Hon Peter Collier MLC
Minister for Energy; Training

Your ref: EMO0001
Our ref: 34-04639

Mr John Tamblyn
Chairman
Australian Energy Market Commission
PO Box A2449
SYDNEY SOUTH NSW 1235

Dear Mr Tamblyn

SECOND INTERIM REPORT OF THE REVIEW OF ENERGY MARKET FRAMEWORKS IN LIGHT OF CLIMATE CHANGE POLICIES

I refer to your letter of 26 June 2009 enclosing an advance copy of the above report, which was released for public comment on 30 June 2009.

I would like to provide comments on the findings outlined in the report with respect to the operation of the wholesale and retail electricity markets within Western Australia. These comments are also made on behalf of the organisations within my energy portfolio including the Electricity Corporations, the Independent Market Operator, the Office of Energy and the Sustainable Energy Development Office.

As a broader comment I would like to extend my thanks to the Australian Energy Market Commission (AEMC) for the efforts made in consulting with stakeholders in Western Australia and the level of analysis applied to the particular issues faced within this jurisdiction as a result of the climate change policies.

I would also note that within the Western Australian energy sector there are a number of other review processes that have highlighted similar issues and reform measures to those suggested by the AEMC.

In particular the Economic Regulation Authority conducts an annual review process to assess the effectiveness of the operation of the Wholesale Electricity Market within Western Australia. More detailed comment on the matters raised in the report and the actions already underway to address these issues are outlined in the attachment.

Level 11, Dumas House, 2 Havelock Street, West Perth Western Australia 6005
Telephone: +61 8 9213 7150 Facsimile: +61 8 9213 7155 Email: Minister.Collier@dpc.wa.gov.au

Thank you for the opportunity to comment on the matters outlined in this report.

Kind regards

Hon Peter Collier MLC
MINISTER FOR ENERGY

Att. 15 SEP 2009

cc: Managing Director, Western Power
Managing Director, Verve Energy
Managing Director, Synergy
Chief Executive Officer, Independent Market Operator

COMMENTS ON SECOND INTERIM REPORT OF THE REVIEW OF ENERGY MARKET FRAMEWORKS IN LIGHT OF CLIMATE CHANGE POLICIES

Note: Comments made in response to the AEMC Report are shown in shaded text.

Intermittent Generation

As highlighted in the AEMC Report the expanded Renewable Energy Target (RET) will encourage significant new investment in renewable energy generation in Western Australia. It is expected that the bulk of this investment will be in wind generation, and at a much lower level in biomass generation.

These findings are also supported by modelling undertaken by the Commonwealth to inform the development of the expanded RET.

The Premier of Western Australia has written to the Prime Minister, the Hon Kevin Rudd, MP to outline the serious concerns held by the State regarding the ability of Western Australia's main electricity grid, the South West Interconnected System (SWIS), to deal with the forecast rapid increase in wind generation. These concerns are due both to the technical nature of wind generation (intermittency) and the physical limitations of the SWIS itself.

Any substantial addition to wind generation capacity will require major investment in network reinforcement. Western Australia currently has a large number of wind generators proposing to connect to the SWIS and unless the system and network issues are addressed, it is unlikely that the majority of these proposals will proceed. If the early Western Australian wind generation projected by the RET modelling does not eventuate, the costs of the scheme nationally will almost certainly be higher.

Accommodating the large amount of wind generation expected to connect will have disproportionate costs in Western Australia. The current modelling projects that Western Australia will generate more Renewable Energy Certificates (RECs) in the early years of the scheme than it requires, which will be sold into the national market and help keep national RECs prices low. However, electricity prices in Western Australia would increase as a result of the large investment in infrastructure that would be required.

The Premier therefore sought the Prime Minister's consideration of Western Australia's request that the Commonwealth provide some level of funding contribution to the network infrastructure costs arising from the RET scheme in Western Australia. This request noted that the State has already commenced work to find the most cost effective options to allow the SWIS to support a greater proportion of renewable energy.

The Premier also noted that as the above issues are expected to emerge earlier in the SWIS than in the National Electricity Market, there is scope to facilitate the consideration of the energy network features required for a carbon constrained future, before application of these features in a much larger and more complex

national electricity market. It has been suggested that these considerations could be facilitated through further bilateral discussions concerning cooperative development and investment in these options.

Renewable Energy Working Group

The Independent Market Operator (IMO) has established a Renewable Energy Working Group (REWG) to consider and assess system and market issues arising from the increase in the RET to 20%, with a particular focus on intermittent generation.

