonds to raise money to pay debt and buy enough power from out of State to supply the re-franchised market.

For WA, besides allowing retail electricity prices to rise to reflect true costs, the challenge for Government and industry, particularly those bodies in policy and regulatory areas, is in minimising and mitigating the impact of upward cost pressures through the use of effective competition policy and efficient market framework.

2. WEM, STEM, MCAP

The good news is that WEM, STEM and MCAP have survived their first year of operation relatively unscathed. The new market was characterised at the start by STEM prices sitting at the caps for a number of weeks in September and October last year. While this gave the new market initial concerns about the dominant generator imposing

its market power on STEM, it turned out that the high prices were just bad timing caused by gas supply interruptions and plant shutdown for maintenance. Within a couple of months, STEM prices had trended down to more "reasonable" levels.

In rough averages, STEM prices for Oct 06 – July 07 were $51/MWh ($73/MWh peak and $36/MWh offpeak), and MCAP prices $75/MWh ($100/MWh peak and $58/MWh offpeak). These prices were high for energy only trades.

Excluding the distortions in the initial months, Jan – Aug 07 saw average STEM prices at $43 ($58 peak and $31 offpeak) and MCAP at $55 ($70 peak and $45 offpeak). The 2007 prices don't differ that much from averages under the old Top-Up and Spill (TUAS) mechanism that was used for shorter term energy trading before WEM.

Whiles STEM prices differed markedly from MCAP prices in the first half of 2007, they have converge in the second half of the year, pointing to continued improvement in price behaviour in the new market. For the 6 months to end Oct 07, STEM prices averaged about $44.50/MWh, similar to an MCAP price average.

There hasn't been any major issue on the dispatch side of STEM (or dispatch in general). The System Manager has conducted its functions smoothly in coordination with market participants.

The IMO has done a good job in pursuing the short run marginal cost criterion for STEM bidding as a result of the initial market concerns. While there is debate over how to define SRMC, the onus should be on generators to make sure sales to STEM are priced at levels they are designed for, not in absolute terms but in market structural terms.

The distinction between "absolute" and "market structural" terms is important because it clarifies that the SRMC test is not about setting market prices for STEM but about ensuring prices are justifiable on a competitive market test.

One can argue that a fully competitive market does not need such a SRMC rule. But SWIS is far from being fully competitive. And while SWIS consumers are paying separately for capacity, they have every right to expect STEM prices to reflect the SRMC, whatever this might be at any point in time.

In the near term, it is acceptable that assessment of what the SRMC at any point in time could be operationally vested in the IMO and "appealable" by affected generators to the ERA. In the longer term, Market Rules change processes could deal with this issue or the SRMC, preferably, would die a natural death with more competitive development in the WEM.

3. CAPACITY MARKET

The last few years' Statements of Opportunities from the IMO show that the capacity market has been working, insofar as steady incoming of new generation projects

maintaining a reasonable reserve margin over system peak demand is concerned. There are, however, a few aspects to be reviewed.

- Because WEM is essentially a bilateral contracts market, and the Maximum Reserve Capacity Price (MRCP) Rule is designed to encourage peaking and not baseload capacity entry, baseload capacity could only enter the market on discrete load sponsorship.

  This means new baseload capacity will not be built to be sold to the wholesale market as happens in a mandatory wholesale market structure like the National Electricity Market. Instead, new baseload entry into SWIS will come only via singularly large loads like the Boddington gold mine or singularly large incumbent retailers like Synergy (eg, Wambo's CCGT in Kwinana) and Alinta.

  Baseload capacity has twice the cost/MW of that of a peaker and requires large scale, credit worthy off-take contracts. As long as WEM is not a single-price (energy + capacity) market, with compulsory trading in it by all participants but the smallest generators, WEM will not have an alternative baseload entry channel. This means the market will remain skewed towards Synergy and Alinta, the 2 off-shoots of the State Energy Commission of WA.

  By design, WEM is already harmstrung by this lack of retail competition.

  This doesn't mean, however, that the dual capacity-energy markets structure necessarily be changed to a single price market like NEM. There are other advantages embedded in the WEM structure that will need to be weighed up for any change. But this means that wherever and whenever they could, Office of Energy and ERA (and to a lesser extent IMO) should be constantly aiming at encouraging retail competition in any other area of the WEM. This is discussed further below.

