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24 February 2009

Dr John Tamblyn
Chairman
Australian Energy Market Commission
AEMC Submissions
PO Box A2449
Sydney South NSW 1235

Dear Dr Tamblyn,

AEMC First Interim Report – Reference EMO 0001

Please find attached Babcock & Brown Power's (BBP) submission to the Australian Energy Market Commission's (AEMC) *Review of Energy Markets in light of Climate Change Policies: First Interim Report* (December 2008).

Generally, BBP supports the AEMC's findings and proposed next steps to review energy markets in light of climate change policies. The areas where BBP has raised further issues for the AEMC to consider include:

- Retailing – at a policy level there is a need ensure a consistent approach for increasing energy retail tariffs to pass through the impact of CPRS
- Short term investment in capacity – the AEMC's finding that the Commonwealth Government's Electricity Sector Adjustment Scheme (ESAS) is an adequate risk mitigation against early generator exit has not been demonstrated
- Market arrangements for new connection, network augmentation and congestion management – the likely impact of CPRS and the expanded RET on these areas requires a fulsome review by the AEMC.

These matters are addressed in more detail in the attached submission.

If you have any questions with regard to BBP's submission or require any further information please contact me on 07 3011 7632 or James Reynolds on 07 3011 7646.

Yours sincerely,

Andrew Kremor
Executive General Manager
Babcock & Brown Power Pty Ltd

AEMC Review of Energy Markets in light of Climate Change Policies

Submission to First Interim Report

24 February 2009

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2 Chifley Square SYDNEY NSW 2000

Reference EMO 0001: 1st Interim Report
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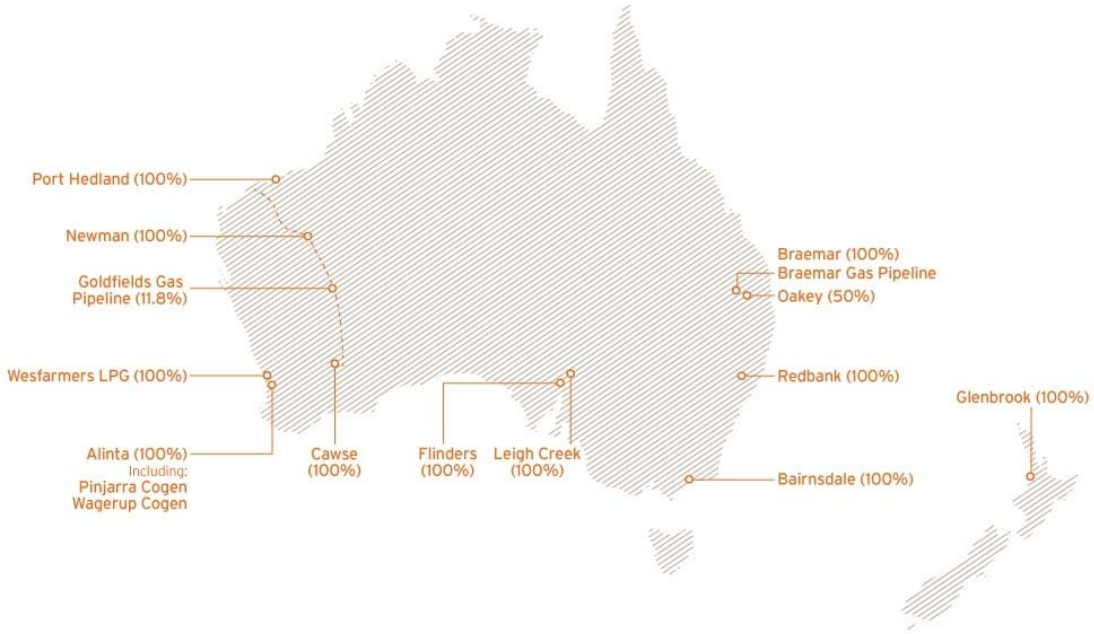
Overview to Babcock & Brown Power

Babcock & Brown Power Limited (BBP) is an Australian listed power generation business with an extensive portfolio of assets diversified by geographic location, fuel source, customers, contract types and operating mode. The portfolio has interests in twelve operating power stations representing over 2,900MW[1] of base load, intermediate and peaking power generation. BBP's history includes over 10 years of experience in developing, operating and acquiring various forms of generation.

