KPMG

APA Group Limited

Corporate Cost Benchmarking
Roma to Brisbane Pipeline

October 2011
This report contains 60 pages
Appendices comprise 10 pages
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Contents

1 Executive Summary

This report describes the outputs from a model to estimate the minimum Non-capital corporate costs for a business with similar characteristics to the APA Roma to Brisbane Pipeline operation in Queensland.

The results of the modelling show the mid point annual Non-capital corporate costs to be $4.6 million, expressed in 2011 dollars. This amount represents Non-capital expenditure which would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable corporate costs that support the delivery of pipeline services for the Roma to Brisbane Pipeline.

Our individual benchmarks are normally presented in the form of lower and upper bands and a mid point. Our total of $4.6 million represents a total of the mid points of the benchmarks. This is because it is unreasonable to assume that the business could operate at the lowest possible cost for each individual benchmark. It is equally unreasonable to assume that the business could operate at the high point for each benchmark. Therefore we consider that the mid point, represents the appropriate benchmark for the total of costs defined in this report.

In preparing this analysis, we identified further Non-capital corporate costs that an efficiently operated gas pipeline business might incur. These costs would increase the total of the efficient Non-capital corporate cost set out above. However, the scope of our modelling is constrained to establishing a conservative view of the minimum Non-capital corporate cost only, and not necessarily the whole amount of Non-capital corporate cost that a prudent service provider acting in accordance with accepted and good industry practice would actually incur.

2 Introduction

2.1 Background

The APA Group (APA) is an Australian infrastructure owner and operator, involved principally in the delivery of gas transmission and distribution services. APT Petroleum Pipelines Ltd (APTPPL) is a subsidiary of the APA Group and owns the Roma to Brisbane Pipeline (RBP) which transports natural gas from the gas hub near Roma to markets of Brisbane and the regional centres along the pipeline route.

The main line was constructed in 1969, is 438km long and runs from Roma (Wallumbilla) to Brisbane. The Peat lateral constructed in 2001, is 121 km long and runs from Peat and Scotia gas fields to Arubial.

Pursuant to the National Gas Rules (the Rules), APTPPL is required to submit an access arrangement revision proposal to the Australian Energy Regulator (AER) by 12 October 2011. The access arrangement revision proposal must amongst other things, set out the amendments to the access arrangement that the service provider proposes for the following access arrangement period.

The reference service provided by RBP is a non-interruptible service for the receipt, transportation and delivery of gas through any length of the pipeline in the direction from Wallumbilla or Peat to Brisbane.

Under the Rules, total revenue for a relevant service provider is determined for each regulatory year of the access arrangement using a building block methodology (Rule 76). The building blocks include, amongst other things, a forecast of operating expenditure for each regulatory year of the access arrangement period (sub-rule 76(e)).

Rule 91 provides:

> "**Criteria governing operating expenditure**
>
> (1) Operating expenditure must be such as would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of delivering pipeline services.
>
> (2) The AER's discretion under this rule is limited."

Rule 74, which applies generally to forecasts and estimates, provides:

> "(1) Information in the nature of a forecast or estimate must be supported by a statement of the basis of the forecast or estimate.
>
> (2) A forecast or estimate:
>
> (a) must be arrived at on a reasonable basis; and
>
> (b) must represent the best forecast or estimate possible in the circumstances."

Pursuant to section 28 of the National Gas Law (Law), in making a decision on whether to approve an access arrangement proposal, the AER must have regard to the National Gas Objective (in section 23 of the Law), which is:

> "…to promote efficient investment in, and efficient operation and use of, natural gas services for the long term interests of consumers of natural gas with respect to price, quality, safety, reliability and security of supply of natural gas."

The AER must also take into account the revenue and pricing principles in section 24 of the Law when exercising discretion in approving or making those parts of an access arrangement relating to a reference tariff. The AER may take into account the revenue and pricing principles when performing or exercising any other AER economic regulatory function or power (which is defined to include an applicable access arrangement decision), if the AER considers it appropriate to do so. The revenue and pricing principles in section 24 of the Law include the following:

> "(2) A service provider should be provided with a reasonable opportunity to recover at least the efficient costs the service provider incurs in—
>
> (a) providing reference services; and
>
> (b) complying with a regulatory obligation or requirement or making a regulatory payment.
>
> …
>
> (5) A reference tariff should allow for a return commensurate with the regulatory and commercial risks involved in providing the reference service to which that tariff relates.
>
> (6) Regard should be had to the economic costs and risks of the potential for under and over investment by a service provider in a pipeline with which the service provider provides pipeline services."

In its access arrangement revision proposal, APTPPL will be including an amount for corporate costs to be included in its forecast of operating expenditure for each regulatory year of the access arrangement period under rule 76(e) of the Rules. This amount for corporate costs will be based on benchmark values of corporate costs incurred by similarly sized firms operating in similar environments to APTPPL. In this context, APTPPL has sought the opinion of a recognised independent expert on the appropriate benchmark values to be used in deriving a forecast for corporate costs. The approach to determining this forecast will be required to comply with the relevant provisions of the Rules and Law set out above.

2.2 The purpose of this report

The sole purpose of this report is to provide independent evidence that may assist the Australian Energy Regulator or any relevant appellate body to consider the APA Group's proposed revisions to the access arrangement for the Roma to Brisbane Pipeline for the period 2012 to 2017, in accordance with terms of reference provided to us by the APA Group on 16 September 2011. Those terms of reference are appended to this report at Appendix A. This report has been written to comply with the Federal Court's "*Practice Note CM 7 "Expert Witnesses in proceedings in the Federal Court of Australia"* (1 August 2011).

2.2.1 Structure of report

This report outlines the results of benchmarking undertaken with the purpose of responding to APA's terms of reference, and is broken down into the following sections:

- Section 3 outlines our approach to developing the benchmarking model. It includes the following sub-sections:
  - Section 3.1 outlines the benchmarking approaches we have used.
  - Section 3.2 outlines the core activities of the modelled business (as they relate to Non-capital costs).

  - Section 0 provides an outline of the major cost categories that have been used in building up the benchmark for Non-capital corporate costs.
  - Section 3.4 outlines the key assumptions and parameters used in developing the benchmarking model, for example key assumptions concerning revenue, business size and location, and the adopted business model.
- Section 4 details the results of the benchmarking and includes a breakdown of the major component costs and the benchmarking data sources.

2.3 Compliance with the Federal Court's Practice Note CM 7

2.3.1 The expert

The author of this report is:

Keith Lockey
KPMG
147 Collins Street
Melbourne VIC 3000

2.3.2 Acknowledgement

In accordance with Guideline 2.1 (b), Keith Lockey has read, understood and complied with the Federal Court's Practice Note CM 7 "Expert Witnesses in proceedings in the Federal Court of Australia" (1 August 2011).

2.3.3 Training and experience

In accordance with Guideline 2.1 (c), Keith Lockey's qualifications and relevant experience are set out in his CV attached at Appendix B.

2.3.4 The questions the expert has been asked to consider

APA has requested an assessment of the corporate costs that would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of delivering the pipeline services provided by APTPPL. APA has requested that the benchmarking report should cover at least the following categories of corporate costs:

- Billing and revenue collection;
- External relations costs (marketing, customer and government relations, dispute resolution);
- Administration and corporate costs incorporating:
  - Executive office (including Chief Executive Officer and Board);
  - Corporate affairs (including communications, business planning and strategy, corporate governance and corporate and market compliance);
  - Finance (including accounts payable, payroll, reporting, tax compliance);
  - Contracts management (matching an outsourcing model where the business purchases the services of an operations and maintenance provider);

- Legal;
- Human resources;
- Communications and information technology; and
- Regulatory management costs (incorporating regulatory team and consultants).

2.3.5 The documents and material the expert has been asked to consider

The expert has been asked by APA to consider information from the following sources in preparing a benchmark corporate cost for APTPPL:

- the Law and the Rules in relation to the economic regulation of gas pipelines;
- published econometric, statistical, economic, financial and other relevant literature;
- relevant financial or economic data; and
- such information that, in the expert's opinion, should be taken into account to address the questions outlined above.

2.3.6 Factual Findings

The expert's opinions are based on the application of relevant benchmark unit costs to a cost structure that has been assumed for an efficient business and in accordance with relevant parameters for the scale of the business that operates the RBP. The findings include:

- the benchmark costs are described in Section 4 and Appendix C of this report;
- the cost structure that has been assumed is set out at Section 0 of this report; and
- the parameters of the scale of the RBP business are set out at Section 3.4.

2.3.7 The expert's opinions

In accordance with Guideline 2.1 (f), the expert has set out below his opinions relevant to the response to the terms of reference.

Each of these opinions is based wholly or substantially on the expert's specialised knowledge.

In the expert's opinion, the minimum annual Non-capital corporate costs required to deliver the pipeline services for the RBP expressed in 2011 dollars, amount to $4.6 million (as detailed in Section 4 of this report). This amount represents operating expenditure which would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable corporate costs that support the delivery of pipeline services.

2.3.8 The reasons for the expert's opinions

In accordance with Guideline 2.1 (g), the expert has set out below the reasons for these opinions.

Our method is proven and accepted

Our method is founded on well-established business practice used to assess the relative cost efficiency of business activities and organisational structures. Accordingly, KPMG has long and extensive experience of this form of assessment across a wide range of both unregulated and regulated industry sectors.

KPMG Consulting was engaged by the Office of the Regulator-General, Victoria to undertake an extensive benchmarking exercise very similar to that employed by this report, to assist it assess the efficiency of distribution business expenditure, as part of its 2001 Electricity Distribution Price Review.[1]

At about that time, Queensland Treasury also engaged KPMG to undertake a benchmarking exercise of this nature to assess the efficient benchmark retail margins and costs for Queensland.[2]

Subsequently, KPMG has been engaged on many occasions by access and price regulated businesses, to help assess efficient expenditure using the benchmarking method set out in this report.

Recent examples include:

- Our report *Gas distribution costs when capabilities are retained internally* October 2007 (the 2007 report) which assessed the efficiency of Envestra's Network Management Fee (NMF) of its Victorian regulated gas distribution network. This and the recoverability of the NMF for that network were accepted by the Essential Services Commission Appeals Panel of the Victorian Civil and Administrative Tribunal that determined:

  "126. The Panel does not accept the Commission's criticisms of the Lockey report as well founded. The report is comprehensive and, in the view of the Panel, adequately addresses the requirements set out in the Draft Decision and re-iterated in the Final Decision. It seems to satisfy any concerns as to double counting. The Panel considers that the weight of expert evidence provided by the Applicant should have been sufficient to satisfy the Commission that the Applicant's costs, including the payment of the NMF, were efficient and in compliance with the Code"[3]; and

- Western Australia's Economic Regulation Authority's (ERA) Final Decision on Proposed Revisions to the Access Arrangement for the Goldfields Gas Pipeline (13 May 2010). The ERA accepted corporate Non-capital expenditure as allowable expenditure that was supported by a KPMG benchmark cost model report similar to this report. The ERA describes this aspect of its decision in paragraphs 342 to 360 of the Final Decision. For example in paragraph 347, the ERA states:

  "In its report submitted with the GGT submission dated 11 December 2009, GGT's consultant, KPMG, set out the approach it took to developing the cost model, in particular how Non-capital corporate costs were identified, the benchmarks that it chose, the avoidance of risks of errors and its conservative approach. KPMG noted that costs were allocated to the covered pipeline on the basis of the cost a prudent Service Provider would incur in carrying out the functions necessary to deliver a Reference Service."[4]

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[1] KPMG Consulting, *Office of the Regulator-General, Victoria*, '2001 Price Review - Cost Allocation', 2000
[2] KPMG Report to Queensland Treasury 2001, confidential.
[3] Essential Services Commission, *Envestra Victoria VCAT Appeal Panel Decision*, November 2008, paragraph 126.
[4] Economic Regulation Authority - Western Australia, *Final Decision on GGT's Proposed Revisions to the Access Arrangement for the Goldfields Gas Pipeline*, 2010, pg 68

2.3.9 Avoidance of, and inaccuracies in, the selection of benchmarks

By their nature, benchmarks do not offer an exact representation of the estimated costs of a business. Rather, they illustrate the range of costs that a number of businesses have incurred for any particular function. It is for this reason that, in accordance with conventional practice, we have presented individual benchmark costs as a range of costs with a mid point. The lower and upper benchmark bounds represent lower and upper statistical or observed bounds. We believe that typical or expected costs are more likely to be represented by a mid point (typically a median or mean) rather than less typical or outlying, upper or lower range benchmarks.

The fact that individual benchmarks may not provide a precise estimate of efficient cost is not relevant to this exercise. This study has an objective of estimating minimum costs, not making a precise quantification.

Our findings are based on the total of mid point benchmarks. We are of the view that:

- these represent reasonable observations of efficient costs arising from competitive market outcomes for the supply of the services that the costs represent. Our report is realistic because it indicates reasonable ranges of relevant benchmarks where they are available and illustrates how we have chosen benchmarks without bias from those relevant ranges;
- these are an appropriate basis for our conclusions. The reasons for this are:
  - in the absence of any reason to prefer either an upper or lower limit for each individual benchmark, a mid point is a reasonable, unbiased assumption; and
  - our findings are based on a total of benchmark costs that comprises many individual benchmark costs.

To change our conclusion that the appropriate benchmark total is below the mid point would require an asymmetric bias such that many costs should be stated below and not at, the mid points. Appendix D illustrates that while this outcome is theoretically possible, it would be unlikely in the extreme and can be discounted as a reasonable consideration.

Our approach is conservative

Our model identifies principal corporate costs. It is possible that, because we have only sought to model principal costs, we have omitted other, albeit less significant, costs from the model. Section 4.10 describes other potential costs which have not been included in the total corporate cost benchmark in order to secure a conservative result that does not overstate efficient corporate costs.

