ALCOA

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The General Manager
Adjudication Branch
Australian Competition and Consumer Commission
GPO Box 3131
Canberra ACT 2601

Dear Sir/Madam,

Alcoa World Alumina Australia ("Alcoa") Submission on the North West Shelf Gas JV (NWSG) applications for authorisation A91220 - A91223 – interested party consultation.

Alcoa appreciates the opportunity to provide a submission to the Australian Competition and Consumer Commission (ACCC).

Executive Summary

Western Australia is currently experiencing a significant shortage of long-term natural gas supplies. Long-term natural gas supplies are critical to much of the industry that makes up the Western Australian natural gas market (including Alcoa). Much of the infrastructure required for the development of mineral resources or power generation has paybacks over tens of years. It is therefore critical that natural gas supplies can be sourced that match these time horizons.

The ACCC in its Gorgon JV determination expressed concern that without authorisation for joint selling, the State ran the real risk that the Gorgon Project would not proceed. This would only further exacerbate the current shortage of long-term natural gas supplies. This clearly would not be in the public benefit.

Alcoa has previously expressed its concerns about joint marketing in the context of the Gorgon Project authorisation application; however Alcoa recognises that security of natural gas supply at affordable prices for Western Australia must be paramount.

Alcoa is encouraged that the NWSG partners are thinking long-term and seeking protection for contracts for terms of 25 years. This would suggest that contracts being negotiated today will supply natural gas into the Western Australian market until at least 2 035. This seems consistent with recent public presentations provided by Woodside which show that the addition of North Rankin B will extend the North West Shelf field life to ~2040[1].

Alcoa believes that should the ACCC grant authorisation to NWSG the ACCC has a unique opportunity to provide certainty for industry and households in Western Australia. In granting authorisation, a condition should be placed on NWSG to maintain domestic natural gas supplies at existing levels for the term of the project. The condition or undertaking for domestic natural gas supplies could be tied to LNG production providing NWSG the flexibility to increase both LNG and domestic supplies with increases in plant capacity, or alternatively reduce domestic natural gas supplies in line with reduced LNG exports.

Alcoa believes that in light of the current uncertainty in the Western Australian natural gas market and the potential threat to long-term industry and domestic job creation this would be entirely consistent with achieving the required public benefit outcomes.

Overview of Alcoa in Western Australia

Alcoa has a strong history of supporting and developing natural gas and natural gas infrastructure in Western Australia:

- 1970's – Alcoa purchased natural gas from Perth Basin suppliers and transported this natural gas to its refineries at Kwinana and Pinjarra via the Parmelia Gas Pipeline.
- 1983 - Alcoa signed a contract with the then State Energy Commission of Western Australia (SECWA) for both natural gas transmission and natural gas supply agreeing to purchase around 50% of the natural gas for a 20-year period.
- 1990's – Alcoa supported the entry of new North-West Shelf suppliers into the Western Australian natural gas market.
- 2004 – Alcoa became a 20% shareholder in the DBNGP and has continued to support the growth of this critical infrastructure.
- 2005 – Alcoa provided a heat-sink for Alinta to develop natural gas fired co-generation power stations and natural gas fired open cycle power plants at its Pinjarra and Wagerup alumina refineries respectively.
- 2007 – Alcoa agreed to pre-pay $40 million towards sourcing a new natural gas supply from the Canning Basin to encourage new development
- 2008 – Alcoa formed a joint venture with Latent Petroleum to develop tight gas in the Perth Basin.

Alcoa has been a major contributor to the infrastructure of Western Australia since it commenced local operations in 1961. The company has made large contributions to the development of regional infrastructure - for facilities that are used principally by Alcoa; for multi-use infrastructure and for community infrastructure. Alcoa has itself contributed directly to the building of infrastructure, or as a major customer has enabled others to provide it. Examples

[1] 2009 Full Year Results Briefing (Presentation), Woodside, 24th February 2010

of Alcoa's contributions to infrastructure include the Dampier to Bunbury Natural Gas Pipeline (DBNGP) as well as port, rail and road infrastructure.