The location of the current energy assets in the company group is as follows.



BBP employs around 900 of people across its portfolio of assets, and has corporate service centres in Sydney, Brisbane, Adelaide and Perth.

[1] Some Assets have minority shareholders

Introduction

Babcock & Brown Power (BBP) commends the Australian Energy Market Commission's (AEMC) first interim report "Review of Energy Market Frameworks in light of Climate Change Policies" ("the Report'). The report provides an excellent overview of the current state of Australia's national energy markets, and the key challenges that the current market regulatory frameworks are exposed to in meeting the policy changes proposed by the Commonwealth Government's Carbon Pollution Reduction Scheme (CPRS), and the expanded Renewable Energy Target (RET) program to market design and frameworks.

In principle, BBP considers that the AEMC has substantially identified those areas of market design which face material risks from CPRS and the expanded RET. BBP considers that the AEMC's next stage of review should be expanded in some aspects, which is the substance of this submission.

This submission is structured as follows:

- general review of the key material risk areas identified by the AEMC, and, at a summary level BBP's opinion regarding the AEMC's findings
- separate response to each area of the AEMC's review.

General overview

The AEMC's review focused on the robustness of existing, and transitioning, energy market frameworks to handle the stresses associated with the introduction of Carbon Pollution Reduction Scheme (CPRS), and an expanded Renewable Energy Target (RET) Scheme.

The AEMC's assessment framework to examine the robustness of the existing market design looked at likely market performance across the following criteria:

- reliability – delivering investment in new forms of new generation at the right time and location, and by reducing peak demand
- system operation – allowing markets to operate safely and securely with any interventions being undertaken in a non-distortionary way
- networks – provision of incentives to ensure efficient network investments with the appropriate allocation of costs and risks
- retailing – promote effective competition between retailers with regulation as a fall back position where effective competition has not emerged.[2]

Based on these criteria, the AEMC found that the current energy only market design framework, and subordinate regulatory arrangements are sufficiently robust to cope with the introduction of a CPRS and expanded RET.[3] Generally, BBP supports the AEMC's approach and findings on these matters.

However, BBP suggests that the AEMC's next round of review needs to incorporate examining the risks, likely impacts and potential mitigation options associated with:

- ensuring CPRS cost increases are passed through in energy retail tariffs
- substantiating its finding on the adequacy of the Electricity Sector Adjustment Scheme (ESAS) at mitigating the risk of capacity shortfalls occurring as a result of current plants exiting before new generation arrives
- the market design arrangements around new connections, augmenting transmission networks and congestion management and identifying the best system operation and transmission arrangements to manage these issues in the future.

In terms of retailing, the AEMC found that existing jurisdictional arrangements for retailing are likely to distort the quantum and timeliness of any pass through of CPRS. The AEMC then goes on to find that monitoring of the current processes should provide the basis for mitigating the issues identified with current retail regulation.

BBP considers that an alternative way forward for the AEMC would be to examine:

- existing jurisdictional regulatory retail tariff arrangements, and the likelihood of CPRS pass through, including the identification of likely lags or delays between cost imposts on retailers and pass through to end users
- how any distortion to end user retailer energy prices may affect:
    - liquidity and pricing in the financial energy market (i.e. forward contract market), and flow on impacts on long term investment in new generation
    - investment signals around demand side participation.

Moreover, in making this assessment the AEMC is able to take into account the policy guidance from the Commonwealth Government's *White Paper* '*Carbon Pollution Reduction Scheme: Australia's low pollution future'* that the government will provide 'upfront support' to a range of low and middle income households, and small businesses through a range of mechanisms directly and through the income taxation system to ameliorate the impact from

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2 AEMC (2008), *Review of Energy Market Frameworks in light of Climate Change Policies – 1st Interim Report*, page iv.