- Regarding Capacity Credit pricing, a couple of aspects are worth considering.

  First, the setting of the MRCP, which in the Market Rules depends on consultant costing of establishing a new peaking plant in the SWIS. A lower than market costed MRCP would have a deterrent effect on new plant entry. Up until now, peaking plant can be said to have been brought on stream not by the MRCP per se but by the proponents' own projects (such as Alinta-Alcoa's) where access to the MRCP has been a bonus. The next few years will test the MRCP's real effectiveness.

  Second, the adjusted default price that market customers actually pay for Capacity Credits, ie. the Reserve Capacity Price, has a methodology issue. The RCP is 85% of the MRCP and then also adjusted for a particular capacity year by the extent of oversupply of certifiable capacity for that capacity year. Based on the original Market Rules, a capacity shortage would trigger an auction but a surplus had no redress. An amendment delivered by the Office of Energy just before WEM start provided for downward adjustment to the RCP on that surplus ratio. This simple

formula was effective for the passing of the Rule change at the time, but requires a review as it is not market based in the same vein as an auction is under a capacity shortage scenario.

- To further establish a responsive capacity market, Market Rules regarding the certification process should also change. The current once-a-year certification regime is too restrictive and inflexible to deliver lower capacity costs to consumers. It creates a bureaucratic and project finalisation bottleneck around the middle of each year and raises the risk of projects being abandoned for loss of bilateral load support should a project miss that annual deadline.

  If the market is to be efficient in delivering capacity supported by bilateral load contracts as designers intended, certification should be able to be obtained whenever a project has garnered sufficient load support, not just when it is technically ready to be built. At least, twice-a-year certification should be provided for, which in our view the IMO could implement with only limited change to its annual certification work process.

  More frequent intra-year certification opportunities would relieve pressure on input services providers such as Western Power, which has struggled to keep up with the workload at every round of July applications. WP has been commendable in providing much needed technical assistance to last minute changes to project specifications, but it would probably be able to do a better job if the work load were spread more evenly across the year.

  Having said that, the IMO has been very helpful in disseminating information on future supply and demand and in guiding participants through the certification process. This has facilitated forward planning for potential new entrants including Perth Energy.

4. VESTING CONTRACT

There is no doubt the biggest threat to reform success is the current structure of the Vesting Contract between Verve and Synergy. Recent media reports highlighted Verve Energy's dire financial position and made mention of failed reform and the option of re-integrating Verve and Synergy. Both diagnosis and offered cure miss the mark.

Re-integrating Verve and Synergy would cost the Government an inordinate sum of money, much more than what had cost it in disaggregating Western Power Corporation in the first place. Splitting up WPC helped establish the WEM, the first leg of a long term competition strategy for the State's energy sector. Re-integrating Verve and Synergy would close down the WEM and drive away budding competitors of these entities, including investors in energy assets.

In any case, there is no need to go down the drastic and expensive re-integration route. To address Verve's financial woes, the Government would only need to give Verve part

of the guaranteed margins enjoyed by Synergy. This would produce the same result as re-integration.

Verve is receiving a raw deal under the Vesting Contract. The net-back approach used in the VC predictably causes Verve to lose money, as it guarantees profit to Synergy. Verve is the last port of distribution of the total revenue chain, and sustains all the costs incurred by Synergy in WEM, including all new capital expenditure programs undertaken by Synergy and Western Power since all network and market access costs to Synergy are netted out before the residual balance is given to Verve.

In totality, the Government's position is not at all different to what it would have been if the vertically integrated WPC had not been disaggregated.

WPC's structural change in April 2006 did not change the fact that the Government was going to have to outlay significant amounts of money to modernise and expand the networks and power generation capacity. WPC had been living on borrowed time as far as capital expenditures were concerned. Its network infrastructure had been run down for a long time. Profit forecasts by WPC in the years preceding disaggregation were a fallacy. They did not incorporate the massive infrastructure maintenance, enhancement and rebuild that the new entities were facing and are undertaking now.

Had WPC remained a single entity, these capital outlays would have been incurred, the same operating losses would have been made (smeared across all 4 components of WPC including the regional power arm, now Horizon Power) and/or even more severe tariff increases would have resulted.

The cost pressures imposed by the resources boom and the capex requirements to accommodate energy demand growth in SWIS would have driven tariffs up by more than what is currently scheduled, as those tariff increases would have been applied without any restraining effect offered by competition.

