12 November 2025

Dear Sir

Re: Dampier to Bunbury natural Gas Pipeline access arrangement for 2026 to 2030

This submission is provided to the ERA at its invitation, in response to the submission which I lodged on 23 September 2025 in response to the Draft AA6 as published by the ERA on 7 July, 2025.

Given the short time frame for a response provided by the ERA, this submission may by necessity contain assumptions or analysis that could be better explained if time permitted.

Previous Submission

In my previous submission, I concluded the following:

- Without coal, the future SWIS cannot be sensibly planned and reliably operated without adequate access to gas. The current gas supply chain is clearly insufficient.
- The gas demand forecast produced by DBP to support its position in AA6 is flawed, as it fails to deal with the inevitable increase in gas demand by the SWIS due to the retirement of coal, growth in demand in the SWIS, and the unavoidable intermittent performance of wind and solar generation, which will have to be backed by gas fired energy production due to the limited and expensive storage capacity of grid scale batteries.
- DBP should be requested to revise its SWIS gas forecast for the next 10 years so that the resulting capital and operating costs, and additional tariff revenues, can be factored into a revised tariff arrangement.
- It will then be positioned to respond to the inevitable requests from potential shippers for capacity in the DBP to support the rapid expansion of gas fired capacity in the SWIS to complement the retirement of coal fired generation by 2030.

I provided the results of detailed modelling of the SWIS to support these conclusions.

Subsequent Developments

Subsequent to the initial submission to the ERA, there have been further developments, as follows;

- Meetings have been held with the engineering community at AEMO in which the issue of gas supply to the SWIS has been explored in detail, especially in the years during and after the existing coal fired generation in the SWIS is forecast to be retired. These meetings were held to ensure that AEMO is aware of the gas supply issues in the future, and makes appropriate reference to these issues in its forthcoming Gas Statement of Opportunities 2025. Note that in these meetings, the focus has been on the delivery of gas via the DBP into the SWIS, not on the adequacy of gas supply from gas producers

into the DBP. For the purposes of this analysis, gas supply from producers into Western Australia is assumed to be adequate.

- Meetings have been held with those providing input to AEMO to assist its modelling of the future reliability of the SWIS. In these meetings, it became clear that AEMO has been receiving modelling advice based upon unconstrained availability of gas in the SWIS, hence in previous GSOO versions, AEMO has not flagged any significant issues with gas delivery to SWIS generation in the future. This unconstrained gas delivery assumption is incorrect.
- Consequently, discussions have been held, and continue, with DBP to investigate the gas delivery limits applicable to the DBP in the pipeline segments CS9 -CS10, and CS10 to Kemerton. These two segments of the DBP supply gas to the vast majority of the existing gas fired generation in the SWIS, and will probably be required to supply gas to any additional gas fired generation that will be required as the coal fired generation is retired.
- Furthermore, meetings have been held with EPWA to present the results and conclusions of the SWIS modelling to date.
- Subsequently, EPWA has announced a further two year delay to the publication of its updated Whole of System Plan, which was due in 2025 as an update to the WOSP published in 2020. Consequently, the State is heading into the critical phase of retiring its coal fired generation fleet without a publicly available plan.
- Against this background, it is clear that the DBP is therefore also struggling to fully understand the future demand for gas transport capacity into the south west of WA. Consequently the DBP has relied upon contract history during AA5 to inform its view of gas transport demand in AA6, and on the broad general view of its Consultant of gas demand in WA to 2050. Hence DBP has arrived at the view that gas transport demand in AA6 will be static or declining.
- The modelling however shows otherwise. As a result of meetings with DBP, a more detailed understanding of gas transport limits into the south west region of WA has been developed. This understanding has been validated with the DBP in the analysis of the gas supply difficulties that were experienced at the end of August, 2025. These difficulties were a result of 3 events;
    - An outage at Varanus Island which meant that the DBP was receiving less gas than it was delivering over a period of several days
    - Low temperatures in the south west which caused a significant increase in electricity demand, and
    - Collie Unit A was not scheduled into service despite the high system loads.