3 AEMC (2008), *Review of Energy Market Frameworks in light of Climate Change Policies – 1st Interim Report*

CPRS. And critically the Commonwealth Government expects to review these arrangements annually in order to ensure that households receive the support they need.[4]

BBP is concerned with the AEMC's finding that the Electricity Sector Adjustment Scheme (ESAS) reduces the risk of current coal fired generation capacity exiting the market in the short term, potentially reducing capacity and reliability of supply.[5] The AEMC's finding is that ESAS mitigates the well known financial risks associated with the introduction of a CPRS, and that any residual capacity or reliability risks to the market will potentially be driven by the technical failure of existing generators.[6]

From BBP's perspective, the only 'real' process able to assess the financial adequacy of ESAS is the asset impairment reviews that existing generators, particularly emission intensive generators, are expected to undertake once the Commonwealth Government introduces CPRS legislation. Until the outcomes from these assessments are known then it may be premature to find that the current ESAS provision of $3.5 billion (real terms) adequately addresses investment risk (sovereign risk), particularly as the majority of market modelling of likely financial impacts has identified a potential loss of value to existing generators of around three times this amount.

The likely impacts on ongoing investment incentives by the market identifying that ESAS is inadequate are far reaching, and impact not only on existing affected generators, but also on prospective investors looking at new generation opportunities in Australian energy markets. Given the uncertainty associated with predicting investor behaviour, particularly, in light of the broader economic down turn, there is substantial value in the AEMC revisiting its findings on the adequacy of ESAS.

Additionally, from a market and regulatory design perspective the Commonwealth Government has given itself substantial discretion over ESAS by placing conditionality provisions on recipients, and then by setting a very broad "windfall gain" review. From BBP's perspective, the nature of ex-post reviews provide substantial discretion to the Commonwealth Government to ensure that affected coal fired generators only receive 'enough' ESAS.

Accordingly, BBP suggests to the AEMC that there is value by including in the next round of assessment a more fuller examination of ESAS, its conditionality, and the "windfall gain review" to determine the likely consequential impacts that these instruments may have on:

- existing generators' incentives to continue to invest in capital maintenance programs to ensure technical generator availability
- rates of return expected by investors on new generation – as sovereign risk increases the expected returns for all Australian energy market investments
- the extent of discretion incorporated within ESAS arrangements, and whether these may distort existing market mechanisms
- the potential need for additional market mechanisms to support a smooth transition from existing generation while maintaining sufficient capacity and reliability of supply.

BBP supports the AEMC's analysis around the key issues likely to affect connection of new generation, augmentation and congestion management on the network, and network operations in light of CPRS and the expanded RET. However, BBP considers that the AEMC's preliminary presentation of potential options require further analysis.

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4 Commonwealth of Australia (2008), '*Carbon Pollution Reduction Scheme: Australia's low pollution future'*, page 17-1, 17-2.

5 AEMC (2008), *Review of Energy Market Frameworks in light of Climate Change Policies – 1st Interim Report, page 20*

6 AEMC (2008), *Survey of Evidence on the Implications of Climate Change Policies for Energy Markets – Supporting Paper to first Interim Report – Review of Energy markets in light of Climate Change Policies.*

Firstly, the AEMC should examine connection of new generation, managing congestion, augmenting existing networks, and managing system and networks on the basis of technology neutrality. From BBP's perspective the AEMC's proposed options based on the Network Extensions for Remote Generation (NERG) structure represents a sound basis to examine the issue of new connections, however, its pure focus on supporting wind generation could potentially be embedding a special arrangement to the detriment of other forms of technology. The NERG option should be made available to all technology types, if it is found to be the best option for mitigating the noted impacts associated with connecting new generation on a least cost basis.

The augmentation arrangements with regard to congestion on the network must be considered by looking to balance the market benefits from augmenting the network to accommodate new generators through least cost means. To this end BBP supports the AEMC's proposed revision of the regulatory test with regard to new augmentation.

In addition, BBP suggests that in assessing connection, augmentation and congestion matters that the AEMC should also take into account:

- likely impacts on locational price signals
- the impact of congestion on existing generators, particularly, if their network needs remain unchanged
- determining who should pay for causing or increasing network congestion
- the capacity of existing access arrangements for Transmission Network Service Providers (TNSPs) being able to accommodate the expected additional demands associated with CPRS and RET.

Western Australia

BBP's has substantial interests in the market outcomes that emerge in Western Australian energy markets (WAEM) through its fully owned subsidiary Alinta. It is noted that the AEMC's review of the Western Australian market in light of climate change adopted the same assessment approach applied for the eastern energy markets.

