

**Report for
Western Australian
Independent Gas Pipelines
Access Regulator**

**Review of Cost Variances for the
Network Management
Information System
Proposed by
AlintaGas Networks Pty Ltd**

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EXECUTIVE SUMMARY

Evans & Peck was engaged by OffGAR to assist in examining variances to estimated costs proposed by AlintaGas Networks Pty Ltd (AGN) for their Network Management Information System (NMIS). This review was to determine if the costs are requisite for the gas distribution network business seeking to implement Full Retail Contestability (FRC).

The cost variances result from the following:

- Increases in estimated costs for the software system upgrade, to be undertaken by Aseriti, of the CIS OV system currently used by AlintaGas Sales (AGS), from version 3.0.7 to version 5.1.1 and for additional hardware.
- Increases in estimated costs for implementing the overall NMIS to be undertaken by the systems integrator, LogicaCMG.

In the earlier review conducted by Evans & Peck in October/September 2002 it was noted that AGN had allowed only a small contingency amount and that increases were likely to occur which the contingency would be inadequate to cover.

From the information provided, Evans & Peck conclude the following:

- The overall increase in costs, including the AGS contribution in return for their benefit derived from the upgrade of the CIS OV of \$315,282 (calculated by AGN), to reach the new estimated total of \$12,163,009, represents prudent expenditure for implementing NMIS.
- The increases are within the uncertainty range of the earlier estimates prepared by AGN in 2002.
- However, expenditure beyond this current estimate may not be considered prudent if any such increase does not support further “value add” for the NMIS implementation, such as for significantly increased functionality which may be needed to better support FRC.
- Several of the individual cost items generating the overall capital costs increase appear excessive, such as the effort and hence labour costs for functionality changes to NMIS, the cost of additional hardware and increased labour rates sought by LogicaCMG. However, the overall net increase is reasonable.
- The increase in operational (non capital) costs from \$1.2M to \$1.3M per annum is reasonable.

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1. SCOPE OF REPORT

OffGAR engaged Evans & Peck to assist in examining the variances to estimated costs proposed by AGN for the NMIS.

The NMIS is needed to support FRC in the gas energy industry in Western Australia. This report examines the differences in the estimates prepared by AGN in June 2002 and in September 2002, compared to estimates AGN prepared in July 2003.

Evans & Peck undertook a detailed review of NMIS in September 2002 when AGN made its original application for approval of FRC costs. The earlier review closely examined the NMIS overall functionality, including system software specifications, hardware requirements and the associated breakdown of the estimated costs.

This review, of the variances that have arisen from when the first detailed assessment was made, relied solely upon written information provided by AGN, no face to face interviews were conducted and information supplied was assumed to be correct. Therefore, this review examined the cost variances in terms of their incremental impact upon the overall costs and the reasonableness relative to the earlier review, in relation to the NMIS costs being prudent and efficiently incurred to achieve the lowest sustainable costs of providing services on the gas distribution system following the introduction of FRC.

2. BREAKDOWN OF CAPITAL COST VARIANCES

The earlier and current cost estimates are as shown in the table below:

Item CAPEX	Estimate - June 2002	Estimate - September 2002 (Date of Evans & Peck previous Review)	Estimate - July 2003	Variance & Percentage Change (June 02 to July 03)	Variance & Percentage Change (September 02 to June 03)
CIS OV Mods Upgrade	244,000	Included below	1,381,000	1,137,000 465%	Cannot be calculated
NMIS	8,455,200	Included below	10,470,000 (Incls 500,000 contingency)	2,014,800 24%	Cannot be calculated
Sub Total	\$8,699,200	\$9,942,200	\$11,851,000	\$3,151,800 36%	\$1,908,800 19%
Interest	1,143,647	1,302,720	627,291	-516,356 -49%	-675,429 -52%
TOTAL	\$9,842,847	\$11,244,920	\$12,478,291 (Note 3)	\$2,635,444 27% (Note 1)	\$1,233,371 11% (Note 2)

Note 1. This is the variance between AGNs originally submitted June 2002 estimate and the current estimate.

Note 2. This is the variance between the current estimate and the estimate provided to Evans & Peck in September 2002.

Note 3 This excludes AGS contribution, see section 4.

High Level Analysis

The increased cost estimates, compared to the June 2002 figure, which amount to 36% (when interest adjustments are excluded) are high in view of relatively small changes to the overall scope of work. However it was noted that the AGN estimate provided in September 2002 contained only a small contingency amount of \$300,000, which was considered by Evans & Peck as inadequate to accommodate the increase that would likely arise over the life of the project. If a higher contingency amount was used at that time, it may have been possible for the total price estimate to remain unchanged over time.

Overall the increase from September 2002 to June 2003 of \$1.9M (19% excluding the reduced interest cost) to reach a new estimate of \$11.85M is a reasonable increase in view of delays introduced with the overall project and the requirement to now accelerate the project to meet a May 2004 completion date.

