Directlink Joint Venture

Attachment 9.4

Outsourcing arrangements and margins

Effective
July 2015 to June 2020

May 2014
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1 Introduction

Energy Infrastructure Investments Pty Limited (EII) understands that the AER will need to satisfy itself that the payments made under the Management, Operations and Maintenance and Commercial Services Agreement (MOMCSA) for the following services satisfy the relevant provisions in chapter 6A of the National Electricity Rules (NER):

- asset management, operating, maintenance and capital services; and
- corporate services.

To assist the AER with its assessment of this issue, EII has prepared the following information on the MOMCSA and demonstrates the consistency of the payments made under this agreement with the operating and capital expenditure criteria contained in rules 6A.6.6(c) and 6A.6.7(c).

The remainder of this section is structured as follows:

- Section 2 provides an overview of the MOMCSA;
- Section 2.2 sets out EII's understanding of the framework that the AER has developed for the purposes of assessing the consistency of outsourcing arrangements with the NER; and
- Section 2.3 applies the AER's framework to the MOMCSA and demonstrates the consistency of its arrangement with the operating and capital expenditure criteria.

2 About the MOMCSA

2.1 Background to the formation of the contract

In December 2008 EII entered into an agreement with APA for the provision of asset management, operating, maintenance, capital and commercial services to the EII assets (including Directlink) for an initial term of seven years.[1] The terms of this agreement are set out in the Management, Operations and Maintenance and Commercial Services Agreement (MOMCSA). A copy of this contract has been provided to the AER on a confidential basis.

The MOMCSA was entered into as part of a broader transaction, which involved the establishment of EII Pty Ltd and the sale of nine APA owned assets[2] (including Directlink), to this unlisted investment vehicle. EII's shareholders include:

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1 The agreement also contains two five year extension options (see section 2 of the agreement).

2 The nine assets owned by EII are:

- Murraylink and Directlink Interconnectors;
- Daandine and X41 power stations;

- Marubeni Corporation – 49.9%;
- Osaka Gas – 30.2%; and
- APA – 19.9%.

At the time EII was established, APA was the largest provider of asset management and operating and maintenance services in the Australian energy networks industry. Entry into the MOMCSA was therefore viewed as a means by which EII could access economies of scale, scope and other efficiencies, along with asset management and corporate services expertise, that it would not otherwise be able to obtain on a stand-alone basis.

2.1.1 Services to be provided by APA

The services that APA is required by the MOMCSA to provide EII, as owner of the Directlink assets, include:

- all asset management, operations, maintenance and capital services required for the safe and efficient operation of the asset, including compliance with regulatory obligations. The types of asset management, operating, maintenance and capital services that APA is required to provide under the agreement are set out in Schedule 2 of the MOMCSA; and
- all administrative, accounting and other business functions that EII is required to perform, including in compliance with legal and regulatory obligations, for each of its assets (including the Directlink asset). The types of commercial services that APA is required to provide under the agreement are set out in Schedule 3 of the MOMCSA.

2.1.2 Pricing mechanism

The payments that EII is required to make to APA for the provision of the aforementioned services are set out in section 10.1(e) of the Agreement. In short, EII is required to pay:

(a) all of the costs and expenses that APA incurs in the provision of asset management, operations, maintenance and capital services, provided they have been approved in an Approved Operating Plan and Budget or an Authority for

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- Tipton West and Kogan North coal seam gas processing plants; and
- Telfer, Bonaparte and Wickham Point gas pipelines in Western Australia.

See http://www.apa.com.au/our-business/energy-investments.aspx.

Expenditure;[3] EII is also required to pay APA all of the costs and expenses incurred in connection with existing third party subcontracts;

(b) all of the expenses reasonably incurred by APA in the provision of commercial services, including the costs of hours worked by APA Group personnel. In accordance with section 10.1(b)(ii) of the agreement, the costs of hours worked are to be calculated by applying agreed hourly rates, which EII and APA must agree from time to time. As noted in this provision, it is the intention of the parties that these costs will be set on a 'cost recovery' basis and less than market rates; and

(c) a margin of 10% on the costs and expenses identified in (a) and (b).

Notable features of this pricing mechanism include:

- the cost pass-through component, which ensures that any economies of scale, scope and other efficiencies achieved by APA (or its contractors) are immediately passed through to Directlink and, in turn, are passed through to end-users;
- the requirement that costs and expenses are only passed through if they have been approved in an Approved Operating Plan and Budget or an Authority for Expenditure, which imposes some discipline on the APA; and
- the margin, which is paid to access the economies of scale and scope and other available to APA as well as APA's asset management and corporate service expertise, IT systems and business processes.

2.2 Framework Used to Assess Outsourcing Contracts

This section sets out EII's understanding of the framework that the AER has developed for the purposes of assessing whether the payments made under outsourcing arrangements satisfy the operating and/or capital expenditure criteria set out in chapter 6A of the Rules.

2.2.1 Background to the development of the framework

During the 2011-2015 Victorian electricity distribution price review process (EDPR), the AER outlined the framework it had developed for the purposes of assessing whether outsourcing arrangements satisfied the operating/capital expenditure criteria in the Rules. The AER also signalled at this time its intention to use the framework in future regulatory decisions.

In simple terms, the framework developed by the AER during the 2011-15 EDPR consisted of a two stage inquiry process that involved:

3 The two exceptions to this rule are that if the expenditure is incurred as a result of an emergency or in connection with imposts or carbon costs they can also be passed through to EII.

Stage 1: distinguishing between those contracts entered into by a regulated service provider that could be presumed to prudent and efficient (ie, those entered into as a result of a competitive market process) and those that could not (referred to as the 'presumption threshold'). Outsourcing contracts that the AER noted could not be presumed to be efficient, unless they were subject to a competitive tender, included:

- contacts that were not entered into on an arm's length basis;[4]
- contracts entered into as part of a broader transaction; and
- contracts involving the conferral of benefit on the regulated service provider in return for it agreeing to pay an artificially inflated price.

Stage 2: undertaking a more detailed review of the contract entered into by the regulated service provider to determine whether the contract price, the contractor's directly incurred costs or some measure in between the two should be used to determine forecast operating/capital expenditure allowances. The level of enquiry required by this stage of the AER's framework depended on whether the contract in question:

Stage 2A: passed the presumption threshold, in which case the *contract price* was assumed to be the starting point for setting future expenditure allowances. The AER's assessment was therefore restricted to examining whether:

- the contract price related wholly to the provision of the regulated services; and
- the contract price gave rise to any double counting of risks or costs with other aspects of the regulated service provider's regulatory proposal.

Stage 2B: failed the presumption threshold, in which case the *contractor's costs* were assumed to be the starting point for setting future expenditure allowances and consideration was then given to whether a margin above these costs was warranted. Those factors that the AER identified as potentially warranting the payment of a margin included:[5]

- any return on and of capital required to compensate the contractor for any assets it owns and uses in the provision of services;
- any allowance required by the contractor to enable it to recover a 'reasonable allocation' of its common costs; and

4 Under the AER's framework, parties are assumed to be 'related' if either the ownership interests in the regulated service provider and the contractor are identical or if the owner (or majority shareholder) of the regulated service provider has a *majority* interest in the contractor.

5 AER, *Final Decision – Victorian electricity distribution network service providers – Distribution determination 2011-2015*, October 2010, p174.

- any allowance required by the contractor to self-insure against asymmetric risks, to the extent it did not give rise to a double counting across other aspects of the service provider's revenue requirement.

EII understands that Stage 2B of this framework has recently been modified by the AER to reflect the Australian Competition Tribunal's (Tribunal) findings in *Application by Envestra Limited (No. 2)* [2012] ACompT 3 (the 'Application by Envestra'). The remainder of this section provides an overview of the Tribunal's decision and the modifications that have recently been made to the framework.

2.2.2 The Tribunal's decision

In July 2011, Envestra sought leave to apply to the Tribunal for review of a number of aspects of the AER's Final Decision for the South Australian gas network, including its decision not to allow the recovery of the margin payable under Envestra's outsourcing contract with APA (the Network Management Fee (NMF)). Leave was granted by the Tribunal in October 2011 and the Tribunal handed down its decision in January 2012.

In short, the Tribunal found that while it was appropriate for the AER to 'investigate and test' the margin' paid by Envestra, the AER had erred in finding that the margin was inefficient. In doing so, the Tribunal made the following observations about the nature of the margin paid by Envestra and the benefits it derived from outsourcing the operation and maintenance of its assets to APA:

> "First it is apparent, at least on the balance of probabilities, …that it is cheaper for Envestra to pay APA to manage its networks, even taking into account the NMF. Second, it is apparent, at least on the balance of probabilities, that the costs incurred by APA in managing Envestra's networks including the NMF, are within industry standards and that APA is not earning an abnormally large margin on its operations. Third, it appears that APA may well not agree to manage Envestra's networks without the payment of the NMF."[6]
>
> "The evidence before the AER and the Tribunal suggests that the NMF was a payment required to access the management services of APA. APA was able and willing to manage Envestra's network at a lower cost than Envestra could itself. Such a cost is clearly one that would be incurred by a prudent service provider, acting efficiently. Leaving to one side circumstances in which a service provider was in some way trying to "game" the regulatory system (and there is no suggestion that that is the case here) it is not logical to suggest that a prudent service provider should or would choose a more expensive method of exploiting its capital base. If the AER's approach were adopted, it may well lead to regulated service providers not outsourcing and, thus, increasing their operating expenditures. The AER, having disallowed the fee that provides access to outsourced management, would be hard-pressed to disallow the increased costs that would occur as a result.

