

Wilson Cook & Co

Engineering and Management Consultants
Advisers and Valuers

Reply to: Auckland Office
Our ref: 1024
Email: jeffrey.wilson@wilsoncook.co.nz

14 January, 2011

Mr Warwick Anderson
General Manager, Network Regulation North Branch
The Australian Energy Regulator
Marcus Clarke Street
CANBERRA ACT 2601

Dear Mr Anderson,

RE: REVIEW OF EXPENDITURE IN RELATION TO THE AMADEUS GAS PIPELINE: PRELIMINARY ASSESSMENT

In response to your instructions, we have carried out a preliminary assessment of the gas access arrangement proposal for the Amadeus gas pipeline, submitted to the AER on 23 December 2010 by N.T. Gas Pty Ltd (NT Gas), in relation to capital and operating expenditure in the present regulatory period and proposed for the next and have pleasure in submitting our report.

This assessment is brief, being limited to a preliminary review to help identify possible areas for further inquiry for the AER in relation to the expenditure referred to above.

In addition, this assessment expresses our findings solely at the date written above and does not reflect any further information that may become available to us after that date.

Our findings (as expressed in this letter) are to be read with these factors in mind, are preliminary in nature, are not necessarily complete and are qualified as to their accuracy for these reasons.

1 Operating Expenditure

Expenditure in the present period is 5% below the approved level. The largest variation is in the cost of intelligent pigging with savings achieved.

Forecasts are separated into Operations and Maintenance, Overheads and Sales and Marketing. No contingencies have been included in the forecasts.

Operations and Maintenance

The base-year roll-forward methodology is used to develop the forecast level with 2009/10 chosen as the base year. This is the most recent year for which audited accounts are available.

Adjustments have been made to the base year. The most material is the addition of \$[c-i-c] add back labour allocated to un-regulated capex works during the 2009/10 year. NT Gas claims that these resources will be used on maintenance works for the foreseeable future. The key question is whether this level of resource is required for ongoing maintenance work. There appears to have been some shuffling of resource between capex and opex over the present period with non-

Registered Office

Wilson Cook & Co Limited
Level 2, Fidelity House
81 Carlton Gore Road
PO Box 2296 Auckland 1140
www.wilsoncook.co.nz

Auckland

8 Harapaki Road
Meadowbank Auckland 1072
T +64 (9) 578 0770
M +64 (21) 645 521
E info@wilsoncook.co.nz

essential maintenance deferred as necessary. However, if there is no planned un-regulated capex in the next period, the total level of resource and expenditure may be greater than required just for maintenance. (The \$[c-i-c] m additional cost is offset by the removal of \$[c-i-c] m of non-recurring cost.)

Several step changes and ad hoc expenditure items are then added to the base year. These are shown on p. 179 of the AA Submission. Apart from two pigging projects in 2012/13 and 2015/16, these are mostly minor in terms of cost and, based on the information provided, would meet our usual criteria for step changes.

Overheads

A base-year roll-forward methodology and zero base have been assumed for this forecast.

Local overheads have been rolled forward with no adjustment.

There is a substantial increase in corporate overheads in the next period. It is claimed that AGL (the previous owner) did not make a full allocation of corporate overheads, as the negotiated service contract with PWC did not allow for their full recovery. However, NT Gas expects that a re-negotiated contract will allow for full recovery and so it has included these costs in the forecast cost. Given the quantum of increase, the AER may wish to verify the basis of the forecasts.

Sales and Marketing

Expenditure has been minimal in the present period due to uncertainty over the availability of gas. It is forecast to increase back to previous levels now that the gas supply has been augmented but this item accounts for only around 1% of total opex.

2 Capital Expenditure

2.1 General Comments

There is a strong contractual counterparty, the Power & Water Corporation (PWC) for the regulated asset and, to date, it has had the right to approve material expenditure. PWC's approval appears to be required to enable NT Gas to recover the capital costs via the service contract and this should provide a high degree of comfort that expenditures are prudent and efficient. However, the AER may wish to enquire whether the previous approval requirement will continue into the next period.

It is noted that no contingencies have been included in the forecast.

If detailed cost estimates are provided, then a check should be made on the allocation of overheads to capex, particularly for the integrity expenditure.

2.2 Capital Expenditure in Present Period

The following figures are in 2009/10 dollars.

Expenditure of \$13.4 m was approved for the present access period by the ACCC in 2002. Forecast expenditure is estimated by NT Gas to be \$26.8 m, i.e. double the approved expenditure. In the AA (p. 63), the increase in expenditure is attributed to:

- (a) expansion capital expenditure of \$7.4 m whereas no expansion expenditure was allowed for in the approval;
- (b) replacement capital expenditure of \$17.2 m compared with approved expenditure of \$6 m, i.e. an increase of \$11.2 m; and
- (c) non-system capital expenditure of \$2.2 m compared with approved expenditure of \$2.2 m, i.e. a decrease of \$5.2 m.