However, supporting information justifying some components of the increases raise concerns that part of the increase may be due to suppliers leveraging their position. For example, the systems integrator LogicaCMG and Aseriti appear to be using their position as preferred suppliers for NMIS to maximise price rises when negotiating increases that arise through changes in scope or when renewing prices after the validity period of an earlier offer had expired.

Therefore, whilst the overall quantum of increase is reasonable, several components, which created the increase, are of concern. These issues are examined in more detail in the next section. Note that the September 2002 estimate was not provided with the same breakdown as the June 02 and July 03 estimates. Therefore, the analysis of the variances of sub components is for the period June 02 to July 03 (not from September 02).

3. ANALYSIS OF VARIANCES

3.1. CIS OV MODS AND UPGRADE

Logica originally proposed Severn Trent Systems (STS) to undertake the CIS OV upgrade. The CIS OV is the software application which manages the customers, gas consumption and billing data and is currently used by AlintaGas Sales for retail billing. The upgrade is needed to enable FRC functionality to be provided for the network business. We note that the Logica organisation has become LogicaCMG Pty Limited. Severn Trent Systems has changed their name to Aseriti and will continue to own the CIS OV software and undertake the CIS OV work.

The increase of \$1.137M is explained by AGN as arising from:

\$396,000 Aseriti increases

\$280,000 additional hardware

\$664,630 additional Information Services Branch (ISB) labour and contract labour

In discussion with AGN and Logica in September 2002, Evans & Peck were of the opinion that the CIS OV upgrade had been very carefully considered at that time. Migration of data from version 3 to 5, which Logica now states no other client has undertaken, had been previously analysed and discussed with Evans & Peck on AGN premises and so an increase of this magnitude indicates careful scrutiny must be applied to any further increases that may arise.

The Aseriti cost increase includes \$59,000 to prepare a written plan in addition to a further \$264,000 for consultancy and 3 months on site support (and with written and telephone support from the UK). Both these amounts seem excessive. As an example of the relatively high cost of the upgrade, Aseriti provided an estimate of 52,000 pounds (\$130,000) to undertake a small software change to include the “gas

fitters number” on a “new connection service”. The high cost of this change indicates any further customisation must be kept to an absolute minimum.

Furthermore, LogicaCMG claim labour rates have increased in the last year because of wage inflation, whereas IT industry analysts have been reporting falling labour rates for IT workers for the last 3 years. In some areas contract labour rates have halved. However, the specialist nature of utility billing and network management systems requires resources with unique skills in which case some labour rates may have increased in response to ongoing demand for resources with knowledge of the special application.

Cost estimates supplied to Evans & Peck in September 2002 were based upon an exchange rate of \$2.75/pound. Since then the Australian dollar is now approximately 10% stronger (\$2.5/pound), which should result in a reduction in the cost of CIS OV licenses and UK labour.

In relation to AGN incurred labour costs, ISB labour and contract labour has increased by \$664,630, which is a substantial increase. However, some of this is due to the need to accelerate the implementation program.

3.2. NMIS SYSTEM

It is difficult to follow the cost estimate breakdown AGN supplied for the \$2.015M increase in costs for implementing the overall NMIS system. However, the primary factors appear to be as follows:

\$1,960,000 LogicaCMG increase;

\$54,800 ISB labour and contractors “net” increases.

The LogicaCMG increase appears to arise because of the following factors:

- delays through the project being suspended by AGN because AGN’s submission of recovery of FRC costs was not immediately accepted (AGN correspondence 8th July 2003);
- increased rate for LogicaCMG labour resources (LogicaCMG correspondence 15th July 2003);
- an AGN requested update of the NMIS specification by LogicaCMG;
- an increase in functionality required for NMIS market rules.

LogicaCMG Cost Estimates

Without reviewing the details of the original Logica agreement (which was not supplied to Evans & Peck) it is difficult to comment on these cost increases. However, a 24% increase for “delays only” is excessive, as would be a 24% increase for “functionality changes”. The mix of “delays costs” verses “functionality costs” cannot be determined from information supplied, but a 24% increase is nonetheless a substantial variance.

The proposed functionality changes do not appear substantial. A subjective analysis of the information supplied would indicate the bulk of the increase is probably based upon higher rates being paid to LogicaCMG for undertaking substantially the same activities as originally proposed. Information supplied indicates that whilst new market rules necessitate additional functionality for NMIS, there was also a reduction of a corresponding number of other functions such as for “service orders”. However, the cost variance is within the reasonable range of uncertainty of the earlier estimates prepared in 2002, in which case the overall costs can still be considered prudent and efficient expenditure.

However, if the costs variances were higher than the 24% calculated, a more detailed assessment of the added complexity dictated by the new marker rules would be warranted.

It is noted that a contingency amount of \$500,000 has been included for the LogicaCMG costs. Without this contingency the actual increase by LogicaCMG reduces to \$1,514,800 or an 18% increase, which is a more reasonable amount.

ISB Labour Costs

The ISB labour component has increased, it would seem, because of the requirement for aggregating hourly data on the GBBDV, which is one of the IT systems with which NMIS integrates.

