Community Electricity

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Submission in Response to ERA Public Consultation

2013 Wholesale Electricity Market Report to the Minister for Energy

Standing

Community Electricity is:

a. a licenced Electricity Retailer and a provider of Electricity Retail Services and Market Consultancy;
b. a member of the Independent Market Operator's Market Advisory Committee;
c. a member of the Economic Regulation Authority's Technical Rules Committee.

Community has no commercial interest in Demand Side Management (DSM) or Generation Capacity and we do not supply Small Use Customers. Our commercial objectives are aligned with the Wholesale Market Objectives.

Further information is available at: www.communityelectricity.net.au

Summary

Community considers that the new Balancing Market is very effective and has substantially reduced carbon-inclusive energy prices. While the technical complexity of the LFAS market has impeded that market's progress, it is performing satisfactorily and the imminent further developments are likely to both fully realize the expected benefits and establish a sound structure for the reform of Ancillary Services in general.

Community notes that the State Government has caused a dislocation to the electricity market by its arbitrary decision to merge Verve Energy and Synergy in the face of broadly based opposition. This has the effect of destabilising the investment environment and, as demonstrated by the tone of the present Discussion Paper, has muted institutional oversight and confused the market institutions. Market Participants also have to interpret and respond to governmental hints and press speculation as a key part of their financial risk management. Given that the electricity market is central to economic development, is very sophisticated and comprises many participants with major long term capital investments, we consider it an essential duty of the government to publish its reasons for the decision, its objectives for the merger, and how the merger will achieve them. More generally, the IMO publishes a justification in terms of the Wholesale Market Objectives for each of its rule changes and the government should achieve the same standard.

As discussed below, Community considers that the rumoured initiatives to 'remove costs from the market' and potentially 'join the NEM' are largely misplaced and entirely miss the central threat to long term electricity prices. At best, NEM membership would remove from the market all DSM-capacity and its associated cost. At worst, it would:

a. displace the existing capacity charge into the energy market as a premium to current prices;
b. bring into immediate balance the supply and demand for generating capacity;
c. incentivise the building of further capacity through energy price volatility in general, and in particular prices of up to 1,250/ckWh (compared to the present theoretical (but unachieved) maximum of 50c/kWh).

Given that the central purpose of the capacity market is to ensure that 'the lights stay on', such a move would represent abandonment of that responsibility.

If the objective is to remove from the market the costs of excess capacity, we would highlight the fact that the decision to bring forward the retirement of Verve Energy's Kwinana C station has at a stroke halved the excess capacity, and more than half of the remainder comprises unreliable Verve Energy plants whose performance is under scrutiny. Further, the remaining excess quantity is equal to the quantity of DSM-capacity. The central issue is, therefore, whether this capacity will actually perform the required duty. We note that the IMO is in the process of implementing its 'harmonising' proposals and sufficient time should be allowed to test their effectiveness. In particular, DSM is conceptually an alternative to ultra-low duty diesel-fired stations and the challenge is only to 'marketise' it; longer term, DSM should also be bid into the Balancing and Ancillary Services markets.

Community perceives that the greatest threat to long term electricity prices lies hidden in the network charges which, inclusive of the Tariff Equalisation Contribution, comprise nearly half the cost of delivered electricity. In particular, we consider that misplaced emphasis in Market Objectives b) and d) has created the erroneous impression that network charges are part of and controlled by the wholesale market. Rather, they are set with reference to the Weighted Average Cost of Capital (WACC) which is reset every 5 years in accordance with the Access Code. The present WACC of 4.33% (real, pre-tax) is historically low and will at some point 'regress to the mean', taking network prices with it. In addition to this, network prices are largely set on a delivered-energy basis while PV penetration and energy efficiency are reducing consumption, thereby substantially increasing the average price. On this basis, we consider that the strategic focus of the market should be on the economic efficiency of network charges and the efficiency of Western Power in managing the network service.

As justified below, Community considers that immediate government policies for reducing electricity prices should focus on making contestable the Notional Wholesale Meter (the mechanism by which non-contestable customers are settled through the wholesale market) which is a novel means of enabling the competitive supply of non-deregulated customers without removing them from Synergy or incurring any of the cost of Full Retail Contestability (and especially avoiding the cost of metering).

