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Discussion Paper: Annual WEM Report to Minister
Economic Regulation Authority
PO Box 8469
Perth Business Centre
Perth WA 6849

RE: Submission to the Annual WEM Report to Minister.

Griffin Energy (Griffin) welcomes the opportunity to submit comments on your discussion paper. We believe it is essential to monitor the performance of the market and to continue to develop and (re)define market mechanisms to produce effective outcomes.

Should you have any questions regarding our comments, I can be contacted on 08 9261 2908; shane.cremin@thegriffingroup.com.au

Yours sincerely

Shane Cremin
GM – Policy & Strategy

The Authority invites comment on any strategic, policy or high-level issues, including those raised in this Discussion Paper, that are impacting on the effectiveness of the Wholesale Electricity Market in meeting the Wholesale Market Objectives.

Why implement a market?

Approaching four years of operation, we should review the rationale behind the decision to implement a competitive market for the supply of electricity in the SWIS.

The supply of electricity is an essential public service. It cannot be allowed to fail. It is characterised by large, lumpy and capital intensive investments. The pricing of services is often highly regulated – including hardship provisions for consumers who could not, in a real supply-demand world, afford the service. These characteristics normally require such a service to be provided by government, as has been done so almost exclusively around the world until very recently. The main benefit of implementing a market for the supply of electricity is to introduce competitive market forces that lead to innovation and price competition in the provision of services. These benefits, amongst others, are captured by the market objectives in the WEM.

The largest factor impeding a dynamic market in the WEM is that the vast majority of activity is concentrated in the two state owned utilities. What are the drivers for these companies to innovate? Verve Energy is limited to owning 3,000MW of generating capacity, which it already does and which is substantially contracted to Synergy (previously via the vesting arrangements, but laterally under bilateral contracts). Synergy is the monopoly supplier to the non-contestable sector and the incumbent supplier to the majority of small to mid sized contestable customers. Until very recently, given that retail tariffs have been priced below the cost of supply, Synergy enjoyed an effective monopoly control over the majority of customers in the SWIS. There is little incentive for either Synergy or Verve to innovate within the market – evidenced by their unwillingness to date to develop new products and services for other Market Participants. In fact, most drivers of innovation would come from external factors, including federal environmental and carbon policies.

The disaggregation of the old integrated state utility and the introduction of a market for services have only really seen competition introduced in the wholesale supply sector. There has been limited opportunity for competition (and hence innovation) in the retail sector. With a prohibition on Verve and a growing requirement for energy, investors have brought significant new capital into the WEM. Initial investments have had little to do with the much vaunted Capacity Market, but have been underpinned by opportunistic investors with comparative advantage (in gas or coal supply) seeking growth opportunities. The WEM has provided this – not with a Capacity Market (which is only useful for peaking facilities), but with a creditworthy offtaker (Synergy) with a legislated requirement to displace its vesting arrangements and a commercial requirement to satisfy its growing customer loads. The size of the SWIS and the form of the market itself has not permitted large capital intensive power stations being financed on a merchant basis. While helpful in enabling the financing of large new facilities in the wholesale sector, the fact that Synergy exhibits an effective monopoly control over the market's retail supply has led to the long term contracts underpinning new facilities placing onerous risk profiles on IPPs. This is not unusual in markets where producers compete for supply to a single dominant entity. As the WEM itself does not contain adequate mechanisms to pass through the fluctuating costs of generation, then as generation costs rise[1], IPPs are forced to defend profit margins. Defensive trading and investment strategies do not lend themselves to innovation.

In order to promote a truly competitive electricity market where consumers will benefit from cost competition and service innovation, the government must restructure the existing state owned utilities. Without serious retail competition; and with the dominant generator still benefiting from state financed funding and incumbent advantages around transmission access and fuel contracts, then

[1] Since the market began, the cost of capital; labour; fuel; land; network charges; market and regulatory charges have risen at rates substantially higher than CPI.

(potentially) costly market reform[2] will have little effect in producing better outcomes for consumers, only providing benefits at the margins. However, market reform is vital if the government does seek to break up (and perhaps privatise) the state owned utilities. As has been seen in other jurisdictions, large private companies have shown an appetite to invest and innovate in competitive and well structured markets. The WA government must decide to either reform the WEM to provide a platform for robust and fair competition and trust the private sector to introduce competition and innovation; or make it clear to potential investors of capital that it has no intention of redefining the state-owned incumbency. If the latter is the preferred option (i.e. a preference for state controlled provision of electricity services), then the government should look to disassemble the complex and costly market structures currently in place.

The Authority invites comment on the effectiveness of the Independent Market Operator, System Management and the Economic Regulation Authority.

No Comment.

The Authority invites comment on the impact of feed-in tariff and renewable energy rebate/buyback schemes, as they relate to the efficiency, reliability and security Objectives of the Wholesale Electricity Market.

Much is made in the Authority's discussion paper on the issue of renewable technologies and their impacts on the market. Let it be clear. Absent any firm price on the externalities of conventional generation (i.e. a carbon price), renewable technologies are inefficient *per se*. They require substantial subsidies to form a commercial business case. This means renewable facilities are costly and ineffective electricity generators. Rebates (such as solar credits from the new sRET scheme) and feed in tariffs are transparent subsidies that are not derived from complicated and market distorting cross subsidisations. If it is a desirable policy outcome to deploy more costly renewable technologies, then the current transparent and non-distorting form of the subsidy is preferred.

As for reliability and security of supply, it would appear that if small scale domestic renewable technologies are not accounted for in the IMO's annual capacity assessment, then their deployment would lead to at least a more secure system.