Summary

In summary, the AGN documentation supplied in support of the estimated costs variances to the NMIS service provider, LogicaCMG, raises issues regarding the accuracy of data supplied and the intended application by LogicaCMG of price increases.

4. AGS SHARE OF CIS OV COSTS

AGN supplied information calculating the benefit that AGS will derive from the upgrade of the CIS OV software application. AGN determined the AGS benefit compared to AGN's benefit to be the ratio of 1:4.38 and hence AGS should share 22.83% and AGN 77.17% of the costs.

Based upon the new estimate for the CIS OV upgrade being \$1,381,000, the AGS share is \$315,282.

Please refer to the ATTACHMENT for a discussion of the AGS share of costs.

5. ANALYSIS OF OPERATIONAL COSTS

Operational costs estimates have increased from \$1.2M (September 2002 estimate) to \$1.3M per annum. Increased capital expenditure for additional hardware and functionality within NMIS would indicate that operational costs will also increase slightly. Documentation supplied 13th August 2003 by AGN indicates approximately 2 additional resources are needed to manage the increased functionality of NMIS brought about by a newly identified need to manage user queries. The estimated operational staff level has increased from 5.5 to 7.8 resources.

The operational cost estimate of \$1.3M is therefore considered reasonable.

6. ANALYSIS OF CAPITAL VARIANCES

When including the reduced cost of interest, an overall increase of 27% from \$9.8M in June 2002 to \$12.5M in July 2003 is proposed.

If the cost of the interest benefit and exchange rate improvement is added back to the estimates, the AGN project costs have actually increased by more than 36% from June 2002 to July 2003. Furthermore, these forecast increases are before the project has commenced in earnest and only reflect adjustments to forecasts, not actual variances on work completed.

Such an increase raises the concern that the overall cost of the project, when eventually delivered, will be significantly higher again. However, as noted earlier, AGN included only a small contingency in earlier estimates. Early estimates typically have an uncertain range of 30% or more, in which case the increase of 36% is still almost within the uncertainty range expected.

AGN has sought further market information to confirm that staying with LogicaCMG and Aseriti is still the most economic choice for the NMIS implementation. In a letter dated 12th August 2003 AGN state they sought revised pricing from the second preferred NMIS supplier (second in the tender evaluation after LogicaCMG) confirming that even with the increased costs the new estimate is still lower than the likely cost if AGN were to change to another system integrator and software solution.

The increase from September 2002 is 19% and if the interest benefit is added back the rise is 11%, which is reasonable in view of the delays, and the slightly increased functionality required for NMIS.

Whilst material supplied provides good evidence that NMIS will eventually be delivered with the necessary functionality to support FRC, the final price is difficult to predict and may be significantly higher than the estimates currently provided by AGN, should further changes arise from legislative or market rule amendments.

7. CONCLUSION

Including the AGS share of costs, the following summarises the overall cost estimates:

CIS OV Cost	\$1,381,000 (AGS contribution shown separately below)
NMIS Cost	\$9,970,000
AGN Contingency	\$500,000
Interest	\$627,291
Sub Total	\$12,478,291
Less AGS CIS OV Contrib.	\$315,282
TOTAL	\$12,163,009

This overall increase in costs is reasonable and the new total of \$12,163,009 represents prudent expenditure for implementing NMIS.

Expenditure beyond this current estimate may not be considered prudent if any such increase does not support further “value add” for the NMIS implementation, such as significantly increased functionality which may be needed to better support FRC.

The increase in operational (non capital) costs from \$1.2M to \$1.3M per annum is reasonable.

ATTACHMENT AGS SHARE OF COSTS

AGN in their letter 30th July 2003 supplied a paper discussing potential benefits to AGS relating to the CIS OV upgrade.

In the paper AGN calculated a relative benefit of 4.38 to 1 for the benefit to AGN compared to AGS. The paper uses this ratio to **incorrectly** determine that AGS' share of the cost of the upgrade should be 22.83% and AGN's share be 77.17%. Such allocation of costs results in a ratio of 77.17/22.83 or 3.38 to 1.

The correct calculation is as follows and it assumes AGN's measure of the business benefits ratio of 4.38 to 1, is correct.

For the cost of the CIS OV upgrade:

AGS cost contribution + AGN cost contribution = cost of CIS OV upgrade

AGS cost contribution + 4.38 * AGS cost contribution = cost of CIS OV upgrade

Therefore:

AGS cost contribution * (1 + 4.38) = cost of CIS OV upgrade

AGS cost contribution * 5.38 = cost of CIS OV upgrade

AGS cost contribution = cost of CIS OV upgrade / 5.38

1/5.38 = 18.59% = proportion of AGS cost contribution.

As a result AGN have over estimated AGS's contribution as being 22.83% and not the correct amount of 18.59%. Based upon a CIS OV upgrade of \$1,381,000 the correct cost allocation to AGS is:

18.59% of \$1,381,000 is \$256,728

compared to:

22.83% of \$1,381,000 is \$315,282

As a result AGN have estimated AGS' contribution as \$58,554 higher than their source material actually supports.