[6] Ibid, para 252.

Further, the balance of the evidence suggests that outsourcing is accepted industry practice and that the costs incurred by Envestra in the outsourcing agreement are consistent with industry standards. In those circumstances, it is inappropriate for the AER to maintain that the NMF is necessarily an inefficient cost and that it does not comply with rule 91. This implicit assumption on its part renders the decision to disallow the NMF unreasonable in all the circumstances"[7]

"… the NMF is not a one-off cost to improve the efficiency of the management of the network. It is a fee that must be paid every year in order to have access to the efficiencies offered by APA. If the NMF is required to be paid in one year in order to access the efficiencies provided by APA, unless circumstances change, the NMF will have to be paid in the following year, and the year after, in order to ensure APA continues to manage the network. APA may well refuse to operate the network if Envestra ceased paying the fee."[8]

"Outsourcing management of its networks to APA allows Envestra to achieve lower operating costs than it could if it managed its network in-house. There is no evidence that it would be possible for Envestra to outsource this management function for a lower cost or in the absence of the NMF.

Given the lowering of costs that results from the payment of the NMF, it should properly be classed, in the circumstances of this case, as an item of efficient operating expenditure, consistent with NGR r91."[9]

2.2.3 Modified framework

It would appear from EII's review of the most recent regulatory decision in which outsourcing arrangements have been examined by the AER (the Envestra draft decision for the Victorian gas networks),[10] that the AER has recently revised its framework to incorporate the Tribunal's findings. Specifically, it would appear that the AER has modified the scope of the enquiry to be carried out in those cases where a contract is deemed to fail the presumption threshold (Stage 2B). Rather than using the contactor's actual costs as a baseline and then considering whether any margin above these costs could be warranted, Stage 2B of the AER's framework now requires consideration to be given to whether:[11]

1. the total contract cost is consistent with the operating/capital expenditure criteria. Two of the matters that the AER identified in the Envestra draft decision for the Victorian gas networks as being relevant to this consideration are:

7 Ibid, paras 261-262.

8 Ibid, para 264.

9 Ibid, paras 268-269.

10 AER, *Draft Decision – Access arrangement – Envestra Ltd 2013-17, Part 3,* September 2012.

11 Ibid, p.103.

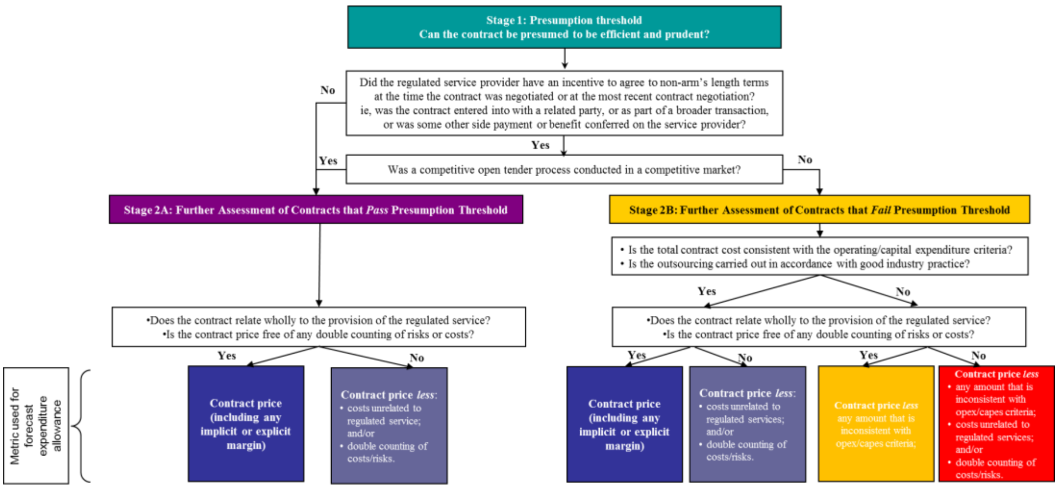
- the comparability of the margin paid by the regulated service provider with those earned by contractors providing similar services in competitive markets; [12] and
- the operating expenditure and productivity performance of the regulated service provider *vis-à-vis* other regulated service providers. [13]

2. the outsourcing is carried out in accordance with good industry practice;
3. the costs within the contract relate wholly to the provision of the regulated service; and
4. there is any double counting of costs or risks between the contract and the regulatory proposal.

2.2.4 Current framework

Figure 2.1 sets out EII's understanding of the AER's current position on the framework that it will apply when assessing outsourcing arrangements.

Figure 2.1: AER's revised framework for assessing outsourcing arrangements



Source: AER, Final Decision - Victorian electricity distribution network service providers - Distribution determination 2011-2015, p303 and
AER, Draft Decision - Access arrangement – Envestra Ltd 2013-17, September 2012

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[12] Ibid, pp. 105-106.

[13] Ibid, pp. 106-112.

2.3 Application of the AER's Framework to Directlink

This section addresses each of the matters identified in the AER's assessment framework as being relevant to a consideration of whether the payments made under an outsourcing contract will satisfy the operating and capital expenditure criteria set out in chapter 6A of the Rules.

2.3.1 Presumption threshold

The first stage of the AER's assessment framework requires consideration to be given to whether the regulated service provider had an incentive to pay an artificially inflated price at the time the contract was negotiated (or at its most recent renegotiation). Circumstances that the AER has previously stated could give rise to such an incentive include:

- where the parties to the contract were related at the time the contract was negotiated (or re-negotiated);
- where the contractor conferred some form of benefit on the regulated service provider in return for it agreeing to pay an artificially inflated price; or
- where the contract was entered into as part of a broader transaction.

While EII can confirm that it did not agree to pay an artificially inflated price when it entered into the MOMCSA, it understands that because the contract was entered into as part of a broader transaction (see section 2) the AER would want to conduct a more detailed examination of the contract. For the purposes of this analysis, EII has therefore assumed that the MOMCSA would be deemed by the AER to fail the presumption threshold.

Before moving on, it is worth noting that while the MOMCSA was entered into as part of a broader transaction (involving APA as both a shareholder and service provider under the MOMCSA), at the time the contract was entered into APA was the largest provider of asset management services in the energy networks industry. Entry into the MOMCSA was therefore viewed as a means by which EII could access economies of scale, scope and other efficiencies, along with asset management and corporate services expertise that it would not otherwise be able to obtain on a stand-alone basis.

Since entering into the contract, APA has maintained its position as the largest provider of asset management services in the energy networks industry. EII continues therefore to benefit from the economies of scale, scope and other efficiencies available to APA that would not otherwise be available to EII.

2.4 Consistency of total contract cost with the Rules

In the most recent decision in which stage 2B of the framework has been invoked (the Envestra draft decision), the AER had regard to the following factors when assessing whether the total costs incurred under an outsourcing contract were likely to be consistent with the operating and capital expenditure criteria.[14]

- the comparability of the margin paid by the regulated service provider with those earned by contractors providing similar services in competitive markets; [15] and
- the productivity performance of the regulated service provider *vis-à-vis* other regulated service providers and a range of other partial benchmarks.[16]

EII accepts the approach taken by the AER in this context and has considered the extent to which it could undertake a similar analysis of margins and the relative performance of Directlink to demonstrate that the costs payable under the MOMCSA are consistent with the Rules. In short, EII is of the view that while there is some value in analysing the margin payable under the MOMCSA, the same cannot be said for the performance based analysis because the only other regulated interconnector (Murraylink) is owned by EII and is subject to the same type of outsourcing arrangement.[17] EII has therefore given further consideration to how it could demonstrate that the charges it is required to pay under the MOMCSA are consistent with the Rules.

In keeping with the Tribunal's findings in *Application by Envestra,* EII is of the opinion that if it can be demonstrated that outsourcing the following services to APA allows it to achieve *lower* operating costs than it could if it managed its network in-house, then the charges payable under the MOMCSA should be viewed as being consistent with the Rules:[18]

- asset management, operating, maintenance and capital services; and
- corporate services

This issue is considered in further detail in the remainder of this section.

2.4.1 Asset management, operating, maintenance and corporate services charges and margin

In accordance with section 10.1(a) and 10.1(c) of the MOMCSA, EII is required to pay APA the following charges for the provision of asset management, operating, maintenance and capital services:

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[14] AER, Draft Decision - Access arrangement – Envestra Ltd 2013-17, Part 1, September 2012, p106.

[15] Ibid, pp. 105-106.

[16] Ibid, pp. 106-112.

[17] As discussed below, the AER has analysed the MOMCSA in relation to Murraylink and approved the Murraylink opex costs including the amount of the margin.

[18] *Application by Envestra Limited (No. 2)* [2012] ACompT 3, January 2012, paras 268-269.

- all of the costs and expenses APA incurs in the provision of these services, provided they have been approved in an Approved Operating Plan and Budget or an Authority for Expenditure;[19]
- all of the costs and expenses incurred in connection with existing third party subcontracts; and
- a margin on all of the costs and expenses incurred in the provision of these services, which from EII's perspective is paid to access:
    - the economies of scale, scope and other efficiencies offered by APA; and
    - APA's asset management expertise.

