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Mr Mike Buckley
General Manager
Network Regulation South
Australian Energy Regulator
PO Box 1199
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9 February 2007

Dear Mr Buckley

RE: Submission in response to the Australian Energy Regulator's Draft Decision on Powerlink's Transmission Network Revenue Cap 2007/08 to 2011/12

Queensland Alumina Limited (QAL) welcomes the opportunity to make a submission on the AER's Draft Decision in relation to the revenue cap application made by Powerlink for its transmission networks.

This submission sets out, for the AER's consideration:

- Background information about QAL and its business, in order for the AER to understand the context in which QAL is making this submission;
- QAL's direct experience with Powerlink, which QAL believes is relevant to the AER's consideration of Powerlink's revenue application, specifically issues relating to reliability of supply;
- QAL's overall concerns in relation to the AER's interpretation of the current framework for transmission regulation, specifically the limited detailed consideration of customer and stakeholder impacts, as well as more general issues with the regime itself; and
- QAL's specific concerns in relation to, and suggested amendments to, the AER's Draft Decision.

Background Information

QAL is located in Gladstone, Queensland, and operates the Gladstone alumina refinery (the Refinery). The Refinery is one of the largest in the world with a maximum annual rated capacity in excess of 4 million tonnes, and covers an area of 80 hectares of a 400-hectare site.

Through the Refinery, QAL is one of Queensland's largest employers with a workforce of more than 1,000 direct employees and some 350-400 contractors on a daily basis, involving a wide variety of operative, technical, trade and administrative skills.

For the AER's information, there are three stages in the production of aluminium, the second of which is the business of QAL. These three stages are:

- Bauxite mining – where bauxite is extracted from large shallow deposits using heavy earth moving equipment;
- Alumina refining – where bauxite is transported to a refinery where aluminum oxide is extracted. The resulting product, a fine white powder called alumina, is the basic material from which aluminium is made; and
- Aluminium smelting - which involves the separation of the alumina into its chemical components (aluminium metal and oxygen).

The process whereby QAL extracts aluminium oxide is known as the Bayer Process, which is a continuous process comprising:

- Digestion – where the alumina content of the bauxite is dissolved in a caustic soda solution at very high temperatures;
- Clarification – where waste residues are removed from the liquor stream;
- Precipitation – where crystals of alumina hydrate are formed and removed through controlled cooling processes; and
- Calcination – where water of crystallization is removed in furnaces at temperatures of 1000 degrees Celsius.

Given the range and volume of high and low temperatures required at all stages of the refinement process, alumina refining is a very high-energy intensive activity. QAL is therefore one of Queensland's largest electricity purchasers from the grid, with total electricity purchases of around 750 GWh per annum.

One of the essential features of the Bayer Process is a requirement for constant power supply, which in turn makes reliability of supply a critical part of QAL's operations.

A loss of supply:

- Causes direct damage by interrupting the operation of the seven boilers used for generating steam for the Bayer Process, which in turn ceases the operation of digestion units causing immediate loss of production;
- Causes consequential damage within the digestion process by allowing material to settle within flow paths while the power outage occurs, which in turn causes further production losses when digestion units return to service; and
- Interrupts the operation of QAL's 106 precipitator tanks. To provide some insight into the scale of the difficulty faced by QAL when an outage occurs, it is important to note that QAL's precipitator tanks are some 33m high by 9m in diameter and contain a 2.4m diameter propeller within a draft tube in each tank, which is driven on a 500mm shaft for mixing alumina hydrate. Power outages cause the propeller to cease, the mixed material to settle, and propellers to suffer resistance when restarting. QAL has had cases where the resistance on propellers has been sufficient to overload motors and prevent them from re-starting and in some cases twist the shaft off completely causing damage to the tank. It has taken up to 6 months to get all tanks back on line after an uncontrolled outage.

QAL's Direct Experience with Powerlink

QAL wishes to draw the AER's attention to three main issues in relation to Powerlink, which may have implications for the nature of the regulatory oversight applied, being:

- That Powerlink has not provided reliable supply to QAL since 2002 as evidenced by the number of outages experienced. Over recent years, QAL has experienced seven power outages directly attributable to Powerlink, ranging from a total cut in production to a partial loss. The duration of the outages experienced have been as long as 120 minutes;
- That this lack of reliable supply is causing material damage to QAL. The cost of the power outages experienced by QAL (even without including direct costs for equipment damage or labour) have been significant considering the outages caused losses of production in excess of 250,000 tonnes; and
- That Powerlink refuses to supply full details of the reasons for any of the outages referred to above, or to discuss steps taken or to be taken to prevent re-occurrence, despite repeated requests. Considering the impacts on large customers of unreliable transmission of electricity, QAL believes it is not unreasonable for transmission network service providers (TNSPs) to be required to provide such information. At the very least, it would allow large customers such as QAL, the ability to better understand the parameters of the standard service that it is purchasing, the risks that it is exposed to under the standard service, and allow it to make its own informed choices in relation to mitigating these risks.