Our approach is transparent

The findings of this report necessarily compare actual costs to an estimated alternative. An appropriate standard for judging the estimated costs is whether the assumptions on which the estimates are based are reasonable and appropriate. Our approach transparently explains the assumptions we have used.

Where relevant benchmarks provide a range of potential input costs, we have disclosed that range to illustrate the basis on which we have chosen each benchmark cost. This shows that we have not biased our selection of benchmarks towards either end of the potential ranges, except for the omission of some costs which is illustrated in section 4.10 below. Throughout the build up of benchmarked costs, we have consistently chosen prudent assumptions or alternatives to avoid the risk of overstatement of benchmark cost.

Our approach uses current benchmarks

The risk of using out of date benchmarks has been addressed by using the most recent information available. Where costs have been sourced from benchmarks that are not current to June 2011[5], we have inflated the costs using the Consumer Price Index[6] (CPI) or the Labour Price Index[7] (LPI) published by the Australian Bureau of Statistics as appropriate. LPI has been used to inflate salary costs where appropriate, and CPI has been used to inflate all other cost items such as corporate office overheads, where required.

Our approach avoids the risk of double counting benchmark costs

If a benchmark were to potentially include a cost that has been accounted for in other components of the model, there could be a risk of the total cost estimates double counting or overstating costs.

The nature of the benchmarks referenced in this report have been reviewed, and many are not considered subject to this risk because the scope of costs covered by the benchmark was narrow and well defined. Benchmarks of per capita salary costs are examples. Where we have identified a risk, we have adjusted the benchmarks. Section 4 describes the build up of cost and demonstrates that there is no double counting of functions, resources or other cost components.

Accordingly, we do not believe that our method results in a significant risk of different benchmarks double counting estimated efficient in-house costs, and accordingly we do not believe that this risk has a bearing on the conclusions of our report.

Our approach avoids the risk of misstatement of benchmark costs due to judgmental estimates

In some cases there are areas, principally consulting costs, where benchmark data are not readily available. In these cases, we have used informed 'judgmental estimates'. This is undertaken by the following methods:

- where a relevant benchmark has not been readily available, we have conducted a comparative analysis of publicly available information on a number of similar businesses in order to arrive at an estimated cost (such as in the case of data presented in Appendix F); or
- in other instances, we have used estimates of cost based on our knowledge of business costs (such as in the case of consultants' fees for example identified in Section 4.4). Whilst these estimates have an element of judgment, they have been kept to a minimum.

We have ensured that 'judgmental estimates' are constrained to areas that fall within our experience, principally consultancy costs and are only used where there is no relevant, replicable benchmark available. As a global provider of professional consultancy and advisory services, KPMG is well placed to make judgments on the levels and costs of consultancy required. Estimates comprise a range of \$0.37 million to \$0.80 million and where the mid point

[5] June 2011 is the latest available data from the ABS
[6] Australian Bureau of Statistics, *Consumer Price Index,* 'Table 5 – CPI: Groups, Index Numbers by Capital City', times series spreadsheet, cat. no 6401.0
[7] Australian Bureau of Statistics, *Labour Price Index,* 'Table 1. Total Hourly Rates of Pay Excluding Bonuses', times series spreadsheet, cat. no 6345.0

of $0.58 million makes up approximately 12.8 % of the total benchmarked costs. Therefore, these judgmental amounts do not represent a significant portion of the overall mid point of the report's conclusions.

Our approach avoids the risk of basing the cost estimate on an unrealistic organisational structure

This risk has been addressed by:

- using our professional expertise in corporate cost structures and knowledge of the gas pipeline services industry; and
- consulting with the APA Group to compare our assumptions to the assumptions underlying its business model for reasonableness.

Summary

Our method is transparent, replicable by other independent persons and has been previously accepted by regulators and an appeal body. We have used transparent, conservative, measured and verifiable assumptions. The use of costs based on estimates and judgments has been kept to a minimum, so that, by using benchmark information that is publicly available together with the assumptions made explicit in this report, the outcomes are independently verifiable.

2.3.10 Closing statement

The statement required by paragraph 2.3 and the requirement of paragraph 2.1 (a) of the Guideline is set out at Section 5 of this report.

3 Approach and high level assumptions

This section of the report describes:

- the benchmarking methods used;
- how we identified the scope of activities and functions for which we estimate costs;
- the components of the corresponding cost structure that we assumed; and
- the parameters of the scale of business that we applied to the benchmarks to calculate estimated costs.

Appendix C provides more detailed assumptions that we utilised.

3.1 Benchmarking methods

Benchmarks are compiled from independent sources using publicly available information. This report utilises either of two methods to estimate the efficient costs for each activity or function. These two methods are described below.

Empirical benchmarks - whole of activity of benchmarking using 'empirical' or overall benchmarks

Empirical benchmarks are defined in this instance as benchmarks of overall total activity cost and encapsulate all associated miscellaneous cost. Some empirical benchmarks also report costs split into their sub-components; however, the overall total cost for the activity is used in preference to building up the total cost from individual sub-components.

As an example, in this report, an empirical benchmark is used to estimate the cost of the finance function. In this case, the total cost of the finance function is reported in terms of a percentage of business revenue.

Where possible, empirical benchmarks are used in preference to bottom-up benchmarks as they provide an independent, publicly available and externally compiled basis for the cost estimates, and are not reliant on the build up of an efficient staffing structure.

Bottom-up benchmarks – cost modelling used when benchmarks for the entire cost of an activity are unavailable

The method of bottom-up benchmarking can be summarised in the following key steps:

- assessment of the efficient staffing requirements and other relevant principal components of cost necessary to conduct that activity;
- application of benchmark unit cost applicable to each component, such as labour; and
- addition of the associated requirements for supporting services and costs such as office space and on cost requirements relevant for the activity level.

As an example, in this report, a bottom-up benchmark is used to estimate the cost of economic regulation. The roles and numbers of Full Time Equivalent (FTE) staff required for this component are identified along with the benchmark salary for each of these staff. The associated statutory on costs of employment, other corporate overheads and office and accommodation costs are then applied to these staff as required. Details of these cost components are outlined in Appendix C.

Sources of benchmarks

The sources of the benchmarks used are noted underneath each table or within the accompanying text. These benchmarks are publicly available, although some may require a user to incur a cost to acquire them.

3.2 The scope of activities and functions to be costed

3.2.1 Non-capital corporate costs

This report assumes that the RBP operates through a head office that conducts corporate functions and other administrative functions solely for the pipeline on a standalone basis.

This report considers Non-capital corporate costs. It does not include operational costs (such as staff, plant and equipment associated with the management of the pipeline), asset maintenance, project related costs that are capitalised into capital budgets and infrastructure related capital costs.

This delineation is made for the purposes of more clearly illustrating the costs that fall within the ambit of this benchmarking analysis.

3.2.2 Services definition

Table 3-1 below:

- considers the range of activities necessary to own and operate a gas transmission pipeline; and
- demonstrates how the scope of activities we have assumed to fall within the scope of Non-capital corporate costs aligns with the overall range of activities.

This report is confined to the Non-capital corporate costs.

Table 3-1: Definition of services

	Activities required by a gas transmission pipeline business	How this relates to our cost model
(i)	The provision of gas transmission capability to support the delivery of gas.	We assume that these activities are directly related to the gas transmission pipeline. They are therefore excluded from the corporate cost model.
(ii)	Management, maintenance and operation of the gas transmission system.	Our corporate cost model only includes the costs of undertaking risk management, regulatory management and administration and corporate governance costs necessary to support the operation of the gas transmission system. The direct costs of managing, maintaining and operating the gas transmission system have been excluded from the corporate cost model.
(iii)	Additional activities necessary to ensure the integrity of the gas transmission system and maintain the pipeline capability to support the delivery of gas.	The direct costs of ensuring the integrity of the gas transmission system and maintaining the pipeline's capability to support the delivery of gas have been excluded from the corporate cost model. (See appendix E.2)
(iv)	The provision of pipeline capability at each lateral and transmission connection point.	We assume that these activities are directly related to the gas transmission system and are thus captured under "system operating" costs. They are therefore excluded from the corporate cost model.
(v)	The management, maintenance and operation of connection assets.	Our corporate cost model includes some of the costs of activities necessary to support the processes associated with dealing with customers. We have assumed that the actual interaction with customers for day to day issues is undertaken by an operational department rather than within the corporate cost centre. The direct costs of physically managing, maintaining and operating connection assets have been excluded from the corporate cost model. However, the strategic planning for the pipeline activities, including consultation on state and industry matters, is undertaken at the corporate level.
(vi)	Management of gas volumes and throughput.	The corporate costs include the IT components that provide the systems to support this process.
(vii)	Short term trading market function (STTM).	This service is new to the Queensland gas market and the RBP business will need to participate as a pipeline operator. Some functions of the STTM are included in our cost model as discussed in Section 4.6 below.

3.3 Components of the corporate cost structure

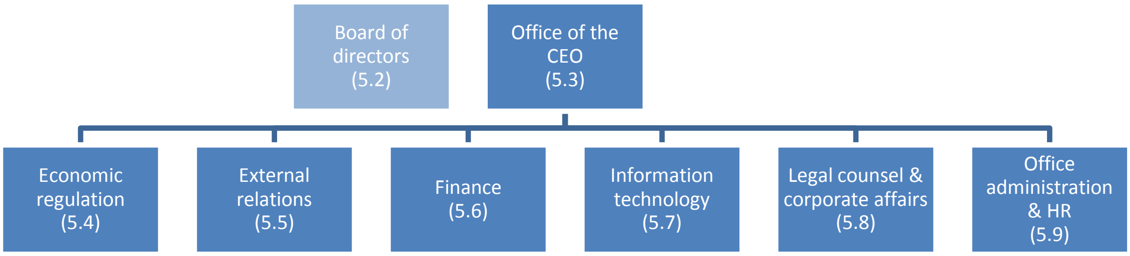
Appendix E tabulates the scope of costs included in this cost estimate.

The expected costs of the gas transmission business have been grouped according to the following components:

- Board of directors;
- Office of the Chief Executive;
- Economic regulatory management;
- External relations;
- Finance (which incorporates Billing and Revenue);
- Information technology (IT);
- Legal counsel and corporate affairs including a component for legal assistance that supports contract management functions conducted in operational cost centres; and
- Office administration and human relations.

Figure 3.1 below shows how these components are structured, and Section 4 of this report provides detailed benchmark costs associated with each of these components.

Figure 3.1: Cost components



The number references in each box correspond to the subsequent sections of this report.

3.4 Key assumptions and parameters

To ensure that the model captures only corporate costs associated with the efficient provision of the gas transmission business, it is necessary to set out basic parameters that drive the scope and sizing of the activities of this business, and hence associated costs. These parameters are described below:

- customer expectations and requirements – industry standard, as reflected in the customer contracts and access arrangement;
- government regulation and requirements – laws, regulations and measures imposed by the State of Queensland (including the legislative and licence conditions);
- turnover of the covered pipeline - $45[8] million;
- number of customers – 10[9] (although some customers may have multiple contracts);
- governance – a standalone publicly listed company. As a transmission business is capital intensive, so it is reasonable to assume that it will need to be publicly listed on the Australian Securities Exchange (ASX) to access necessary capital; and
- head office – located in Brisbane CBD. This is because the business would need ready access to government agencies, major suppliers and a pool of appropriately skilled labour.

[8] Page 1 of the "Regulatory Accounting Statements for the year ended 30 June 2011" for APT Petroleum Pipelines Limited (the RBP business) reported as $43.36 million. This Benchmark report uses $45 million as a rounded representative revenue figure for the business of the RBP.
[9] Advised by APA in a telephone call September 2011

4 Benchmark cost model

4.1 Summary of results

The total costs of the components outlined in Figure 3.1 are summarised in the table below. A detailed explanation of the build up of these costs is presented in the following sections.

Table 4-1: Summary Table

Summary Table					
	Section Ref	FTE	Low	Median	High
Board of Directors	4.2	5	$305,155	$403,603	$487,498
Office of the Chief Executive	4.3	2	$654,427	$770,080	$1,093,041
Economic Regulatory Management	4.4	3	$544,865	$737,847	$972,080
External Relations	4.5	1.5	$195,818	$221,478	$252,605
Finance	4.6		$690,310	$806,893	$1,419,090
Information Technology	4.7		$720,000	$720,000	$720,000
Legal Counsel & Corporate Affairs	4.8	4.5	$606,897	$762,049	$885,872
Office Administration & HR	0	2	$131,431	$147,204	$160,989
Total median				**$4,569,154**	

It is considered that the appropriate level for annual corporate costs for the benchmarked entity as defined in this report is the mid point of $4.6 million. To assume that the corporate costs for the benchmarked entity are at the extreme lower bound would assume that the business could operate at the lowest possible cost for each individual benchmark. It is also equally unreasonable to assume that the business could operate at the high point for each benchmark.

We also consider this cost estimate to be conservative. This is because we have sought to model only principal costs, and other less significant costs may have been omitted. Section 4.10 describes these potential additional costs.

4.2 Board of Directors (excluding CEO)

It is assumed that the gas transmission business is publicly listed, therefore a suitably skilled Board of Directors will be required to govern the business in accordance with ASX *Principles of Good Corporate Governance* and *Corporations Act* requirements.

To provide an estimate of the cost of the Board of Directors, a comparative analysis of a representative sample of 30 listed businesses across Australia with similar revenue was undertaken. The detailed data for these businesses and the methodology for excluding outliers is presented in Appendix A. This analysis gave a range of remuneration per non-executive director along with the average number of directors on the Board.

This sample includes all on costs of engaging the directors, so it is not necessary to add these to the observed benchmark cost of the non-executive directors. It is assumed, however, that the members of the Board will need access to office space for some of the year (mainly around meeting times). Therefore, an allowance for shared office space is included. This represents a modest cost of less than 10% of the directors' fees to accommodate the non-executive directors' needs. This does not include the costs of the Chief Executive Officer which is included in a separate category below and who would attend the Board meetings.