Over the next regulatory control period, EII expects to pay APA approximately $4.1 million pa (inclusive of the margin) for the provision of asset management, operating, maintenance and capital services to Directlink. In the time available, it has not been possible to undertake a detailed bottom up analysis of the costs that EII would incur if it was to provide all of these services in-house and to compare these with the charges that are expected to be paid under the MOMCSA. EII's assessment of the whether these charges (which have been incorporated into Directlink's operating and capital expenditure forecasts) are consistent with the operating and capital expenditure criteria, has therefore been carried out having regard to the following questions:

1. Are the costs and expenses incurred by APA in the provision of asset management, operating, maintenance and capital services likely to be lower than what could be achieved by EII if it was to provide the services in-house?
2. Is the margin payable on these costs and expenses in line with the margins levied by other contractors providing similar services in competitive markets?

In EII's opinion, if these two questions are answered in the affirmative, then it would be reasonable for the AER to infer that the total charge (including the margin) payable for the provision of these services is lower than the in-house cost of provision and therefore *consistent* with the operating and capital expenditure criteria specified in chapter 6A of the Rules. These questions are considered, in turn, in the remainder of this section.

2.4.2 Asset management, operating, maintenance & corporate services costs

To determine whether the costs and expenses incurred by APA in the provision of these services are likely to be lower than what EII could achieve, EII has undertaken a qualitative assessment of the economies of scale, scope and other efficiencies that would be available to APA but not to EII.

As noted previously, APA is currently the largest provider of asset management services in the Australian energy networks industry, providing services to over 55

[19] The two exceptions to this are that if the expenditure is incurred as a result of an emergency or in connection with imposts or carbon costs they can also be passed through to EII.

assets in various locations in eastern and Western Australia. The relative scale of APA's asset management arm and the diversity of interests (both geographically and by type of assets) are such that it would be reasonable to assume that APA can access a range of economies of scale, scope and other efficiencies that would not otherwise be available to EII. These efficiencies are likely to stem from, amongst other things:

- APA's ability to spread its fixed costs across a greater number of activities;
- the scale of APA's operation, which would enable it to obtain greater discounts when procuring materials and service contracts than would otherwise be available to EII;
- the geographic proximity of EII's assets with other assets serviced by APA, which would enable services and personnel to be shared and works to be optimised across assets; and
- the increased capacity of APA to develop specialist expertise (eg, asset management expertise and technical regulatory expertise) across a greater number of assets and locations and to utilise that expertise in the provision of its services.
- Given the ability of APA to access efficiencies and specialist expertise that would not otherwise be available to EII, the costs and expenses it incurs in the provision of asset management, operations, maintenance and capital services can be expected to be *lower* than those that would be incurred if EII were to provide the same services.

2.4.3 Margin on asset management, operating, maintenance and capital services

To determine whether the margin payable under the MOMCSA for the provision of asset management, operating, maintenance and capital services is in line with the margins earned by other contractors, EII has compared it with the 3% margin on revenue that Envestra is required to pay for the provision of operating and maintenance services. The margin payable under Envestra's operating and maintenance agreement, has been selected as the reference point for this analysis, because it has been found by both the Tribunal[20] and the AER[21] to be in line with the margins earned by other contractors and therefore consistent with good industry practice.

In order to undertake this comparison, it has been necessary to convert the 10% margin on expenditure to an equivalent margin on Directlink's revenue. These calculations are set out in Table 2.1.

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[20] *Application by Envestra Limited (No. 2)* [2012] ACompT 3, January 2012, para 252.

[21] AER, Draft Decision - Access arrangement – Envestra Ltd 2013-17, Part 1, September 2012, p112.

Table 2.1: MOMCSA margin on asset management, operating, maintenance and capital services expenditure as a % of revenue

		Historic						Regulatory Control Period				
	Formula	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Margin on expenditure ($ m, nominal)	A	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.4	0.5	0.5	0.5
Directlink Revenue ($ m, nominal)	B	12.4	13.1	12.9	12.9	13.1	13.5	18.5	18.6	19.4	20.1	20.8
MOMCSA Margin as % of Revenue	**C=A÷B**	**2.3**	**2.2**	**2.1**	**2.4**	**2.4**	**2.7**	**2.7**	**2.4**	**2.3**	**2.3**	**2.2**

As the analysis in this table reveals, the margin payable under the MOMCSA is substantially *below* the 3% margin on revenue that the Tribunal and the AER have previously found to be consistent with industry practice for these types of services, with the margin under the MOMCSA estimated to account for:

- 2.1-2.4% of the revenue earned by Directlink over the period 2009-2013; and
- 2.4-2.7% of Directlink's proposed revenue requirement over the next regulatory control period.

The margin payable under the MOMCSA for the provision of asset management, operating, maintenance and capital services should therefore be viewed by the AER as being consistent with the operating and capital expenditure criteria.

2.4.4 Conclusion on the total charge payable for asset management, operating, maintenance & capital services

It follows from the preceding analysis that:

- the costs incurred by APA in the provision of asset management, operations, maintenance, capital and corporate services are *lower* than those that could reasonably be expected to be achieved if EII were to provide the services in-house; and
- the margin payable to APA for the provision of asset management, operating, maintenance and capital services is substantially *below* the 3% margin on revenue that the Tribunal and the AER have previously found to be in line with the margins earned by other contractors and therefore consistent with good industry practice.

Given these findings, it is reasonable to infer that the total charge payable to APA for the provision of asset management, operating, maintenance and capital services is *lower* than the costs that EII would incur if it was to provide the services in-house. Directlink's operating and capital expenditure forecasts, which are based on the charges that it expects to pay under the MOMCSA over the next regulatory control period, should therefore be deemed to satisfy the operating and capital expenditure criteria set out in chapter 6A of the Rules.

2.5 Commercial services charges

In addition to providing asset management, operating, maintenance and capital services, the APA is required under the MOMCSA to carry out all administrative, accounting and other business functions for all of the EII businesses, including Directlink. In return for the provision of these services, EII is required to pay:

- all of the expenses reasonably incurred by APA in the provision of these commercial services;
- the costs of hours worked by APA Group personnel in the provision of these services, which are to be calculated by applying agreed hourly rates. The hourly rates are to be agreed by EII and APA from time to time with the intention being that they will be set on the basis of 'cost recovery' and less than market rates;[22] and
- a margin on the costs and expenses incurred by APA in the provision of these services, which from EII's perspective is paid to access:
  - the economies of scale, scope and other efficiencies offered by APA;
  - APA's corporate services expertise; and
  - APA's IT systems and business processes.

Over the next regulatory control period, EII expects to pay APA EII approximately $0.5m million pa (inclusive of the margin) for the provision of corporate services to Directlink. To determine whether these charges (which have been included in Directlink's operating expenditure forecasts) are likely to satisfy the operating expenditure criteria, they have been compared with both:

- an estimate of the corporate overheads that APA would attribute to Directlink if it still had a100% interest in the asset; and
- an estimate of the costs that Directlink would incur if it was to provide the services in-house.

22 See section 10.1(b)(ii) of the MOMCSA.

2.5.1 Charges that APA would levy if it had a 100% interest in Directlink

If APA still had a 100% interest in the Directlink asset, then it would seek to attribute a share of its corporate overheads to this asset. The corporate overheads that it would seek to recover from Directlink would depend on:

- the overall level of corporate costs incurred by APA in the performance of the following functions:
  - Chief Executive Officer function;
  - Company Secretary function;
  - Corporate Finance function;
  - Corporate Commercial function;
  - Human Resources function;
  - IT and Transformation function;
  - Legal and Regulatory function; and
  - Projects and Other.
- the method used to allocate corporate overheads across all of APA's assets.

In its submission to the AER on the proposed revisions to the Roma to Brisbane Pipeline (RBP) access arrangement, APA set out in detail:[23]

- the market and commercial based incentives that it had to keep corporate overheads as low as possible and the rigorous budgeting and Board approval process that had been put in place to ensure that these costs are prudently incurred; and
- the method that it uses to assign corporate overheads across all of its operating businesses, which has been approved by the AER in a number of instances. In simple terms the allocation method involves:
  - attributing any costs that are directly attributable to a particular asset to that asset;
  - allocating costs among the different assets where there is a causal allocator by which to do so; and
  - allocating any remaining costs (excluding any costs that could be considered 'corporate development', eg, costs associated with investigations for new acquisitions) by revenue.

  The reasonableness of this allocation is then tested by comparing it to an allocation based entirely on revenue.

In this case, the corporate overheads that were proposed by APA and approved by the AER, represented 7.8% of RBP's revenue.[24]

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[23] APA, Roma to Brisbane Pipeline Access Arrangement Submission, October 2011, pp. 87-96.

If the same ratio of corporate overheads to revenue that was allowed in the AER's RBP final decision was used to determine the corporate overheads that APA would attribute to Directlink if it still had a 100% interest in the asset, then it would result in a corporate overheads charge of $0.97 - $1.05 million pa. As the information in Table 2.2 reveals, this is more than double the corporate services charge that EII expects to pay over the next regulatory control period. This difference is significant and clearly demonstrates the benefits (ie, savings of $0.62-$0.73 million pa) that EII and users of the Directlink asset have derived from the MOMCSA.

