	Pricing Methodology	Doc Ref: CORP-PO-015
This is a Controlled Document	Issue Date: 4 Feb 2019	

PCA Pipeline

Pricing for the Back Haul Swap Service

As the Back-haul swap service is a non-firm service dependent on forward flow of the pipeline, the standing price for this service is based on historic Firm Forward Haul pricing and consistent with existing contracts. The standing offer for the Back-haul Swap service is \$0.53 /GJ (\$2019).

Pricing for the Firm Forward Haul Service

Firm capacity became available following the expiry of some legacy contracts on 1 January 2019. This marks a **'first public release'** of existing capacity on the SEA Gas pipeline system and represents a unique opportunity for those seeking firm capacity to service southern Australian markets.


SEA Gas has developed and structured a service, and associated tariff, based upon forecast / anticipated demand for a westerly Firm Forward Haul product as has been informed by discussions with prospective users and independent market analysis.

SEA Gas has adopted a cost-reflective approach to its pricing methodology for the westerly Firm Forward Haul Service. In doing so, it has considered capital and establishment costs, plus forecast non-capital, operating and maintenance costs.

Revenue requirements have been determined using rates of return commensurate with the expected cost of raising equity and debt, cognisant of the need to achieve commercially sustainable outcomes for SEA Gas and prospective users.

The pricing methodology used to determine the Firm Forward Haul price of \$0.90 per GJ/day (\$2019) is as follows;

- i. The opening asset value as at 1 July 2018 was estimated using historical data on initial construction costs, the amount of capital expenditure since commissioning, the return of capital recovered since commissioning and the value of pipeline assets disposed since commissioning. This determined an asset base of \$435m as at 1 July 2018. This included using a remaining pipeline life of 66.5 years from the original 80 years.
- ii. Using the asset base from (i) and incorporating 10-year forecast inputs (refer below) plus a residual value at the end of the 10 year forecasts, further modelling was performed to derive an Estimate Required Revenue (ERR) for each year. In particular, the ERR was determined:
 - a. Applying a commercial rate of return to that asset base to produce a return on capital, which is configured using a post-tax nominal Weighted Average Cost of Capital
 - b. Incorporating a Return of assets (i.e. Depreciation), which is the sum of:
 - i. Straight-line depreciation of the opening asset value as at 1 July 2018
 - ii. Straight-line depreciation of the capital expenditure incurred in the financial year 2018-19

	Pricing Methodology	Doc Ref: CORP-PO-015
This is a Controlled Document	Issue Date: 4 Feb 2019	

- iii. Minus the inflation on opening asset value (i.e. equivalent to regulatory depreciation)
 - c. Making an allowance for the forecast operating, capital and maintenance costs of keeping the assets in service
 - d. Making an allowance for the 'cost' of tax, based on the approach adopted by the AER to calculate efficient benchmark tax liabilities in the Post-Tax Revenue Model
 - e. Subtracting currently contracted revenues
- iii. Using the ERR and dividing by the available firm forward capacity (in GJ / day), the average tariff per year was determined. Due to forecast movements in expenditure and demand, this process resulted in a wide range (+/- 30%) of average tariffs across individual years.
- iv. The above range was then 'smoothed' to estimate a price path for each year of the forecast period. The resulting firm forward tariff equates to \$0.90 per GJ/day in \$2019.


The inputs used in modelling (i) and (ii) above included:

- 10-year Operating expenditure forecasts.
- 10-year Capital expenditure forecasts.
- An estimated commercial weighted average cost of capital (based on forecasts assuming that the SEA Gas pipeline would continue to operate with a material portion of forecast revenues from take-or-pay contracts).
- Estimated contractual pipeline capacities for the period 2018 to 2027 (informed by independent market analysis and shipper discussions).
- Gearing of 60%.
- An estimation of annual CPI rates.
- Depreciation rates (consistent with rates outlined by the Australian Energy Regulator's Financial Reporting Guideline for Non-Scheme Pipelines (December 2017)).

The standing offer of \$0.90 per GJ/day (\$2019) for a 10TJ/d service and a term of 5 years reflects a position that could be reasonably expected in a workably competitive market, in accordance with the objectives of Part 23 of the National Gas Rules.

Pricing for the Standard Storage Service

The Standard Storage Service is a firm service that allows the storage of gas at a notional point on the pipeline. Separate haulage services are required in order to move the stored gas between the relevant receipt and delivery points. The standing price for this service reflects the amount of equivalent Firm Forward Haul capacity that is consumed in order to provide the service. The standing offer for the Standard Storage Service is \$0.31 per GJ (\$2019) for 30TJ for 5 Years.

	Pricing Methodology	Doc Ref: CORP-PO-015
This is a Controlled Document	Issue Date: 4 Feb 2019	

Pricing for the Premium Storage Service

The Premium Storage Service is a firm service that allows the storage of gas at a notional point on the pipeline system. This service comes with inherent storage recharge and discharge rights (which are a function of the Shipper’s storage inventory relative to their storage MDQ) that provide flexibility to move the stored gas between relevant receipt and delivery points without the requirement for additional haulage services.

The standing price for the Premium Storage Service reflects a 30% premium on the Standard Storage Service due to the extra flexibility afforded by the inherent storage recharge and discharge entitlements. The standing offer for the Premium Storage Service is \$0.40 per GJ (\$2019) for 30TJ for 5 Years.

PCI Pipeline

Pricing for the Haulage Service

The standing price for this service has been informed by tariffs applicable to existing contracts for comparable services. The standing offer for the Haulage Service is \$0.08 per GJ (\$2019).

SEA Gas would welcome the opportunity to work with interested parties to develop additional services to those listed above in response to identified needs. Any such additional service offerings will be published by SEA Gas once established.

SEA Gas encourages any interested party to contact SEA Gas at commercial@seagas.com.au to discuss any specific requirements.