QAL's Overall Concerns with the AER's Draft Decision

QAL notes the effort taken by the AER in consulting widely with stakeholders through public forums and through the publication of this Draft Decision. That notwithstanding, QAL has a number of concerns in relation to the overall transmission regulation framework, being:

- That the implicit assumption in the Draft Decision that the 'detail' of service and price related dealings between large customers/retailers and Powerlink do not require any involvement from the AER is inadequate, and leads the AER to take a more light-handed role in regulating Powerlink than is either appropriate or necessary.

In QAL's view, there is a clear role for the AER in 'getting inside' the detail of what services are being provided by Powerlink, at what prices, and under what terms and conditions because:

- i. Large customers/retailers have no more choice or leverage than small customers when negotiating with a monopolist transmission company. Indeed, the losses experienced by large customers through generally one-sided negotiations coupled with poor standards of service (reliability), far exceed that of small customers. Without the AER's involvement, large customers are price-takers and service-takers;
- ii. Large customers do not have the advantage of a 'buffer' through the involvement of a retailer. While a retailer may have influence (albeit limited) over a transmission company because of its wider contractual relationships with the TNSP, a large customer, in contrast, contracts for retail and transmission services separately, leaving large customers negotiating directly with Powerlink;
- iii. Connection agreement negotiations, being the primary contractual protection for large customers, are generally offered by TNSPs on a 'take-it-or-leave-it' basis, are not subject to regulatory oversight, and are heavily weighted towards the transmission company; and

- iv. There are no (large or small) customer focused service standards within the transmission regulatory regime. While distribution regulatory regimes often include such measures as reporting on the 10 worst feeders, guaranteed service levels, and minimum service standards, these are absent from the AER's transmission regulatory regime. This means that customers have no direct indicators of service standards (other than for the average system); and
- The service standards under the regulatory regime do not provide guaranteed service outcomes to customers (or appropriate compensation in the event of default) because they are either expressed as:
 - i. Average system-wide service standards to be provided to customers generally – this allows TNSPs such as Powerlink to devote time to manage mathematical constructs and exclusion methodologies rather than to reduce outages; or
 - ii. Design planning criteria that are not expressed in terms of the service performance that customers (even on an average basis) are entitled to receive but rather as the basis on which the TNSP must plan its system. This allows design planning to be used by the TNSP to justify capital expenditure, but without tying the TNSP to anything concrete in relation to service outcomes;
- Any penalties imposed by the regulatory regime on the TNSP for failing to meet its service standards are not payable to end customers, such as QAL, who are suffering the losses associated with the TNSP's poor performance. While QAL would discourage the application of guaranteed service levels or other token dollar measures designed for small customers, the reporting requirements associated with these sorts of schemes would provide a useful impetus for Powerlink to ensure its service levels.

QAL notes that since 2004, there has been an increasing focus on the importance of ensuring investment for infrastructure companies, which has led to a national increase in infrastructure investment. While QAL acknowledges that such investment has for the most part been necessary, this need should not in any way be accompanied by a weakening in the level or intensity of regulatory oversight and control placed on monopoly companies undertaking such investment. Monopoly providers are by their nature immune from competitive forces, and regulators need to ensure that their functions in relation to protection and maintenance of service and customer standards remain as important.

QAL's overall concerns are best illustrated by the fact that it:

- Pays a significant amount of money for a TUOS service that is ill-defined by both Powerlink and the AER;
- Purchases the ill-defined TUOS service in an environment where power outages now occur:
 - i. Without warning at significant loss to QAL;
 - ii. Without Powerlink facing any regulatory penalties, cautions, controls, or liability; and
 - iii. Without the need for detailed explanation by Powerlink to any party, least of all to the customers that experience the outage;
- Pays TUOS far in excess of the average of 8% of a customer's total electricity bill suggested in the Draft Decision, and believes that this is the same for many large customers; and
- Has no choice but to simply accept the current standards of service and pay Powerlink's stated margin between the 'standard' and the 'above standard' service through more dedicated network investment despite:

- i. Being uncertain precisely what the 'standard' service is, and therefore whether the expectation that QAL should pay for the 'above standard' service is reasonable; and
- ii. Knowing that Powerlink's offers for constructing assets to provide the 'above standard' service cost significantly more than QAL can source itself, even using contractors that perform similar work for Powerlink.