The Authority invites comment on the Reserve Capacity Credit allocation to Intermittent Generators.

A long and complex process has yet to resolve the issue of awarding an appropriate level of capacity credits to intermittent generators. Griffin ponders the usefulness of this process. The IMO's REGWG is seeking to establish a simple yet extremely precise mechanism for awarding capacity credits to intermittent generators. This is made difficult by the limited and imprecise data available for analysis. It seems apparent that in the rigour being applied through the REGWG process, intermittent generation is being subjected to a level of analysis inconsistent with other forms of capacity. An OCGT has its capacity set at its output at 41^{o}C. If a 100MW wind farm near Geraldton were displaced by an OCGT, then at periods of peak demand (say a 1-in-10 year hot spell), the temperature at Geraldton may well be >45^{o}C and the OCGT would undergo significant derating, perhaps as much as the margins being debated

[2] Such as implementing mature net or gross dispatch designs – as contemplated recently by the IMO and its Market Advisory Committee.

for wind farms. All thermal plants have forced outages. While the forced outage incidence of the OCGT may be low (around 2-3%), they are not considered when awarding capacity credits. Additionally, the liquid fuel for an OCGT is a controllable parameter (whereas the wind is not). However, there are circumstances where there will be disruptions to the supply of liquid fuels. This is most likely to occur when the OCGT is needed, such as during extended hot spells where supply networks are strained. Lastly, consideration should be given to the cost of the energy produced by a wind farm compared to an OCGT. Assuming the RET subsidy accounts for much of the differential in capital cost, the SRMC of energy produced from a wind farm is effectively $0/MWh. Compare this to the cost of the liquid fired OCGT of somewhere around $450/MWh.

Griffin's point is that we should recognise there are many factors that are likely to contribute to a shortage of capacity in our market, one of which is the intermittency of wind. At this stage of our market's development and given the level of data we possess for analysis, there should be a simple historical output based mechanism in place for awarding capacity credits to intermittent generation. The initial MMA concept appears to provide a reasonable platform for this.

The Authority invites comment on the existing and potential impact of intermittent generation on the Wholesale Electricity Market, including the need for cost reflectivity under the existing framework and Market Rules.

There will naturally be impacts on the WEM as more intermittent generation is introduced. There are always impacts as existing structures change, evolve and adapt to new signals. The fuel mix in the WEM (coal, gas and liquids) is dynamic and will respond to signals such as carbon prices, gas price and availability and capacity market structures[3]. Mechanisms that allocate costs in a transparent manner are preferred. If it is found that true cost allocation means that inefficient, but desirable technologies are precluded, then transparent subsidies should be introduced to encourage those desirable investments. To do otherwise is to distort the efficient and effective operation of the market.

For example, the balancing costs for greater penetration of intermittent generation could be offset by both moving STEM nomination timelines closer to real time and by investing in sophisticated wind/solar forecasting systems. The costs for these should be either borne by intermittent technologies (to the extent they are the primary beneficiaries), or provided through government subsidy, if this is required. To simply allocate additional costs throughout the market will encumber existing scheduled generators with additional (and unexpected) costs that will be unlikely to be passed through to consumers. This will distort the market and act as a disincentive for efficient investment.

The Authority invites comment on the current framework for network access and the determination of capital contributions for augmentation to the shared transmission network provided by Western Power. In particular:

- *the impact that the current framework has on the effectiveness of the Wholesale Electricity Market;*
- *the impact on investment decisions, given the level of transparency and predictability in the current network access and connection charging regime; and*

[3] Where it can be expected that more liquid fired OCGTs will be built than would otherwise be the case in, say, a centrally planned market.

- *the appropriate methodology for recovering transmission augmentation costs triggered by new generation in the South West interconnected system.*

Every significant new generation project in the WEM is constrained by transmission access[4]. However, given the physical characteristics of the WEM, building an unconstrained transmission system with world's best practice redundancy appears an extravagance of enormous expense. It is becoming evident to stakeholders that the WEM should move towards some form of constrained network with appropriate mechanisms in place to protect the robustness of the capacity market. Such a transition will take some time. In the interim, the access regime could undergo some modifications to assist in timely access to potential generation investments (once the network is capable of connecting these of course). Griffin has previously suggested requiring proponents to lodge a bond to enter the access queue[5]. This may discriminate against some smaller potential investors, however the benefits would likely outweigh this impact.

With regard to the allocation of capital contributions and generally to the cost of connecting new generation facilities, Griffin is encouraged by Western Power's advances in understanding the regulatory regime under which it operates. It is apparent from the recent forums around Western Power's proposed Mid West Energy Project that Western Power has acknowledged the benefits (under the NFIT), of efficient new generation investment. Where efficient generation investment[6] is required to meet system load growth, then deep connection costs should be met by system users.

While encouraged by the recent directions, Western Power has yet to show that it has adopted new practices when allocating transmission costs. Griffin remains critical of Western Power's allocation of risk when determining transmission connection costs and network expansions. Western Power seems averse to taking any price risk on the cost of augmenting networks and on the process of having those costs added to the asset base. While being averse to risk is not a problem, the fact that the Authority rewards Western Power a return on their investment according to a risk weighted return on capital is. If Western Power intends to remove risk from their investment process, then the Authority should reward them with a commensurate return, akin to the government bond rate.

[4] The only exceptions here would be projects controlled by Verve, which has the advantage of incumbency and apparent access to its existing network connections and the deep transmission system in perpetuity.
[5] The amount commensurate with the size of facility and from which the cost of network studies and other costs is deducted.
[6] That is, where the most efficient generation or demand management option incurs costs, compared to other generation or demand management options that also could be implemented.