Electricity reform therefore had come at the right time, and was pursued by the Government for the right reason: to transfer most of the new energy infrastructure building cost and effort to the private sector and make efficient use of such investments.

The problem the market, not just Verve, faces at present is the Vesting Contract.

The VC was designed to give Synergy sufficient guaranteed capacity from Verve to supply the franchise segment and Synergy's contracted loads prior to WEM start. However, the VC's structure has erred too far in protecting Synergy at the expense of Verve, other retailers and energy consumers. It is delaying retail competition, without which consumers cannot benefit from reform. Competition in generation alone, to supply Synergy as the VC encourages, is insufficient to discipline retail prices, not least because Synergy would not have to worry about costs given its guaranteed margin in the VC.

The VC provisions that, from 2008-09, 200MW of Verve's total capacity would be released each year from Synergy's exclusive control. However, the VC also gives Synergy a valuable free option to bring forward or delay by one year this capacity release, every year. Rather than independent retailers being able to buy the 08-09 released capacity from Verve in 2006-07, they have had to wait until end of 2007 or into 2008 before knowing whether any of Verve's capacity would be available.

The rationale for this option is based on uncertainty over new private sector capacity being available to Synergy, which has carriage of supplier of last resort obligations to its franchise and contract customers prior to WEM. The intent was for new private capacity to be used to displace Verve's capacity gradually over time.

This arrangement begs basic questions:

- What was the extent of franchise and contract segment obligation of Synergy vis a vis its total load base? Who monitors it and how would market participants know whether the proportion was true and correct? Has the number of contract loads in Synergy's sales portfolio increased from pre-WEM levels and are new contracts or renewed contracts included in this so-called obligation? Has the franchise market increased and by how much?

- Why is Synergy being protected absolutely from uncertainty of generation capacity supply, when all other retailers have to face that uncertainty? The Verve capacity scheduled to be released from the VC is marginal to its total obligation to Synergy, which means this scheduled capacity is unlikely to be needed for franchise market obligation, the only real segment that needs protecting. What is the reason for this capacity to be held back by Synergy free of charge, until Synergy could secure lower cost replacement (marginal) capacity from the market?

- Synergy carries its own power procurement programs to accommodate its sales growth, which are not the same as obligations to pre-existing franchise customers. Mixing new capacity with Verve's capacity scheduled to be released doesn't stand to reason. Furthermore, any new plant offered a PPA by Synergy would be subject to the certification process like any other plant, hence supply certainty is on a par with any other new plant in SWIS. Why is this certification regime not sufficient for Synergy in terms of security of supply for its franchise market? Why does Synergy need the free option to slide by 2 years the Verve capacity release?

- If Synergy could keep the market guessing as to its plans to retain or not retain the scheduled release of Verve capacity every year, it could create uncertainty for Verve and potential buyers of that capacity and prevent prospective trading of the capacity in the market. This would by default force Verve to rebid its released capacity to Synergy as allowed under the VC, whereby Synergy would have the right to lock up this capacity under long term contracts, depriving the market of any prospect of using the capacity.

- Market Rules provide for SOLR rights to be bid by and offered to any retailer capable of undertaking SOLR. No free option on Verve's capacity is offered in such SOLR provisions. Why the difference with Synergy?

Because the VC was never put to public consultation when it was formulated and implemented, it needs to be revamped as soon as possible to allow the WEM to work properly. Among the "must" changes are:

- The free option to Synergy needs to be cancelled immediately. The capacity market has operated adequately with new capacity coming on stream to supply Synergy with baseload and peaking capacity. From now on, every year's scheduled capacity release from Verve needs to be fixed.

- The released capacity from Verve should not be allowed to be rebid to Synergy and must be offered to IMO at the RCP for each year, to ensure a modicum of liquidity in the capacity contract market. This capacity should only be contractable by non-Synergy entities. The lack of capacity capable of being contracted by third parties is sabotaging the essence of WEM, which is designed to decouple generation from retail to introduce allocative efficiency in the market. Without this capacity exchange, the market is driven back to a silos structure in which each supplier is a vertically integrated entity, with the virtual Verve-Synergy monopoly continuing to dominate the retail market.