It is possibly better practice to have seven directors in a board to offer diversity and a sufficient quorum in the event one or more is absent from a meeting. The benchmark data observes a median of five (See Appendix A), therefore we have left this as five for the purposes of this assessment but make comment that this is likely to represent a conservative cost for this function.

Table 4-2: Board of directors (excluding CEO)

Board of Directors				
	FTE	**Low**	**Median**	**High**
Non-executive Director [1]	5	$287,395	$385,843	$469,738
Total Salary & On costs [2]	**5**	**$287,395**	**$385,843**	**$469,738**
Office & Accommodation Costs [3]		$17,760	$17,760	$17,760
Total for Board of Directors	**5**	**$305,155**	**$403,603**	**$487,498**

[1]See Appendix A for detailed sample used to calculate non-executive director fees
[2]The total cost assumes that "on-costs" are included in the observed director remuneration. (5 x the median of $77,169 = $385,843)
[3]See Appendix C.4 for detailed office and accommodation costs (1 Office)

4.3 Office of Chief Executive

It is assumed that the CEO would require the support of an Executive Assistant who would facilitate the day-to-day functions of the office. In addition, it is assumed that the office of the CEO would incur some consultancy costs. These costs would typically cover external advice to the CEO and Board including, but not limited to, the following:

- risk management, efficiency improvement and change management;
- corporate governance; and
- provision of strategic advice to the Board.

Extensive professional experience in this area has led us to an estimated range of costs of between about 30 and 50 days of consulting advice at an average rate of $4,000 per day including associated travel and accommodation. This is high level consulting at a senior executive and board level and therefore has been priced at an appropriate level representing the senior experience required for this part of the Corporate costs.

Table 4-3: Office of the Chief Executive

Office of the Chief Executive				
	FTE	**Low**	**Median**	**High**
Chief Executive Officer[1]	1	$428,344	$495,819	$767,997
Executive Assistant (to CEO)[2]	1	$72,513	$80,691	$91,473
Consultancy Costs[3]		$120,000	$160,000	$200,000
Total Salary & On costs	**2**	**$620,857**	**$736,510**	**$1,059,471**
Office Overheads[4]		$10,600	$10,600	$10,600
Office & Accommodation Costs[5]		$22,970	$22,970	$22,970
Total for Office of the Chief Executive	**2**	**$654,427**	**$770,080**	**$1,093,041**

[1]See Appendix A for detailed sample used to calculate CEO fees (refer to the Median of $495,819 from Table F-1)
[2]AIM National Salary Survey, *Executive Secretary (to CEO)*, p AD-42
[3]Consultancy costs based on experience discussed in section 2.3.9
[4] See Appendix C.3 for details of office overhead costs
[5]See Appendix C.4 for details on office and accommodation costs (1 office and 1 workstation)

4.4 Economic regulatory management costs

It is assumed that economic regulatory management would be the responsibility of a specific team within the corporate office of the gas transmission business.

Activities covered by the local economic regulation component would usually include:

- managing revisions to the access arrangement, responding to draft decisions and, where necessary, lodging documents that support appeals;
- setting and gaining approval of tariffs;
- responding to regulatory information requests;
- compliance with operating licence conditions and managing licence conditions; and
- managing day to day relationships with the economic regulator.

It is assumed that the corporate office will deal with other regulatory matters, including:

- dealing with access regulation issues internally and externally including contribution to public debate on regulatory policy;
- overall regulatory strategy on access arrangement position, argument and if necessary appeal;
- strategy on tariff development; and
- preparing financial and other information required from time to time by the regulator including regulated accounts, annual compliance reports and tariff variation notices.

The benchmark costs will therefore deal with the provision of the four regulatory functions listed above for the Corporate Office.

It is assumed that compliance with technical or safety regulation is dealt with within asset management and/or pipeline services.

The cost of economic regulation is expected to be partly cyclical in nature, because of the relatively intense activity around the time of pricing reviews. This is dealt with by using annualised costs.

Gas pipeline services with larger asset bases and large revenue streams may incur more regulatory cost because of their size and complexity. However, the regulatory costs outlined in this report are driven largely by regulatory obligations rather than financial values, and can therefore be thought of as "fixed" costs. For example, the activities and costs of preparing regulatory accounts do not vary greatly between businesses of varying sizes because the processes and effort are broadly similar.

To estimate the staffing requirements for an economic regulatory function (at the corporate level), specialist experience advising on economic regulatory matters has been drawn on. The costs specified in Table 4-4 also include an element of consulting fees which are incurred as part of the regular activities of Economic Regulatory Management department.

Note that in the absence of available AIM National Salary Survey benchmark specific for the position 'Manager in Economic Regulation', the benchmark range from a position that is considered to have a similar cost is used as a proxy; as such, the range for a General Manager is used for this position.

Table 4-4: Economic regulation

Economic Regulatory Management				
	FTE	**Low**	**Median**	**High**
Manager Economic Regulation[1]	1	$184,403	$235,055	$301,068
Regulatory Economist & Accountant[2]	1	$83,191	$91,856	$113,466
Senior Regulatory Accountant[3]	1	$83,191	$91,856	$113,466
Consultancy Costs[4]		$150,000	$275,000	$400,000
Total Salary & On costs	**3**	**$500,785**	**$693,767**	**$928,000**
Office Overheads[5]		$15,900	$15,900	$15,900
Office & Accommodation Costs[6]		$28,180	$28,180	$28,180
Total for Economic Regulatory Management	**3**	**$544,865**	**$737,847**	**$972,080**

[1]AIM National Salary Survey, *General Manager - Division/Region*, p GM-10
[2]AIM National Salary Survey, *Business Analyst*, p FA-22
[3]AIM National Salary Survey, *Business Analyst*, p FA-22
[4]Consultancy costs include 50 to 133 days at $3,000 per day (including out of pocket costs) and are based on experience as discussed in section 2.3.9 and included in the discussion below
[5]See Appendix C.3 for details on office overhead costs
[6]See Appendix C.4 for details on office and accommodation costs (1 office and 2 workstations)

A privately commissioned survey undertaken by KPMG in 2005 indicated that Australian regulated businesses subject to access pricing regulation typically incur costs of the order of $1.1 million to $1.7 million managing this form of regulation each year. (Our experience in dealing with regulatory departments since that time has not altered this view.) They include the cost of staff and legal and consulting advice, but not the associated overheads such as office accommodation and general office overheads. This 2005 benchmark has been used in this instance as a reference point to establish that the estimated costs set out in Table 4-4 do not appear excessive due to more modest requirements of a smaller, more mature gas transmission business which is relatively less complicated than some other regulated businesses in Australia.

Comparison of total costs to other evidence

We can also compare the results of this 'bottom-up' analysis of likely efficient regulatory costs, with empirical reported benchmarks from three different sources.

Table 5.4a: Comparison of annual costs of economic regulation

Costs of managing a single access arrangement			
	Low	Median	High
Cited in Productivity Commission of the National Access Regime (2005 dollars)	$1m	$1.8m	$2.5m
Benchmark used by the Victorian regulator (ORG) in the 2001 EDPR (restated in 2005 dollars)		$1.3m[10] (mean)	
Client commissioned KPMG survey of four access regulated businesses (2005 dollars)	$1.1m	$1.3m (mean)	$1.7m

This demonstrates that the benchmark regulatory costs for the pipeline business we have derived in Table 5-4 (which are expressed in 2011 dollars) are also *prima facie* modest when compared to the reported regulatory management costs for single businesses (which are expressed in 2005 dollars). Licence fees, which can be the predominant cost in this area, are not included in either our benchmark build up or the comparative single network costs shown in Table 5.4a above.

Excluded are costs associated with the licence fee for the operation of this pipeline. It is understood that the licence fee costs are included in the operational department costs and are therefore excluded from the corporate costs developed in this model.

4.5 External relations

It is assumed that the gas transmission business would require an external relations function that would normally focus on managing the relationship with producers and shippers, management and administration of complaints, overall customer (shipper/producer/distributor/direct customer) service strategy and community liaison. It is noted that the gas transmission business is a mature business having been in operation for 40 years. As a result, the estimate shows a small number of FTEs required to fulfil this function. However, this function will need to respond to enquiries for gas transport in the region, plans to maintain quality and levels of supply, assess costs, capital funding and risk management, both for the maintenance of existing capacity and for any expansion, renegotiating the existing contracts and dealing with the easements and landholders on a system that is 40 years old and has 40 years of development encroaching on, and adjacent to, the pipeline assets. It is recognised that some of the resources applied to the delivery of this function are contained within an operational departmental cost centre. To avoid double counting, this resource has been adjusted out of the Corporate costs as it is assumed that this component of the function would be covered in costs outside of the Corporate cost centre.

It is assumed that this unit's specific activities may include:

- market assessment and forecasting;
- assessing the implications of developments in the Queensland and national energy markets and government policies;

[10] Excludes regulatory financial statements preparation and audit

- identifying new business opportunities;
- working with prospective large customers to promote gas usage, in preference to alternative energies;
- promoting more efficient usage of capacity by existing customers; including improving existing services;
- managing key government and commercial stakeholder relationships, in connection with planning for example, and developments in the region (including the mining industry in the central west and southern Queensland areas);
- renegotiating contracts with existing customers, including the monitoring of conditions that would trigger a re-opening of contract conditions; and
- strategic planning.

It is assumed this unit would consist of two professionals, with one half of one FTE covered by an operational departmental cost centre. Therefore an adjustment of the Business Development Manager's costs has been made in this calculation to reflect the organisational arrangements of the delivery of this function through a cost centre outside of the Corporate cost centre.

Table 4-5: External relations

External Relations				
	FTE	**Low**	**Median**	**High**
Business Strategy Manager[1]	1	$113,090	$130,712	$144,359
Business Development Manager[2]	1	$108,827	$124,902	$159,861
Less: Half of a Business Development Manager covered by an operational department cost centre	(0.5)	($54,414)	($62,451)	($79,931)
Total Salary & On costs	**1.5**	**$167,503**	**$193,163**	**$224,290**
Office Overheads[3]		$7,950	$7,950	$7,950
Office & Accommodation Costs[4]		$20,365	$20,365	$20,365
Total for External Relations	**1.5**	**$195,818**	**$221,478**	**$252,605**

[1]AIM National Salary Survey, *Business Analyst (FA)*, p FA-14
[2]AIM National Salary Survey, *Business Development Manager*, p MS-28
[3]See Appendix C.3 for details on office overhead costs
[4]See Appendix C.4 for details on office and accommodation costs (1 office and half a workstation)

4.6 Finance

It is assumed that the finance costs include the labour, material and IT charges associated with the following main activities:

- vendor and payment processing (accounts payable);
- financial accounting;
- management accounting;
- statutory reporting, tax compliance (including independent tax advice);
- financial planning and budgeting (but excluding any minor budgeting and management accounting function carried out in an operating departmental cost centre);
- treasury;

- internal audit;
- external audit;
- payroll function;
- billing and revenue collection; and
- part of the overall Short Term Trading Market function.

Benchmarks have been developed for the finance function using empirical benchmarks provided by the CFO Executive Board Report[11]. These benchmarks present a total cost for the unit as a percentage of corporate revenue and include the functions listed above as well as an element of IT cost. However, the cost of IT services for the gas transmission business as a whole (see section 4.7 below) is also estimated.

To avoid the risk of double counting IT cost, the cost allocation for IT services contained within the finance function benchmark has been reversed out. The information provided in the benchmark report indicates the IT component within the finance benchmark is typically 3% to 4% of total finance cost[12]. The total cost for the finance function therefore avoids any risk of double counting this cost.

As it is assumed that the gas transmission business will be publically listed, the associated statutory fees are also included in the finance department benchmark. These fees include CHESS share registry fees, ASIC company registry fees and ASX annual listing fees.

Each of these costs has been sourced from documents contained on the ASX and Australian Securities and Investment Commission (ASIC) websites.

Table 4-6: Finance

Finance				
	FTE	**Low**	**Median**	**High**
Annual revenue of business		$45,000,000	$45,000,000	$45,000,000
Percentage of revenue[1]		1.16%	1.37%	2.16%
Sub total		**$522,000**	**$616,500**	**$972,000**
IT cost as a percentage of Finance costs[2]		3.00%	3.50%	4.00%
Total finance cost (excluding IT)		**$506,340**	**$594,923**	**$933,120**
STTM Accountant Salary & on costs[3]	0.5	$40,129	$46,325	$52,705
STTM Accountant Office overheads[4]		$3,232	$3,731	$4,245
STTM Accountant Office accommodation[5]		$2,650	$2,650	$2,650
Total STTM Accountant		**$46,011**	**$52,706**	**$59,599**
Less: Budgeting and Management Accountant Salary & on costs covered by an Operations department cost centre[3]	-0.5	($40,129)	($46,325)	($52,705)
Less: Budgeting and Management Accountant Office overheads[4]		($3,232)	($3,731	($4,245)
Less: Budgeting and Management Accountant Office accommodation[5]		($2,650)	($2,650	($2,650)
Budgeting and Management Accountant		**($46,011)**	**($52,706)**	**($59,599)**
External audit[6]		$159,000	$187,000	$461,000

[11] 2008 Finance Function Benchmarks

[12] CFO Executive Board, Finance Function Benchmarks, p 23

Finance				
	FTE	**Low**	**Median**	**High**
ASIC fees[7]		$5,000	$5,000	$5,000
ASX Listing fees[8]		$19,970	$19,970	$19,970
Total for Finance		**$690,310**	**$806,893**	**$1,419,090**

[1] CFO Executive Board, Low: *Department size < 100 FTEs*, Med: *Energy & Utilities*, High: *Revenue < $1 billion*
[2] CFO Executive Board, Finance Function Benchmarks, p 23
[3] AIM National Salary Survey, *Management Accountant*, p FA-26
[4] See Appendix C.3 for details on office overhead costs
[5] See Appendix C.4 for details on office and accommodation costs (0.5 workstations)
[6] See Appendix F for detailed sample used to calculate external audit fees

[7] ASIC Information Sheet 30 - *Fees for commonly lodged documents*
[8] ASX, *Schedule of listing fees*, p 6

An adjustment has been made for one half on one FTE for budgeting and management accounting which is carried out in an operating department and not part of the Corporate costs. This is to avoid double counting a minor function where it is assumed that the benchmark incorporates this function within the empirical data, but where we are aware that in the RBP case, there is a small component of a budgeting and management accounting function carried out in an operating department not part of a Corporate Head Office. To be conservative, and reduce the risk of double counting a cost, we have excluded the costs of that component function from our benchmark, assuming that this cost would be included in an operational departmental cost centre.

