

CALLIDE POWER

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QLD COMPETITION AUTHORITY

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DATE RECEIVED

Mr Hall, Chief Executive
Queensland Competition Authority
GPO Box 2257
Brisbane Qld 4001

Dear Sir

Please find attached a copy of the CPM Submission in response to the Gladstone Area Water Board Part (b) Submission to the Proposed Pricing Practices Review.

Should you have any queries regarding this paper, contact should be made with the undersigned.

Yours faithfully



David Coucill

Commercial Manager

Attach

Callide Power Management

Submission to the Queensland Competition Authority in response to the Gladstone Areas Water Board Part (b) Submission

Callide Power Management (CPM) wishes to highlight to the Queensland Competition Authority (QCA) a number of concerns and other issues in respect of the approach proposed by the Gladstone Area Water Board (GAWB) for the proposed Fitzroy River Pipeline (FRP) project.

This submission represents the views of CPM as owner and manager of the Callide "C" power station. Individually, the Callide "C" power station is the second largest of GAWB's customers. Collectively with CS Energy's adjacent Callide "B" plant, the power stations account for more than 40% of GAWB's present water demand.

The submission responds to both GAWB's Part (b) submission and the associated 'pricing impacts' advice provided by GAWB. CPM does not consider any of the material in this submission to be commercially confidential.

Before commenting on the particulars of GAWB's submission, we wish to bring to the QCA's attention the material change in water supply situation in central Queensland. Substantial rainfalls have resulted in the storage volume in Lake Awoonga increasing dramatically over the past few weeks. The present volume of water in storage is some [434,000ML], which represents at least [7] years demand, even with conservative inflow and loss assumptions.

As a result, in CPM's view, there is no near-term requirement for the FRP project, on either supply augmentation or drought contingency grounds.

Accordingly, CPM submits that GAWB must re-evaluate its timetable for the FRP (or any other contingency strategy), and immediately discontinue any planned construction or significant related preparatory expenditures. This is consistent with the QCA's position in its Part (a) report (*Final Report: Gladstone Area Water Board: 2007 Investigation of Contingent Water Supply Strategy Pricing Practices: Stage A*):

"Preparatory expenses on items such as project management, approvals, consultation and communication, engineering and investigations and land acquisition are appropriate *if there is a high probability of project commencement in the next few years.*" (page (viii), emphasis added)

There is no such 'high probability' of the FRP project commencing in the near term.

CPM has written to GAWB seeking confirmation on this matter. CPM has provided this submission on the assumption that GAWB will not pursue development of the FRP at this time. If GAWB were to confirm a different near term strategy CPM would need to consider this and may provide a supplementary response to the QCA.

CPM has endeavoured to respond to the key issues in GAWB's Part (b) submission with the timeframe required by the QCA. To the extent the QCA has further queries regarding the matters set out below, we would be pleased to provide a supplementary submission to the Authority to address these.

Key issues

CPM operates a facility which is critically reliant on water. As such, CPM has a substantive and long-term interest in the proper management of water resources and in appropriate planning to maintain a supply consistent with customer's requirements.

CPM has approached its review of GAWB's submission and related proposals from the viewpoint that an appropriate management and planning framework must include:

- definition of levels of service (supply reliability, in particular) consistent with customer's objective requirements, though recognising that these requirements may vary between customers

GAWB has only partially (through its Drought Management Plan) sought to define customer levels of service, and has not acknowledged that different customer(s) may require different levels of service

- these levels of service, and probabilistic modelling of the expected future performance of existing supply assets, should be used to demonstrate the need for any contingent supply response

GAWB's triggers are based on static assumptions around inflows and demand, and generally do not allow for proper risk-weighted assessment of options and strategies

- any contingent response must be demonstrated to be the preferred, least-cost option from all available supply augmentation and demand management strategies

GAWB's previous evaluation of future supply options/contingency strategies was not robust, and CPM has some concerns that the evaluation process proposed by GAWB may not allow for proper consideration to all possible supply augmentation/demand management options.

