November 2026

Institute for Energy Economics and Financial Analysis

Technical Appendix:

APA's North to East Australia (NEA) pipeline cost modelling assumptions

Higher gas prices and unwanted supply in the pipeline from Beetaloo

Josh Runciman, Lead Analyst, Australian Gas
Kevin Morrison, Energy Finance Analyst, Australian Oil and Gas



Introduction

IEEFA estimated the costs of APA Group's proposed North to East Australia (NEA) Pipeline Project using a Discounted Cash Flow method, using parameters detailed in this appendix.

Key sources include:

The Australian Energy Market Operator's (AEMO) 2025 Gas Infrastructure Options Report (developed to inform the 2026 Integrated System Plan).

GHD's 2025 Gas Infrastructure Costs Report.

All costs are expressed in Australian dollars.

Metric	Low demand	Central demand	High demand	Source/Rationale
Pipeline cost assumptions				
Capacity (TJ/day)	575	1151	1332	See Appendix – Demand Scenarios
Diameter (inches)	29.6	38.6	40.9	Calculated using CheCalc Natural Gas Pipeline Sizing calculator, based on following assumptions from GHD: • Inlet pressure: 10,200 kilopascals gauge (kPag) • Outlet pressure: 6000 (kPag) • Flowing temperature: 20°C IEEFA used a General Flow Equation to calculate capacity and diameter.
Pipeline capital expenditure (capex), AU$bn	4.84	6.33	6.70	**Pipeline capex, all scenarios** • Pipeline costs per inch/km: AU$75,000. • Remote location adjustment factor: 1.4. • Terrain elevation factor: assumed to be 1 (i.e. no elevation change) for simplicity. • Pipeline utilisation: 100%. • Decommissioning capex per km: AU$5,000. • Segment length: approx. 390km (1,561km pipeline length and 4 compressor stations)
Pipeline station capex, AU$m	34.3	52	56.8	**Pipeline station capex, all scenarios** • Number of pipeline stations: assumed to be 2 (one at each pipeline terminus) • Pipeline station cost per 100TJ/day capacity: AU$5.6m • Scaled to capacity in each scenario using formula: $C1/C2 = (V1/V2)^{alpha}$ • Alpha: 0.6

Average annual pipeline operating expenditure (opex), AU$m	97	127	134	**Average annual pipeline opex, all scenarios** • Calculated as a percentage of pipeline capex: 2%
Compression cost assumptions				
Compressor station capex, AU$m	350.4	350.4	350.4	**Compressor station capex, all scenarios** • Compressor station cost (5.7MW compressor): AU$73m • Key assumption: capex for a 5.7MW compressor station equal to that for 11.8MW station proposed to be used • Decommissioning cost per compressor station: AU$3.5m
Number of compressor stations	4	4	4	**Number of compressor stations, all scenarios** • Number of compressors: 4 • Key assumption: number of compressor stations will be the same for different demand scenarios
Average annual opex, AU$m	35	35	35	**Compressor station opex, all scenarios** • Annual operating cost calculated as a percentage of compressor station capex capex: 4%
Sustaining capital costs, AU$m	78	78	78	**Sustaining capital costs, all scenarios** • Sustaining opex, required every 10 years, calculated as a percentage of compressor station capex: 9%
Financial parameters				
Weighted average cost of capital (WACC), nominal	6.24%	6.24%	6.24%	**WACC (nominal), all scenarios** • Rate of return in Australian Energy Regulator final decision for APA's Amadeus Gas pipeline access arrangement (2026–31).
Inflation, %	2.5%	2.5%	2.5%	**Inflation forecast, all scenarios** • Midpoint of the Reserve Bank of Australia's 2–3% inflation target.
WACC, real	3.65%	3.65%	3.65%	**WACC (real), all scenarios** • Calculated as the nominal WACC less inflation
US$/AU$ exchange rate	0.7002	0.7002	0.7002	**Exchange rate, all scenarios** • Reserve Bank of Australia exchange rate data, as at 14 October 2026.

Transport costs				
LNG shipping freight rates, US$ per Million British thermal units (MMbtu)	1	1	1	**LNG shipping rates, all scenarios** • LNG freight rates based on FTI Consulting estimates of medium-term LNG freight rates from Gladstone to North Asia.
Ballera to Wallumbilla tariff, AU$/GJ	1.85	1.85	1.85	**SWQP eastward flows, all scenarios** • Based on APA published tariff for SWQP eastwards (single pipeline).
Ballera to Culcairn tariff, AU$/GJ	2.8	2.8	2.8	**Queensland to Victoria border, all scenarios** • Based on APA published tariff for multi-asset pipeline transport from Queensland to Victorian border.
Culcairn to Melbourne tariff, AU$/GJ	0.7	0.7	0.7	**Victorian Transmission System tariff, all scenarios** • Calculated using APA tariff calculator.