Expansion Expenditure

The non-forecast expansion expenditure is attributed in the AA to the following three projects.

- (a) The need to remove check valves (which permit flow in one direction only) from the pipeline south of Ban Ban Springs where gas from the Blacktip Gas Field enters the pipeline via the Bonaparte gas pipeline. This project enables gas from Blacktip to supply users on the southern section of the pipeline, given that Blacktip has become the primary supply of gas. This project was completed during YE 2010 at a cost of \$0.65 m.
- (b) The need to upgrade the Katherine Metering Station to enable an increase in gas supply to the Katherine electricity generating plant following a decision by the plant operators (PWC) to increase generation output from 18 to 36 MW. The cost of the upgrade is estimated by NT Gas to be \$7.6 m with the expenditure taking place in YE 2011.

In the AA (p. 64), it is noted that as well as increasing capacity, significant upgrading is required as the metering station now has to comply with present day standards which are more stringent than those applying at the time of original construction. It stated in the AA, "information on the derivation of the cost estimates for this project can be found in the Asset Management Plan provided at Attachment C to this submission". However, the only reference to the upgrade in the Asset Management Plan is a statement on p.8 as follows: "Information on the detail of this project has not been included in the AMP as the project is still in the design stage and the delivery requirements are currently under review by PWC."

A cost-benefit analysis provided in Attachment E shows an IRR of 24.6%, which is noted in spreadsheet as being in excess of the nominal pre-tax WACC of 12.45%. The analysis is based on the increased revenue from projected demand following the increase in capacity and the estimated capital cost of \$7.6 m. (for which, as noted above, no cost breakdown has been provided). The AER may wish to ask for a cost breakdown.

- (c) The third expansion project is the Channel Island metering station upgrade which according to the AA (p. 64), "involves providing an interconnection to the existing station from which gas will be supplied to a new meter and regulating station upstream of the new generation units. NT Gas will also provide resources to attend design workshops, safety management studies composed of HAZOP studies and risk assessments, and labour and supervision for mechanical, civil and electrical works associated with the interconnection in the existing station. Project expenditure is forecast at \$0.64 million in 2010/11."

The AA does not provide a cost breakdown. Reference is made in the AA (p. 64) to justification "under Rule 79(2)(c), as described in confidential Attachment D, related to security of electricity generation at the site." A copy of Attachment D does not appear to have been provided. The AER may wish to ask for a cost breakdown, together with Attachment D.

It is noted that the total estimated cost of the three projects is \$8.89 m, i.e. \$1.49 m more than the \$7.4 m stated in AA. The AER may wish to ask NT Gas to clarify.

Replacement Expenditure

According to the AA (pp. 66 - 78), the main component of the increased replacement capital expenditure is "an enhanced integrity works program" which is to take place over the period 2010 to 2012. The total estimated expenditure is \$18.2 m, of which \$10.7 m is forecast to be spent in FY 2011. This accounts for 95% of the \$11.2 m increase over the approved expenditure.

Test programmes carried out during the period 2008 to 2010 that included intelligent pigging, direct current voltage gradient (DCVG) surveys and a cathodic protection survey are reported in the AA to have revealed a number of problems including metal loss, damaged or degraded coatings and deterioration of the cathodic protection system. These issues are also discussed in

the Asset Management Plan (pp. 8 *et seq*). The age of the pipeline – according to the Asset Management Plan (p. 6) it was commissioned in 1986 – can be considered a factor in these issues.

NT Gas states in the AA (p. 67) that “these projects are essential for compliance with existing technical regulatory obligations and to ensure the ongoing integrity of the pipeline. NT Gas has therefore set up a special project delivery structure to ensure that it can deliver the projects, and at the same time achieve efficiencies in project delivery that may not be achievable at another time, or through works carried out over a longer period.”

Nine projects are listed in the AA (pp. 68 *et seq*) and are described in some detail. Further information is provided in Appendix A of the Asset Management Plan. The nine projects contribute 96% of forecast replacement expenditure for 2010/11. Of them, three make up 80% of the total expenditure:

- Channel Island “piggability”: total for 2010/11 - \$3.3 m (plus \$3.2 m in 2011/12). This includes replacement of a bridge crossing which owing to a diameter change, prevents pigging plus the provision of pig launchers and receivers.
- Cathodic protection upgrade: total for 2010/11 - \$1.96 m (plus \$1.68 m in 2011/12). A cost estimate is provided in Appendix A of the Asset Management Plan.
- Below-ground station pipework coating replacement: total for 2010/11 - \$2.9 m (plus \$1.9 m in 2011/12). This includes excavating and recoating underground pipework at 37 stations, defects having been revealed during testing. A reasonable level of cost estimation has been provided in Appendix A of the Asset Management Plan.