- The capacity obligation from Verve needs to be confirmed to be matching the franchise market and contract sales – in capacity and energy terms – that Synergy had before WEM. Growth in the franchise and contract segments in terms of both new accounts and higher demand by existing accounts must be excluded from VC guarantees. Franchise segment growth should be accommodated under SOLR provisions in the Rules and Regulations (currently allocated to Synergy).

- The net-back approach must be cancelled and a new properly scrutinised transfer pricing regime needs to be developed and applied in its place between Verve and Synergy. Net-back guarantees Synergy all low cost energy (including balancing energy) and capacity from Verve, which has to accept lower than market cost for its power. All other retailers have to pay for power (including balancing energy at MCAP) at market price. This has the undesirable effect of forcing other market participants to subsidise Synergy when using Verve's energy in the open market. Verve is the only entity capable of supplying STEM or bilateral energy supply deals of any significance. New participants have no choice but to buy from Verve in this illiquid market. And Verve has no choice but to extract some value for its energy sold outside the VC, since it is losing hand over fist inside the VC.

WEM is only a year old and active competition policy and mechanisms ought to be driven as hard as possible by a vigilant Government and market. All the reform development work under the ERTF highlighted the long haul aspect of market

restructuring. Implementation work under ERIU emphasised the need for constant review and revision of all aspects of the new market.

If the VC is not revamped urgently, Verve will not have the financial capacity to rejuvenate, retail competition will remain stifled and consumers will face more substantial price rises than otherwise would be.

Delay in Verve's ability to participate competitively in the wholesale market will compound the cost of its rejuvenation until a crisis is not containable, potentially destabilising the entire market. A major generator like Verve should not be left to be so financially strapped that it could not play a productive role in supporting the full development of WEM.

By the 3rd anniversary of WEM start, ie. by September 2009, the VC should apply to no more than 1/3 of total Synergy sales, this being equivalent to the franchise market under Synergy's responsibility.

With IMO guaranteeing supply to all consumers under the Capacity Credits market, there is no reason why Synergy should stay grandfathered. It should face market costs like any other retailer in the contestable market.

5. FUEL COMPETITION AND COST

The second biggest threat to reform success is the gas cost.

Gas-coal competition has been a cornerstone of energy supply strategy in WA for decades. But the recent gas price hikes are polarising the power generation sector into coal for baseload and mid-merit and gas/liquids for peak supply. This complementarity means both gas and coal prices are rising in tandem and power prices will continue to rise as long as the LNG export market continues to claim virtually all of developable WA gas reserves.

The view that WA should pay international prices for gas exported just like for any other tradable commodity is simplistic.

The WA domestic market has underwritten the development of the NWS gas fields for decades, through Government backed (SECWA) gas purchases. This underwriting gave birth to gas-intensive industries in the SWIS that propelled WA to becoming the most gas-intensive State per capita. Gas price shocks could cause serious economic dislocation in WA.

Half to 1/3 of the SWIS power generation sector is fuelled by gas, depending on the period of measurement. A three to five-fold increase in gas prices in a year is a price shock to energy users. Policy makers ought to be concerned. Compare that to, say, a 20-year Federal program to cut car or textile import protection in order to avoid "severe" industry dislocation in Victoria or SA.

Further, rather than international price parity, domestic gas users may be forced to subsidise overseas gas users because the NWS based gas suppliers have the market power to impose this price discrimination. They can hold on to all the available gas reserves for tail-end supply to very long term export contracts, rather than develop some of those reserves to supply the domestic market. Smaller gas fields would be developed for domestic use only at a higher than export equivalent price. This may be a rational act on the part of gas suppliers but it is not in the interests of WA.

In this regard, a reservation policy as pursued by the WA Government is essential, and in fact needs to be made more specific in terms of annual reservation volumes, with any surplus (unused) quantities to be stored for future calls.

Besides the gas commodity cost the SWIS is also straddled with gas transmission and distribution costs. The latter has 2 components, the cost/Gj for pipe access and the shipper terms and conditions of that access. An example is the required 15 year term for a shipper contract while shippers may be able to sign only short term gas commodity supply contracts.

The inflexibility of access terms and conditions impose too high a fixed cost on small-medium gas users or infrequent users of any size. It prevents efficiency improvement in downstream markets, such as the use of distributed power generation in the SWIS.

More active consideration should be given to establishing a Pool for trading gas network capacity to minimise the fixed cost, in order to give life to a severely constrained gas retail market. Policy pressure should be brought to bear on gas networks owners to disaggregate their gas distribution from gas retailing business.