Overall, the AEMC found that many of the issues it identified as potentially material issues with respect to the robustness of the WAEM following the implementation of CPRS and RET had already been identified by the Economic Regulatory Authority (ERA) and the Western Australian (WA) Office of Energy as being issues that are required to be addressed even in the absence of these climate change policies.

Generally, BBP supports the key material issues identified by the AEMC and WA energy market regulatory institutions as needing to be addressed. BBP suggests that the AEMC should continue to monitor the progress of the WAEM reforms, particularly with regard to:

- existing retail tariff arrangements on the basis that the pass through of CPRS costs to gas retail customers is straight forward as the cost increase from CPRS can be measured quite accurately on a technical basis
- the ongoing impact on efficient market operations from the lack of competition in upstream gas markets
- the IMO's progress in addressing the value of intermittent allocated generation capacity credits relative to more reliable generators under the Reserve Capacity Mechanism
- the efficiency and equity associated with the mechanisms adopted to recover increased transmission network costs from connection of intermittent generation, congestion caused by generation and the sustainability of current arrangement where Verve provides system support services.

In this section we set out our response to the AEMC's specific questions by scenario area examined.

1. Convergence of Gas and Electricity Markets

AEMC concluded that this was not likely to be a material risk.

AEMC's Review Questions (in italics):

BBP response in normal font.

1. ***Do you agree that the convergence of gas and electricity markets is not a significant issue in the eastern states and therefore should not be progressed further under this Review? If not, what are your reasons for asking us to reconsider this position?***

BBP considers that the AEMC's conclusion covering the convergence of gas and electricity markets depends substantially on the assumption that new or yet to be implemented arrangements will effectively address the risks associated with gas and electricity market convergence. Moreover, the AEMC's analysis potentially down plays the significance of the barriers provided by existing long term take or pay contracts around gas transportation, and in many instances within gas supply contracts.

Firstly, the proposed Short Term Trading Market (STTM), and the Gas Bulletin Board (GBB) is expected to provide greater transparency around market information for gas. From BBP's perspective the effectiveness of the STTM will depend on there being:

- spare gas in existing contracts
- ability to utilise any spare transportation capacity to physically transport traded gas
- where there is limited spare transportation capacity – the ability of proponents to negotiate capacity expansion
- where there is available capacity the ability to negotiate back to back transportation contracts to provide physical delivery.

The STTM is a substantial step forward for price and physical capacity transparency, however, it will only relate to the residual or un-used proportion of the long term bi-lateral commercial contracts. Whether this provides any additional information revelation around the pricing and capacity decisions for gas volumes set under the bi-lateral contracts remains to be seen.

In addition, as a substantial gas user BBP suggests that the STTM provides limited ability to apply standardised risk management around gas prices – given the preference for long term fixed price contracts. It is acknowledged that the bi-lateral contracts are an important feature supporting long term investment in new gas supply basins, and transmission pipelines, however, in the medium term this could represent a barrier to greater gas supply flexibility to support increased penetration of new gas fired generation. Accordingly, BBP suggests that the AEMC should explore the following areas as the basis for supporting the proposed STTM and GBB.

BBP maintains that there would be substantial benefit to the market by examining existing market arrangements with regard to the NEL and the NGL in order to facilitate the creation of a financial derivative gas market. Such a market would provide market participants with the opportunity to effectively manage gas price risk, and it would provide greater information as a benchmark to confidential gas prices set within bi-lateral contracts.

BBP considers upstream gas supply markets to be heavily concentrated, and in many instances operated on the basis of a single or joint marketing arrangement. As a consequence, this potentially lessens the competition in these markets, reducing flexibility

and responsiveness to downstream customer needs, as well as increasing the potential for prices being set with regard to other factors rather than efficient costs.

As the substantive fuel technology to supply Australia's energy needs into the future it is imperative that it is delivered at efficient cost of delivery To this end, BBP considers that the AEMC should, as part of its next stage of review, examine the scope of whether energy market institutions, including the ACCC, should be charged with undertaking a more direct market monitoring role.

To consider gas and electricity market convergence the AEMC could also consider:

- examining the likely impact on gas prices, and new generation entry where there is a quota or requirement for gas supply to provide domestic gas
- ensuring that gas storage infrastructure is included in the Gas Statement of Opportunities
- the role of National Transmission Planner (NTP) within AEMO and the likely areas that will be strained as a result of CPRS and RET.