QAL's Specific Concerns with the AER's Draft Decision

There are a number of findings that the AER has made within its Draft Decision which QAL supports, and believes should be upheld in the Final Decision. These are:

- The AER's removal of the cost estimation risk factor for Powerlink in relation to its forecast cost estimates. QAL believes that Powerlink builds sufficient additional allowances into its capex project estimates and in any event, that customers should not pay for poor capex estimation or forecasting; and
- The decision by the AER to not permit an allowance for equity raising costs for Powerlink. QAL believes that this is appropriate because Powerlink's initial capital base incorporated all capital costs, suggesting that no additional payment is required.

Notwithstanding this, QAL has a number of concerns with the current framework for the regulation of transmission entities, and in turn the Draft Decision by the AER in relation to Powerlink. QAL submits that:

- To the best of QAL's knowledge, Powerlink has neither investigated, nor has the AER encouraged Powerlink to investigate, whether demand management strategies and/or better project controls might provide a more cost effective method of meeting load, compared to the capex program sought;
- As noted previously in this submission, the AER has overly relied upon the importance of system wide probabilistic planning assessments rather than seeking to have Powerlink meet minimum standards of reliability;
- Powerlink is forecasting an increase in opex from a 2003/04 level of \$78 Million¹ to a 2011/12 level of \$162 Million², and the AER has approved \$143 Million in 2011/12³. QAL queries why opex needs to double in eight years for a company that is operating from largely the same depots that it did in 2003/04, has the same head-office, the same regulated functions, has not expanded materially in a geographic sense, and has by its own account conducted itself in an efficient manner. In support of this, QAL submits that:
 - i. The use of a 2004/05 base year and scope change approach appears to have been applied by Powerlink as a method of 'locking in' annual escalating expenditure of \$87 Million per annum. The AER appears to have accepted this as the baseline number on the basis of audited results, despite the fact that Powerlink has the same activities, physical and financial overheads and materials in the base year as it is seeking in the scope changes. QAL submits that before the base year can be accepted, Powerlink must be required to provide the AER with:
 1. A list of all activities, overheads and materials that were in the 2004/05 base year that were non-recurring and have therefore been removed by Powerlink from the base year, prior to submitting the base year to the AER for approval;

¹ Nominal dollars

² \$2006/07

³ \$2006/07

2. An explanation of the way in which the scope change activities have been costed, so that it clarifies that overheads and other costs are not being counted twice; and
3. Evidence, or a Directors' Responsibility Statement, that no activities that are being sought in the scope changes are within the base year.

In short, QAL supports the concept of a base line and scope change approach, provided that the AER is indeed locking in the 'right amount' and approving only the 'increment'. This does not currently appear to be the case.

- ii. Powerlink's claims that it is losing skilled engineers to mining companies ignores the reality that it out-sources much of its engineering work to private contractors. In any event, QAL is aware of few actual examples of engineers undertaking the complex training required to be electrical engineers within electricity transmission companies and then transferring to the mining sector's labour market. QAL believes that the AER should require Powerlink to substantiate its claims in this regard by providing the information that it had collected from departing employees to the AER on a confidential basis. QAL appreciates the confidential nature of this information and does not seek to sight it. Rather, QAL requests that sufficient material be provide to the AER to support Powerlink's claims;
 - iii. The decision by the AER to accept the labour cost escalations developed by Access Economics is sound, however QAL does not support the 5.3% escalation proposed for 2008/09. QAL believes that increasing consolidation within the utilities industry, through acquisitions by companies like Alinta and Australia Pipeline Trust, are providing some easing of wage rates as these companies seek efficiency savings post purchase;
 - iv. QAL remains unconvinced that the escalation factor for materials has not already been taken into account in the development of Powerlink's opex forecasts, particularly if such forecasts were developed in nominal dollars, and then presented to the AER in constant dollars. In any event, QAL supports the submission made previously by the Major Energy Users that such cost escalations are diversifiable, and further believes that Powerlink can diversify these escalation factors by better managing its inventory; and
 - v. Powerlink's proposed scope change for workplace health and safety requirements and new vegetation management activities do not appear to be marginally costed, as they should be, given the 'baseline and scope change' approach. As noted previously, QAL is concerned that the forecast of costs includes overhead allocations which are already part of the base year and notes that this issue does not appear to have been considered by the AER's consultants.
- The AER has omitted a crucial step between approving the total Maximum Allowable Revenue (MAR) that Powerlink may charge, and setting the standards for the services that Powerlink provides - specifically in requiring Powerlink to clearly and adequately specify the regulated services that it is providing to customers in exchange for the tariff that it charges, either in terms of the scope of the service provided or the standard of the service provided other than in average terms. In QAL's analysis, neither the Powerlink proposal, nor the PB Report, nor the AER's Draft Decision, focuses sufficiently on the distinction between:
 - i. Regulated and unregulated services provided by Powerlink, as seen by transmission network users such as QAL;
 - ii. The services are covered under TUOS and the services that Powerlink may charge separately for; and