We would further propose the abolition (or at least the redesign) of regulated tariffs for contestable customers, and the withdrawal of unintended subsidies (non-contestable tariffs) granted to contestable customers.

These matters are discussed further below.

Discussion point 1

Stakeholders are invited to comment on:
• How successful and effective they consider the new Balancing market to have been.
• Improvements, if any, which should be made, including those already identified through the IMO consultation process.

Community Electricity considers that the new Balancing Market has been extremely successful and congratulates the IMO and System Management on their respective achievements.

With reference to the ERA assessment of the evolution of "Balancing Prices" we note that the Balancing Market was introduced contemporaneously with the carbon price and consequently the energy prices delivered by the new market are inclusive of carbon whereas those prior to 1 July 2012 are carbon exclusive.

The ERA states average Peak Balancing Prices of $58.21/MWh for 2012-13 and $57.18 for 2012-12. Using the gazetted average system carbon price of 2.08c/kWh, on the face of it, the average peak price reduces to $37.41/MWh, which is a reduction of 35%. While in practice this adjustment is over-simplified, it nonetheless demonstrates that the introduction of the Balancing Market has effectively negated the carbon price during peak times. The ERA does not quote average Balancing Prices for the off peak period, but states average off peak STEM prices of $26.17 in 2011-12 increasing to $42.80 in 2012-13. Adjusting for carbon indicates that the underlying energy price fell from $26.17 to $22.0 – a reduction of 16%. The lesser reduction during the off peak makes intuitive sense because of the increased reliance on coal during periods of lower system load.

In addition to the reduced prices, Community also welcomes the greater liquidity around the Balancing Point, which has reduced energy price volatility and market risk.

Regarding the further development of the Balancing Market, Community supports the IMO's ongoing Market Rules Evolution Program, which prioritises reducing the gate closure timeframe and reviewing the STEM and Resource Plan mechanisms.

Discussion point 2

Stakeholders are invited to comment on:
• How successful and effective they consider the new LFAS market to have been.
• Improvements, if any, which should be made.
• What barriers there may be for further new entrants to the market.
• Whether the current method of allocating costs to all customers based on monthly aggregate demand, as a proportion of that month's total system load is appropriate.
• In light of the progress with the LFAS market, whether the development of competitive markets for further ancillary services (such as spinning reserve) should be prioritised.

Community considers the new LFAS market to be performing well after having regard to its complexity and the considerable challenge presented to System Management. It is regrettable that competition was initially impeded and prices increased while Verve Energy remained the only participant. That said, the LFAS market has demonstrated the

wisdom of Verve's investment in its High Efficiency Gas Turbines and now that there is a new entrant to the market, prices are being set more competitively. The barriers to entry are primarily technical and system based, and it is likely that further entrants will emerge as these are resolved.

More generally, it should be recognised that the market is moving towards the integration of the various Ancillary Services and through the experience of the LFAS market has a more profound understanding of how the system actually works and how the requirements for the ancillary components can best be met. In particular, the IMO is now focussing on the determination of the LFAS Quantity and the Technical Rules requirement for frequency stability. In particular, the IMO has observed a 50% reduction in LFAS cost for a 10% reduction in the LFAS Quantity. There is also a 'disconnect' between the Technical Rules frequency keeping requirements and System Management practice, which needs to be resolved. The Market Evolution Plan has also recently been modified to include an emphasis on advancing the LFAS gate closure closer to real time. We consider that the IMO is dealing vigorously with these issues and that they will be resolved long before the ERA makes its recommendations in their respect.

The development of a Spinning Reserve market is a natural extension of the LFAS market and is a key feature of the IMO's Market Rules Evolution Plan and it may prove possible to integrate the two. Similarly, a Load Rejection reserve market may prove to be a straightforward adjunct.

Regarding the allocation of Ancillary Service costs, Community supports the 'causer pays' principle and the IMO process for reviewing their allocation. In particular, the IMO is seeking to minimise the LFAS cost by improving the integration of LFAS with the Balancing Market (shorter dispatch intervals) and improving forecasting of intermittent production. It is most notable that the estimates made only a few years ago of the costs attributable to intermittent generation have now been substantially reduced and the prognosis for intermittent generators is greatly improved.