2. Do you agree that the convergence of gas and electricity markets in Western Australia is not a significant issue and therefore should not be progressed further under this Review? If not, what are your reasons for reconsidering this position?

The AEMC concluded that convergence in the electricity and gas markets in the WAEM was not a material issue. Broadly, the AEMC reached its conclusion on the basis that:

- new generation, base load and high merit, is likely to be coal given high gas prices
- low merit gas fired will have a role as load following generation – providing that short term challenges to gas supplies and pipeline capacity are addressed
- security of supply issues from a single gas transmission pipeline are mitigated by gas fired generation being able to operate on distillate.[7]

BBP notes that there is a lack of competition in the upstream WA gas market, which manifests in a practical way in there being little flexibility or responsiveness to the demand for gas from the electricity industry. From BBP's perspective, the ability of the WAEM to effectively respond to CPRS and an expanded RET is therefore at risk due to the linkages between the electricity and gas markets, particularly, electricity demand for greater gas supplies.

BBP considers that the AEMC's next round of assessment would benefit by examining the inter-dependencies between both electricity and gas with particular focus on testing the robustness of the electricity market design, including the Reserve Capacity Mechanism given:

- more new generation might be gas fired rather than the assumed coal
- the noted short term challenges to gas supplies and pipeline capacity prove not to be transitory in nature.

2. Generation capacity in the short term

AEMC concluded that this was likely to be a material risk.

3. Do you agree that the ability for NEMMCO to manage actual or anticipated transitory shortfalls of capacity is a significant issue that should be progressed further under this Review?

BBP agrees with the AEMC's findings around NEMMCo's ability to manage actual or anticipated transitory shortfalls in capacity is a significant issue requiring further consideration by the AEMC.

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7 AEMC (2008), *Review of Energy Market Frameworks in light of Climate Change Policies – 1st Interim Report, page* 63.

The AEMC found this to be significant issue on the basis that:

- there already existed noted generation capacity shortfalls, particularly, in Victoria and South Australia, in the period most affected by the uncertainty generated by the current legislative reform process[8]
- CPRS may create investment uncertainty
- an expanded RET may create further investment uncertainty – but with different drivers and consequences on the performance of existing generation
- the global financial and economic crisis will reduce the availability of finance to market's perceived to be more riskier investments or look to seek higher returns from more inherently risky investments or not invest at all where the uncertainty is significant.

The AEMC also concluded that the Commonwealth Government's ESAS reduces the risk associated with early plant exit by coal fired generators, but that it did not mitigate the risk of further shortfalls associated with a technical failure and resultant reduction in capacity.[9] Additionally, it was concluded that NEMMCo's Reliability and Emergency Reserve Trader (RERT) mechanism and market directions tools did not represent a feasible option – on practical grounds, and on the basis that these mechanism, at principle from a market design perspective, should not distort long term investment signals.[10]

BBP considers these matters in turn.

ESAS and reducing investment uncertainty

From BBP's perspective the proposed quantum of ESAS is inadequate – perpetuating investment uncertainty for the industry, and therefore, impacts on whether there will be sufficient investment in new generation to meet the market's capacity requirements.

The substantive basis as to why the ESAS quantum falls down is that it has been determined by reference to a pre-determined policy outcome - $3.5 billion rather than looking to set the quantum through a 'bottom-up' process or through market consensus based on known probable value impacts on the sector. In terms of market consensus, there now exists several modelling outcomes showing that the likely value impact on existing generation is around $10 to $12 billion. The bottom up assessment of value impacts from CPRS will be measured by affected businesses, through well known and understood accounting practices for asset impairment, once the Commonwealth Government introduces its CPRS legislation. Given that the bottom-up assessment will not be undertaken until June/July 2009, and the current ESAS of $3.5 billion is below the current market consensus BBP considers that is it difficult to sustain the position that ESAS is adequate in terms of mitigating the risks of early generator exit.

In addition, the Commonwealth Government has also set two important control mechanisms around ESAS, which by in large increases certainty for the Commonwealth Government that it will not over-compensate generators, which is likely to negatively impact on the 'bankability' of ESAS, therefore, potentially increasing investment uncertainty rather than decreasing it.