Short term trading market

It is understood that APA's RBP is now involved in a national gas market that incorporates a Short Term Trading Market (STTM) for natural gas as required by the Australian Energy Market Operator (AEMO). This is a new requirement imposed on the pipeline operator in the past 12 months.

A review of documentation from AEMO and consultation with a Gas Trading Subject Matter Professional supports the view that a pipeline operator will require additional resources outside of the traditional benchmarks. The additional resources comprise:

- Accounting reconciliations and transactions processing – to be carried out in the finance area;
- Commercial contract review – to be carried out in legal department; and
- Operations – control room operations, planning and scheduling (and this is carried out in the operations area and not part of the Non-capital corporate costs).

Accordingly, there is an additional resource applied to the Contracts Management component in the Legal department and an additional resource applied to the Finance function as the associated costs would be excluded from the current benchmark data.

Additional resources to be included in this cost benchmark include:

- Finance – One half FTE – STTM Senior Accountant for transaction processing, reconciliations and month-end processing (refer section 4.6).
- Legal – One half FTE – STTM Contracts Administrator for managing contracts and administering requirements for information processing and commitments (refer section 4.8).

- This is in addition to an additional one-half FTE for the operational area (not included in the Non-capital corporate costs).

Billing and revenue collection

Billing and revenue collection is a function that would be significant in a gas distribution business due to the nature of metering and sales, the volume of transactions and the different payment options offered. This is quite different to a gas transmission pipeline business where there are an insignificant number of customers and associated transactions and where the collection of receipts is likely to be via electronic means. We have assumed that, as this is not a significant function, it does not require a separate sophisticated billing system or a variety of collection methods. Accordingly, we have assumed that the billing and collection of revenue can be accommodated within the resourcing of the Finance department.

4.7 Information technology

It is assumed that the information technology (IT) component within the gas transmission business would provide technology, systems and services necessary for the delivery of its corporate services, and IT support for the covered pipeline. Specifically, we assume that an IT unit would be responsible for:

- the administration and maintenance of major corporate systems (customer management, finance and accounting, materials management, and work scheduling);
- provision of the system that supports a supervisory control and data acquisition (SCADA) system;
- end-user products, including e-mail and calendaring, and provision of “help desk” services;
- telecommunications and IT hardware and software;
- data storage and management including customer usage; and
- computer systems security.

The IT unit also provides the system for the gas management process which monitors and manages inputs and outputs of the gas system on a daily basis to ensure there is sufficient gas for the customers’ demands.

To provide a measure of these costs, metrics are sourced from Computer Economics’ *IT Spending and Staffing* report[13] on the nature of IT costs. The benchmark cost for this component is based on the total amount of IT expenditure for the unit as a percentage of corporate revenue.

The study is based on a survey of more than 200 IT executives, provides composite statistics of IT spending and staffing data and a segmentation of the same statistics by organisation size. As a transmission business, it is not apt to benchmark against other utilities due to the higher IT costs associated with large utility distribution and retail businesses. These higher IT costs in the distribution and retail sectors are associated with pipeline safety and maintenance and data management in larger distributed systems, that are not apparent in the transmission sector.

[13] Computer Economics – *IT Spending and Staffing Benchmarks*, 2001/12

Table 4-7: Information technology

Information Technology			
	Low	**Median**	**High**
Annual revenue of business	$45,000,000	$45,000,000	$45,000,000
Percentage of revenue[1]	1.60%	1.60%	1.60%
Total for Information Technology	**$720,000**	**$720,000**	**$720,000**

[1]Computer Economics - *IT Spending and staffing benchmarks 2011-12*, p 9

4.8 Legal counsel and corporate affairs

It is assumed that the legal services component will be required to:

- ensure that the corporate entity in which the gas transmission businesses' assets and services are necessarily vested, meets its corporate regulatory obligations under the *Corporations Act* and other applicable corporate regulations;
- deal with contractual matters associated with the conduct of the outsourcing arrangements, however the day to day management of contracting, resourcing, scheduling and performance review will be done at an operational department and not form part of corporate costs;
- advise the Board and senior management on matters of property law; and
- deal with easements and native title, environmental obligations, gas haulage contracts, regulation and public liability claims.

Also included are the estimated costs associated with engaging specialist external legal advisers. It is assumed that the permanent legal team will require the services of specialist external and independent legal advice on the matters outlined above and on any matters that may be potentially or actually subject to legal action an ad hoc basis.

This advice is necessary because it is not practical or cost effective for a business to retain the full range of specialist or senior legal advice that it may require in house. It is also noted that in some years it would be reasonable to expect very significant costs, such as years when there are incidents that might lead to public liability claims, or appeals against regulatory decisions. However, the estimates take into account the long term average rather than abnormal levels of activity. These costs are included in the table below as "Consultancy Costs", whose range represents between 20 to 40 days of legal advice at $5,000 per day.

There is also a requirement for a corporate affairs component that would be responsible for:

- handling inquiries from shareholders and investors, as well as others who might be interested in a company's stock or financial stability;
- liaising with the ASX, credit rating agencies, bankers and stock brokers;
- corporate citizenship;
- media relations;
- management of stakeholders; and
- community relations and environment, including publication and dissemination of community satisfaction surveys and environmental reports.

Estimates for the cost of the legal counsel and corporate affairs component of the gas transmission business are presented in Table 4-8:

Table 4-8: Legal counsel, company secretary & corporate affairs

Legal Counsel & Corporate Affairs				
	FTE	**Low**	**Median**	**High**
Company Secretary/General Counsel[1]	1	$156,127	$198,285	$223,427
Insurance & Compliance Officer[2]	1	$57,066	$82,418	$103,292
Corporate Affairs Manager[3]	1	$109,774	$126,291	$140,474
STTM Contracts Administrator[4]	0.5	$43,784	$52,541	$61,297
Communications Coordinator[5]	1	$80,302	$92,670	$97,537
Consultancy Costs[6]		$100,000	$150,000	$200,000
Total Salary & On costs	**4.5**	**$547,052**	**$702,204**	**$826,027**
Office Overheads[7]		$23,850	$23,850	$23,850
Office & Accommodation Costs[8]		$35,995	$35,995	$35,995
Total for Legal Counsel & Corporate Affairs	**4.5**	**$606,897**	**$762,049**	**$885,872**

[1]AIM National Salary Survey, *Company Secretary*, p FA-20
[2]AIM National Salary Survey, *Risk and Compliance Officer*, p FA-36
[3]AIM National Salary Survey, *Public Relations Manager*, p MS-24
[4]Hays Salary Survey, *Legal, In-house legal counsel 3 yrs PAE*
[5]AIM National Salary Survey, *Communications Specialist*, p MS-30
[6]Consultancy costs as discussed above and in section 2.3.9
[7]See Appendix C.3 for details on office overhead costs
[8]See Appendix C.4 for details on office and accommodation costs (1 office and 3.5 workstations)

It is quite possible that a Legal and Corporate Affairs Department of 4.5 FTEs would support the need for an assistant to improve the scheduling of work, undertaking some of the more junior tasks, and increase overall efficient utilisation of the resources. Whilst we could have increased the costs of this department for the inclusion of such a role, we have chosen not to in this case, in the interests of being conservative.

4.9 Office administration and HR

It is assumed that this component would provide services that include administration management, HR management, reception services and document and records management.

The estimated costs are summarised below.

Table 4-9: Office administration and HR

Office Administration & HR				
	FTE	**Low**	**Median**	**High**
Administration Manager/HR Manager[1]	1	$64,720	$75,628	$84,579
Receptionist/Records Manager[2]	1	$45,690	$50,556	$55,391
Total Salary & On costs	**2**	**$110,411**	**$126,184**	**$139,969**
Office Overheads[3]		$10,600	$10,600	$10,600
Office & Accommodation Costs[4]		$10,420	$10,420	$10,420
Total for Office Administration & HR	**2**	**$131,431**	**$147,204**	**$160,989**

[1]AIM National Salary Survey, *Office Manager*, p AD-36
[2]AIM National Salary Survey, *Receptionist/Telephonist*, p AD-48
[3]See Appendix C.3 for details on office overhead costs
[4]See Appendix C.4 for details on office and accommodation costs (2 workstations)

4.10 Potential additional costs

It is possible that, because this exercise seeks to only model principal costs, other, albeit less significant costs might be omitted from the model.

It is likely that a prudent service provider, acting efficiently in accordance with accepted industry practice will incur additional costs. Examples of these additional costs are provided below:

- debt rollover costs and debt raising costs of a Non-capital nature such as bankers and associated professional fees;
- equity raising costs of a Non-capital nature including presentations to potential investors and underwriting fees;
- travel expenses and entertainment;
- taxation planning (tax compliance is included in the finance cost benchmarks);
- credit rating agency fees;
- industry association subscriptions;
- consultancies on market and policy developments; and
- National Greenhouse Reporting (NGERS) compliance and audit costs.

This list does not attempt to be exhaustive; rather it serves to demonstrate that the estimate of benchmark costs is intentionally conservative. However, if these costs are omitted from the model, the total benchmark cost of the gas transmission business would *understate* the comparative efficiencies of APA's actual arrangements.

5 Expert's statement

I have read the Federal Court's "Practice Note CM 7 "Expert Witnesses in proceedings in the Federal Court of Australia" (1 August 2011) and prepared this report in a form consistent with Practice Note CM 7.

I have prepared this report for the purpose set out in section 2.2 of this report and it is not to be used for any other purpose without my prior written consent. Accordingly, KPMG accepts no responsibility in any way whatsoever for the use of this report for any purpose other than that for which it has been prepared.

I have made all inquiries that I believe are desirable and appropriate and that no matters of significance which I regard as relevant have, to my knowledge, been withheld from the material set out in this report.

Nothing in this report should be taken to imply that I have verified any information supplied to me, or have in any way carried out an audit of any information supplied to me other than as expressly stated in this report.

My opinion is based solely on the information set out in this report. If I amend any conclusion on further information, I will amend the report.

Keith Lockey

A APA Terms of Reference

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15 September 2011

Mr Keith Lockey
KPMG
147 Collins Street
Melbourne VIC 3000

By email: klockey@kpmg.com.au

Dear Mr Lockey

Roma to Brisbane Pipeline access arrangements 2012 – 2017: Corporate cost benchmarking

Background

APT Petroleum Pipelines Ltd (**APTPPL**) owns the Roma to Brisbane Pipeline (**RBP**) which transports natural gas from the gas hub near Roma to the markets of Brisbane and the regional centres along the pipeline route. The mainline was constructed in 1969, is 438km long and runs from Roma (Wallumbilla) to Brisbane. The Peat lateral was constructed in 2001, is 121km long and runs from the Peat and Scotia gas fields to Arubial.

Pursuant to the National Gas Rules (**Rules**), APTPPL is required to submit an access arrangement revision proposal to the Australian Energy Regulator (**AER**) by 12 October 2011. The access arrangement revision proposal must, amongst other things, set out the amendments to the access arrangement that the service provider proposes for the following access arrangement period.

The reference service provided by the RBP is a non-interruptible service for the receipt, transportation and delivery of gas through any length of the pipeline in the direction from Wallumbilla or Peat to Brisbane.

Under the Rules, total revenue for a relevant service provider is determined for each regulatory year of the access arrangement using a "building blocks" methodology (rule 76). The building blocks include, amongst others, a forecast of operating expenditure for the regulatory year (subrule 76(e)).

Rule 91 provides:

> "**Criteria governing operating expenditure**
>
> (1) Operating expenditure must be such as would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of delivering pipeline services.
>
> (2) The AER's discretion under this rule is limited."

Rule 74, which applies generally to forecasts and estimates (including those used in determining the return on capital), provides:

> "(1) Information in the nature of a forecast or estimate must be supported by a statement of the basis of the forecast or estimate.
>
> (2) A forecast or estimate:
>
> (a) must be arrived at on a reasonable basis; and
>
> (b) must represent the best forecast or estimate possible in the circumstances."

Australian Pipeline Ltd
ACN 091 344 704

Australian Pipeline Trust
ARSN 091 678 778

APT Investment Trust
ARSN 115 585 441

Pursuant to section 28 of the National Gas Law (**Law**), in making a decision on whether to approve an access arrangement proposal, the AER must have regard to the National Gas Objective (in section 23 of the Law), which is:

> "…to promote efficient investment in, and efficient operation and use of, natural gas services for the long term interests of consumers of natural gas with respect to price, quality, safety, reliability and security of supply of natural gas."

The AER must also take into account the revenue and pricing principles in section 24 of the Law when exercising a discretion in approving or making those parts of an access arrangement relating to a reference tariff. The AER may take into account the revenue and pricing principles when performing or exercising any other AER economic regulatory function or power (which is defined to include an applicable access arrangement decision), if the AER considers it appropriate to do so. The revenue and pricing principles in section 24 of the Law include the following:

"(2) A service provider should be provided with a reasonable opportunity to recover at least the efficient costs the service provider incurs in—

(a) providing reference services; and

(b) complying with a regulatory obligation or requirement or making a regulatory payment.

…

(5) A reference tariff should allow for a return commensurate with the regulatory and commercial risks involved in providing the reference service to which that tariff relates.

(6) Regard should be had to the economic costs and risks of the potential for under and over investment by a service provider in a pipeline with which the service provider provides pipeline services."