Operational, strategic, policy and high-level issues that are impacting on the effectiveness of the WEM

Merger between Verve and Synergy

Community submits that Verve and Synergy have always been "merged" in the broader sense of that term and all that is being proposed is that this should occur at lower management levels with faster decision making. According to this view, the merger was initially via the Vesting Contract supplemented by strategic integration through the office of the Minister for Energy. Given that the Replacement Vesting Contract is confidential, it may even be that that the practical consequence of the institutional merger is 'merely' to complicate and limit relations with third party Market Participants.

Fundamentally, however, it should be recognised that several important market issues have arisen primarily as a result of dysfunction in the strategic integration of the two entities rather than in the workings of the wholesale market. In particular, the Displacement Mechanism of the Vesting Contract has contributed to the Excess Capacity problem and the underwriting by Synergy of the Collgar Wind Farm is a major

contributor to the overnight turndown problem. Both these issues arose as a result of failures of integration rather than being attributable to the market. There is also evidence that misinterpretation of the "Verve Cap" has also contributed to the excess capacity, as discussed in the next section.

The cap on Verve generation

Since market commencement, Verve has been subject to a cap on its generating capacity of 3,000MW except for renewables. In recent times it has emerged that a large quantity of Verve plant is available for only around 2/3 of the year. Apparently in response to the IMO's action to remedy what the ERA referred to as "perverse market incentives that have led to a number of Verve Energy's units being unavailable for extended periods of time" and to provide a 'retirement signal', Verve immediately brought forward the retirement of its 360MW Kwinana C, which represents 47% of the 13-14 Excess Capacity. While this delayed retirement is arguably attributable to a 'failure' of the Market Rules, it is more directly attributable to a failure in the oversight of Verve. We would further note that the Muja A-B development contributes a further 28% of the Excess Capacity.

The availability of other Verve stations has also been challenged by the ERA, which noted in its 2012 report that in 2011-12 Verve's Muja G6 (190MW) was on planned outage for 40% of the year, Pinjar GT10 (109MW) for 28% and Pinjar GT11 (120MW) for 20%. The ERA notes that this contrasts with an "acceptable" planned outage rate of up to only 6.5%. (The equivalent figures for the to-be-retired Kwinana C were 24% (360MW).) While one cannot reasonably extrapolate and generalise from these figures, on the face of it, these planned outages equate to 130MW of plant being unavailable for 100% of the time. Arguably, though, in a 'perfect storm' they could equally equate to 419MW of capacity (equivalent to nearly all of the remaining excess capacity) being missing from the market during a system contingency. Indeed, the ERA investigated the correlation of plant outages and price spikes in the energy markets and observed that:

> "The Authority considers that the primary driver for the observed price spikes was likely to be the unavailability of a high amount of base-load capacity. Simulations of market operations showed that the price spikes observed in 2011 would have been significantly reduced if two of the large base-load units were returned to service, whilst the return of three large base-load units would have completely eradicated the spikes."

It is especially notable that in its most recent Annual Statement of Corporate Intent, Verve argued for an increase in its generating cap; we take this to indicate that Verve has interpreted the cap as a minimum target rather than a maximum entitlement. In a similar vein, we note that while Verve was being commercially disadvantaged by the Collgar windfarm, it nonetheless proceeded with its own substantial wind farm development.

We would reiterate our earlier comments, above, on the need to effectively oversee Verve Energy.

Electricity prices

There is much comment to the effect that electricity prices are 'too high'. In response, we note that IMO figures indicate that approximately 60% of the contestable market is held by private retailers and that there is no mechanism for discovery of the prices paid by

their customers or of the bilateral wholesale contracts that underpin them. While the gazetted prices paid by Synergy's customers have been analysed in detail by the ERA, this represents only 40% of the contestable market and is more a reflection on customer conservatism than on prices. It is general knowledge amongst retailers and energy brokers that discounts of 10 to 20% relative to gazetted tariffs are readily available to virtually all contestable customers at the same level of service, reliability and quality of supply. Indeed, this fact is promoting the growth of energy brokers, who are receiving as their fee a percentage of the value added by switching retailer.