Table 2.2: Corporate service charges in regulatory control period vs estimate of charges that would be recovered if asset owned by APA

($m, nominal)	Historic						Regulatory Control Period				
	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
A: Corporate Service Charges included in Directlink's Revenue Proposal	.424	.416	.367	.398	.373	.416	0.532	0.545	0.559	0.573	0.587
B: Indicative estimate of charges that would be levied if APA had 100% ownership interest (7.8% of unsmoothed revenue requirement)	0.97	1.02	1.00	1.01	1.02	1.05	1.44	1.45	1.51	1.56	1.62
C: Difference (A – B)	**0.62**	**0.73**	**0.72**	**0.70**	**0.71**	**0.69**	**0.91**	**0.91**	**0.95**	**0.99**	**1.04**

2.5.2 Costs that Directlink would incur were it to provide the services in-house

EII addressed these same issues in the context of the Murraylink revenue proposal. Considering the similarities in the nature of the asset and the corporate structure and MOMCSA arrangements, EII considers that the analysis applied to Murraylink is equally relevant to Directlink.

To get an understanding of the costs that Murraylink would be likely to incur if it was to undertake the corporate services currently provided under the MOMCSA in-house, EII engaged KPMG to:

- identify the types of functions that Murraylink would need to perform; and
- develop an estimate of the costs that Murraylink would incur if each of these functions was carried out in-house.

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[24] In 2012-13 the corporate costs approved by the AER were $3.6 m while the approved revenue was $46.2 million. See AER, *Access arrangement final decision – Roma to Brisbane Pipeline 2012-13 to 2016-17*, August 2012, tables 1.1 and 6.1.

KPMG's findings are contained in a report entitled, *Murraylink - Corporate Cost Benchmarks*, which can be found in Appendix A.

In order to estimate the costs that Murraylink would be likely to incur if it was to provide the corporate services currently provided by APA, KPMG has had regard to benchmark costs for the following types of functions:

- Board of directors;
- Office of the Chief Executive;
- Finance;
- Information and Communication Technology;
- Regulation and Strategy; and
- Contracts Management.

KPMG has also had regard to a number of other matters when deriving its estimates of the efficient costs that Murraylink would be likely to incur, including:

- government regulations and requirements;
- Commonwealth and ASX corporate regulatory requirements;
- the governance arrangements that would be required to support a stand-alone publicly listed company; and
- the magnitude of the revenue generated by Murraylink, the number of customers serviced, the annual operating and maintenance expenditure and the size of Murraylink's capital base.

The results of KPMG's analysis are summarised in the table below.

Table 2.3: KPMG's estimate of the corporate costs that Murraylink would incur if it was to provide these services in-house

($000, nominal)	Low	Medium	High
Board of Directors	$151	$249	$385
Chief Executive Officer/General Manager	$397	$495	$593
Finance	$153	$208	$280
ICT	$403	$403	$403
Economic Regulation	$165	$191	$208
Contracts Management	$70	$85	$100
Total		**$1,631**	

Source: KPMG, *Murraylink - Corporate Cost Benchmarks*, October 2012, Table 4.1.

As the analysis in this table indicates, were Directlink to undertake the corporate service functions in-house, it would cost approximately $1.63 million pa. having been undertaken in 2012, this result should be escalated by two years' CPI, resulting in an estimated $1,714. This is more than 2.5 times more than what Directlink expects to pay under the MOMCSA over the next regulatory control period ($1.71 million pa vs $0.53-$0.59 million pa). This difference is significant and clearly demonstrates that outsourcing the corporate service functions to APA has resulted in substantially lower costs than would be incurred were Directlink to provide the services in-house. The difference also highlights the benefits (ie, savings in the order of $1 million pa) that EII and users of the Directlink asset have derived from the MOMCSA.

2.5.3 Conclusion on corporate services charge

In EII's view, the analysis set out above clearly demonstrates that the charges payable for the provision of corporate services under the MOMCSA (including the margin) are substantially lower than what would be incurred if Directlink was still owned by APA or if Directlink was to provide the services in-house. This element of the MOMCSA (which has been incorporated into Directlink's operating expenditure forecasts), should therefore be deemed by the AER to satisfy the operating expenditure criteria in chapter 6A of the Rules.

2.6 Overall contract cost

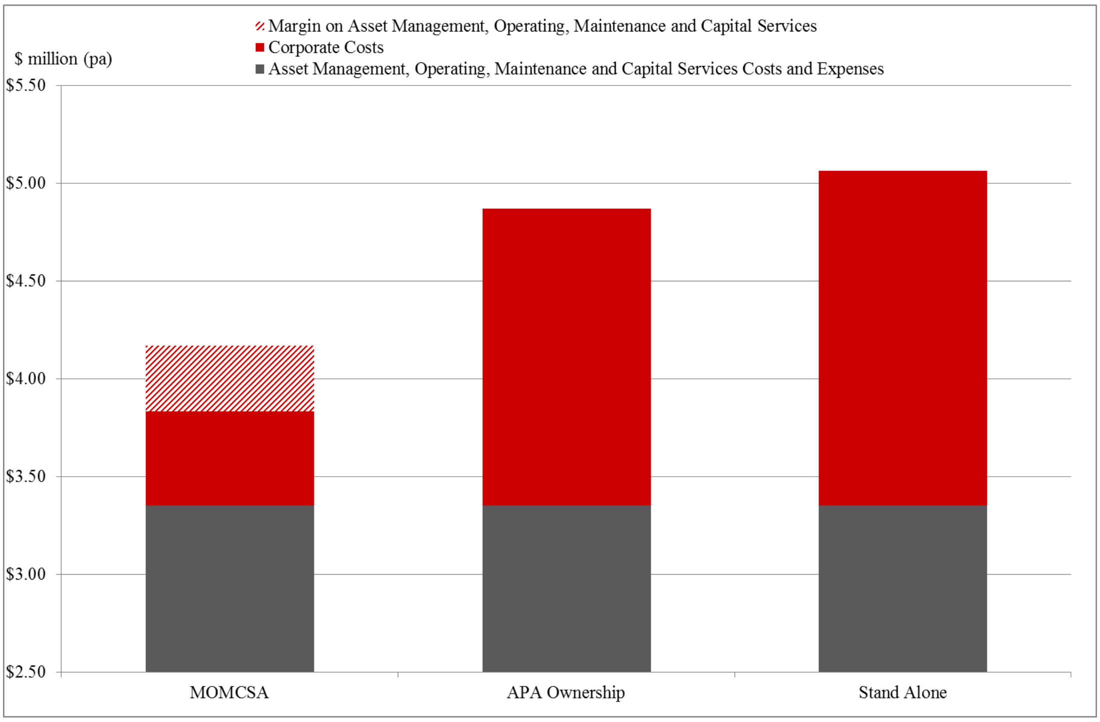
To get some insight into whether the overall charge payable under the MOMCSA is likely to be lower than the cost of providing the services in-house, EII has prepared the following figure, which compares the average charge that it expects to pay over the regulatory control period with the costs that Directlink would be likely to incur under the following counterfactuals:

- APA holds a 100% ownership interest in Directlink; and
- Directlink undertakes the services in-house.

Before examining this figure, it is worth reiterating that in the time available it has not been possible to undertake a detailed bottom up analysis of the costs that EII would incur if it was to provide the asset management, operating, maintenance and capital services in-house. While EII is of the opinion that the costs and expenses APA incurs in the provision of these services (including the margin) would be substantially lower than what it would incur, it has, for the purposes of this analysis, made the simplifying assumption that it would be able to access the same efficiencies and expertise available to APA.

It has therefore been assumed in the stand-alone counterfactual, that EII would incur the *same* costs and expenses as APA (excluding the margin) if it was to carry out these services. The costs and expenses incurred in the provision of asset management, operating, maintenance and capital services are therefore assumed to be the same across all the counterfactuals. It is important to note that this is a simplifying assumption only and that in EII's opinion if it were to provide the services in-house the costs would be substantially higher than those incurred under the MOMCSA.

Figure 2.2: Average costs payable over the Directlink regulatory control period under the MOMCSA vs APA ownership and stand alone counterfactuals



As the comparison in this figure demonstrates, *even if it is assumed that EII could access the same efficiencies and expertise available to APA*, the overall charge payable under the MOMCSA (including the margin) would still be **$0.7-$0.9 million pa lower** than what it would cost to operate Directlink under the alternative counterfactuals.

On the basis of this analysis it is clear that outsourcing to APA has allowed Directlink to achieve lower operating costs than it would if it managed its network in-house or if APA still had a 100% interest in the asset. Consistent with the Tribunal's findings in *Application by Envestra*,[25] the charges payable under the MOMCSA (which have formed the basis for Directlink's operating and capital expenditure forecasts over the next regulatory control period), should therefore be deemed to satisfy the operating and capital expenditure criteria set out in chapter 6A of the Rules.

25 *Application by Envestra Limited (No. 2)* [2012] ACompT 3, January 2012, paras 268-269.