Alcoa's alumina refining operations are located in regions outside metropolitan areas. In Western Australia, Alcoa's operations are in the Peel Region, south of Perth. Alcoa is predominantly a regional employer providing full-time employment for around 4,200 direct jobs in Western Australia, and another 800 contract jobs. A further 1700 jobs are provided by Alcoa's operations in the East Coast.

Alcoa's competitive advantage in alumina refining in Australia stems from its relatively secure, long-term, energy supplies (natural gas), large scale bauxite mining operations, as well as the refining economies of scale. Alcoa's alumina refineries are technologically advanced, are among the largest refineries in the world and are globally competitive. Alcoa has made significant investment in its facilities in Western Australia and requires confidence that natural gas will remain viable in the longer-term. Current short-supply and reserves being consumed for Liquefied Natural Gas (LNG) creates significant uncertainty about the future prospects for domestic natural gas supply.

Today, Alcoa is Western Australia's single largest consumer of natural gas, consuming approximately 255 terajoules per day (TJD). Our facilities are integral to the supply of electricity into the South West Interconnected System. Alcoa is a significant employer in Australia and provides considerable benefits to the broader community. Long-term affordable natural gas supplies and certainty around these supplies are essential to maintaining its existing operations and essential to any expansions.

The Western Australian Natural Gas Supply/Demand Balance

The Western Australian natural gas market has been characterised by long-term supply arrangements. These long-term contracts have enabled the development of new natural gas resources and fostered the development of new downstream processing industries.

A key consideration for domestic industrial investments is that key inputs such as natural gas are available and at prices that make the project viable over its life. If industry is unable to demonstrate or get comfort that these two conditions are likely to persist then it will be unable to attract the necessary investments to make these developments. At the same time natural gas suppliers need to be confident that natural gas customers exist for the term of the project to ensure that their investment is justified.

Today, 60% of the State's energy supplies come from natural gas. Value adding industry such as minerals processing and mining relies on natural gas as does much of the State's power generation. Demand for natural gas continues to rise.

The State is reliant on natural gas supply from only two facilities; NWSG on the Burrup Peninsula and Apache's Varanus Island. NWSG supplies ~65% of the State's natural gas supply and also plays a critical role in providing a source of back-up natural gas should there be any interruption to supplies coming from Varanus island.

New demand for natural gas in Western Australia comes broadly from two sources; roll-off of existing contracts and new or expansion of industrial developments.

Between now and 2015 the Apache/Santos Devil Creek facility will provide a third supply point, whilst from 2015 the Gorgon project will provide a fourth. The two later projects are expected to provide ~260 TJD of new supply. During this same period (at a very modest growth rate of 4%) demand will increase by ~220 TJD. It is also likely that significant contract roll-off will occur. Alcoa estimates (conservatively) that at least 200 TJD of existing natural gas supply will also need to be renewed during this period. There could therefore be a shortfall in supply of at least 160 TJD. Longer-term Alcoa sees this situation persisting, with little or no new natural gas supply projects. This will have a significant impact on the economy by delaying projects and potentially threatening the viability of existing businesses and industries.

In response to concerns about ensuring Western Australia has a long-term energy strategy the Western Australia's State government is sponsoring the Strategic Energy Initiative (SEI). The SEI is looking at a number of potential policy responses; a key piece of the response should be to ensure that the State has long-term affordable natural gas. In determining what policy response might be appropriate the SEI has developed a long-term supply and demand forecast out to 2030. Whilst the study is confidential some of the key features include a significant rise in demand for natural gas through-out the period, the entry of new natural gas supplies from projects linked to LNG development and entry of new domestic only natural gas supplies. In most scenarios it is projected that demand will continue to out-pace supply for the foreseeable future.

Given the very tight supply and demand balance in Western Australia it is very important that the existing supply base continue to produce natural gas. Any reduction in supplies from the existing supply base will only exacerbate current and future shortfalls.