With respect to the non-contestable market, this is approximately around 40% of the total market, and the prices are published and thoroughly analysed with particular emphasis on the subsidy contained within them. While we respect government's desire to avoid cherry picking of profitable customers, the practical reality is that private suppliers could supply more cheaply than the state-owned entity this customer segment as a whole, and the non-contestable market structure fails to achieve this economy. One way of achieving this economy is to make contestable the Notional Wholesale Meter and allow private retailers to bid for all or part of it. This is discussed in detail in the following section.

Contestable Notional Wholesale Meter

Customers supplied by private retailers are required to possess Interval Metering whereas all other customers are not. The entire 'non- Interval Metered' market segment is bundled into a single measurement known as the Notional Wholesale Meter (NWM). The NWM also includes all the measurement errors and unmeasured losses (including theft) on the system. The NWM is currently supplied by Synergy and is a key feature of the Vesting Contract being Synergy and Verve. In particular, it includes all the profitable and unprofitable residential customers bundled together. It is a straightforward matter for the NWM to be auctioned (in say 1% blocks) in a manner similar to the daily STEM auction. Synergy could continue revenue collection and the IMO and Synergy could manage settlement. In this way, cherry picking would be impossible and the most efficient market cost of supply would be guaranteed. Furthermore, there would be no need to upgrade the metering and that considerable expense thereby avoided.

While this proposal may seem on the face of it to be complex, speaking as a veteran of the market development, we perceive it to be relatively straightforward in comparison with the Balancing and LFAS markets.

Non-Contestable tariffs applied to Contestable Customers

Community's practical experience is that many contestable customers are being supplied under the non-contestable (subsidised) R1 and L1 tariffs rather than the proper contestable tariffs R3 and L3. We further note that the L1 tariff, which is supposed to be limited to customers consuming less than 50,000 kWh per year, contains a (further subsidised) volume discount for consumption in excess of 600,000 kWh per year. We suggest that all Synergy contestable customers supplied under gazetted tariffs should be audited to correct this situation and reduce the subsidy paid to Synergy.

Design of Gazetted Retail Tariffs and Network Reference Tariffs

One of the key features of the wholesale market is the provision of price signals, and the efficient delivery of these signals to end use consumers requires that retail tariffs be designed to pass through the market signals. However, we note that the present suite of gazetted retail tariffs was designed some 20 years ago when the market was not only very different to today, but less well understood. In particular, the time-of-use tariffs use an archaic definition of peak and off peak period, and the demand tariffs bear no relation to either the wholesale capacity charge or, necessarily, the demand based network tariffs. For example, the S1 and T1 retail tariffs contains a demand charge based for each month on the maximum demand drawn in the peak period of that month (or 30% of that drawn in the off peak, if greater) while the corresponding RT6 and RT5 network tariffs are based on the anytime maximum demand drawn over the previous 12 months, adjusted on a monthly basis according to the proportion of off peak consumption.
The lack of integration leads to potentially perverse outcomes in which, for example, wholesale energy prices have been negative while network prices remained at 13c/kWh (RT4 peak price).

We propose that a review is required of the structure of both the retail tariffs and the network reference tariffs in order to optimise the impact of the price signals from the wholesale market.

Retail competition

There is a perception that the market has not delivered sufficient competition. In response we note that over the last 7 years, Synergy's share of the contestable market has reduced from nearly 100% to around 40%, and is further reducing by 4 points (10%) per year. Over the last year, the market has also seen an increase in the activity of 'energy brokers' which are intermediaries that organise electricity tenders for a fee. Community perceives that Synergy's loss of market share is increasing to the point that we consider the government's musings about requiring Synergy to withdraw from the contestable market to be outside its control; the prognosis is that private competition is driving out Synergy.

On this theme, we also consider that the government's hints that substantially reforming the market structure would attract new entrant retailers is a euphemism for its intention to privatise the non-contestable segment of the market supplied by the merged Synergy/Verve. We consider that substantial entities would not otherwise enter the contestable market because it is too competitive and the prices too low.