As part of this process the IMO also commissioned development of a forward work program to review the impacts and challenges of intermittent generation in the SWIS of Western Australia. This work program includes:

- Impacts Resulting from State and National Policy – focusing on the impact of the Carbon Pollution Reduction Scheme (CPRS) and RET, the impediments to renewable generation in the SWIS and implications for network planning and development.
- Service Type Capacity and Reliability Impacts – focused on clear definition of the type of capacity services required in the SWIS to enable appropriate rewarding of capacity provided (including appropriate allocation of costs for additional reserve capacity required to accommodate intermittent plant in the SWIS).
- Frequency Control Services – considering provision, type and amount of frequency control services required to facilitate secure and reliable operation of the SWIS by the system operator. Also to consider issues caused by low overnight load in the SWIS combined with increasing penetration of intermittent plant leading to the need for curtailment of certain generation facilities.
- Technical Rules – considering appropriate mitigation measures to ensure network stability in light of increasing intermittent generation.

Balancing Arrangements/Dispatch of Generation

The AEMC has noted that increased levels of intermittent (e.g. wind) generation will increase inefficiencies in relation to current balancing arrangements in the Wholesale Electricity Market (WEM). It also forwarded the view that dispatch decisions by System Management may lead to economically inefficient outcomes for the Market.

To address these issues the AEMC has proposed that the transparency of dispatch decisions and balancing costs should be increased in the WEM through mandated reporting by System Management and the IMO.

These measures are supported and would assist in ensuring that cross-subsidisation of costs between alternate forms of generation is avoided. This information should assist System Management in development of comprehensive criteria concerning load curtailment to be undertaken at least cost.

As noted by the AEMC, balancing demands imposed on non-intermittent generators will increase with greater intermittent generation capacity in the SWIS.

The AEMC proposal to make the full costs of intermittency visible to intermittent renewable generators is supported. This will assist in managing the demands of these facilities on the network and system security, by encouraging the taking of steps to mitigate these impacts and by raising funds to assist in offsetting costs imposed on the network. Nonetheless, the network operator will need to have confidence that the non-intermittent generation portfolio is technically capable of meeting the balancing demand, both now and into the future.

Higher penetration of intermittent generators and a corresponding move towards less flexible conventional plant means that flexibility among the remaining generators will be of increasing value to the network. The WEM currently provides explicit mechanisms to reward plant for the provision of energy (electricity sales) and reliability (capacity credits). Whilst it will become increasingly important for the WEM to be able to reward generators for providing flexibility, it is not clear whether the current market structure delivers the appropriate level of system flexibility.

Historically, Western Australia has benefited from a high proportion of relatively flexible, gas-fired generation capacity. In recent years the dominant proposals for large new fossil-fuel generators on the SWIS have been exclusively coal-fired, suggesting that the aggregate flexibility of the generating portfolio of the SWIS may decline in the future. If built, these assets could have a lasting effect on the network's ability to absorb new intermittent generation capacity.

The issue is sufficiently important to require monitoring to assess whether the WEM is delivering the necessary generator flexibility in response to the future balancing needs of current and emerging low emission technologies. In this regard the work of the International Energy Agency in its report, *Empowering Variable Renewables: Options for Flexible Electricity Systems (2008)* is noted, in which a broad method for assessing system flexibility is proposed.

The AEMC has outlined several specific reform measures aimed at introducing greater competition and cost-reflectivity into balancing market services for the WEM.

This requirement has also been acknowledged by Market Participants in the WEM and the IMO has recently initiated work to consider the potential for competitive balancing arrangements as part of its Market Rules Evolution Plan.

Ancillary Services

The AEMC noted and expressed support for the work to be undertaken by the REWG on the impact of intermittent generation on ancillary services in the WEM, including targeting of ancillary service charges (including consideration of a causer pays system).

It is highlighted that any reform measures in this area would need to be undertaken only after a detailed assessment to ensure that the benefits of such a move outweigh the potential costs.

Retail Pricing/Retailer of Last Resort Arrangements

The AEMC noted the need for cost-reflective tariffs for end use customers, noting also that the CPRS introduces a new and potentially uncertain wholesale electricity supply cost. The AEMC has also indicated that the regulatory contingency plans for handling the financial failure of a retailer (i.e. the Retailer of Last Resort arrangements) are not adequate.

These comments are acknowledged and recognised with respect to the importance of cost reflective pricing signals at the retail and wholesale levels.

Western Australia is continuing to participate in a Regulators Roundtable (involving the Commonwealth and other jurisdictions) to progress consideration of arrangements for pass through of CPRS and RET related costs (as recommended in the Office of Energy's *Final Report on the Review of Electricity Tariff Arrangements*).