The remainder of this submission is structured around three key issues:

1. appropriate triggers for any augmentation or contingency works
2. the evaluation process proposed by GAWB to compare alternative supply augmentation and demand management options, and
3. setting of appropriate levels of service, consistent with customer requirements.

Augmentation triggers

GAWB has proposed two broad augmentation triggers; one based on a near-term drought response, and the other based on contracted demand exceeding available (net) supply capacity.

For the former, GAWB has linked directly the triggers for a contingent supply response to its Drought Management Plan (DMP). The DMP is presented as a "legally binding" plan, "approved" by the relevant regulator.

CPM is concerned that the parameters in the DMP are inappropriate for the purposes proposed:

- GAWB unilaterally amended its DMP in mid-2007, providing only a limited window for customer consultation. The amended Plan included significantly reduced inflow assumptions, based now on an assumption of a repeat of the worst three year inflow sequence.

The effect of this change is to constrain the field of supply augmentation or demand management options which are able to materially affect the projected time to dam failure (once a Low Supply Alert has been triggered), hence biasing the choice of contingent response towards larger (supply only) options.

This was acknowledged by GAWB's advisors Wedgewood White Ltd in the report to GAWB *Pricing Implications of a Second Source*:

"WWL understands that, based on the inflow assumptions included in the DMP, a 15GLpa source would only extend the time to supply failure by 11 months. *Had the trigger been designed to allow for a 15GLpa augmentation*, the trigger would need to occur earlier to achieve the same level of supply security. That is, given the current DMP drought response arrangements, a source with capacity significantly greater than 15GLpa is required to meet the target level of supply security." (page 14, emphasis added)

- The DMP is based on a static inflow assumption, and does not allow for any probabilistic assessment of expected future inflows (or other probability-derived inflow scenarios, ie. a scenario where modelling indicates there is a 90% probability of inflows being exceeded over some defined future term). The only mechanism provided is for the DMP to be reviewed and amended.

In this way the DMP fails to allow for any consideration of whether, for a particular low supply situation, there is a different probability around future (near- and medium-term) inflows, and hence a different cost/benefit trade-off for committing early to a contingency response. It effectively links a decision to incur significant contingency costs, with 100% certainty, to an inflow assumption which has proved in fact to be less than 100% certain.

This type of probabilistic scenario modelling is little-different to that proposed by GAWB's advisors:

"WWL recommends a probability weighted scenario modelling or real options approach be used to determine the appropriate augmentation capacity at the time the augmentation is triggered." (page iii)

- The very low inflow assumption in the DMP constraints the time available to identify, evaluate and develop alternative supply augmentation or demand management options. The effect of this is to bias the decision towards pre-

existing projects, and against multiple, smaller scale demand responses which, collectively, may represent a cost-effective alternative to the FRP.

In any event, using GAWB's own drought triggers, recent inflows to Awoonga Dam mean there is no drought-related justification to proceed now with the FRP project.

GAWB's second trigger relates future contracted demand outstripping its 'net' supply capacity. This trigger would be activated where contracted demand exceeds GAWB's water allocation less certain adjustments.

One of these adjustments¹ is for demand to be increased by a "contingency" volume amount, defined as 5 per cent of the GAWB's total water allocation. Based on an interim allocation of 70,000MLpa, this contingency volume would be 3,400ML (increasing to 3,900ML once Awoonga reaches its Full Supply Level (FSL) and GAWB's allocation is increased to 78,000MLpa).

CPM is concerned that the 5 per cent contingency allowance appears somewhat arbitrary, and if maintained in perpetuity would require GAWB to permanently hold, and for customers to pay for, more capacity than is required at any point in time.

CPM's preference would be for any supply augmentation trigger to be based on actual contracted demand, plus an allowance for reasonable and efficient distribution system losses. Note that the trigger could not be activated for 'prospective', but as yet uncontracted, future demand.