The first ESAS requirement, is that the recipient of ESAS must accept the condition to be 'in service', which is defined at present, but still considered uncertain on account that until it is legislated there is the potential for the Commonwealth Government to change. The second condition is that the Scheme Regulator will in 2012-13 undertake a "windfall gain review". This can only heighten uncertainty around ESAS.

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8 AEMC (2008), *Review of Energy Market Frameworks in light of Climate Change Policies – 1st Interim Report, page 18.* AER (2008), State of the Energy Market 2008, page 73.

9 AEMC (2008, *Review of Energy Market Frameworks in light of Climate Change Policies – 1st Interim Report, page 20.*

10 AEMC (2008, *Review of Energy Market Frameworks in light of Climate Change Policies – 1st Interim Report, page 20.*

BBP considers that the Commonwealth Government's current ESAS, in terms of quantum, and discretion provided by ex-post review, does not reduce investment uncertainty. This suggests a need to increase ESAS in line with achieving the goal of reducing the risks around early capacity exit without new capacity entering.

While the ultimate structure of ESAS remains the decision of the Commonwealth Government, we suggest that the AEMC has a role to take into account the impact of ESAS on market design and the achievement of the NEO. From this perspective we suggest that the AEMC has not undertaken sufficient examination to determine whether ESAS achieves this desired outcome.

At a practical level, BBP suggests that the AEMC's next round of review examine:

- existing generators' incentives to continue to invest in capital maintenance programs to ensure generator availability
- rates of return expected by investors on new generation – as sovereign risk increases the expected returns for all Australian energy market investments
- the extent of discretion incorporated within ESAS arrangements, and whether these may distort existing market mechanisms
- setting the base line around expected generator financial performance under with and without CPRS scenarios with a view to determining whether the ESAS is able to keep negatively impacted power generators in the market in the short run in order to support a smooth transition to new generation, and to also set the baseline analysis that could be adopted by the Scheme Regulator when undertaking its "windfall gain review"
- examining the potential interplay between the conditionality requirements attached to ESAS, and whether this may overlap and be value destructive to any market based arrangements negotiated by market participants, or alternatively, distort the impact of any arrangements pursued by the AEMC.

NEMMCo's RERT and Market Direction Mechanisms

BBP agrees with the AEMC's concerns regarding options to change NEMMCo's RERT and market directions powers, however, there may be merits in investigating a transitional amendment to the RERT (please see response to question 4).

4. Are additional mechanisms required to complement the Reliability and Emergency Reserve Trader (RERT) and NEMMCO's directions powers, and what characteristics should such mechanisms have?

BBP suggests that the AEMC review potential options to extending the RERT planning horizon beyond the existing 9 months to a period that allows for a supply side response. Generally, an appropriate planning horizon for a new generator investment is around 18 to 24 months, which represents the maximum time horizon that the RERT planning horizon could be adjusted to without distorting investment signals for new generation.

Western Australia

The AEMC found that the WAEM framework would be robust in continuing to provide incentives for new generation entering to meet reliability standards (current setting shows no issues until 2011), and that the Reserve Capacity Mechanism seems well placed to continue providing appropriate long term investment signals. The AEMC did find that the Reserve Capacity Mechanism may require some adjustment to take into account the non-firmness or lack of reliability associated with intermittent generation.

Overall capacity requirements of the WA market are determined by the IMO in accordance with the Market Rules. BBP agrees with the AEMC's finding that the Reserve Capacity Mechanism ensures that sufficient capacity is available on the system, and that the process should be robust enough to cope with the introduction of the CPRS.

However, the WA Office of Energy has commissioned a review of the manner in which intermittent generators, including wind, are allocated Capacity Credits (which may be overly generous under the current rules). BBP supports this review and expects the AEMC will continue to monitor progress.

BBP suggest that there would be value from the AEMC reviewing or being part of any WA driven review of arrangements covering the manner in which the costs of transmission upgrades to support higher levels of intermittent generation are recovered by the network operator. Moreover, BBP considers that the AEMC's recent review experience from its Comprehensive Reliability Review, and its review of transmission arrangements in the NEM would provide substantial benefit to ensure that the transmission arrangements in the WAEM are based on best regulatory practice.