The Gorgon Decision

The ACCC in arriving at a decision to allow joint selling from the Gorgon project found amongst other things that:

- The ACCC previously considered the Western Australian natural gas market in its determination on the authorisation applications from the North West Shelf in 1998. The ACCC is of the view that since then the Western Australia market has experienced only marginal development and that separate marketing remains practically difficult with substantial commercial risks.
- In an environment where the market is relatively illiquid and the necessary risk mitigation characteristics such as natural gas storage and secondary trading are immature the partners in the Gorgon project could face

significant commercial risk were they to attempt to separately market. This greater risk is likely to impact on the timing of the commencement of domestic natural gas supply from the Gorgon project, the volume of supply and the price at which natural gas may be sold.

- The ACCC is of the view that the joint marketing of natural gas from the Gorgon project is likely to commence at an earlier time and at larger volumes under joint marketing than would be the case under separate marketing. This will provide a new source of supply to the market and may also prompt greater competition from other projects.
- The ACCC considers that the Western Australian natural gas market is likely to have high levels of concentration in field ownership in the short to medium term. Further, the timing and volume of natural gas supply will be determined by the production joint venture, regardless of whether that natural gas is subsequently marketed jointly or separately. In these circumstances, the ACCC is of the view that the greatest benefits from competition are likely to result from competition between projects as opposed to between individual joint venture partners in the Gorgon project. Further, the ACCC considers that the price of natural gas in Western Australia is likely to be more significantly influenced by the overall volume of natural gas supply rather than whether that natural gas is jointly or separately marketed.
- The ACCC considers that the introduction of a new source of domgas supply into the Western Australian domgas market will result in significant public benefit. The ACCC notes that there currently exists excess demand with the majority of current supply options appearing to be fully contracted. Further, as evidenced in the Varanus Island explosion and subsequent supply disruption, production from Gorgon will assist in diversifying supply options.
- The entry of a new source and volume of domgas from late 2015 will enable current domgas purchasers to contract for volume that corresponds with their expectations of future requirements. Further, it will assist parties seeking to make new investments, such as mining developments, to proceed with certainty that they will source a key input in the form of energy. Finally, as noted previously the majority of Western Australia's electricity supplies are sourced from natural gas generators. Transforming generation capacity between energy sources is capital intensive. The new source of domgas from the Gorgon project should provide confidence in Western Australia's electricity generating capacity.
- The ACCC considers that joint marketing is likely to deliver a public benefit by facilitating a greater amount of domgas supplied from the Gorgon project.

A recurring theme in the ACCC's decision is the imperative to ensure natural gas supplies are secured which in-turn provides timely supply and a source of additional competition - providing the over-riding public benefit.

NWSG Authorisation

Alcoa is not going to debate the merits of authorisation for NWSG as the ACCC has very recently provided an extensive justification for joint selling for the Gorgon JV. Instead Alcoa would prefer to focus on the importance of having firm commitments to supply the domestic market with natural gas.

The authorisation for joint selling is afforded to companies where the ACCC determines that the public benefit of having the joint selling outweighs the public detriment from joint selling. As mentioned previously a key piece of the Gorgon decision was ensuring that additional natural gas supply was provided to the market. An underlying assumption is that authorisation would provide the best chance for new supply to be developed.

In the context of the NWSG authorisation a key concern for the ACCC should be whether or not NWSG will continue to provide natural gas domestically. Whilst it is encouraging that NWSG are seeking authorisation to allow natural gas to be sold for terms up to 25 years, there is no undertaking to do so.

To the contrary, the NWSG Applications point out that:

- as the Project matures, the difficulty and cost of extracting natural gas from existing reserves increases and that just to maintain production of existing levels (without any expansion) will require significant ongoing investment by the NWSG participants;[2]
- to ensure that current Domgas and LNG contractual commitments are met and that future natural gas sales are possible the NWSG participants estimate that a confidential amount of expenditure on Project development will be required over the next 10 years; but that these investments are all subject to Final Investment Decisions (FID);[3]
- the extent to which NWSG participants will be able to supply the domestic market is highly dependent on investment decisions and will involve the participants assessing a range of factors including five listed factors, but especially the "value of alternative uses for the natural gas (such as LNG sales)";[4] and
- the Domgas obligation is likely to be satisfied under existing project Domgas contracts by 2014 and that the initial quantity allocated for export has already been delivered. The actual quantities of natural gas produced by NWSG participants in excess of the amounts required to satisfy the Ratified State Agreement is not subject to specific State requirements.[5]

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[2] Paragraph 2.30

[3] Paragraph 2.31

[4] Paragraph 2.69

[5] Paragraph 2.42

It is significant in the present context to note that the Western Australian State Policy on Domgas Reservation only applies to new fields or discoveries. So it does not capture or cover the NWSG Project.