At a minimum, GAWB should demonstrate that the contingency volume is reasonable and appropriate, specifically by quantifying the contingency volume requirement associated with each of the 'reasons' identified at pages 35-36 of its Part (b) submission to the QCA. While a number of these reasons are uncontroversial, it is not clear to CPM that these collectively require GAWB to hold a 5 per cent contingency volume (for instance, CPM understands that some customers have historically used significantly less than their full contract reservation volume, meaning that there is less need for GAWB to maintain a contingency 'buffer' to accommodate an increase in demand above contracted levels for other customers).

A related concern is the reference to the current interim allocation of 70,000MLpa. As GAWB's submission acknowledges, the yield of the existing Awoonga storage, when it fills to its FSL, will increase to 78,000MLpa. CPM is concerned that the current trigger definition may result in an augmentation being developed to meet aggregate contracted customer demand of just more than 70,000MLpa, when this additional supply requirement could have been delivered using existing assets.

Again, CPM would take the view that GAWB should consider probabilistic modelling of inflows and other parameters to determine the likelihood of the interim yield limitation being lifted. It may be that the least cost option, for all customers, is to defer entering into new contracts until such time as the full 78,000MLpa yield is realised (and contracted customer demand exceeds this amount).

¹ A second adjustment relates to distribution system losses. CPM cannot comment on whether the allowance provided for these losses is reasonable, though would expect that this issue will be considered by the QCA.

As a further observation, CPM notes that GAWB's submission presents the FRP as near-term response to demand growth using arguable assumptions. CPM's views on future demand are perhaps more conservative than GAWB's, and in CPM's view the need to augment Awoonga Dam with a supplementary supply source to meet future demand is extremely unlikely in the near term.

Evaluation process and timetable

CPM previously has set out its view that GAWB must restate its timetable in respect of any contingency response, to reflect the more recent significant changes in water availability from Awoonga Dam. Specifically, the timeframe (refer page 51 of GAWB's Part (b) submission, for instance) proposed by GAWB requires a customer response, in the form of a "formal and binding" proposal to GAWB, by the end of March 2008.

There is no continuing logic for such an accelerated timeframe.

CPM does not consider this to be a controversial matter given that dam levels now fall outside GAWB's own trigger points (for either a drought response trigger or supply augmentation trigger).

CPM has for the past year been developing a proposal for either partial- or full air-cooling to be retrofitted to the Callide "C" power station. This would allow for a significant reduction in the volume of water used on-site, with a direct impact on CPM's supply requirements from GAWB's Awoonga Dam.

Based on information available to CPM, the option of air-cooling either or both generating units at Callide "C" represents a materially lower cost option, on a dollar per megalitre saved/supplied basis, than GAWB's preferred FRP project. Measured in terms of the price impact to customers overall (assuming costs are amortised over GAWB's entire customer base – see further discussion below) the cost advantages to air-cooling is greater still.

CPM had intended to submit a proposal to GAWB per the original timetable set out in GAWB's Part (b) submission, though to do so was challenged by the very tight timeframes specified by GAWB. This proposal would have sought partial-funding from GAWB towards the cost of air-cooling, with GAWB's 'costs' to be recouped as it would any alternative supply augmentation.

The recent significant inflows to Awoonga Dam have shifted the focus away from air-cooling as a near-term drought response, but the option remains, in CPM's view, a viable and cost-effective supply alternative. CPM intends therefore to continue to liaise with GAWB in regards this proposal.

For this reason, CPM is anxious to ensure that the evaluation process proposed by GAWB is robust and unbiased.

The evaluation process as set out at pages 56-57 of GAWB's Part (b) submission is generally reasonable. However, significant discretion remains with GAWB:

- what constitutes a "similar quantum of benefit" (page 56); how much cheaper does a demand management option have to be as compared to the FRP before it is considered superior?