2.7 Outsourcing consistent with good industry practice

In its draft decision on Envestra's access arrangement proposal for the Victorian gas networks, the AER noted that 'industry practice is to outsource the operation of networks to take advantage of economies of scope and scale available to asset management companies'.[26][27]

EII concurs with the AER on this issue and notes that it has acted in accordance with good industry practice by:

- outsourcing the operation of Directlink to a much larger asset management company to take advantage of the efficiencies available to APA that would not otherwise be available to EII; and
- entering into a contract that exhibits many of the characteristics that one would expect to observe in an arm's length contract, such as:
  - a pricing structure that is designed to ensure that:
    - any efficiencies derived by APA are immediately passed through to EII; and
    - EII and end-users are afforded some protection against inefficiencies on the part of APA. This protection is provided by the limitation of costs and expenses that can be passed through to EII to those that have been approved through either the Approved Operating Plan and Budget or an Authority for Expenditure.
  - an appropriate allocation of responsibilities between EII and APA, with EII retaining strategic control over its assets and responsibility for approving the Operating Plan and Budget and any Authority for Expenditure;
  - a transparent budget and reporting process; and
  - the ability of EII to engage other contractors at the end of the initial term (second term or third term) of the contract if APA does not exercise its right to match the price proposed by the other contractor.

2.8 Other relevant matters

The final questions that the AER's assessment framework requires consideration to be given to are set out below:

- Do the costs incurred under the contract relate solely to the provision of the regulated service? and

---

26 AER, *Draft Decision - Access arrangement – Envestra Ltd 2013-17, Part 1,* September 2012, p101.

27 A similar point was made by the Tribunal in *Application by Envestra Limited (No. 2)* [2012]*, see* para 262.

- Do the payments made under the contract give rise to any double counting of costs across other aspects of the regulated service provider's revenue requirement?

EII has considered both of these questions and can confirm the following:

- while the MOMCSA provides for the provision of services to all of EII's assets, Directlink's operating and capital expenditure forecasts only include those costs that are expected to be incurred as a result of the provision of services by APA to the Directlink asset; and
- the allowance that has been made for the contract costs in Directlink's operating and capital expenditure forecasts does not give rise to any double counting across other elements of Directlink's regulatory proposal.

2.9 Conclusion

It follows from the analysis set out above, that the costs payable under the MOMCSA, including the margin, are lower than what EII would incur if it was to provide the services in-house and are therefore consistent with the operating and capital expenditure criteria set out in chapter 6A of the Rules.

2.10 AER assessment of MOMCSA

Both the Directlink and Murraylink interconnectors are subject to the same operating contact (the MOMCSA). This contract has been provided to the AER in the recent Murraylink case and has been provided again in the context of this proceeding.

The AER analysed the MOMCSA in considerable detail in the Murraylink price review process, and accepted the margins charged under that contract.

In reaching that conclusion, the AER found: [28]

> For these reasons, the AER used a benchmarking approach to assess Murraylink's opex forecast margin with margins earned by comparable services providers. Murraylink did not provide any benchmarking of its margin costs so the AER has considered the industry benchmarking report by NERA[186] which was used in the AER's recent draft decision for Envestra.[187] NERA used the earnings before interest and tax (EBIT) margin metric as a standardised measure to assist with comparisons between different businesses.[188] The EBIT metric measured the difference between revenue and operating expenses and so provided a measure of the funds available to a contractor to pay taxes and a return on physical and intangible assets.[189] The EBIT margin standardises this profit measure for the scale of operations by measuring the funds available for these purposes on a 'per unit of revenue' basis.[190] The AER used Murraylink's margin as a ratio of its maximum allowable revenue (MAR) as a comparator.
>
> However, the AER has previously expressed concerns with NERA's benchmarking analysis.[191] Specifically, business contracts use margins for different purposes including

[28] AER, *Draft decision Murraylink Transmission determination 2013–14 to 2022–23*, November 2012, s3.4.4.

recovery of overheads and returns on assets. Given the variances between terms and price structures of individual contracts, the AER considers EBIT margins may not be compared on a like-for-like basis. The large volatility in the range of margins observed in NERA's sample is an indication that the margins included in the sample may be for different purposes.

Even so, while the NERA benchmarking report does have some limitations, the AER found that Murraylink's margin—about 4.9 per cent of MAR—sits within NERA's 95 per cent confidence interval for all the benchmark comparisons and was also in the most frequently observed category. This suggests that Murraylink's margin is not an 'outlier' and is within a reasonable range of comparable margins. On this basis, the AER accepts that Murraylink's margin paid to APA to operate Murraylink's assets may be reasonably reflective of the efficient cost.

[186] NERA Economic Consulting, *The market risk premium: A report for CitiPower, Jemena, Powercor, SP AusNet and United Energy*, February 2012 (NERA, MRP for the Vic electricity DNSPs, February 2012).

[187] Envestra (Victoria) access arrangement 2013–17, p.105.

[188] NERA Economic Consulting, *The market risk premium: A report for CitiPower, Jemena, Powercor, SP AusNet and United Energy*, February 2012 (NERA, MRP for the Vic electricity DNSPs, February 2012).

[189] The EBIT margin may also incorporate the allowance paid to the contractor to align its interests with those of the asset owner.

[190] NERA also noted that in this context while many companies report EBIT there are many other companies that simply report all sources of revenue and costs while others separately report earnings before interest tax depreciation and amortisation (EBITDA) and depreciation and amortisation (DA). In these circumstances the EBIT measure has been calculated using the information contained in the annual reports. For example, where EBITDA has been reported EBIT.

[191] Envestra (Victoria) access arrangement 2013–17, p.106.

As the operating framework and contractual arrangement apply equally to Directlink as to Murraylink, Directlink submits that, consistent with its decision on Murraylink, the AER should find that the margins payable by Directlink are reasonably reflective of the efficient cost.

Appendix: KPMG – Murraylink Corporate Cost Benchmarking Report

While this report was prepared for Murraylink in the context of the 2012 Murraylink price review, Murraylink and Directlink are sufficiently similar assets that the report remains relevant to the Directlink context.

Energy Infrastructure Investments

Murraylink - Corporate Cost Benchmarks

A Report on Benchmarking the Corporate Costs of the Murraylink Transmission Interconnector

October 2012
This report contains 41 pages
16055897_1

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List of Tables

1 Executive Summary

This report has been prepared to provide independent evidence that may assist the AER or any relevant appellate body to consider operating cost forecasts submitted as part of the 2013 revenue proposal for the Murraylink Transmission System (Murraylink). This report describes an estimate of the efficient, corporate costs necessary to operate Murraylink on a standalone basis that amounts to no less than $1.63 million pa, expressed in June 2012 dollars[1].

The estimate has been derived by applying benchmark efficient costs to a model of an efficient corporate office structure for Murraylink. The efficient corporate office structure of Murraylink is assumed to be a small office comprising 4 or possibly 5 FTE. To be efficient, certain tasks would be shared between roles rather than a departmentally siloed structure that would be less efficient for a business of this size.

Individual benchmarks are generally presented in the form of lower and upper bands and a mid-point. The total of $1.63 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 would operate at the high point for each benchmark. Therefore it is considered that the mid-point represents the appropriate benchmark for the total of costs defined in this report[2].

This report has identified the potential to increase the estimate of $1.63 million with certain additional corporate costs. However, these costs appear to be less material than the costs included in the estimate. To ensure that the estimate of $1.63 million is conservative, these additional costs have been excluded.

[1] This is explained in more detail in Section 3.1.1
[2] Further commentary can be found in Section 2.4.7

2 Introduction

2.1 Background

Energy Infrastructure Investments Pty Ltd (EII) is an Australian infrastructure owner and operator, involved principally in the ownership and operation of electricity transmission interconnectors, gas powered generation, coal seam gas processing plants and gas pipelines.

EII owns and operates the Murraylink Transmission System (Murraylink) which comprises a high voltage direct current (HVDC) interconnector between Red Cliffs in Victoria, and Berri in South Australia. It can control power transfers to the limit of its Capacity of 220MW, in both directions, between the Victorian and South Australian regions. As the interconnector is a controllable HVDC connection, the link is despatched by the Australian Energy Market Operator (AEMO) in a similar manner to the despatch of a generator in the National Electricity Market (NEM).

Pursuant to the National Electricity Rules (the Rules), EII submitted a Revenue Proposal to the Australian Energy Regulator (AER) in May 2012. The Revenue Proposal, amongst other things, sets out the operating and capital expenditure forecasts that the service provider proposes for the calculation of the maximum allowed revenue for July 2013 to June 2023[3].

Murraylink is registered as a Transmission Network Service Provider (TNSP) in the NEM under clause 2.5.1 of the Rules. These obligations under the Rules require Murraylink to operate as an efficient regulated network service provider and comply with the transmission network and technical performance standards. The services provided by Murraylink represent a non-negotiated, prescribed transmission service, providing transmission services to customers throughout the NEM.

Murraylink is notionally located within the South Australian region of the NEM. The link is connected to the transmission systems of:

- ElectraNet, in South Australia, at Monash 132 kV substation; and
- SP AusNet, in Victoria, at Red Cliffs 220 kV terminal station. The location of this connection is also in close proximity to the Victorian – NSW interconnection between Red Cliffs and Buronga.