Membership of the National Electricity Market

The State Government is considering whether Western Australia should join the NEM, which appears to be perceived as a means of remedying excess generating capacity and DSM by terminating the Capacity Market.

In the general case, for a generating development to be financially viable it must fund its Long Run Marginal Cost, which may be thought of as the cost of infrastructure (capacity) plus the cost of producing energy (fuel and maintenance). The NEM is an energy-only market, which requires the capacity component to be funded from energy prices set by

competition – if the bid price is too high, the market will select a cheaper alternative. The signal that more capacity is required is set by rising energy prices. In contrast, the Western Australian WEM separates the cost of capacity and energy. The capacity requirement is centrally planned mechanism for ensuring that there is sufficient capacity to supply the peak system load. The capacity mechanism guarantees an administratively determined 'fair price' for capacity which can be used to help fund its capital requirements. Given this concession to the capacity component, the energy price is capped at another administratively determined 'fair maximum price', together with an enforceable obligation on participants to supply at their reasonable cost of production (the Short Run Marginal Price).

The essential difference between the NEM and the WEM is that in the NEM generators are incentivised to drive the electricity price to extremely high levels or risk not earning sufficient revenue to fund their investment, while in the WEM a minimum level of funding is pre-paid and generators are required to compete on cost of production.

While the government is said to muse to the effect that 'the NEM has been proven to work', the key distinction is that the NEM is 10X the size of the WEM, is populated with a more ideal set of competitors and grows at a rate that is very large in comparison with the size of an incremental generator. In contrast, the size of a 'standard generator' (160MW) in the WEM is greater than the historical growth rate (120MW) and the WEM is a stand-alone 'island' with no prospect of support from elsewhere.
If the WEM Capacity Market is replaced by a NEM-style energy-only market, the price signal to build new generation will come primarily from price volatility, with prices capped at $12.50/kWh compared with the present $0.5/kWh. Noting that a power station development takes 2 to three years from approval, it is likely that potential participants will want to see those prices manifest before they will commit to build. Furthermore, it should be noted that the quantity of DSM-capacity is now approximately equal to the quantity of excess capacity. If DSM-capacity was to be abolished (as would happen with membership of the NEM), system demand and supply would be in balance and price volatility would be immediate. Further, as discussed above, some 400MW of Verve generation is known to be potentially unreliable.

The consequences of this stark reality must be held front-and-centre of the deliberations on whether to join the NEM; prices are very likely to increase substantially and it is entirely foreseeable.

There is also emerging evidence that the Capacity Market provides an important signal to reduce demand for capacity. In particular, the IMO has observed an increasing trend for customers to reduce load during the predicted peak periods. There is also increasing discussion of the merits of aligning PV west-facing so as to make a greater contribution to reducing peak demand. While the NEM provides a much stronger price signal during periods of supply imbalance, it provides no signal during times of excess – and when strong, the signal is potentially catastrophic for liable entities that aren't aware of it in real time.

The cost of Regulation

The West Australian dated 2 October stated that

' …handing control of the local market to the NEM would save between $100 million and $120 million a year in regulatory costs alone…"

We submit that this is absurd. The IMO estimates the revenue to be recovered through Market Fees to be $32 million in 2013-14 for the purposes of funding itself, System Management and the ERA (http://www.imowa.com.au/market-articipants/information-for-participants/finance/fees-and-charges). Given that dispatch of the NEM is closer to real time and more frequent than in the WEM, recent experience indicates that these costs would increase rather than decrease if the NEM rules were adopted.

The Wholesale Market Objectives

Community considers that from the perspective of public debate, the Wholesale Market Objectives a misplaced emphasis that creates the false impression that the Market Rules control the cost of electricity, whereas in reality it controls only half the cost.

For convenience, we state the Market Objectives below with added emphasis:

a) to ***encourage*** competition among generators and retailers in the SWIS, including by facilitating efficient entry of new competitors;

b) to ***promote*** the economically efficient, safe and reliable production ***and supply of electricity*** and electricity related services **in the South West Interconnected System;**

c) to ***avoid*** discrimination in that market against particular energy options and technologies, including sustainable energy options and technologies such as those that make use of renewable resources or that reduce overall greenhouse gas emissions;

d) to ***minimise*** the long-term cost of electricity ***supplied to customers from the SWIS***; and

e) to ***encourage*** the taking of measures to manage the amount of electricity used and when it is used.