- the same provision appears to allow for a cost-preferred option to be dismissed because of subjective assessments of “broader economic costs and benefits”, and which may include “qualitative assessments of social impacts”
- how GAWB intends to account for any “enduring costs and benefits” is unclear. For instance, in the case of air-cooling, would GAWB consider the future decommissioning of a power station (at the expiry of its economic life) a disadvantage or an advantage?

In part, CPM's concerns relate to GAWB's public and high-profile promotion of the FRP as its preferred project. GAWB's website, for instance, includes detailed information on the pipeline project, including a timetable (refer: http://gladstone-fitzroypipeline.com.au/pdfs/qfp_timeline_051207.pdf) which makes no reference to the current QCA investigation or to the prospect that GAWB may elect to not proceed with the pipeline in favour of some alternative project.

It would seem difficult for GAWB to objectively assess a competing and mutually-exclusive proposal, given the degree to which it has sponsored the development and progression of its preferred FRP project.

Finally, the evaluation process is intended to be primarily based on price impacts to customers, which necessarily means it is directly concerned with relative costs. GAWB has however declined to provide information on current capital cost estimates for the FRP project, citing confidentiality limitations. GAWB's advice to customers in respect of price impacts further notes that current prices are “for indicative purposes only”.

CPM is concerned to ensure that, if GAWB undertakes an assessment between options and elects to proceed with the FRP on the basis it is cost-preferred, then subsequent revisions to pipeline costs should not be permitted. This would be consistent with GAWB's requirement that customers present proposals on a “formal and binding” basis – inferring that any changes in costs relating to these alternative proposals would be at the customer's risk.

Levels of service and 'opt in' arrangements

GAWB's advice on pricing impacts makes clear its intention is to share the costs of any augmentation or contingency response across its entire customer base.

In doing so, GAWB has dismissed representations from CPM and other customers for a differentiated level of service. This could be achieved by allowing customers to 'opt in' to a 'premium' reliability supply contract, where reliability is supplemented by any contingency response/augmentation. Other customers could elect to remain on a 'standard' reliability contract, receiving supply from Awoonga only, with a consequent higher exposure to drought risk and future supply restrictions.

CPM has in previous submissions to the QCA set out its views on this approach. In short, CPM's believes an 'opt in' arrangement:

- is the most reliable way to demonstrate “a significant level of customer support for [GAWB’s] preferred contingent strategy option ...” (refer page (viii), *Final Report: Gladstone Area Water Board: 2007 Investigation of Contingent Water Supply Strategy Pricing Practices: Stage A*, (QCA 2007))

CPM does not support GAWB developing the FRP project, in its current form, at the current time.

- would require GAWB to properly cost the price impact for those customers whom wanted, and were prepared to pay for, the contingent supply option
- is operationally and administratively practical, given the small number of customers serviced by GAWB, and in substance is little different to the current DMP arrangements whereby municipal customers are subject to a different restrictions framework – equivalent to a higher level of supply reliability – than are industrial customers, and
- would recognise that the benefits of the FRP are not uniformly-distributed across GAWB’s customer base – in extreme conditions the power stations cannot be supplied water from the FRP.

An opt in arrangement is consistent with the philosophy underpinning GAWB’s planning and pricing approach; that customers bear both demand and drought risk:

“... in the long run, customer bear demand risk (lower demand means that every customer’s price rises slightly) and drought risk (customers pay a return on investment for GAWB’s prudent drought mitigation measures).

One reason for GAWB’s low regulated return on investment ... is that GAWB does not have to bear (and is therefore not compensated for) this long-run drought risk and demand risk. (Wedgewood White Ltd (2008), *Pricing implications of a second water source: final report*, January, page 7)

CPM’s view is that, if customers are required to bear drought risk, then they should be free to determine their own response to it. This might be to participate in a ‘collective’ drought risk mitigation strategy coordinated by GAWB, or through individual action (or no action at all).

GAWB’s current proposal effectively is to impose a higher level of reliability on all customers, at significant additional cost. It assumes that all customers value the improved reliability equally, and have no (or only very high cost) alternatives available to them.