Additionally, BBP maintains that the AEMC should also examine the future role of Verve in the provision of system balancing and ancillary services to IMO in the WAEM. This of particular relevance as the introduction of CPRS and the expanded RET will facilitate further penetration of intermittent generation placing greater demands on these important complementary energy services. Consequently, the robustness of existing market arrangements are dependent on the Western Australian government's willingness to continue to underwrite Verve's considerable financial losses, particularly in the event that CPRS and RET increases the demand for Verve's services.

5. Do you have any views on the detailed design and implementation of additional mechanisms?

BBP has no views at this time.

3. Investing to meet reliability standards with increased use of renewables

AEMC concluded that this was not a material issue

BBP largely supports the AEMC's findings.

6. Do you agree that the existing framework based on an energy-only market design with supporting financial contracting is capable of delivering efficient and timely new investment, including fast response capacity to manage fluctuations in outputs resulting from larger volumes of intermittent wind generation? If not, what are your reasons for reconsidering this position?

BBP agrees with the AEMC's findings regarding the robustness of the energy only market design and electricity financial markets being able to deliver efficient and timely investment. However, as highlighted by the AEMC, there are several material issues associated with CPRS and the expanded RET, which have the potential to test market design, particularly during the transition from the current generation portfolio to the post CPRS and expanded RET generation portfolio.

As an immediate step, BBP suggests that there would be market benefit with regard to investment incentives by the AEMC implementing the findings from the Comprehensive Reliability Panel Review. Namely:

- increasing the maximum price limit (VoLL) from $10,000/MWh to $12,500/MWh
- revising the cumulative pricing threshold to $187,500
- the indexation of the maximum allowable price and cumulative price threshold.

7. ***Do you agree that the processes supporting the ongoing maintenance of this framework in respect of review and periodic amendment to the market settings, including the maximum market price, are robust? If not, what are your reasons for reconsidering this position?***

BBP agrees that the current processes are adequate to support the maintenance of the energy only market framework.

4. System operation and intermittent generation

AEMC concluded that this was not a material issue

8. ***Do you agree that operation of the power system with increased intermittent generation is not a significant issue and therefore should not be progressed further under this Review? If not, what are your reasons for reconsidering this position?***

BBP considers that with increased penetration of intermittent generation the operation of the power system may face challenges, particularly, around finding alternative sources for ancillary services currently supplied by the existing thermal generation fleet. BBP considers that this issue requires further examination despite not having the same level of materiality of other issues considered by the AEMC in its first interim report.

BBP refers the AEMC to the NGF's submission regarding this matter. In summary, system operations access to frequency control ancillary services, such as inertia and reactive power to support the reliable operation of the system is likely to diminish with increased penetration of intermittent generation. The risks to system operation from the loss of these services could be overcome by the AEMC exploring the creation of an expanded market for these services, which would:

- provide an alternative earnings stream to existing generators able to provide these types of services – potentially extending economic life post CPRS and expanded RET
- allow new intermittent generators to connect to the system without distorting system operations, ie they would be able to contract for these services
- improve efficiency in the delivery of these services by greater revelation around price and standard of service requirements for various new market participants.

Western Australia

BBP agrees with the AEMC's findings that current WAEM framework around system operation which depends on a single participant, Verve, bearing the main responsibility for system balancing is not sustainable in a post CPRS and expanded RET world as it will simply exacerbate the 'spilling' effect of the system operator turning down other plant.

For this reason, the AEMC should examine the future role of Verve in the provision of system balancing and ancillary services. This of particular relevance as the introduction of CPRS and the expanded RET will facilitate further penetration of intermittent generation placing greater demands on these important complementary energy services.

5. Connecting new generators to energy networks

AEMC concluded that this was not a material issue when connecting gas fired generation

AEMC concluded that this was a material issue when connection renewable (remotely located) generation

9. Do you agree that the connection of new generators to energy networks is a significant issue that should be further progressed under this Review? If not, what are your reasons for reconsidering this position?

BBP considers that the connection of any new generators is a material issue. BBP supports the AEMC's exploration of the future challenges around connection of new generation (and the obvious linkages to transmission augmentation and congestion – see next issue), and considers that the AEMC's proposed options or models for Network Extensions Remote Generation (NERG) represents a sound basis for examining the market design framework for new network connections.