6. EMISSION TARGETS

The issue of national greenhouse gas emission reduction targets is adding cost pressures to the WA energy market. On the one hand, there is advocacy for a 20-60% reduction in GHG emissions by 2020-50 and on the other Federal policy is to let international markets determine gas price paid in the domestic market. It is not likely that Australia could achieve both without significant economic cost, unless it could charge appropriately for export gas.

If WA gas should be turned to LNG and shipped to overseas markets unfettered, the outcome would be that Australia would rely more on coal to generate power while overseas markets would use more gas to do their own. Australia would become less able to achieve emission reduction targets while overseas markets would become more able.

And if emission reduction targets were enforced in Australia but not overseas, Australia would face substantial costs to reach targets and suffer relative losses in competitiveness, while overseas markets prosper.

More importantly, any emission trading system would internalize this swing against Australia, with Australia paying a higher cost of emission abatement than overseas because lower emission fuel (gas) was being shipped to overseas markets.

Unilateral emission reduction targets are not the same as unilateral import protection reduction targets. The fundamental difference between the benefit of lower emission and that of lower import protection is that, for Australia, lower emission is a public good while lower import protection, resulting in a lower cost structure to Australia's export, is a private good. Australia can unilaterally cut import protection for cars, textile, oil or computer equipment because it can internalise the benefits of lower cost imports.

Lower emission is a public good that the country cannot keep to itself, but has to share with all trading partners. Free rider problems exist, hence the impact on relative competitiveness if Australia were to unilaterally impose on itself severe emission reduction targets.

For Australia to consider unilaterally lowering its emission levels without hurting itself, it must keep to itself lower emission fuels such as natural gas in order to achieve those levels without losing relative competitiveness. This confirms the WA Government's policy of gas reservation for domestic use. It is not anti-free trade, it is logical environmental economic policy.

If gas were to be sold to overseas markets without constraint on the basis that this would help reduce global emissions, then Australia ought to be able to export the emission reduction targets to those overseas markets. The country cannot ship low cost environmental solutions overseas while keeping the environmental clean-up burden at home.

There is a way, however, for Australia to export gas unconstrained, and the conditions for such exports are:

- The price of exported gas reflects the full cost to domestic consumers in achieving the emission reduction targets without the benefit of that gas, and

- The price component that recompenses domestic consumers for the environmental burden be accurately allocated (paid) to them.

This means that the price of export gas must include an export tax that reflects the full value of its externality, and this tax be used to directly offset the higher cost of gas to domestic consumers, preferably at the wholesale level for simplicity of adminstration.

7. SUMMARY

The new energy market environment, at State and national level, is facing rising costs and there is only one way for energy prices to go and that's up. The 4 main factors listed at the start of this submission will ensure this price trend. State renewable energy targets

for instance are part and parcel of the continued internalisation of environmental costs that will push up energy prices for the next decade.

WA policy makers and regulators need to play an active role in mitigating these factors or their impact on end use energy prices. The recommended actions are:

- Ensure STEM bid prices reflect generator SRMC until STEM trading is substantial and capable of withstanding market gaming

- Review the formulae used to set the MRCP and RCP in the case of surplus certifiable capacity, and allow for additional capacity certification application rounds in a year

- Restructure the Vesting Contract to:

    - Cancel Synergy's free option on moving around Verve's capacity release
    - Fix Verve's capacity release every year as per schedule
    - Set Verve's capacity and energy obligation to Synergy in accordance with Synergy's load levels pre-WEM
    - If these levels were greater than 3000MW or greater than the energy output sustainable by Verve's 3000MW cap, allow Verve to go above the cap by at least the scheduled release in order to sell this balance to the market
    - Disallow rebid of any released capacity by Verve back to Synergy, with Verve having to sell this capacity to IMO at RCP while waiting for contracts to be acquired with other market participants

- Review gas transmission and distribution capacity trading rules, and inlet and outlet access rules, to facilitate the uptake and exchange of capacity from and between small-medium gas users

- Strengthen the gas reservation policy to specify annual volumes to be reserved for the domestic market, with accumulation of unused gas year on year

- Considering a tax on export gas based on the opportunity cost of not having that gas in domestic effort to achieve emission reduction targets, with the revenue from this tax going directly towards offsetting the higher cost of gas to domestic wholesale users.