

PROPOSED REGULATORY MODEL
FOR THE
DAMPIER TO BUNBURY NATURAL GAS PIPELINE:
ADDITIONAL NOTE

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Prepared for
Epic Energy
By
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1. Summary

This document is intended to supplement the proposed regulatory model for the DBNGP that was described in our 1999 report.¹ It also attempts to make the exposition more concrete by using forecasts (of revenues, operating and capital expenditures) taken from Epic's "acquisition model" that was used at the time of purchase, rather than relying on illustrative hypothetical data as in our original report.

As we discussed in our 1999 report, the key features of the regulatory model are:

- It commits Epic to a Reference Tariff that is no more than \$1.00/GJ to zone 9 and \$1.08/GJ to zone 10, increased annually at 67% of the CPI.
- Based on the above tariff, *the model allows Epic the opportunity to recover its \$2.4 billion purchase cost.* If sufficiently high levels of demand materialise, then Epic will be able to recover its investment.
- *Under no circumstances can Epic recover more than the purchase price.* If throughput is high enough to put the DBNGP on a path to excess recovery, then the model obliges Epic to reduce tariffs below the \$1/1.08 price path, so as to prevent exceeds recovery.
- If throughput does not allow for full recovery of Epic's purchase price for the DBNGP over the life of the pipeline, then Epic bears the cost. *The model in no way guarantees that Epic will recover its \$2.407 billion purchase price.*

To illustrate these points, we have estimated the NPV of cashflows that would be earned by the pipeline under our regulatory model, using four different scenarios that were envisaged by Epic's acquisition model. In each case the scenario involves revenues derived from tariffs at or below the \$1/1.08 per GJ price path. The four acquisition model scenarios vary in terms of forecast throughput, operating costs and capital expenditures from the most pessimistic (Scenario 2) to the most optimistic (Scenario 4).

Figure 1 shows the results of our calculations. Under the more pessimistic scenarios, Epic never recovers its purchase cost. For example, under Scenario 1 the NPV of cashflows over the lifetime of the pipeline is just \$[deleted – confidential] million, \$[deleted – confidential] million short of the purchase price. Under the most optimistic scenario Epic recovers the purchase cost, with the NPV of cashflows equal to about \$[deleted – confidential] billion. Under none of the acquisition model scenarios does Epic recover more than \$2.4 billion, because the regulatory model requires Epic to reduce its rates as necessary to prevent over-recovery.

¹ *The Brattle Group*, "Proposed Regulatory Model for the Dampier to Bunbury Natural Gas Pipeline" (October 1999), lodged with the Regulator on 17 August 2000.

2. Details

Below we show the details of our proposed regulatory model, including the workings of the “deferred recovery account”, for each of four scenarios. The scenarios were taken from Epic’s DBNGP acquisition model and involve two “sensitivities” regarding 1) whether or not the proposed Kingstream development takes place, and 2) whether or not there is “high demand” in general. The four scenarios are summarised in Table 1 below.

Table 1: Alternative Scenarios

Scenario	Description
1	Kingstream - Y, High Demand - N
2	Kingstream - N, High Demand - N
3	Kingstream - Y, High Demand - Y
4	Kingstream - N, High Demand - Y

Scenario 1

Under Scenario 1 Epic does not recover its purchase cost over the lifetime of the pipe. Table 2 illustrates the methodology and outcome (see attachment).

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This shortfall is “rolled over” by adding it to the “deferred recovery account”. However, *because throughput remains low in this scenario, Epic never manages to earn*

back the rolled over shortfall. At the end of the lifetime of the pipeline, the deferred recovery account is still active, reflecting the under-recovery. Under our proposal, this amount is effectively written off as a loss to Epic. The total recovery of \$[deleted – confidential] billion under this scenario falls short of the acquisition price by \$[deleted – confidential].

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Scenario 4

Under Scenario 4, one of the high demand scenarios in the acquisition model, Epic does recover its purchase cost over the lifetime of the pipe.

In this case Epic again under-recovers in early years, as seen in rows [8] and [17]. For example, in 1998 the under-recovery is \$[deleted – confidential] million, and this amount is rolled over into the deferred recovery account.

However, beginning in 2014 Epic starts to recover its costs and makes up the rolled-over shortfall. For example, in 2014 the operating income of \$[deleted – confidential] million (row [17]) exceeds that year’s revenue requirement by \$[deleted – confidential] million. The difference is used to begin paying down the deferred recovery account, whose balance goes down from \$[deleted – confidential] in 2014 to \$[deleted – confidential] in 2015.

Crucially, this period of over-recovery *ends when the deferred recovery account is paid down to zero*. In this scenario, this occurs in 2025. From that point on, tariffs are adjusted so that operating income exactly equals the revenue requirement, ensuring that over-recovery is impossible.

Scenario 3

As in Scenario 4, in Scenario 3 Epic is able to recover its original acquisition cost due to the assumption in this scenario that the Kingstream project would proceed in addition to high throughput levels. Beginning in 2017, Epic earns revenues that allow it to pay down the balance of its deferred recovery account. By 2033 the account is fully paid down, and tariffs are reduced to ensure over-recovery does not occur.

Scenario 2

Scenario 2 is the most pessimistic set of assumptions in the acquisition model. In this scenario, Epic does not recover its original acquisition cost under our regulatory model. As this scenario reflects the lowest expectations of demand, “required” revenue exceeds operating income in each year, and Epic is unable to recoup the amount built up over time in the deferred recovery account.

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