  Consequently, the DBP in the segments CS9-CS10 and CS10 to Kemerton experienced high peak gas demand from electricity generation, which resulted in lower than usual gas pressures in the DBP and, without intervention, may have resulted in the curtailment of gas supply to electricity generation. This would have caused system outages. As a result of this situation, AEMO and DBP have had further discussion about the future gas transport limits on the DBP, especially as the coal fired generators are retired between now and 2030.

  These discussions are ongoing. AEMO has provided DBP with its estimate of half hourly gas flows in 2031, after coal retirement, with the likely increase in wind solar and storage capacities taken into account. These data show that in some circumstances, the peak

half hourly gas demand south of CS9 for electricity generation in 2031 will be around 23 TJ/half hour. DBP has indicated that it has a limit of gas flow from CS9 of 1100 TJ/day, which equates to a peak gas flow of 22.9 TJ/half hour. DBP has indicated that this is strictly a short term limit which could not be sustained for a long period. Furthermore, this limit is applicable to all the gas flowing south of CS9, which obviously includes hundreds of TJ/day of gas to industry and to commercial and domestic users. Hence the actual quantity of gas available to the SWIS gas fired generators in the future will be much less that the 1100 TJ/day peak limit at CS9. In these circumstances, it is clear that the DBP in its current configuration will not be able to reliably supply gas to generation once the coal fired generators are retired.

DBP has therefore commenced to study its expansion options, to determine how much gas it could reliably deliver, and for what period, to gas fired generation south of CS9. This study is not yet complete.

This highlights the inadequacy of the current situation. Without a public and credible plan (the WOSP), existing and future generators in the SWIS are unable to plan how they may meet the demand for electricity in the future. For example, the Government may have to extend the lives of the coal fired generators for say 5 years, which will avoid the need for mass gas fired expansion. Alternatively, the Government may insist on the retirement of the coal fleet, which will trigger a frantic build of gas fired generation, and will force the DBP to confront the gas delivery issues. If the DBP cannot solve these issues in a timely manner (which seems most likely), it will not be able to contract for gas delivery to incoming gas fired generators, which will trigger a very difficult supply crisis.

It must be emphasised at this point that there is **no solution available based simply on increased amounts of intermittent generation and storage**. These intermittent sources cannot replace firm coal or gas fired generation, and to simply rely on these sources, as per the current WEM mechanism, is a sure way of experiencing prolonged failures in the SWIS.

Consequently, it is imperative that Western Australia ascertains very quickly the gas transport limits applicable to the DBP, and hence to the SWIS, to inform its aspiration to retire its coal fired capacity by 2031, and to allow sufficient time for the DBP to increase its gas delivery capacity to preserve SWIS reliability into the future. All of this must happen during the term of AA6, which contains no provision for any expansion of this nature.

Response to proposed changes by ERA to AA6.

The ERA has proposed two changes to the draft AA6.

1. *Treatment of overrun revenue*

The ERA has proposed a true up mechanism to rebate the T1 users that did not utilise overrun services with revenue earnt by the DBP from those users that in the future do utilise overrun services. **This proposal is not supported.**

Consider a situation in the SWIS with 3100 MW of gas turbines installed, principally for peaking generation. Those 3100 MW of gas turbines may expect to operate at say a 25% annual capacity factor, i.e. an average load of say 775 MW. Assume therefore that the

owners of those gas turbines have therefore booked T1 capacity in the DBP sufficient to support 775 MW of gas turbines at their various heat rates.

In the event of high demand for gas generation in the SWIS, the fleet of gas turbines will operate at well above their 775MW average capacity. Without a corresponding T1 booking, those gas turbines will rely upon overrun gas supply from the DBP to meet the SWIS electricity demand. The gas turbines can only operate at above average generation levels if the DBP can supply them with overrun gas. Now assume that the DBP has a capacity limit that will preclude it from supplying more than say 2500 MW of gas turbine capacity. The DBP will therefore earn overrun revenue on the gas turbine capacity from 775 to 2500MW, after which it will be unable to supply gas to the gas turbines, which will result in supply failures in the SWIS.