Whilst the AA and the AMP provide adequate justification for the nine projects (including the three listed above), no cost breakdown is provided for the Channel Island “piggability” project. While options are discussed in the AMP (p. 13), cost benefits do not appear to have been considered. It is also unclear which of Option 3 or Option 4 has been selected. The AER may wish to ask NT Gas to provide a cost breakdown and more detail on its consideration and selection of the preferred option, including cost benefit analysis.

Non-System Capital Expenditure

Non-system capital expenditure is forecast to be \$5.2 m less than the approved expenditure in this category. The explanation for this under-spend and other expenditure in this category appears satisfactory.

2.3 Capital Expenditure in the Next Period

The following figures are in 2009/10 dollars.

Capital expenditure in the next period (2011/12 to 2015/16) is forecast to be \$14 m comprising \$13 m of replacement expenditure and \$1 m of non-system expenditure. No expansion-related expenditure is forecast.

Replacement Expenditure

According to the AA (p. 83), the main component of replacement expenditure is the continuation of the “enhanced integrity works program” which, as discussed above, commenced during the present period. Of the total forecast expenditure, just over \$8 m (60% of the total) is scheduled for 2011/12.

The expenditure scheduled for 2011/12 includes six of the nine integrity projects scheduled to commence in 2010/11. This includes the three largest projects discussed above when commenting on expenditure in the present period. Comments regarding the Channel Island “piggability” project therefore apply also to the expenditure component of the forecast for 2011/12.

It is stated in the AA (p. 87) that “The remaining ‘routine’ expenditure in 2011/12 and later years of the period is largely associated with two ongoing integrity projects – replacement of cathodic

protection sites and heat shrink sleeve replacement.” This statement appears to contradict the information related to these projects on AA pages 73 and 75, which implies that the replacement of cathodic protection sites is forecast to be completed in 2011/12 (i.e. does not continue into “later years”) and that the heat shrink sleeve project is forecast to be completed in 2010/11 (i.e. in the present period). The AER may wish to ask NT Gas to clarify this matter.

Other than the integrity projects, approximately \$5 m of expenditure is forecast for the period 2012/13 to 2015/16 – i.e. \$13 m less the \$8 m scheduled for 2011/12. According to the AA (pp 87 - 88), this is to be spent on SCADA upgrades, meter station demountable huts and “general capital expenditure, usually associated with the replacement or acquisition of tools and minor equipment as required because of age, loss or breakage, or because of new requirements (where existing tools not fit for purpose or safe for use)”. Whilst the expenditure appears justified, the AER may wish to ask NT Gas for more detailed information.

Non-System Capital Expenditure

Non-system capital expenditure is forecast in the AA (p. 83) at just over \$1 m with annual expenditure ranging from \$0.1 m to just over \$0.4 m. According to the AA (p. 88), the expenditure is made up of average annual routine expenditure based on the earlier access period plus expected upgrades of data and voice communications in 2013/14 and 2015/16. Little supporting information is provided but the amounts involved are small.

3 Qualifications of the Reviewers

This preliminary assessment has been formulated for and on behalf of Wilson Cook & Co Limited by Mr Peter Cole, Mr Derek Walker and Mr Jeffrey Wilson. All are professionally qualified engineers, experienced in undertaking reviews this type.

4 Conditions Accompanying Our Opinion

Assessment Not an Assessment of Condition, Safety or Risk

Notwithstanding any other statements in this review, this review is not intended to be and does not purport to be an assessment of the condition, safety or risk of or associated with the business’s assets and nothing in this report shall be taken to convey any such undertaking on our part to any party whatsoever.

All Earlier Advice Superseded

For the avoidance of doubt, we confirm that this report supersedes all previous advice from us on this matter, whether written or oral, and constitutes our sole statement on the matter.

Disclosure

Wilson Cook & Co Limited has prepared this report in accordance with the instructions of its client on the basis that all data and information that may affect its conclusions have been made available to it. No responsibility is accepted if full disclosure has not been made. No responsibility is accepted for any consequential error or defect in our conclusions resulting from any error, omission or inaccuracy in the data or information supplied directly or indirectly.

Disclaimer

This report has been prepared solely for our client, the Australian Energy Regulator (AER), for the stated purpose. Wilson Cook & Co Limited, its officers, agents, subcontractors and their staff owe no duty of care and accept no liability to any other party, make no representation or warranty as to the accuracy or completeness of the information or opinions set out in the report to any person other than to its client including any errors or omissions howsoever caused, and do not accept any liability to any party if the report is used for other than its stated purpose.

Non-Publication

With the exception of its publication by the AER, in relation to its review of the business's expenditure proposals, neither the whole nor any part of this report may be included in any published document, circular or statement or published in any way without our prior written approval of the form and context in which it may appear.

Yours faithfully

Wilson Cook & Co Limited

A handwritten signature in blue ink that reads "Wilson Cook & Co." with a period at the end. The signature is written in a cursive style.