We note that objectives a), b), c) and e) are stated in relative terms via the vague words "encourage", "promote" and "avoid", whereas objective d) is stated as an absolute – "minimise". Further, the objective to minimise pertains to the long term cost of electricity *supplied to customers from the SWIS*. This is enforced by objective b) which relates to the *supply of electricity …. in the SWIS*.

The Market Objectives thereby create the impression that the Market Rules control the entire cost of supply. This contrasts with the practical reality in which the ERA has published that network and environmental charges constitute around half of the cost of supply, with both of these being entirely outside the control of the IMO.

Notwithstanding this, Western Power does have some influence in the cost structure arising from the Market Rules. This was demonstrated dramatically when the Maximum Reserve Capacity Price blew out in response to Western Power's calculation of the Connection Charge component. The attendant 5X increase in that component caused the capacity price to increase by around a quarter. The IMO remedied this by changing the procedure for the calculation to more representative of actual charges and thereby returned the capacity price to its natural long term trend. Further information is available

on the IMO website at http://www.imowa.com.au/reserve-capacity/maximum-reserve-capacity-price/maximum-reserve-capacity-price-overview - see "transmission costs" in the section "Reserve Capacity Prices since market start".

Western Power and network charges

Community considers that the evolution of network charges is the most significant uncontrolled variable in the south west market and if it remains in its present form is likely to be so large as to negate all other initiatives.

We note that in recent years of all the market institutions, Verve Energy, Synergy and the IMO have been thoroughly reviewed, but Western Power has not. While ostensibly Western Power is controlled via the 5 yearly Access Arrangement approved by the ERA, that review is performed in accordance with the Network Access Code, which is part of the problem.

Under the Network Access Code, Western Power's permitted revenue is predominantly the product of its asset value and an approved Weighted Average Cost of Capital (WACC). In 2012 Western Power requested a WACC of 8.82% (real pre tax) to apply in its Access Arrangement 3 (2012-17) and was granted only 4.33%. This compares with 7.98% in 2009-12 and 6.76% in 2006-9. The value was so low partly because of the Bond Yield component being historically low in the aftermath of the Global Financial Crisis. While Community fully supports the ERA's actions in limiting increases to network charges, it is inevitable that at some future time the WACC will regress to the mean, with the reasonable prospect of network charges nearly doubling. The next reset is scheduled to apply from 2017.

More generally, the issue is that Western Power is permitted to earn revenue according to financial conditions rather than according to its efficient costs of providing the service and raising capital (through the Treasury). This means that when the WACC is low, Western Power has to drastically restructure its operations, as it is currently doing. Conversely, when the WACC is high, Western Power earns more than it reasonably needs to provide the service, with the surplus being paid to government as dividend.

Despite the "unprecedentedly low" WACC (Western Power's words), network prices have risen considerably since AA3 was approved, with Western Power requesting an increase of around 20% for 2013-14 and being allowed CPI + 2% for 4 years. This was partly because of Western Power's charges being set to recover an escalating Tariff Equalisation Contribution and partly because they are primarily energy based in the face of reducing consumption due to PV penetration and energy efficiency. This trend is accelerating, with the prospect of network fees entering the so called 'death spiral' as increasing prices motivate further PV penetration and energy efficiency.

Community considers that the issues of Western Power's service efficiency, energy-based charges and revenue allowance are a greater threat to long term electricity prices than the 'merger' and wholesale market review, especially as they comprise nearly half the delivered cost of electricity.

Contestable Meter Data Agent

Community notes that Western Power is the monopoly Meter Data Agent for the Wholesale Market and is denying reasonable access to interval meter data by customers and their representatives. Such access is required in furtherance of Market Objective e) to manage the amount of electricity used and when it is used and Market Objective d) to minimise the cost of electricity (by responding to price signals). The situation has degenerated to the extent that customers are now installing otherwise redundant parallel meters alongside the revenue meter for the sole purpose of collecting consumption data. Given the existing participation of these 3rd party meter service providers, we propose that the Meter Data Agent function should be made contestable.

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