Under the Rules, the maximum allowed revenue for a relevant service provider is determined for each regulatory year of the regulated revenue period using a building block methodology which is applied through the AER's transmission Post-tax Revenue Model (Rule 6A 5.4). The building blocks include, among other things, a forecast of operating expenditure for each regulatory year of the relevant regulatory control period. (6A 6.6(b)(3)(ii)).

Rule 6A 6.6(c) provides:

> *The AER must accept the forecast of required operating expenditure of a Transmission Network Service Provider that is included in a Revenue Proposal if the AER is satisfied that the total of the forecast operating expenditure for the regulatory control period reasonably reflects:*
>
> *(1) the efficient costs of achieving the operating expenditure objectives;*

[3] The next regulatory period for 10 years based on the current 10 year regulatory period finishing 2012

(2) the costs that a prudent operator in the circumstances of the relevant Transmission Network Service Provider would require to achieve the operating expenditure objectives; and

(3) a realistic expectation of the demand forecast and cost inputs required to achieve the operating expenditure objectives...[4]

Section (e) of rule 6A 6.6, which applies to forecasts of operating expenditure, provides:

In deciding whether or not the AER is satisfied as referred to in paragraph (c), the AER must have regard to the following (the operating expenditure factors):

(1) the information included in or accompanying the Revenue Proposal;

(2) submissions received in the course of consulting on the Revenue Proposal;

(3) such analysis as is undertaken by or for the AER and is published prior to or as part of the draft decision of the AER on the Revenue Proposal under rule 6A.12 or the final decision of the AER on the Revenue Proposal under rule 6A.13 (as the case may be);

(4) benchmark operating expenditure that would be incurred by an efficient Transmission Network Service Provider over the regulatory control period;.[5]

In its revenue proposal, EII has included an amount for corporate costs to be included in its forecast of operating expenditure for each year of the regulatory control period under rule (6A 6.6(b)(3)(ii)) of the Rules. EII has sought the opinion of a recognised independent expert on the appropriate benchmark efficient corporate costs of Murraylink if it were operated on a standalone basis.

2.2 The purpose of this report

The sole purpose of this report is to provide independent evidence that may assist the AER or any relevant appellate body to consider EII's proposed operating cost forecasts submitted as part of the revenue proposal for Murraylink for the period 2013 to 2023, in accordance with terms of reference provided to us by EII on 22 October 2012. Those terms of reference are summarised 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).

2.3 Structure of this report

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

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

[4] National Electricity Rules rule 6A 6.6(c)
[5] National Electricity Rules 6A 6.6(e)

  - Section 3.3 provides an outline of the major cost categories that have been used in building up the benchmark for non-capital corporate costs; and
  - 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; and

- Section 4 details the results of the benchmarking and includes a breakdown of the major component costs and together with the Appendices to this report, the benchmarking data sources.

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

2.4.1 The expert

The author of this report is:

Keith Lockey
KPMG
147 Collins Street
Melbourne VIC 3000

2.4.2 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).

2.4.3 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.

2.4.4 The question the expert has been asked to consider

EII has requested an estimate of the benchmark efficient non-capital corporate costs of Murraylink, on the assumption that it is operated on a standalone basis. EII has requested that the benchmarking report should cover at least the following categories of corporate costs:

- Executive office (including CEO and Board);
- Finance (including company secretary, accounts payable, reporting, tax compliance);
- Contracts management (matching an outsourcing model where the business purchases the services of an operations and maintenance provider)
- Information technology including a SCADA control room; and
- Regulatory management costs.

2.4.5 Factual Findings

The expert's opinions are based on the application of relevant benchmark costs to a corporate structure that has been assumed for an efficient business and in accordance with the scale of the Murraylink transmission services business. The findings are set out as follows:

- the benchmark costs are described in Section 4 of this report;
- the parameters of the scale of Murraylink are set out at Section 3.2 of this report; and
- the cost structure that has been assumed is set out at Section 3.3.

2.4.6 The expert's opinion

In accordance with Guideline 2.1 (f), the expert has set out below his opinion in response to the terms of reference. This opinion is based wholly or substantially on the expert's specialised knowledge.

In the expert's opinion, the annual, efficient non-capital corporate costs required to deliver Murraylink's transmission services on a stand-alone basis, expressed in June 2012 dollars, is no less than $1.63 million (as detailed in Section 4 of this report).

2.4.7 The reasons for the expert's opinion

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

The estimate of corporate costs is based on a proven and widely accepted method

The opinion is derived from a benchmarking method that is a well-established business practice used to assess the cost efficiency of business activities and organisational structures.

Benchmarks have been selected using the following principles:

- they are publically available, and easy to access. This means that the estimate can be replicated independently;
- they are *prima facie* unbiased. The compilation of benchmarks is generally undertaken for the purpose of assisting businesses to improve the efficiency of their operations by comparing costs against similar businesses. We have seen no evidence that any of the benchmarks used in this report were for any other purpose. We have avoided the use of any benchmarks which have been prepared for a specific purpose (such as to lobby government) as these may contain bias towards a certain result;
- they are from reliable sources. Benchmarks have been chosen which are publically available and so capable of scrutiny; prepared by professional organisations, and generally well regarded; and
- they are relevant to Murraylink (i.e. that the benchmarks are for activities and costs common to Murraylink and other businesses from which the benchmarks have been sourced). These other businesses also share sufficient key characteristics with Murraylink to make the benchmarks applicable.

Also:

- the derivation of the cost estimates from the benchmarks and the assumptions on which it is based are transparent. This too enables the estimate to be independently replicated and sensitivity tested; and
- the benchmarks have been applied without bias, using conservative, clearly explained assumptions about the attributes of Murraylink.

The estimate of corporate costs is based on the mid-point or median benchmarks.

The method mitigates the risk of estimation uncertainty by using the mid-point values of a number of individual benchmark costs.

The mid-point benchmark is the appropriate basis for conclusions because 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. In reality, because benchmark costs are independent of each other the likelihood of the total cost being represented by either all the lower or all the upper limit benchmarks for each category of cost is negligible. Appendix F explains the reasoning for this in more detail.

3 Approach and high level assumptions

This section describes the method used to determine efficient expenditure and explains how it avoids errors and deals with the potential risks.

3.1 Benchmarking

The benchmarking incorporates either of two methods to estimate the efficient costs for each activity or function within the corporate functions of Murraylink. These approaches are:

- whole of activity benchmarking using 'empirical' or overall benchmarks of observed and reported total activity costs; and
- where empirical benchmarks for the entire cost of an activity are unavailable, a 'bottom-up' approach using cost modelling has been applied[6]. Benchmarks of unit costs applicable to each cost component within an activity, such as labour, have been applied to an efficient staffing structure for the activity. This is done by:
  - assessing the efficient staffing requirements and other relevant principal components of cost necessary to conduct that activity;
  - applying the benchmarks of unit costs applicable to each component, such as labour; and
  - adding the associated costs of supporting requirements such as accommodation and on costs.

Wherever they are available, empirical benchmarks have been used in preference to bottom-up cost modelling. This is because empirical benchmarks provide an independent, publicly available and externally compiled basis for the cost estimates based on extensive business survey information.

The nature and sources of all benchmarks are disclosed in this report in footnotes to the text and in total in the reference list at Appendix I. This provides transparency and enables the results to be independently replicated.

3.1.1 Integrity of method

This sub-section describes how the approach deals with potential and perceived risks of error.

Using a proven and accepted method

The method is founded on well-established business practice to assess the cost efficiency of business activities and organisational structures by comparing of actual costs to benchmarks efficient costs.

KPMG has long and extensive experience of this form of assessment across a wide range of both unregulated and regulated industry sectors.

For example, KPMG Consulting was engaged by the Office of the Regulator-General (Victoria) to undertake an extensive benchmarking exercise using methods very similar to that employed

[6] See Appendix D for detailed bottom-up benchmarking methodology

by this report, to assist it to assess the efficiency of distribution business expenditure, as part of its 2001 Electricity Distribution Price Review.[7]

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.[8]

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:

- KPMG's report *Gas distribution costs when capabilities are retained internally* October 2007 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"[9]; 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."*[10]

Risk of omitted benchmark costs

The approach is intended to identify Murraylink's principal corporate costs. Because of this, it is possible that other, albeit less significant costs have been omitted. Section 4.7 describes other potential costs which have been excluded from this exercise in order to secure a conservative result that does not overstate the efficient corporate costs.

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

Currency of 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 2012 (most recent financial year end), they are inflated or deflated using the Australian Labour Price Index (LPI)[11] for all labour related costs, or the Australian Consumer Price Index (CPI)[12] for all other costs, as published by the Australian Bureau of Statistics.

The inflation formula used is presented below:

$$R = \frac{N}{P}$$

where:

R = Real value (current dollars – June 2012)

N = Nominal value (dollars at time of measurement)

P = Price index change (CPI or LPI at the time of measurement/CPI or LPI at June 2012)

Avoidance of risk of double counting of benchmark costs

If a benchmark were to potentially include costs that have been accounted for in other functions of Murraylink, there could be a risk of the total benchmark cost estimates double counting or overstating the in-house corporate costs.

To address this concern the benchmarks set out in this report were reviewed. They are not considered to be subject to this risk principally because the scope of costs covered by each benchmark was narrow and well defined. Appendix G transparently illustrates the results of this analysis, which shows that this risk does not have a bearing on the conclusions of this report.