However, BBP does not support the AEMC's approach of creating a 'special' new connection regime for remote renewable generation. This would effectively represent change to a core element of the market design to simply improve the upfront economic feasibility for this generation technology. Substantially this is expected to be achieved by an expanded RET, accordingly, the AEMC should not be making any amendments along the lines proposed within the first interim report.

The NERG approach should be applied to all technology forms of generation where it is considered to be a feasible approach with regard to the NEO.

At present, BBP has not reached any conclusive outcome with regard to the AEMC's proposed options presented in the first interim report. We expect to be able to provide outputs from our analysis of these options during the course of the AEMC's review.

10. Would any of the models identified in this chapter ensure the more efficient delivery of network connection services? In particular, with relation to these models:

- ***How should the risks of connection be most appropriately spread across new connection parties, network businesses and end use consumers?***
- ***How do the connection charges change for connecting new generation plant and what benefits may arise?***
- ***How do the costs for end use customers change and what benefits may arise?***

BBP has not reached any conclusive position with regard to the AEMC's proposed options presented in the first interim report. We expect to be able to provide outputs from our analysis of these options during the course of the AEMC's review.

Western Australia

BBP agrees with the AEMC's findings and proposed areas for further analysis on the current WAEM framework for new connections, augmenting network, and queue (de-facto congestion) management.

6. Augmenting networks and managing congestion

AEMC concluded that this was likely to be a material issue

11. Do you agree that the issue of network congestion and related costs requires further examination in this Review to determine its materiality? This includes considering whether the existing frameworks provide signals that are clear enough and strong enough in the new environment where congestion may be more material. If not, what are your reasons for reconsidering this position?

BBP agrees with the AEMC's conclusions, and along with other industry participants consider that congestion, and its effective management represents a substantial challenge provided by CPRS and an expanded RET.

We refer to recent modelling work undertaken by the ROAM Consulting Group[11] for the AEMC, which suggests not only an increase in congestion, but also the likelihood of a reconfiguration of constraints and congestion patterns as a result of an expanded RET, and CPRS. Importantly, BBP's recent experience of increased wind generation (un-scheduled wind generators) in south east South Australia has resulted in congestion impacts on power station operations. Accordingly, BBP considers that there are likely to be substantial market benefits by the AEMC considering congestion, and its effective management as part of a broader assessment around:

- the responsibility and role of TNSPs – negotiating arrangements, the ability to offer more 'firmer access', and the nature of charging arrangements with regard to new connecting generators causing congestion
- addressing the economic and process weaknesses within the existing regulatory test – BBP supports the NGF's position, and proposed steps forward for examining the AEMC's proposed new regulatory investment test for transmission (RIT-T)
- future connection regime with regard to: locational price signals to new generation; impact of congestion on existing generators as new generation connects; and treatment of existing generators when seeking augmentations.

A reasonable starting point for the AEMC to review this matter is the NGF's previous submission to the AEMC's Congestion Management Review.[12]

7. Retailing

AEMC concluded that this was likely to be a material issue

12. Do you agree that the current inflexibility in the retail price regulatory arrangements is a significant issue that should be progressed further under this Review? If not, what are your reasons for this position?

BBP supports the AEMC's findings around the potential risks posed by the current retail energy regulatory arrangements. Moreover, the market is in general agreement that the best way forward is to allow retail energy prices to reflect the true cost of supply, but current retail regulatory arrangements are dissimilar, and potentially subject to political intervention, which only increases the risks to market arrangements.

Accordingly, BBP considers that the AEMC's next review of retailing and market design in light of climate change should explore the following:

- examine existing jurisdictional regulatory retail tariff arrangements, and the likelihood of CPRS pass through, including the identification of likely lags or delays between cost impost on retailers and pass through to end users
- determine an appropriate methodology that all jurisdictional regulatory can consistently apply
- examine the how any distortion to end user retailer energy prices may affect:
    - liquidity and pricing in the financial energy market (i.e. forward contract market), and flow on impacts on long term investment in new generation
    - investment signals around demand side participation.

BBP considers that the AEMC must commence these processes immediately with a view with providing the market, particularly end users with forward notice of expected price increases in July 2010.

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11 ROAM Consulting (December 2008), *Report to AEMC – National Electricity Market Development, market impacts of CPRS and RET*, page iii and 49.

12 Synergies Economic Consulting, Market Access, Report to the National Generators Forum, December 2007