In its access arrangement revision proposal, APTPPL will be including an amount for corporate costs to be included in its forecast of operating expenditure for each regulatory year of the access arrangement period under rule 76(e) of the Rules. This amount for corporate costs will be based on benchmark values of corporate costs incurred by similarly sized firms operating in similar environments to APTPPL. In this context, APTPPL is seeking the opinion of a recognised independent expert on the appropriate benchmark values to be used in deriving a forecast for corporate costs. The approach to determining this forecast will be required to comply with the relevant provisions of the Rules and Law set out above.

Scope of Work

You are briefed to provide an expert benchmarking report for use by APTPPL in its access arrangement revision proposal that provides an assessment of the corporate costs that would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of delivering the pipeline services provided by APTPPL. The benchmarking report should cover at least the following categories of corporate costs:

Billing and revenue collection;

External relations costs (marketing, customer and government relations, dispute resolution);

Administration and corporate costs incorporating:

- Executive office (including Chief Executive Officer and Board);
- Corporate affairs (including communications, business planning and strategy, corporate governance and corporate and market compliance);

- Finance (including accounts payable, payroll, reporting, tax compliance);
- Contracts management (matching an outsourcing model where the business purchases the services of an operations and maintenance provider);
- Legal;
- Human resources;
- Communications and information technology; and
- Regulatory management costs (incorporating regulatory team and consultants).

Information to be relied on

In providing your report you are expected to draw upon the following information:

- the Law and the Rules in relation to the economic regulation of gas pipelines;
- published econometric, statistical, economic, financial and other relevant literature;
- relevant financial or economic data; and
- such information that, in expert's opinion, should be taken into account to address the questions outlined above.

Guidelines in preparing your report

The Guidelines for Expert Witness in the Federal Court of Australia are attached to this letter. Although this brief is not in the context of litigation, APTPPL is seeking a rigorously prepared independent view for use in the context of regulatory decision making and you are requested to follow the Guidelines to the extent reasonably possible in this context.

In particular, within your report you are requested to:

(a) identify your relevant area of expertise and provide a curriculum vitae setting out the details of that expertise (to be attached to your report);

(b) only address matters that are within your expertise;

(c) where you have used factual or data inputs please identify those inputs and the sources;

(d) if you make assumptions, please identify them as such and confirm that they are in your opinion reasonable assumptions to make;

(e) if you undertake empirical work, please identify and explain the methods used by you in a manner that is accessible to a person not expert in your field;

(f) confirm that you have made all the inquiries that you believe are desirable and appropriate and that no matters of significance that you regard as relevant have, to your knowledge, been withheld from your report; and

(g) please do not provide legal advocacy or argument and please do not use an argumentative tone.

Australian Pipeline Ltd
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Australian Pipeline Trust
ARSN 091 678 778

APT Investment Trust
ARSN 115 585 441

All key source materials referenced by you in your report should be provided to APTPPL with your report.

Confidentiality

Please ensure that any confidential information provided to you by APTPPL for the purposes of drafting your report is kept confidential, and that any confidential information is not disclosed to any person without the consent of APTPPL.

Your report, and potentially all key source material, will be provided to the AER as part of APTPPL's revised proposal. All non-confidential material will be published by the AER on its website, including your report. As such, should your report contain any information which is confidential, this material must be clearly identified by you as confidential at the time your report is finalised.

Timing

APTPPL requires a final report no later than 3 October 2011 and a draft report no later than 26 September 2011. Please let us know if you anticipate that you may not be able to meet these deadlines.

Yours sincerely

P. Bold

Peter Bolding
General Manager Regulatory and Strategy

ATTACHMENT: FEDERAL COURT GUIDELINES

FEDERAL COURT OF AUSTRALIA
EXPERT WITNESSES IN PROCEEDINGS IN THE FEDERAL COURT OF AUSTRALIA

Guidelines

1. General Duty to the Court[1]

1.1 An expert witness has an overriding duty to assist the Court on matters relevant to the expert's area of expertise.

1.2 An expert witness is not an advocate for a party even when giving testimony that is necessarily evaluative rather than inferential.

1.3 An expert witness's paramount duty is to the Court and not to the person retaining the expert.

2. The Form of the Expert's Report[2]

2.1 An expert's written report must comply with Rule 23.13 and therefore must

(a) be signed by the expert who prepared the report; and

(b) contain an acknowledgement at the beginning of the report that the expert has read, understood and complied with the Practice Note; and

(c) contain particulars of the training, study or experience by which the expert has acquired specialised knowledge; and

(d) identify the questions that the expert was asked to address; and

(e) set out separately each of the factual findings or assumptions on which the expert's opinion is based; and

(f) set out separately from the factual findings or assumptions each of the expert's opinions; and

(g) set out the reasons for each of the expert's opinions; and

(h) comply with the Practice Note.

2.2 The expert must also state that each of the expert's opinions is wholly or substantially based upon the expert's specialised knowledge[3].

2.3 At the end of the report the expert should declare that "[the expert] has *made all the inquiries that* [the expert] *believes are desirable and appropriate and that no matters of significance that* [the expert] *regards as relevant have, to* [the expert's] *knowledge, been withheld from the Court.*"

[1] The "*Ikarian Reefer*" (1993) 20 FSR 563 at 565-566.
[2] Rule 23.13.
[3] *Dasreef Pty Limited v Nawaf Hawchar* [2011] HCA 21.

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2.4 There should be included in or attached to the report the documents and other materials that the expert has been instructed to consider.

2.5 If, after exchange of reports or at any other stage, an expert witness changes the expert's opinion, having read another expert's report or for any other reason, the change should be communicated as soon as practicable (through the party's lawyers) to each party to whom the expert witness's report has been provided and, when appropriate, to the Court[4].

2.6 If an expert's opinion is not fully researched because the expert considers that insufficient data are available, or for any other reason, this must be stated with an indication that the opinion is no more than a provisional one. Where an expert witness who has prepared a report believes that it may be incomplete or inaccurate without some qualification, that qualification must be stated in the report.

2.7 The expert should make it clear if a particular question or issue falls outside the relevant field of expertise.

2.8 Where an expert's report refers to photographs, plans, calculations, analyses, measurements, survey reports or other extrinsic matter, these must be provided to the opposite party at the same time as the exchange of reports[5].

3. Experts' Conference

3.1 If experts retained by the parties meet at the direction of the Court, it would be improper for an expert to be given, or to accept, instructions not to reach agreement. If, at a meeting directed by the Court, the experts cannot reach agreement about matters of expert opinion, they should specify their reasons for being unable to do so.

PA KEANE
Chief Justice
1 August 2011

[4] The *"Ikarian Reefer"* [1993] 20 FSR 563 at 565.
[5] The *"Ikarian Reefer"* [1993] 20 FSR 563 at 565-566. See also Ormrod *"Scientific Evidence in Court"* [1968] Crim LR 240.

B Appendix - Curriculum Vitae of expert

Keith Lockey
Executive Director
Economics, Infrastructure and Policy

Telephone: +61 (03) 9288 5285
Fax: +61 (03) 9288 6666
Mobile: 0412 338 307
City: Melbourne
klockey@kpmg.com.au

Qualifications

BSc (Hons) (Environmental Sciences), University of Lancaster

Institute of Chartered Accountants in England and Wales

Profile

Keith co-leads KPMG's specialist economic and policy advisory practice. He specialises in advising governments, utilities and other economically regulated industries on matters of industry reform, economic regulation and pricing and funding arrangements. He has worked almost exclusively in this area since the inception of National Competition Policy in Australia.

Professional memberships

Associate Institute of Chartered Accountants in England and Wales

International experience

Australia, 17 years

UK, 11 years

USA, Europe, Middle East, NZ, Asia - project based

Relevant experience

Gas

Legal advisors to Multinet: Expert witness – support for a management fee claimed as a recoverable cost under the Gas Code - Keith was engaged as an expert witness to report on the activities and costs incurred by entities related to Multinet, necessary to Multinet's reference service, and recharged by way of a management fee. The report demonstrated the necessity and efficiency of the services underpinning the management fee.

Legal advisors to Envestra – Independent report on a management fee claimed as a recoverable cost under the Gas Code. Keith was engaged as an expert witness to report on the efficiency of the business's cost structures. This included benchmarking, examining and explaining how operational requirements for organisational structures led to costs, and benchmarking those costs to demonstrate their efficiency. An Appeal Tribunal accepted the report and agreed that the management fee was a recoverable cost.

Legal advisors to Envestra Ltd and Multinet: Benchmarking of efficient gas distribution business costs - Keith was engaged separately by the legal advisors to two of Victoria's three gas distribution businesses to provide independent expert advice on issues of cost efficiency and allocation that were key to their proposed access arrangements for 2008-2012.

Keith used benchmarks and cost modelling to provide an independent assessments of the efficient costs of a distribution business.

APA Allgas – Benchmarking the efficient Non-capital corporate costs. Keith was engaged by the APA Group to develop a corporate cost benchmark for a similar sized business to that operating a network similar to the APA Allgas Queensland distribution network in support of a new access arrangement being submitted to the Australian Energy Regulator.

APA – Goldfields Gas Transmission Pipeline Keith was engaged by the APA Group to prepare a Non-capital Corporate cost benchmark for the APA Goldfields Gas Transmission Pipeline business in support of a submission to the Economic Regulatory Authority in Western Australia.

Essential Services Commission of South Australia: Gas industry licensing and code regime in South Australia - Keith worked with the Essential Services Commission of South Australia to develop the industry licensing and code regime and associated regulatory requirements, to better meet the requirements of the fully contestable market and the associated regulatory revisions.

Government of Victoria: Natural Gas Pipeline Extension Program - KPMG provided financial advice to Regional Development Victoria to assist it to overcome economic and regulatory obstacles to extending the provision of natural gas to regional Victoria. Keith provided project management services to RDV coordinating the tasks of a wide range of advisers from both KPMG and other advisory firms.

Government of Victoria: Natural Gas Pipeline Extension Program - Keith led a small team that reported to the Victorian government on the anticipated economic benefits to Victoria of the implementation of the program to extend the provision of access to natural gas to regional Victoria

Epic Energy: Competition in the gas transmission sector - Keith developed a paper that argued that the regulatory approaches to the gas transmission industry in Australia inhibited, rather than promoted competition.

Essential Services Commission of South Australia (ESCOSA): Gas licensing regime - Keith assisted the ESCOSA with a review of the rationale and need for a new licensing and regulatory code regime for the South Australian gas supply industry.

Gas network business: Development of a cost allocation model for gas businesses - To assist a gas business gain regulatory approval for access arrangements, Keith led a KPMG team that developed and reported on, a cost allocation model.

Independent Pricing and Regulatory Tribunal New South Wales ("IPART"): Gas Access Arrangements - Keith helped analyse and assess a range of key pricing proposals included in a major pipeline operator's Access Arrangement proposals. This work included the development of a sophisticated financial model and an assessment of options for cost allocation. Keith also reviewed pricing and cost allocation models submitted by the pipeline operator.

Utility company - Keith completed a benchmarking review that identified areas of the financial management function of a government-owned utility that held significant potential for improvement and cost savings, and provided indications of how these benefits could be realised.

Electricity

Horizon Power: Regulatory advice - Keith led a team that provided Horizon, a vertically integrated electricity business serving remote and rural Western Australia, with regulatory advice on emerging industry reform issues.

Western Power (electricity network business): Review of customer contributions policy - Keith worked with a small team to provide a review of the commercial and regulatory implications of Western Power's regulatory policy for its significant customer contributions income.

Transpower New Zealand: Network operating cost benchmarking - Keith advised Transpower on the robustness of its approach to benchmarking network operating costs for regulatory purposes.

City of Bendigo: National Electricity Network Equity (Business) Project - Keith led a KPMG team that assisted the City of Bendigo to identify the implications for investment in regional Australia of the unwinding of network cross subsidies. This involved consultation with a variety of regional and metropolitan business electricity customers and advising on the regulatory options for dealing with regional pricing impacts within the National Electricity Market.

Regional Development Victoria: Electricity transmission pricing - Keith undertook a feasibility assessment of the opportunities and practical process for a potential investor in Victoria to gain access to prudent discounts on regulated transmission charges under different connection scenarios. This included seeking feedback from the Australian Energy Regulator (AER) on its likely treatments of practical and commercial connection structures not previously considered by the regulator.

Korea Electric Power Corporation: Electricity industry disaggregation and reform in Korea

Keith led KPMG teams that:

- reviewed the draft pool rules for the Korean electricity market and advised the vertically integrated Korea Electric Power Corporation (KEPCO) on the practical implications for the disaggregation of distribution and retail businesses;
- advised on appropriate debt-to-equity ratios for disaggregated businesses;
- developed demand side management strategies for the disaggregated businesses; and
- assisted with development of a pool price risk management strategy ("vesting contracts") for KEPCO.

Northern Territory's Power and Water Corporation: Network revenue submission - Keith provided advice throughout the process leading to the 2004 network price review. This included drafting submissions on regulatory principles and analysing and responding to the financial implications for the Corporation, of the regulator's draft decision.

Assessment of potential for cross-subsidies in a vertically integrated energy utility - Keith undertook a study that reviewed the potential for economic cross- subsidies both within the utility and with other parties to assist with planning disaggregation options.

Aurora Energy: NEM Entry Costs - Keith advised Aurora Energy on how the capital and operating costs associated with NEM entry might be recovered through regulatory pricing mechanisms.

Independent Pricing and Regulatory Tribunal of NSW: Review of electricity industry regulatory model - Keith led a team that provided an independent review of the robustness of its electricity network pricing model.

Electricity Reform and Sale Unit, South Australia: Review of Role and Funding of the Economic and Technical Regulators - Keith produced a report for presentation at ministerial level that examined the roles and mechanisms for funding the regulators of the electricity industry in South

Australia. The report developed a rationale and mechanism for avoiding potential areas of duplication of regulatory roles, thereby improving regulatory efficiency and reducing the potential burden on regulatees.