Addressing any estimation uncertainty

Forecasts and historic costs can both include estimation uncertainties. These risks were limited as follows.

- the principles used to select benchmarks described below, reduce estimation uncertainty by diversifying the risk of using inappropriate benchmarks; and
- the level of detail within the makeup of the cost estimate requires the use of multiple benchmarks. This reduces the risk of any estimation uncertainty in a benchmark having a material impact on the overall results of the analysis.

Selection of appropriate benchmarks

In order to estimate the corporate costs of Murraylink, reference was made to a range of benchmark sources. These were selected using the principles that the benchmarks and their sources were required to be:

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[11] Australian Bureau of Statistics, *Labour Price Index,* 'Table 3a – Total Hourly Rates of Pay Excluding Bonuses: Private Sector by State', times series spreadsheet, cat. no 6345.0

[12] Australian Bureau of Statistics, *Consumer Price Index,* 'Table 5 – CPI: Groups, Index Numbers by Capital City', times series spreadsheet, cat. no 6401.0

- publically available, and easy to access. This means the process can be replicated independently;
- prima facie, unbiased. The reason for the collation of most benchmarks is to assist businesses improve the efficiency of their operations by comparing costs against similar businesses and in the absence of evidence to the contrary, this has been assumed to be the case. We have avoided the use of any benchmarks which might potentially be biased, because they were prepared for other, more specific reasons (such as lobbying government) and so may tend to only show data which supports a given view;
- from a reliable source. Benchmarks have been chosen which are publically available and so subject to scrutiny, prepared by professional organisations, and generally well regarded; and
- relevant to Murraylink (i.e. that the benchmarks are for activities and costs common to Murraylink and other businesses from which the benchmarks have been sourced). These other businesses also share sufficient key characteristics with Murraylink to make the benchmarks applicable.

Reasonable steps have also been taken to ensure that benchmarks chosen do not inadvertently give the highest cost estimates where other equally relevant benchmarks may exist. These steps include reviewing the market for suitable benchmarks (which comply with the principles stated above), and where there are equally relevant benchmarks available, spot checking a sample of those available to ensure that the benchmarks chosen do not inadvertently result in an inflated estimate of costs. The results of this review are in Appendix H.

Where there are choices of benchmarks sources, to avoid ‘cherry picking’ of benchmark estimates, or inadvertently choosing the highest (or lowest) estimates, our general approach is to:

- selected a ‘core’ survey to use;
- source all salary estimates for posts from this source where they are included;
- use the most closely relevant post description if there is not an exact match;
- use a second preferred survey for any posts which are not included in the core survey; and
- compare benchmarks to alternatives, where they exist in the secondary source. This has shown that the above method has not inadvertently resulted in a materially higher cost estimate

For this report the core source was the Hays, *Salary Survey 2012* (Hays), which was selected on the grounds that it is:

- publically available;
- well regarded, reliable and unbiased;
- includes the widest range of job descriptions; and
- includes a more complete range of salary on costs for each post.

The second source has been the Australian Institute of Management, *National Salary Survey 2010 - Large Companies* (AIM). All roles benchmarked using this survey are taken from the dataset which includes companies with between $10 and $20 million revenue.

Avoidance of inaccuracies within 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, individual benchmark costs are generally presented as a range of costs with a mid-point. The lower and upper benchmark bounds represent lower and upper statistical or observed bounds. It is considered 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.

Appendix F also explains that a benchmark total cost becomes increasingly unlikely to form a reasonable basis of findings, the more it differs from the total of the mid-points of individual benchmarks.

3.2 The scope of activities and functions to be costed

This report assumes that Murraylink operates with a minimal corporate head office that conducts corporate and other administrative functions solely for the transmission link, on a standalone basis.

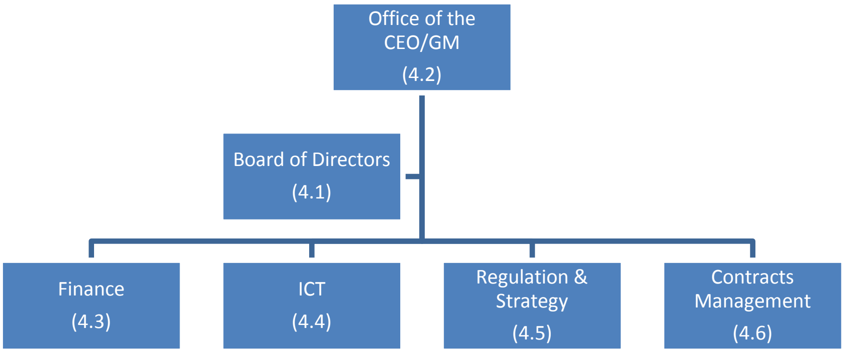
3.3 Corporate cost structure

The necessary corporate activities have been grouped according to the following components:

- Board of directors;
- Office of the Chief Executive / General manager;
- Finance;
- Information and Communication Technology (ICT);
- Regulation and Strategy; and
- Contracts Management.

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: Structure of the Corporate Office (relevant section references provided in brackets)



3.4 Key assumptions

To ensure that the approach estimates only efficient corporate costs, it is necessary to set out the key parameters and drivers of the scope and size and hence associated costs, of the corporate activities of the business. These are described below:

- government regulation and requirements – laws, regulations and measures imposed by the State of New South Wales (including the legislative and licence conditions);
- Commonwealth and ASX corporate regulatory requirements;
- transmission revenue - $13.9[13] million;
- size of capital base - $100[14] million;
- annual operating and capital expenditure of approximately $3.2 million[15];
- number of customers – (is insignificant and limited to the two connected TNSPs and the AEMO);
- governance – a standalone publicly listed company. Because the transmission business is capital intensive, it is reasonable to assume that it will need to be publicly listed on the Australian Securities Exchange (ASX) to efficiently access necessary capital;
- a head office located in the Sydney CBD. The business would need ready access to government agencies, suppliers of capital, services and material; and
- the provision of direct operations and maintenance services is subcontracted.

[13] 2013/14 Revenue of ($14.7m) taken from Energy Infrastructure Investments, Murraylink Revenue Proposal (2013-2023), p54 - deflated by CPI for two years to June 2012 dollars
[14] 2012 RAB Capex taken from Energy Infrastructure Investments, Murraylink Revenue Proposal (2013-2023), p22
[15] Taken from Murraylink's actual asset management, operating, maintenance and capital services costs and expenditure

4 Benchmark corporate costs

This chapter details the benchmark corporate costs that would be incurred by a business that operates Murraylink on a standalone basis, with the efficient organisational structure outlined in Section 3.3.

For each of the activities or functions detailed in this chapter, a summary cost table is set out along with cross-referencing to indicate where more detail of the cost build up can be found. Appendices D to E contain the detailed costs and benchmarking methodology along with data sources.

The summary table below shows the total estimated cost for each corporate function. The composition of these cost estimates is shown in more detail in each of the following sections.

Table 4-1: Summary of corporate costs

Summary of Corporate Costs	Section Ref	Low ($'000)	Median ($'000)	High ($'000)
Board of Directors	4.1	151	249	385
Chief Executive Officer/General Manager	4.2	397	495	593
Finance	4.3	153	208	280
Information & Communication Technology	4.4	403	403	403
Regulation and Strategy	4.5	165	191	208
Contracts Management	4.6	70	85	100
Total for Summary of Corporate Costs			**1,631**	

4.1 Board of Directors

It is assumed that a suitably skilled and experienced Board of Directors will govern Murraylink in accordance with ASX[16] and Corporations Act requirements.

In order to arrive at a benchmark to estimate the Chairman and Directors fees we normally undertake a comparative analysis of similar sized[17] listed companies. However, as the revenue of Murraylink is comparatively low, there were not enough equivalent businesses with publically available fee information to use in analysis. Therefore we have used a Chairman and Director fee benchmark obtained from the AIM Large Salary Survey.

Drawing on experience, six Non-Executive Directors and a Chairman have been assumed for a listed business following good practice. The cost of the Board of Directors is outlined in the table below.

[16] Australian Securities Exchange - Corporate Governance Council, *Principles of Good Corporate Governance and Best Practice Recommendations*, 2007
[17] Using revenue as an indication of business size and activity

Table 4-2: Board of Directors costs

Board of Directors	Appendix Ref	Headcount	Low ($'000)	Median ($'000)	High ($'000)
Chairman	C	1	26	51	83
Non-Executive Director	C	6	125	198	302
Total for Board of Directors		**7**	**151**	**249**	**385**

The methodology for calculating salary on costs, overheads and accommodation costs for the bottom-up roles is outlined in Appendix C. However, as Board members are not full time employees (rather they are remunerated with a fee), therefore no salary on costs have been applied.

Directors require office consumables and office space, but will not be permanently resident at the corporate office. Therefore the seven members are allocated a shared FTE accommodation cost between them (i.e. each member of the Board receives one seventh of a single FTE allocation for office space and associated overhead costs).

4.2 Office of the Chief Executive/General Manager

Because of the small size of the Murraylink business and its few staff, it is assumed that the Chief Executive would play a hands on role in the general management of Murraylink addressing a wide range of matters such as planning and operational, stakeholder relationship and regulatory management that might typically be the responsibility of dedicated senior managers in larger organisations

There were limitations on obtaining an estimate for the CEO’s remuneration, similar to those for obtaining Board fees. Therefore remuneration has been taken from the AIM Large Salary Survey. Salary on costs and overheads are applied in the manner outlined in Appendix C.