- iii. How much Powerlink may charge for these additional services.
- That the AER is intending to approve the use of a service standards framework that:
 - i. Does not achieve the targeted outcomes noted in the PB Report of "holding businesses accountable for the service levels they deliver", as Powerlink will only be accountable in the broadest possible sense using averaged performance standards and judged against a period when Powerlink's service standards were, in QAL's experience, unsatisfactory; and
 - ii. Does not impose any requirements on Powerlink to report on, or be penalised for, poor performance in relation to its worst serviced customers or its worst performing transmission line segments.

Recommended Amendments to the Draft Decision

QAL submits that the Draft Decision does not meet the requirements of clause 6.2.3 of the Old Rules which, in clause 6.2.3(d)(5), states that the AER must have regard to the need to "*provide reasonable certainty and consistency over time of the outcomes of the regulatory processes having regard for the need to balance the interests of transmission network users and TNSPs*".

QAL does not believe that the AER has transparently set out its interpretation of the interests of transmission users, and how it has balanced these interests with those of Powerlink.

For clarity, QAL's interests reflect the importance of a well-priced and secure supply of electricity, characterised by:

- A right to a guaranteed security of supply at defined levels, expressed in a manner that is specific to QAL as a customer, not averaged across the customer base. QAL believes that the existing regulatory regime allows Powerlink to average its service performance in a way that is non-transparent to end customers and which ultimately provides customers with no individual rights to a defined standard of service. This must be changed with customer-specific obligations defined so that Powerlink can be held directly accountable for its service performance, not just by the AER but by the customers that Powerlink is ultimately supplying;
- Obligations on Powerlink to undertake certain works to deliver on defined security of supply. QAL notes that the current regime places a degree of trust on Powerlink to undertake the works that it submits are necessary, and for which large increases in TUOS are forecast. QAL and other major customers have no guarantees that such works will take place, in terms of either forecast timing or cost;
- A right to be fully informed of the nature and reasons for outages. The existing regulatory regime, and the AER's Draft Decision, assumes that transmission users have some other recourse to information on outages when in fact this is not the case. Powerlink has no license obligations, to QAL's knowledge, that require it to be accountable in any sense for outages;
- Compensation for loss in the case of outages. While QAL accepts responsibility for its own diversifiable risks, it remains a reality that power outages cause significant operational losses for QAL and other large customers, and follows that Powerlink should be penalised for sub-standard performance through payments to affected customers. The AER's service standards regime penalises Powerlink on an average basis, and therefore spreads the benefits of penalties over Powerlink's entire customer base. If the AER was to take a more prescriptive and detailed approach to service standards and penalties, through feeder or major customer indicators, a more equitable way of structuring this may be possible; and

- Reasonable price increases. The magnitude of the operational and capital expenditure increases being sought by Powerlink are large, sustained, and forecast to outstrip volume growth (and therefore give rise to large increases in real TUOS prices). QAL submits that the AER should give regard to the overall price increases in the context of what the market can bear, rather than the business interests of a monopoly which is aware that greater capital expenditure gives rise to a greater return on capital component of the MAR.

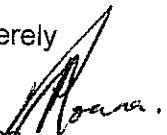
Specifically, QAL requests that the AER:

- Set minimum reliability performance standards for Powerlink, that apply to large customers that contract directly with Powerlink in order to give these customers certainty about the minimum reliability outcomes that Powerlink must achieve, and to provide a better basis for downstream investment. This contrasts with the current regime in which a failure to meet Powerlink's currently proposed benchmarks would simply result in a loss of revenue that Powerlink could recover from its customers. Because they are standards that Powerlink must achieve, it is recommended that any average reliability performance standards be set at levels below the targets used for the service standards regime, and distinguish between different service standards across Powerlink's network, for example, by geographic area or feeder type;
- Require Powerlink to report annually to the AER on specific service standards in relation to its worst serviced customers or its worst performing feeders. These requirements would provide a clear incentive for Powerlink to improve the least reliable parts of its network and to allow the performance of these parts of its network to be continually monitored; and
- Insert a clause in the Final Decision noting that the AER will only approve the inclusion of penalty and reward payments under the service standards adjustment mechanism if it is satisfied that Powerlink is providing a base level of service that merits rewarding Powerlink for improved performance, based on its worst performing parts of the network.

I trust that this information is sufficient and useful to the AER for its current deliberations.

If we can provide any further elaboration of any of the points raised in this submission, please call me on (07) 4976 2775.

Yours sincerely


Peter Mouna
Principal Buyer – Raw Materials and Energy