The Office of Energy has also committed to undertake a review of the adequacy of Supplier of Last Resort Arrangements (known as Retailer of Last Resort Arrangements in other jurisdictions).

Network Access

The AEMC has recommended that generator network access arrangements should be reviewed as a matter of priority, with implementation of a formal regime for transmission connection/augmentation where multiple connections are likely.

The AEMC also recommended that the connections application process should be made more informative and that the workability and clarity of the regulatory approval processes for transmission network augmentations should be reviewed.

These above suggested recommendations are acknowledged and supported.

Subject to funding availability and Ministerial approval, the Office of Energy is to undertake a study to address management of network constraints and future approaches for granting network access for generators (i.e. constrained versus unconstrained approach) and customer loads.

Western Power has also commenced a review of its Access Queuing Policy and is consulting with industry in this regard. Completion of an amended and approved Access Queuing Policy is expected by around April 2010.

The Office of Energy is also required to undertake a review of the Electricity Network Access Code under section 111 of the *Electricity Industry Act 2004*, which will include review of the regulatory approval process for transmission network augmentations. This Access Code review is scheduled to commence in April 2010 with revisions to the Code expected to be completed by December 2010.

Reserve Capacity Mechanism

The AEMC highlighted a number of issues with respect to the operation of the Reserve Capacity Mechanism (RCM).

Consideration of further reform of the RCM has been placed on the Market Rules Evolution Plan administered by the IMO.

Adequate Capacity

The RCM aims to ensure that the SWIS has adequate capacity to meet forecast peak demand through sufficient revenue for peaking plant investment without the need for high/volatile energy prices. The RCM currently may encourage overbuilding of the system by ensuring that all participants can get capacity accreditation provided they meet certain criteria. Such excess capacity has the potential to add to both total market costs and to individual market customer costs, thereby adding capacity risks and pricing uncertainty.

A Market Participant has suggested that the IMO use the capacity auction mechanism applicable under the Market Rules as this would restrict overbuilding to 100 MW and bring a capacity pricing and volume discipline into the RCM. It is however noted that while excess capacity is possible, the cost of this capacity, and thus the cost to the Market, is largely capped under the WEM Rules.

This is because the value of capacity credits is discounted proportionally to the level of excess in any given year.

Similarly a Market Participant has noted that potential late arrival of new capacity can lead the IMO to call for Supplementary Reserve Capacity (SRC) incurring additional costs to retailers passed through to end use customers. As the auction is capped at the National Electricity Market Value of Lost Load (VoLL), if exercised this can dramatically increase the summer cost of capacity even in a year that might ultimately have excess capacity if potential high demand is not realised.

On this matter it is noted that:

- reliability of supply is a key objective of the WEM, so it is appropriate to provide for identified potential demand, even though subsequent unexpected mild weather conditions or other factors might mean this does not eventuate;
- competition in SRC bids should mitigate against excessive cost;
- reserve capacity payments are recovered if capacity is not provided to the Market; and
- the WEM Rules provide the ability to recover additional costs that might be associated with SRC in the event a new project does not meet its obligations in the first year of operation.

Cost of Capacity

The AEMC notes other issues with the current RCM related to capacity cost and volume uncertainty. The actual capacity exposure applicable to each load a retailer supplies is only known two years out, creating uncertainty for the third and later contract years. Similarly the price per capacity credit is only known two years out. It is suggested that these uncertainties force retailers into unbundling their supply offers to avoid cost exposure or to limiting supply to less than two years.

In response to these views it is noted that the WEM is built on the assumption - reflected in practice - that most energy and capacity will be traded on longer term bilateral arrangements. Those bilateral arrangements provide an effective hedge against the uncertainty highlighted by the AEMC.

It is also noted that the RCM only provides capacity but does not guarantee efficient energy supply. Within the Western Australian Market model, securing the right mix of base load, mid-merit and peaking generation plant resides with the retailers whose investment decisions will promote the least cost mix of generation.

Fuel Supply Arrangements

Another concern the AEMC notes with the current RCM is the lack of availability of back-up fuel reserves across the board, particularly if there is a gas supply disruption similar to the Varanus Island incident.

As reliability is determined by the adequacy of the supply of electricity and not solely by the notional adequacy of the supply of fuel to generate electricity, this means that retailers should be encouraged to have an adequately diverse portfolio.

Assurance of fuel supply sufficiency is a very important part of capacity certification in the market, but presently this does not accommodate extraordinary events such as major and extended gas supply failures. It may be appropriate to modify or expand market arrangements in this regard, depending on the final outcomes of the Government's review of gas supply emergency management presently underway.