The Wood Mackenzie Report, accompanying the NWSG Applications, notes that the majority of natural gas produced for the Western Australian domestic market over the past 10 years has come through two primary production points: the NWSG domestic gas plant at Dampier and the Apache joint venture facilities on Varanus Island. These facilities are currently at or near capacity, and that in June 2007 the NWSG participants abandoned efforts to upgrade their Domgas supply capacity (targeted potential expansion of an extra 100 TJ/d through the de-bottlenecking of existing facilities) after experiencing difficulties and failure to achieve designed increases.[6]

At paragraphs 7.76-7.80 a counterfactual is canvassed; namely dedicating greater amounts of natural gas produced from the Project for export as LNG when plant capacity becomes available. Under this counterfactual the NWSG participants would continue to service their current domestic contracts, but the volume of natural gas available to new or recontracting customers in Western Australia would be significantly reduced. It is then acknowledged in paragraph 9.22 that this would lead to correspondingly higher Domgas prices.

We submit that the reasonable conclusions which may be drawn from these comments are:

(a) after 2014 there is no contractual or policy constraint on NWSG regarding maintaining Domgas supplies at current levels;

(b) to maintain Domgas supplies at current levels will require fresh investment over the next 10 years and to date no such investment has been sanctioned;

(c) previous attempts to upgrade the NWSG's Domgas supply capacity through its existing facilities were abandoned due to technical difficulties;

(d) a lower risk alternative to Domgas marketing/sales is to divert the residual reserves towards LNG exports;

(e) were this to occur, then obviously Domgas supplies from the Project would diminish and Domgas prices would correspondingly increase; and

(f) there is a significant risk that were international LNG prices to increase markedly that the NWSG participants might decide on commercial grounds and in the absence of any contractual obligation or policy constraint, that natural gas otherwise available to service the Domgas market be exported as LNG.

A compelling factor in the Gorgon Decision was that Gorgon had a further incentive to supply the domestic market through their State Agreement. "The ACCC notes that the Gorgon partners have a joint and several requirement to

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[6] Page 9

reserve 2000 PJ for supply into the Western Australian domgas market at a volume of 300 TJ/day under the State Agreement. Until such time as the project is supplying 300 TJ/day the partners must diligently market natural gas in Western Australia and undertake the necessary engineering developments and report on their progress to the Minister for State Development. The ACCC notes that the Minister may appoint an independent person to review the progress of the Applicants in reaching the 300 TJ/day requirement. The ACCC considers that this process will limit any incentive the Applicants have to withhold supply from the Western Australian market for reasons other than technical issues with the fields or the commercial viability of the project."

Under the NWSG State Agreement Act, NWSG has reserved ~5000 PJ of natural gas supply for the domestic market. All of this supply is now contracted and any remaining natural gas supply will effectively be at NWSG's discretion.

Alcoa believes that it would be in the public benefit for domestic natural gas supply to continue from the NWSG project. Should the ACCC grant authorisation to NWSG Alcoa is asking the ACCC to make it a condition of the authorisation for NWSG to continue to supply the domestic market. The condition or undertaking might have the following features:

1. A commitment to supply the domestic market at current levels.
2. Flexibility to increase or decrease supply commitment as the resource declines/increases and LNG production reduces/increases.
3. An annual review process by which NWSG would have to demonstrate to the ACCC that they are doing everything practicable to market the natural gas.

Alcoa appreciates the opportunity to provide the ACCC with this submission. Should you have any questions regarding the submission could you please contact Alcoa of Australia's Energy Services Manager – Mike Shaw on (08) 9316-5824.

Yours sincerely

Michael Parker
Business Development and Marketing Director
Alcoa of Australia