Taken to its extreme, this situation will result in tariff rebates to the existing T1 users of the DBP, based upon the net revenue earned from the overrun charges. The existing T1 users will enjoy this benefit, as will the DBP which has earnt additional revenue and covered its additional costs. The users of electricity in the SWIS however, have experienced severe outages due to the inability of the DBP to supply the gas requirements of the peaking generators. There is no penalty for the DBP in this situation, despite having been advised that their forecasts in AA6 are inadequate and will result in supply failures in the SWIS, particularly once the coal fired generators are retired. The DBP has not moved to increase the capacity of the DBP to avoid this situation.

I can propose only one solution to this situation. The existing and future gas fired generators in the SWIS should be required to book and pay for T1 capacity in the DBP equal to the gas demand of their generators at full load. The DBP could not, at this time, meet these demands, but armed with firm T1 capacity bookings, it would be in a position to immediately commence the expansion of the DBP so that it could. This would avoid any consideration of overrun charges, and the distribution of the revenues that they generate.

If this proposal is implemented, it ensures that in the future the DBP would have sufficient capacity to reliably supply gas to the new gas fired generators that will be required to replace the existing coal fired units. By my calculations, the SWIS without coal will require around 4600MW of gas fired capacity, which is clearly well beyond the DBP to supply in its current configuration. The additional 1500 MW of gas capacity will be required to book T1 capacity in the DBP, which will allow the DBP to expand the pipeline to deliver the additional gas.

Without this process, the DBP will not expand the pipeline and the electricity users in the SWIS will be exposed to the increasing risks of supply shortfall. These shortfalls will occur at times of high loads due to temperature extremes, or at times of reduced input from wind and solar generation, together with depleted battery storage levels.

This proposal should result in all users of the DBP having a T1 booking sufficient for their full load requirement for gas. It will provide contract and revenue certainty to the DBP to undertake expansion of the DBP. It will provide certainty to generators and users in the SWIS that their electricity needs will be met in all circumstances. It is likely that the costs for electricity users will increase as a result of this proposal, but this needs to be verified by the DBP through detailed analysis. In any event, this cost for users of the

SWIS is the price that they will pay for reliability, and will also be attributable to the retirement of the relatively low cost coal fired generation that they have been enjoying.

2. Mechanism for Demand Uncertainty

The ERA has considered a trigger event mechanism to address gas transport demand uncertainty. The ERA has cited a significant element of forecasting risk (in the SWIS) that needs to be addressed. **This proposal is not supported.**

The logic behind this rejection of the ERA proposal is simple. The ERA is importing into the gas transport demand forecast for the DBP the uncertainty in future gas demand that results from the forecasting and planning mechanisms in the WEM market mechanism for the SWIS. This should not be permitted, it is not the remit of the DBP to try to interpret and react to the flaws in the WEM market mechanism. Those responsible for the future of the SWIS through the WEM must deal with these issues within the WEM planning process, and should be in a position to definitively call for adequate future gas fired capacity in the SWIS to preserve SWIS reliability in all circumstances. This call for capacity should then result in the selection of gas fired generators in the future that have adequate T1 capacity in the DBP, having entered into the necessary contract with the DBP to provide such capacity.

If this is implemented, the DBP will always be in a position where it can meet the future transport needs of the gas fired generators in the SWIS. If ultimately the DBP reaches a point at which expansion is no longer feasible for technical or commercial reasons, then the DBP will be obliged to inform prospective gas fired generators of its position, which may allow alternative gas delivery solutions to emerge to supply the generators that must have access to gas. For example, the DBP may say that it cannot expand the pipeline beyond a certain delivery capacity, after which WA may have to establish an alternative gas supply, such as an LNG terminal in the SWIS, or enhanced gas production or storage from the Perth Basin.

In effect, the need for this mechanism to deal with demand uncertainty as proposed by the ERA would be avoided by the implementation of full load T1 capacity booking as described above, and by sensible adjustment to the WEM market mechanism before its uncertainty is reflected into the planning processes of the DBP. No other industrial user of gas is able to reflect such uncertainty into the DBP planning process, and the WEM process should be amended so that the DBP is not exposed to the WEM uncertainty.

Thankyou for your attention to these issues, and for the opportunity to put my views and solutions forward. I am available to discuss the views contained herein at your convenience if necessary.

Regards

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[redacted]

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