Helping to establish the economic regulator in South Australia

Helped to establish the economic regulator in South Australia including developing strategies and processes for a wide range of performance monitoring and other regulatory management issues. These included:

- information and performance reporting strategies;
- financial and operational performance information guidelines;
- a draft ring fencing code;
- an operational audit guideline;
- pro forma performance reports; and
- a retailer of last resort guideline.

Genco: Business Plan - As part of the reform of the electricity industry in South Australia, a new generation business was created. A business plan was a fundamental requirement, to provide a vision for its operations and to enhance its potential sale value. Keith provided substantial assistance with drafting a business plan

Office of the Regulator-General, Victoria: Business Analysis Modelling in the Electricity Industry - Involved in designing, constructing and documenting a complex, yet user-friendly financial model of the electricity distribution businesses operating under the Victorian electricity industry tariff order.

Department of Treasury and Finance Victoria: Review of Distribution Business ("DB") Submissions to the 2001 Electricity Price Review

Keith advised the DTF on the implications of the DB submissions. This included:

- providing material for inclusion in departmental submissions to the Regulator on its issues paper; and
- developing models to assess the impact on customers of the DB's proposals.

Electricity Industry Enquiry Panel: New Zealand Regulatory Information Requirements

Keith wrote a paper that compared regulatory information and reporting requirements between regimes in Australia and the UK, in the context of the New Zealand regulatory environment. In particular, it outlined:

- the history of how Australian regulators have tended to apply regulatory processes in ways that may not have been envisaged by reforming governments; and
- a vision for a light-handed, incentive-based regulatory information regime for New Zealand.

Regulatory accounting, reporting and ring fencing

Independent Competition and Regulatory Commission, ACT – Licensed electricity, gas, water and sewerage utilities - Performance reports. Keith led KPMG teams that provided the ICRC with substantial assistance to compile these published comparative operational and financial performance reports and commentaries, over several successive years.

Office of the Tasmanian Energy Regulatory: Redesign and simplification of regulatory accounting requirements - Subsequent to KPMG's design of the original requirements, regulatory developments and modifications to the templates led to the need to review Tasmania's regulatory accounting requirements for the electricity distribution industry. Keith led a team that consulted with the AER on its potential future requirements and significantly revised the regulatory accounting templates and accompanying text, to provide clarity and simplification.

Allgas: Assistance with compliance with regulatory accounting requirements - Keith helped this gas network operator to develop reporting procedures to help demonstrate compliance with regulatory accounting requirements.

Australian Competition and Consumer Commission (ACCC): Advice on airports regulatory accounting requirements - Keith advised the ACCC on the practical accounting implications for airport businesses of legislated "line-in-the-sand" regulatory accounting requirements for assets and their practical accounting implications.

Electricity Transmission Network Owners Forum (ETNOF): Transmission cost allocation guidelines 2007 - Keith carried out an engagement for ETNOF (which represents all the principal Australian Electricity Transmission Businesses) to review draft Cost Allocation Guidelines published by the Australian Energy Regulator.

Transend Networks Ltd: AER Cost Allocation Methodology Manual (2007 and 2008) - Keith led a KPMG team that drafted a "Cost Allocation Methodology" required by the Australian Energy Regulator, to demonstrate the allocation of costs between different transmission services in accordance with the National Electricity Rules. KPMG also drafted an accompanying cost allocation and regulatory reporting procedures and process manual to assist Transend.

Confidential client: Related party transactions - Keith was retained by a network business to advise on the business risks and regulatory implications of regulator requirements for related party disclosures that were inconsistent with Accounting Standards.

Queensland electricity network businesses: Electricity industry regulatory accounting guidelines - Keith was engaged by industry to critique the Queensland Competition Authority's Guidelines published as part of the 2005 Price Determination. He provided a through and well-supported analysis that demonstrated its significant practical limitations and inconsistencies with both Accounting Standards and regulatory accounting practice elsewhere in Australia.

Electricity network: Electricity industry ring-fencing guidelines - Keith provided an electricity utility with a draft submission on the jurisdictional regulator's draft guideline. He demonstrated significant practical difficulties that were not only unnecessarily intrusive but would not have assisted the regulator to achieve his objectives. As a consequence, the regulator significantly revised the guideline to a form that was also more acceptable to the utility.

Independent Pricing and Regulatory Tribunal of NSW: Review of audit requirements for electricity industry price cap variables - Keith provided an independent critique of criticism of the audit regime for this form of regulatory data submission. Keith developed transparent reasoning that recommended changes to the audit regime to make it significantly more light-handed and consistent with Auditing Standards.

Independent Competition and Regulatory Commission, ACT: Licensed electricity, gas, water and sewerage utilities Performance reports 2003-04 ,2004-05 and 2006-07 - Keith led small KPMG teams that provided the ICRC with substantial assistance to compile these comparative performance reports and commentaries.

Australian Competition and Consumer Commission: Record Keeping Rules - Keith reviewed draft accounting separation rules (regulatory accounting requirements) for the postal industry drafted by the ACCC and provided a range of suggestions and advice to improve their workability.

Australian Competition and Consumer Commission: Accounting Ring Fencing Guidelines for Gas Transmission Businesses - The Commission engaged Keith to review a jurisdictional regulator's guideline as a basis for accounting ring fencing for gas transmission pipeline service providers, under the Gas Code. Keith's review identified that the proposed draft would be unlikely to be workable. Keith was then engaged to draft a guideline. This was designed to allow service providers to meet the Commission's objective of demonstrating compliance with the National Gas Code, while following generally accepted accounting principles and seeking to minimise the regulatory burden for both service providers and the Commission.

Independent Pricing and Regulatory Tribunal of NSW: Review of rail access dispute - Keith led a small team that advised the Tribunal on regulatory accounting issues that were central to the resolution of a dispute between a rail access provider and a rail access seeker.

Major New Zealand gas distribution and transmission business: Advice on regulatory accounting requirements - Keith assisted a major gas network business to comply with the New Zealand Commerce Commission's Avoided Cost Accounting Method ("ACAM") for regulatory financial reporting.

Ports operator - Keith was engaged to critique a regulator's proposals for a regulatory accounting regime for Victoria's ports, demonstrating practical difficulties and inconsistency with Accounting Standards.

Department of Infrastructure, Victoria: Development of accounting information reporting requirements for public transport franchisees - Keith was engaged by the Victorian government throughout 2002 and 2003 to identify financial and performance reporting requirements for monitoring and assessing the profit levels of Victoria's public transport franchisees. The outputs of this work included developing and consulting with franchisees on an information requirements guideline.

Northern Territory Power and Water Corporation: Development of an industry based cost ring fencing guideline - Keith developed a "self-regulating" cost ring fencing guideline that was accepted by the Northern Territory Utilities Commission with a minimum of revision.

Office of the Tasmanian Electricity Regulator: Electricity Industry Regulatory Accounting Guidelines - In consultation with regulatees and with regard to the ACCC's proposals for transmission pricing, Keith developed thorough and practical regulatory accounting guidelines for distribution and transmission businesses.

Electricity network businesses throughout Australia: Review of regulatory accounting submission - Keith has been engaged by different electricity networks to review regulatory accounts for compliance with regulatory requirements, prior to submission.

Australian Competition and Consumer Commission: Review of Airport Regulatory Accounts - Keith undertook a high level review of the first airport regulatory accounts submitted to the ACCC. The objective of the task was to also assess airport operator compliance with the guidelines issued by the ACCC. The final report outlined recommended next steps to be taken by the ACCC in respect of annual submission and review of regulatory accounts.

Keith subsequently led a small team that provided commentary to the ACCC on the Phase I and II airports' financial performance over a three year period.

Australian Competition and Consumer Commission: Airport Workshop - The Australian Competition & Consumer Commission was charged with monitoring a five year price cap over some 35 Australian airports. The Commission needed to explain to the regulatees its regulatory accounting approach for monitoring the price cap. Keith presented on, the Commission's requirements at a workshop hosted by the Commission for Phase II airport operators. The

Commission was better able to communicate its requirements and open a constructive dialogue with the airport operators on regulatory accounting issues.

Australian Competition and Consumer Commission: Review of Electricity Transmission Business Co Regulatory Information Guidelines - Keith reviewed and provided constructive advice to the ACCC on proposed regulatory information guidelines that would achieve these objectives in a practical, workable way aiming to minimise the information burden on business.

The Commission subsequently engaged a small team led by Keith that drafted revised Guidelines that were published for consultation in 2001.

Office of Regulator-General, Victoria ("ORG"): Regulatory management secondment - Shortly after its establishment, Keith was seconded to the ORG for 15 months to: manage and implement the process of acquiring and analysing regulatory accounts from electricity distribution businesses. He also provided the ORG with day-to-day advice on regulatory financial and accounting issues.

Australian Competition and Consumer Commission - Keith organised and participated as a key speaker at a one-day workshop held with the ACCC on regulatory accounting, that explored both issues of principle and practice.

Energy retailing

Electricity businesses Electricity retailer gross margin benchmarking - Keith has undertaken a range of benchmarking studies for retailers (and network businesses) to establish benchmarks of operating costs and margins. This involved both empirical and analytical comparisons, the latter building up cost models based on benchmarked inputs.

Queensland Treasury: Assessment of a gross retail margin for franchise electricity retailers - Keith led a KPMG team that assessed a benchmark efficient gross margin, for the purposes of helping Treasury to set its CSO arrangement with the retailers. This involved taking both analytical and empirical views of what may constitute efficient costs and returns and undertaking a detailed dialogue with the retailers on the findings.

Power and Water Authority: Assessment of cost allocations and the bases of CSO payments for electricity supply - Keith advised on appropriate responses to government guidelines on and a regulator's review of, these issues.

Government of South Australia: Alternative to retailer of last resort arrangements - Keith advised on how existing arrangements for dealing with corporate insolvency could be applied to gas retailers, thereby avoiding many of the disadvantages of a gas industry retailer of last resort scheme. The outcome was a practical contingency plan to implement a solution of an impending or actual retailer insolvency event.

Essential Services Commission: Retailer of last resort contingency plan and insolvency implications - Keith led a small team that provided a detailed and practical step-by-step contingency plan of who needs to do what, when and why, to implement in the event of a retailer of last resort requirement being triggered in Victoria's electricity industry.

Our team included KPMG insolvency practitioners who reported to the ESC on the:

- general form of insolvency appointments and responsibilities;
- broad insolvency issues specific to a retail business operating in the NEM;
- potential nature of dealings and information flows between an insolvency practitioner and the ESC; and
- the implications of the above on the regulatory management of a retailer failure.

Office of the Regulator General, Victoria: Retailer of last resort - Keith reported to the ORG on the key factors and risks that would need to be taken into account in designing a retailer of last resort framework.

South Australia Independent Industry Regulator: Retailer of last resort - Immediately following electricity industry reform, Keith worked with the regulator to establish practical arrangements to deal with an electricity retailer failure. This included developing a position paper and agreeing its practical implications with industry.

Essential Services Commission of South Australia - Keith provided a wide range of advice on industry licensing and code issue matters and associated regulatory requirements prior to the introduction of FRC.

Ports

Government: Modelling of port infrastructure proposals - Keith led a KPMG team that developed and provided commentary on the results of, a financial model of long-term port infrastructure investment options.

Port of Portland Limited: Port Pricing - Keith provided an expert report on pricing to assist in formal mediation with a major port user on a pricing dispute. This involved an independent assessment of whether the disputed prices recovered the efficient costs (DORC) of port assets.

Port operators: Price monitoring - Keith was engaged by different operators in Victoria to both:

- draft regulatory submissions to the regulatory process that led to the Price Monitoring determination for Victoria Ports; and
- develop financial models to help assess appropriate pricing strategies under the new regime.

Victorian Regional Channels Authority: Assistance with submissions to regulatory enquiry - Keith assisted the VRCA a draft submission to the regulator's enquiry into the Channels Access Regime and subsequently into the ports pricing regime. The VRCA argued for and the regulator implemented the replacement of a building block revenue setting regime with price monitoring.

Port of Bahrain: Regulatory strategy for reform and privatisation - Keith worked with KPMG Corporate Finance and other professional advisors to the Bahraini government, to develop a strategy and rationale for a light handed regulatory regime intended to provide competition and encourage investment.

Abu Dhabi Ports Sector: Regulatory strategy for reform and privatisation - Keith undertook a review of the options for managing the economic regulatory risks associated with ports reform and privatisation. This led to recommendations of the practical steps necessary to establish a light-handed regulatory regime to efficiently address contingent regulatory risks.

Victorian Regional Channels Authority: Submissions to five yearly price review - Keith managed the KPMG team that drafted the VCA's regulatory submission and responded to the Office of the Regulator-General's Draft Decision. Keith also provided assistance to the Melbourne Ports Corporation with its regulatory submission.

Confidential Client: Privatisation of SA Ports - Keith led a small team that provided confidential advice on prospective regulatory matters to a bidder. In general, regulated revenues are vitally important to the valuation of any regulated business.

Port Authority: Benchmarking Exercise for Port Authority - Keith derived activity based costs and completed a benchmarking survey of a diverse range of activities of a state owned organisation. He used this information to evaluate the magnitude of: changes required to bring the state owned organisation to comparable standards; and potential cost savings; and evaluate the mechanisms required to realise savings.

Rail

WestNet – Assistance with overhead cost identification. Keith assisted WestNet to:

- develop cost allocation criteria likely to be acceptable under National Gas Rule 93(2) in the absence of detailed guidance or precedents; and
- identify WestNet's corporate costs, likely to be recoverable under the National Gas Rules.

Keith also undertook a benchmarking exercise to assess the efficiency of the identified costs.

Legal advisors to BHP Billiton (BHPB): Options for providing access to the Mt Newman railway - Keith reviewed the commercial and regulatory options for providing access, in connection with an access dispute.

Government of Queensland: Assessment of options for regulation of coal, rail and port assets – Keith led a KPMG team that advised Queensland Treasury on the regulatory frameworks and options for economically regulating a privatised coal-rail network and port assets.

Private rail operator: Regulated pricing model and asymmetric risk – Keith led a team that developed a model to assist the operator of an access regulated mining rail network and port assets, demonstrate the efficiency of its pricing proposals to the regulator. This included advice on pricing asymmetric risk.

National Rail Safety Regulator: Organisational options – Keith is leading a team that is assessing options for the organisation of the new National Rail Safety Regulator.

Consumer advocacy

Ministerial Council on Energy: Review of Consumer Advocacy Panel arrangements - Keith led a team that with extensive consultation, examined the existing arrangements and identified and reviewed options for arrangements to better meet the causes of customer concerns arising from the emerging and complex demands of the national energy market.

Energy and Water Industry Ombudsman Victoria: Inclusion of Gas, Water and LPG industries into Ombudsman's scheme – feasibility studies - Keith led teams engaged by the Ombudsman on different occasions to develop pricing strategies and feasibility assessments for the admission of new industries to the Ombudsman's scheme that would be equitable to both the new and existing members.

Energy and Water Industry Ombudsman Victoria – Keith has undertaken a number of comparative studies to assist EWOV assess its staffing requirements and capability to deal with complaint referrals.

Energy and Water Industry Ombudsman Victoria – Keith reviewed the scheme's funding mechanisms to assist it better meet scheme objectives including better reflecting the attribution of costs of complaint complexity to those members and giving rise to those costs.

Public Transport Industry Ombudsman Victoria – Keith helped plan the establishment of the Ombudsman. This included consulting with transport user representatives on the nature of the Ombudsman's day-to-day role.

Water

Queensland Competition Authority: Price Monitoring of Water Distribution and Retail Businesses – Keith assisted the QCA to develop a financial model and an associated information collection manual and templates, to assist the QCA monitor the prices of the three newly formed water distribution and retail businesses in South East Queensland.

Melbourne Water: Review of Capital Planning and Deliver Processes - Keith led a KPMG team that reviewed these processes to provide a basis for improving regulatory and business outcomes. The team's work included:

- reviewing business objectives and regulatory obligations;
- identifying strengths and weakness of the current processes and their capacity to meet Melbourne Water's business objectives and regulatory obligations
- identifying factors which may cause the current processes, to change;
- identifying opportunities for improvement; and
- recommending changes.

The recommendations included both "Quick Hits" for significant improvements with the potentially to be realised quickly and a longer term agenda for change.

Gippsland Water: Review of the impact of the estimated cost of the Gippsland Water Factory on customer tariffs and Gippsland Water's financial viability - Keith undertook a review of the financial modelling undertaken by Gippsland Water to assess the financial impacts of a major investment in capital infrastructure. Keith also advised on the financial implications of proposed options for dealing with the impact of the investment, under the regulatory pricing regime.

Independent Pricing and Regulatory Tribunal of NSW ("IPART"): Bulk Water Pricing - Keith led a team that reviewed the business rules of financial models developed by IPART for bulk water pricing, and quality assured the models' implementation of those rules.

Department of Sustainability and Environment: Costing of Desalination Technologies - Keith led a team that worked with the Australian Sustainable Industry Research Centre to undertake comparative costing of overseas examples of desalination plants. This was combined with a technical analysis of technology options to illustrate the key drivers of desalination costs.

Telecommunications

Major telecommunications provider - Keith led a KPMG team that undertook economic and financial analysis to help determine whether access prices provide sufficient margins to facilitate competition.

Major Australian telecommunications service provider: Regulatory imputation test – Keith carried out a regulatory imputation test to assess whether charges for third party mobile network access were sufficient to facilitate retail competition. This involved examining cost reports prepared in accordance with regulatory accounting separation requirements, to determine and report on, the relevant costs of service.

Other

NSW Department of Commerce: Financial Appraisal Report of Government Licensing Service (GLS) - Keith led a team that was engaged by the Department of Commerce to review the financial forecasts and forecast benefits that underpinned the business case for the GLS.

Manufacturing business (confidential): Economic impact report - Keith led a team that reported on the economic benefits to NSW and Australia of this business's activities, to inform an application to government for export assistance.

University of Melbourne and Council of Capital City Lord Mayors: Benchmarking training - In these engagements, Keith provided both benchmarking training and advice on its practical implementation.

Tourism Victoria: Economic impact study - Keith assessed the financial and economic viability of three proposed sporting events. This included assessing their economic impacts and benefits of each. The Government sponsored the event identified by the report as likely to provide Victoria with the greatest benefits

Regional Development Victoria: Economic impact study - Major business - Keith led a small team that assessed for Regional Development Victoria, the economic impact on Victoria of the Ansett Airlines closure.

Health and Human Services

Department of Human Services: Review of North West Mental Health Program - Keith undertook a review of the financial viability of this large agency that included reviewing its financial position, financial management and benchmarking costs.

Department of Human Services and Department of Treasury and Finance - Keith led a KPMG team that recommended how pricing principles could be applied to government's purchases of disability services, to help resolve the tensions between government's requirements for funding and pricing efficiency and the sector's demands for funding. The work addressed the difficult and sensitive issues of developing pricing principles and incentives for efficiency, for services where outputs are difficult to define.

Australian Red Cross Blood Service and a predecessor Red Cross Blood Bank Victoria: Review of funding requirement - Keith undertook a review of the funding requirement of the Red Cross Blood Bank Victoria. This subsequently led to Keith undertaking reviews of:

- product costing;
- the feasibility of incorporating funding for blood products within DRG funding, for DHS; and
- assisting the development of proposals for a national output funding model.

Department of Human Services - Keith has undertaken a range of costing and funding exercises for health services in Victoria, including:

- costing options for different models of delivering pharmaceutical services to residents of state nursing homes;
- undertaking financial feasibility studies of options for restructuring rural health services. In these assignments, there was a high degree of community consultation;
- costing ancillary services to help assess models for service delivery;
- assessing the efficiency of hospital support and housekeeping services to facilitate competitively neutral tendering processes; and
- reviewing costs and models for the implementation of regulation of dangerous drugs and poisons.

C Bottom-up benchmarking methodology assumptions and information sources

Where this methodology is applied, the benchmark costs comprise:

- base salary;
- statutory on costs of employment;
- office overheads; and
- office and accommodation costs.

Each position's base salary is sourced from the specified benchmark document on a per FTE basis to which labour related statutory on costs are added. The cost of office overheads and accommodation is presented separately but is driven by the number of FTEs in each department. The development of these costs is explained in the sections below.

C.1 Base salary

The base salary for each position is chosen from one of two salary benchmarking documents, namely:

- Australian Institute of Management (AIM) *National Salary Survey*. This is a publicly available and independently prepared document for the commercial benefit of member companies. It is the result of surveying 759 companies, all with a turnover of more than $10 million and describes around 300 positions.
- Hays *Salary Survey*. This is a leading and publicly available benchmark survey of 1,700 leading companies, it is specific to Australian and New Zealand companies, it is published annually (so it is an up to date indicator of salary levels), and it covers a broad range of job titles across 16 industry sectors.

For each role, the AIM *National Salary Survey* was reviewed to find a matching role description. This benchmark was used as a first choice because it has a more extensive sample size and a wider range of roles. Its roles were therefore more explicit and better matched to the positions in our benchmark. If the role was not listed in AIM, then Hays was reviewed to find an appropriate position. In the event that an exact match could not be found, the most closely analogous role description was taken.

C.2 Statutory on costs of employment

The two salary benchmarking documents used for this task report different on cost inclusions. Therefore standardisation is required so the salary ranges used are inclusive of the same statutory on costs. The three steps undertaken to establish the appropriate salary on costs for each role are:

1 Determine the appropriate salary on costs.

2 Determine which on costs are included in each of the benchmark sources used.

3 Make the appropriate adjustments so the overall salary benchmarks presented include, but do not double count, the on costs determined in step 1.

These steps are explained in more detail below.

Step 1 – Determine the appropriate salary on costs

The minimum requirements for workers in Queensland are shown in the table below.

Table C- 1: Statutory on costs of employment

Salary On costs	
	Percent of base salary
Payroll tax[1]	4.75%
Superannuation[2]	9.00%
Long service leave[3]	1.67%
Workers' compensation[4]	1.34%

[1]Queensland Government, Office of State Revenue, *Payroll Tax Thresholds*
[2]ATO, *Superannuation guide for employers*
[3]Queensland Government, *Long Service Leave Fact Sheet*
[4]Queensland Government *Gazette, Vol 357, No 44*

Step 2 – Determine which on costs are included in each of the benchmark documents used

Each benchmark source comprises the following additional/included costs:

- AIM *National Salary Survey* – provides Total Base Salary[14] and Total Remuneration[15]; and
- Hays *Salary Survey* – provides Total Base Salary.

It was therefore necessary for us to normalise this data.

Step 3 – Make the appropriate adjustments

Each benchmark was adjusted as follows:

- AIM *National Salary Survey* – add 7.76% (being total on costs of 16.76% less superannuation of 9.00%).
- Hays *Salary Survey* – add 16.76%.

C.3 Office overhead costs

Corporate employees who undertake the activities and functions we describe in this report necessarily require a range of supporting facilities and services to enable them to fulfil their roles. The necessary facilities and services are termed "office overheads".

The KPMG Consulting, Report for the Office of the Regulator General (ORG)[16] was used as a basis to identify the types of cost to include which had been previously accepted by an economic regulator. It is a valid source of information because it was utilised by the ORG to establish efficient indirect costs for energy networks. However, the detailed analyses behind the figures in this report are now over 11 years old.

[14] Base Salary excludes all on costs.
[15] Including superannuation
[16] KPMG Consulting, *Office of the Regulator-General, Victoria*, '2001 Price Review – Cost Allocation', 2001

It was therefore necessary to undertake a review of the cost components of this benchmark to ensure that they are still relevant and reasonable, and to arrive at 2011 equivalent amounts. In undertaking this review, we reviewed our own corporate cost centre requirements as a sensibility check. Table C- 2 below shows the results of this review.

Table C- 2: Office overhead costs

Office overhead costs[1]	
	Benchmark cost per FTE
Office consumables and stationery (includes statutory & operating expenses)	$1,200
Telecommunications	$1,100
Non-specialist staff training	$1,500
Small miscellaneous items	$1,500
Total	**$5,300**

[1]Based on accepted figures from KPMG Consulting, Office of the Regulator-General, Victoria, '2001 Price Review – Cost Allocation', 2001, along with a review of KPMG corporate office requirements

We describe these costs below.

Office consumables and stationery

Staff would necessarily incur expenses related to stationery items, and small items of equipment such as calculators, laptop locks and carry cases. They would also be allocated a proportion of the costs of printing, photocopying, and scanning facilities, with all the consumables (toner and paper), repair and servicing costs of these machines which are often under lease from specialist providers.

This benchmark is based on professional knowledge of costs actually incurred by businesses. The costs per person of such items would be around $1,200 per annum.

Telecommunications

It is observed that the cost per person under this heading would include:

- an allocation of the fixed costs of the central telephone system;
- an allocation of the calls utilising the central telephone system;
- fax machines; and
- personal mobile telephones (emails and calls).

In our view, the cost per person would typically be about $1,100 per annum.

Staff training

A responsible business would require staff to undertake training both when they join the business, and on a regular ongoing basis. This would be in areas such as standard operating systems, occupational health and safety requirements, quality standards, legislative requirements (such as non-discrimination and anti-bullying policies) and other non-technical training.

It is observed that these costs will often include the delivery and development of course materials, the development of intranet based training programs, room hire and reference books. Costs may be outsourced, in-house or a combination of the two.

The cost per person for non-specialist staff training of the kind described above, within an efficient corporate business would be approximately $1,500 per annum. Specialist training has not been included, although this may represent a significant proportion of the training budget for each individual employee.

Small miscellaneous items

It is reasonable to infer that a corporate business unit would incur costs under this heading including staff amenities and small miscellaneous items that are not included elsewhere in the benchmark cost build up. This excludes items which have been referenced in Section 4.10.

Using our knowledge of costs incurred by businesses, it is estimated that an annual budget for staff amenities ($900 per FTE), and sundries ($600 per FTE) would be required. This totals $1,500 per person per annum.

C.4 Office and accommodation costs

The *office and accommodation* costs presented in the component cost tables comprise two main elements, namely:

- net office space calculation; and
- cost of office space per FTE.

This is calculated on the basis of whether the staff member is assumed to require an enclosed office or an open workstation. Benchmark space allowances for enclosed offices and open workstations are supplied by government office workspace guidelines[17], and the cost of office space is supplied by CBRE Property Research organisation. These requirements are explained in more detail in the sections below.

Table A- 3: Office and accommodation costs

Office Accommodation & Building Related Costs	Benchmark cost (per annum)
Enclosed offices (m^2/FTE)[1]	15.00
Allowance for interactive/communal spaces (m^2/FTE)[2]	9.00
Total area for office space (m^2/FTE)	**24.00**
Average prime net face rent ($/$m^2$)[3]	$740
Total cost for enclosed office ($/FTE)	**$17,760**
Open Workstations (m^2/FTE)[5]	4.40
Allowance for interactive/communal spaces (m^2/FTE)[2]	2.64
Total area for open workstations (m^2/FTE)	**7.04**
Average prime net face rent ($/$m^2$)[3]	$740
Total cost for open workstation ($/FTE)	**$5,210**

[1]Queensland Government *Office Accommodation, Workspace & Fit out Standards* 2010, *(S01, S02, SES 1 and SES 2)*
[2]Queensland Government *Office Accommodation, Workspace & Fit out Standards* 2010, p 10
[3]CBRE Market View, *Brisbane Office*, Q1 2011, p2 (Net face rent is the rent calculated excluding building outgoing costs)

It is assumed the gas transmission business would require offices to accommodate the corporate staff located within the Brisbane CBD.

[17] Government of Queensland, *Office Accommodation and Fit-Out Standards*, pp 6-10

Office space calculations

The cost for office accommodation is arrived at by applying the benchmark cost per square metre to a space requirement per person, and then multiplying this number by the number of persons employed in each unit. We have only done this for 'bottom-up' benchmarks as the empirical benchmarks generally incorporate the total cost for that unit, including accommodation.

Based on the Queensland government's office accommodation guidelines, we have assumed that:

- senior management[18] will require an enclosed office space of 15m^2;
- non-senior management staff will each require 4.4m^2 of floor space to accommodate their open workstation; and
- allowances for circulation space, common areas and interactive space will comprise an additional 60%, of office or workstation area requirements[19].

Therefore, the total allowance for enclosed office space is 24m^2, and for open workstations the total area is 7m^2.

Gross face rental

The benchmark cost of gross face rental per square metre is taken from CBRE Property Research, and represents an average cost for suitable Brisbane CBD premises[20]. The gross face rental cost for a "prime"[21] CBD premises is \$740/m^2.

This rental benchmark includes the cost for net rental for the premises along with all building related outgoings such as:

- statutory charges (e.g. municipal rates and land tax);
- insurance premiums;
- common area cleaning and maintenance;
- building supervision;
- utilities; and
- administrative fees.

[18] KPMG have classified senior management staff based on each unit's requirements.
[19] Government of Queensland, *Office Accommodation and Fit-Out Standards* state that circulation space should equate to 30% of occupied area and interactive and support space should comprise up to 30% total extra space requirements which equate to 60%.
[20] CBRE Market View, *Brisbane Office*, pg 9
[21] Prime CBD premises is defined as the average cost of Premium or A Grade premises

D Sensitivity of results to alternative benchmarks

D.1 Introduction

We have selected mid point benchmarks from available ranges of benchmarks. One might reasonably ask, "Is there a reasonable possibility that the findings of the report that the RBP's actual costs lie below the costs of the benchmarked business, would change if the true benchmark costs lie in the range below the mid points selected by KPMG?"

Because the RBP estimated costs are comprised of many independent benchmarks, the probability that "the final results of the benchmark business cost exceeding the comparable actual costs of RBP's pipeline business, is invalid due to statistical variation in benchmark ranges", is so low as to not merit consideration.

This is explained through the application of the principles of compounded probabilities discussed in Appendix D.2 below.

D.2 Principles

This report uses reported figures for estimates of low, median and high benchmark figures for costs from separate component costs of the benchmarked business. The actual figures used to derive the estimates for low, median and high costs for each benchmark form some statistical distribution. We do not know the distribution of data within the benchmarks, but we have no reason to believe that there is any skewing of its distributions. A normal distribution is a reasonable assumption for the purpose of this exercise.

While the results of each benchmark study survey describe the potential range of costs that may be incurred for a particular service in isolation, the costs for several services using several benchmarks are not as accurately described by a simple addition of a set of low, median and high benchmark costs. In reality, the likelihood of incurring all low costs or all high costs is far more unlikely than that for a single benchmark set of costs. In general, the benchmark costs are arrived at independently of one another.

In general terms, the probability of two independent events occurring simultaneously is given as:

P(x) multiplied by P(y) = Probability of both x and y occurring.

Therefore, in the case of services acquired by the benchmarked business:

Probability of the benchmarked business incurring a cost that is below the mid point benchmarks for both services x and y

=

P(the benchmarked business incurring a cost that is below the mid point benchmarks service x)

multiplied by

P(the benchmarked business incurring a cost that is below the mid point benchmarks service y)

The table below illustrates this effect for up to 30 different statistically independent benchmarks using several potential point probabilities of a single low or high event occurring. As can be seen, as the number of independent benchmarks used becomes large, the probability that only low or only high figures would occur simultaneously becomes very small and approaches zero.

Table D - 1: Probability of simultaneous low or high benchmark figures occurring (for given standard deviations, a normal distribution and benchmarks)

Probability of true benchmark falling between low and high limits reported benchmark observations A	**50.00%**	**68.26%**	**94.95%**
Probability (p) of true benchmark falling either above or below low and high reported benchmark observations, respectively. (See note below) B	25.00%	15.87%	2.53%
Note: A + 2 x B = 100%			
Corresponding number of standard deviations that separate each of the two low and high observations from the mean in a normal distribution**	2/3 SD	1 SD	2 SD
Number of statistically independent benchmarks used	**Figures below expressed as percentages**		
1	25.00%	15.87%	2.53%
2	6.25%	2.52%	0.06%
3	1.56%	0.40%	0.00%
4	0.39%	0.06%	0.00%
5	0.10%	0.01%	0.00%
6	0.02%	0.00%	0.00%
7	0.01%	0.00%	0.00%
8	0.00%	0.00%	0.00%
9	0.00%	0.00%	0.00%
10	0.00%	0.00%	0.00%
20	0.00%	0.00%	0.00%
30	0.00%	0.00%	0.00%
Probabilities of bottom three rows expressed in exponents (of percentages)			
10	9.5×10^{-05}%	1.0×10^{-06}%	1.1×10^{-14}%
20	9.1×10^{-11}%	1.0×10^{-14}%	1.1×10^{-30}%
30	8.7×10^{-17}%	1.0×10^{-22}%	1.2×10^{-46}%

Notes:
The probabilities are generated as p^n, where p is given in the second row from top as the probability of a low or high event, and n is given as the number of benchmarks used in the far left hand column. Where n is 1, $p^n = p$. Where n=10, for instance, $p^n = p^{10}$.

**The point probabilities of a single low or high event occurring used here are arbitrary, but they are used to illustrate that for high numbers of independent benchmarks, probabilities rapidly approach zero for most reasonable values of p. They are derived from the likelihood that an observation would fall at the extreme of the sample, drawn from the probability of events occurring at events of two thirds, one and two standard deviations about a normal distribution. A wider range between a low and high event (i.e. fewer events occurring outside the reported range for the benchmark) corresponds to a lower probability of a cost falling outside of this range, and correspondingly much lower likelihood of multiple low or high events occurring simultaneously.

This table uses three possible assumed ranges for each benchmark, according to:

- two-thirds of a standard deviation about the mean of a normal distribution (corresponding to one quartile of the population of all observations lying either side of the mean);
- one standard deviation about the mean of a normal distribution (corresponding to the range between the low and high observation encompassing 68% of all observations); and
- two standard deviations about the mean of a normal distribution (corresponding to the range between the low and high observation encompassing 95% of all observations).

Even where only a handful of statistically independent benchmarks have been used to generate costs for the low and high results, the probability of a benchmarked business incurring either all low or all high results is very low. For example, the above table shows that for even as few as five different statistically independent benchmarks, the probability of incurring either five low or five high results is no greater than 0.1%. The more likely outcome is that the true benchmark total would trend towards the median.

E Reconciliation of corporate cost categories

For the avoidance of doubt, we have prepared a table of corporate cost categories, and indicated whether they have been included or excluded for the model assumptions.

E.1 Categories included in model

Category	Included our corporate cost model
Senior management and board	Yes
Company secretary functions including AGM, shareholder reporting, shareholder management and ASX listing compliance	Yes
Finance including tax, treasury and statutory reporting as well as accounts receivable and payable	Yes – but removing a minor cost associated with a small finance function carried in an operational division
Insurance, audit and risk management	Yes - management of these matters. Excludes insurance premiums.
Information technology	Yes
Human resources	Yes
Billing and revenue collection	Yes – billing and revenue collection handled within the Finance function.
Commercial and contracts management	Day to day deployment of contractors, performance monitoring and scheduling will be managed by the operating departments (excluded from corporate costs), but legal assistance on terms and conditions and contract execution supported from the Legal department which is included in the corporate costs.
Legal	Yes
Regulatory	Yes
Compliance including environmental, OHS, operational compliance and regulatory compliance	Yes
General corporate admin	Yes
Marketing	Yes – included in the External Relations department.

E.2 Corporate cost categories excluded from model

Category	Note
Operations managements	Excluded from the model – classified as a system operating cost.
Procurements	Part of the Operations department and excluded from the corporate costs departments. The Operations department incorporate asset management, maintenance, stores, System Control and resources deployment for operations and maintenance.
Asset management and engineering	
Call Centre	Managed by the Operations department to handle pipeline incident enquiries. Due to small customer numbers, there is no typical high volume 'call centre' but rather a contact centre including after hours contact facilities for faults and emergencies.
Licence fee	Licence fees are included in the Operating department costs and excluded from the corporate office.
Insurance premiums	Specific to the nature of the risk and excluded from the corporate cost benchmark. However the costs of managing insurance are included in the FTE under the Legal Counsel / Company Secretary & Corporate Affairs team.
Outsourced contract management	Day to day deployment and management of contractors is managed through the Operating department outside of the corporate costs, although the corporate costs will include legal support to oversee contractual terms and conditions and risk management.

F Board of Directors, CEO and external audit fee samples

In the absence of readily available public and independently compiled benchmarks for Board member and CEO remuneration or external audit fees, a representative sample of companies was used to estimate the likely range of costs for the standalone business.

A sample of 30 companies was chosen from the IBIS World list of the top 500 ASX listed companies[22] which catalogues companies by revenue size. APA's RBP revenue was used as a mid point and 15 companies immediately above and below this on the list were chosen. The publicly available information on remuneration paid to Board members and CEOs along with the external audit fees was collated.

Outliers were then excluded using quartiles and the interquartile range (IQR). The IQR is the difference between the upper and lower quartile and is used to exclude outliers and is seen to be more robust than using the total range. If any observation lay outside plus or minus 1.5 times the IQR then it was excluded from the analysis. The range of 1.5 times the IQR to determine outliers is based on a well-established precedent set by John Tukey's box-and-whisker[23] plot in 1977.

The following equation shows how this is done.

Let x be the observation, Q_1 the lower quartile, and Q_3 the upper quartile:

If $x < Q_1 - 1.5(Q_3 - Q_1)$ or $x < Q_3 + 1.5(Q_3 - Q_1)$, then x is excluded.

After applying outlier analysis (as explained above), there were 25 observations left for CEO remuneration, 26 for the Board and 29 for external audit.

The Board and CEO remuneration presented below is for 'total remuneration' which is inclusive of appropriate on costs, therefore we did not apply an additional percentage for on costs to these positions as we do for other units as explained in Appendix 5 above.

The total Board remuneration is divided by the number of members on the Board to arrive at average remuneration per Board member. The table below lists the companies selected, the data on remuneration once outliers had been excluded, and the low, median and high ranges calculated from this survey.

[22] IBISWorld's Spreadsheet of the largest Companies listed on the ASX contains the Name, Major Industry, Rank and latest Total Revenue for the 500 largest ASX listed companies.

[23] A box-and-whisker plot (or boxplot) is a way of graphically depicting groups of numerical data through five-number summaries: the sample minimum, lower quartile (Q1), median (Q2), upper quartile (Q3), and sample maximum. A boxplot may also indicate which observations, if any, might be considered outliers.

Table F- 1: Executive Director, CEO and external audit sample and costs

Board, CEO & Audit Benchmarking					
	Company Revenue	**No of Directors**	**Non-Executive Director**	**CEO**	**Audit**
Centrebet International Limited	$72,367,000	5	$58,557	$661,678	$461,000
Waterco Limited	$71,473,000	3	$51,871	$423,267	$196,000
Biota Holdings Limited	$71,465,000	8	$57,011	$497,578	$173,000
Payce Consolidated Limited	$71,439,000	4		$451,855	$522,000
Ainsworth Game Technology Limited	$70,274,000	3	$84,695	$238,863	$180,000
Euroz Limited	$70,144,000	10		$746,559	$171,000
Charter Hall Group	$66,453,000	3		$828,074	$902,000
HFA Holdings Limited	$65,577,000	3	$111,967		$531,000
CTI Logistics Limited	$60,866,000	4	$29,184	$495,819	$102,000
RP Data Ltd	$57,950,000	5	$76,447	$650,902	$648,000
The Trust Company Limited	$57,131,000	6	$91,418	$461,166	
SDI Limited	$54,023,000	5	$36,576	$494,696	$286,000
Altium Limited	$53,018,000	4	$68,723	$269,403	$696,000
Infomedia Ltd	$50,623,000	4	$80,315	$422,659	$228,000
Lemarne Corporation Limited	$49,538,000	4	$57,119	$917,676	$150,000
Pan Pacific Petroleum NL	$45,630,000	5	$58,864	$861,181	$304,000
LinQ Resources Fund	$45,436,000	5	$50,888	$934,682	$166,000
Amadeus Energy Limited	$44,282,000	6	$75,772	$824,888	$176,000
Intrepid Mines Limited	$42,132,000	5	$88,124	$1,040,915	$142,000
Hunter Hall International Limited	$39,054,000	8	$94,791		$155,000
Bremer Park Limited	$37,780,000	2	$54,336	$254,304	$99,000
Trinity Group	$36,399,000	5	$152,995	$487,283	$159,000
Djerriwarrh Investments Limited	$35,092,000	7	$77,890	$155,780	$159,000
Petsec Energy Ltd	$32,132,000	3	$109,872	$719,923	$139,000
Adcorp Australia Limited	$31,118,000	2	$63,392	$428,344	$246,000
RCG Corporation Limited	$30,502,000	3	$126,321	$451,101	$202,000
Nexus Energy Limited	$30,346,000	7			$187,000
Hutchison Telecommunications (Australia) Limited	$22,343,000	7	$118,964	$767,997	$114,000
Centro Retail Group	$15,252,000	6	$195,010		$769,000
Consolidated Media Holdings Limited	$13,232,000	4	$86,315		$769,000
Quartile 1	**$35,418,750**		**$57,479**	**$428,344**	**$159,000**
Quartile 2 (Median)	**$47,584,000**	**5**	**$77,169**	**$495,819**	**$187,000**
Quartile 3	**$64,399,250**		**$93,948**	**$767,997**	**$461,000**

G References

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