It is common practice for a senior manager such as a CEO to be assisted by an administrative assistant or assistants, who would perform tasks of an administrative nature, such as diary management, opening of mail, taking telephone calls and booking meetings. They would also support the CEO in the execution of their duties by undertaking some delegated tasks, and acting as “right-hand” person. In this way, the assistant position would enable the CEO to concentrate on their key tasks and fulfil their responsibilities such as setting strategy and leadership of the business.

We have assumed in this case a single assistant who would also act as a general administrative manager of the business, commensurate with the assumption of a very small, efficient corporate office.

Legal and consultant fees

In addition to the above staff costs, it is assumed that some legal and consultancy costs would be incurred to enable the provision of strategic advice on organisational, industry, policy and economic matters, assist with forming contracts with subcontractors and to undertake company secretarial duties in the absence of a full time company secretary. Professional judgement has been used to arrive at an estimated range of costs of between 20 and 40 days of advice. This time is costed at an average of $3,000 per day commensurate with advice of a strategic nature or at a senior level.

The summary of the costs included in the Office of the CEO is presented in Table 4-3 below.

Table 4-3: CEO/General Manager costs

CEO/General Manager	Appdx Ref	FTE	Low ($'000)	Median ($'000)	High ($'000)
CEO/GM (including travel & overheads)	C	1	270	329	389
Executive Assistant (to CEO)	C	1	67	76	84
Consultancy Costs			60	90	120
Total for Office of the CEO/General Manager		**2**	**397**	**495**	**593**

4.3 Finance

Murraylink would require a finance function to be responsible for the following activities:

- planning and management accounting;
- revenue accounting and general reporting;
- fixed asset accounting;
- accounts payable and expense reimbursement;
- tax and treasury;
- investor relations reporting;
- forecasting; and
- internal control management.

To estimate the cost of the Finance function, an empirical benchmark provided by the US benchmarking firm American Productivity and Quality Centre (APQC)[18] was used. This was considered apt because the metrics supplied are independently prepared by the organisation and are tailored to satisfy the required task. This means the benchmarking data has been sourced from a survey of comparable companies within the Asia-Pacific region and the utilities sector and which have a revenue range of up to $500 million.

We also observe that the outcome of this top down benchmark also appears reasonable and conservative on the basis that it is similar to the cost which we would expect, of employing a qualified accountant with moderate post qualification experience.

[18] American Productivity and Quality Centre, *The Finance Organisation*, 'The Finance Organisation Benchmarking Report', 2011

Table 4-4: Finance costs

Finance	Low ($'000)	Median ($'000)	High ($'000)
Revenue of Business	13,906	13,906	13,906
Dollars per $1,000 of Revenue	4.68	8.61	13.84
Sub total cost for Finance	**65**	**120**	**192**
Share Registry Fees	21	21	21
ASIC Fees	5	5	5
External Audit	62	62	62
Total for Finance (inc fees)	**153**	**208**	**280**

External Audit

As a listed business, Murraylink would have the following minimum requirements for independent auditor's reports conducted under Australian Auditing and Assurance Standards:

- annual statutory audit; and
- half-yearly review (required by the ASX and the Corporations (Fees) Regulations).

To estimate the cost of external audit, a comparative analysis of the lowest revenue businesses using information obtained from IBISWorld Company Reports was undertaken.

The IBISWorld Company Reports include the 2011 audit fees paid by Australia's top 2,000 companies. There were only five businesses with similar revenues so to remain conservative, we took the lowest external audit fees from that sample. For further details of the sample used and associated benchmark costs, please see Appendix E.

4.4 Information & Communication Technology

It has been assumed that an Information and Communications Technology (ICT) unit within Murraylink would provide technology, systems and services necessary for the delivery of its corporate services along with IT support for the transmission assets. Specifically, it has been assumed that an ICT unit would be responsible for:

- SCADA control room and associated communication systems (radio, telephone, fibre optics etc depending on the terrain to connect to the two converter stations and to AEMO);
- office ICT services;
- ICT hardware and software;
- data storage and management; and
- computer systems security.

The revenue based benchmarks from the KPMG *2010/11 Utilities IT Benchmarking Survey* provides an ICT cost in the order of $0.40 million.

Table 4-5: Information and Communication Technology costs

Information & Communication Technology	Low ($'000)	Median ($'000)	High ($'000)
Revenue of Business	13,906	13,906	13,906
Percentage of Revenue	2.90%	2.90%	2.90%
Total for Information & Communication Technology	**403**	**403**	**403**

However we are of the view that this benchmark does not reflect some of the fixed cost nature of these expenses and is therefore expected to understate the benchmark for the reasons set out below.

Murraylink is considerably smaller than the Australian network utilities that comprise the population of both the KPMG *2010/11 Utilities IT Benchmarking Survey*, and Australian network utilities in general. As a consequence a benchmark normalised on revenue will not reflect the significant fixed and stepped costs of IT provision that do not vary in direct proportion with scale. This issue is less significant when a business is of a size comparable to others in the benchmarking population, as its revenue-normalised benchmarks take into account a comparable *proportion* of fixed cost appropriate to the size of the business. However when a revenue-based benchmark is applied to a significantly smaller business such as Murraylink, the proportional reduction in the benchmark cost will exceed the proportional reduction in actual cost, which have will have a significant fixed component.

Nonetheless we have adopted this benchmark, as a conservative proxy for the ICT costs of this business.

4.5 Regulation and Strategy

It has been assumed that the scope of regulation and strategy activities would include:

- managing and compiling regulatory access arrangement revisions and regulatory submissions more generally;
- responding to requests for information and consultation from the regulator;
- compliance with operating license conditions and managing license conditions;
- identifying and managing strategic corporate risks; and
- undertake strategic risk management.

The types of skills required to perform this range of functions are broad, and will include management expertise. In many businesses regulation and strategy would normally be the responsibility of at least 2 senior managers usually with supporting staff. However, because of:

- the relative small size of Murraylink;
- the 10 year period between revenue resets; and
- the general management role of the CEO under the assumed efficient corporate office structure

we have assumed that:

- these responsibilities would be subsumed by the CEO's role; but

- a regulatory analyst (who would also provide broader analytical support for the other business functions such as finance and procurement in this small organisation) would provide additional assistance such as preparation of regulatory information returns and day-to-day liaison with the regulator.

An allowance is made for regulatory consultants' costs of $75,000 per annum. This would be an average yearly amount notwithstanding that it would peak around a regulatory revenue proposal date. Consultants would also provide assistance in the preparation of regulatory financial statements, "RIN"s, responses to regulator consultation and other similar matters.

The cost of the regulation and strategy function is built from the bottom-up and is outlined in the table below.

Table 4-6: Economic Regulation costs

Regulation and Strategy	Appendix Ref	FTE	Low ($'000)	Median ($'000)	High ($'000)
Regulatory Analyst	C	1	105	116	128
Consultancy	C		60	75	80
Total for Regulation and Strategy		**1**	**165**	**191**	**208**

4.6 Contracts Management

A contracts management unit would be responsible for managing contracts with external suppliers. This function would:

- negotiate and agree contracts with suppliers;
- negotiate and agree pricing arrangements;
- set performance and quality standards in contracts, and monitor against those standards;
- resolve disputes arising with contractors; and
- monitor supplier performance, in particular the performance and safety criteria of working with transmission assets and operation of a network.

If we were to estimate the cost of this function via a top down approach that relies on an empirical benchmark for procurement and contract management costs sourced from the Centre for Advanced Procurement and Supply (CAPS) [19] the result would be $31,000 pa[20].

This estimate appears self evidently too low, as result of applying the benchmark to a small business understating fixed costs (similarly to ICT costs described above). Our reasoning is that $25,000 would allow less than 0.5 FTE to manage approximately $4 million pa of contracts. Therefore we have assumed the cost of a single FTE instead. We have therefore used a bottom-up approach to cost a single procurement administration role.

[19] CAPS *Research, Cross Industry Report of Standard Benchmarks: Procurement operating expense as a percentage of total spend*

[20] The value of contracts that would be managed is sourced from EII. The CAPS benchmark is 0.77% of contracts managed

Table 4-7: Contracts management costs

Contracts Management	Low ($'000)	Median ($'000)	High ($'000)
Procurement Administrator	70	85	100
Total for Contracts Management	**70**	**85**	**100**

4.7 Additional costs

It is possible that, because this exercise seeks to only model principal costs, a prudent service provider, acting efficiently in accordance with accepted industry practice would incur additional costs. Examples of such 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;
- 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. The omission of these costs will *understate* the total benchmark corporate cost.

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 Terms of reference - Summary

The relevant components of the terms of reference are:

- in a letter dated 22 October 2012, Energy Infrastructure Investments instructed KPMG to report in the style of an Expert Witness report (prepared under Federal Court Guidelines), the benchmark corporate costs for an efficient standalone business that operates and maintains and delivers the electricity transmission services provided by the Murraylink electricity transmission system.

B Curriculum Vitae of expert

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Certifications & Professional Memberships

- BSc (Hons) (Environmental Sciences), University of Lancaster
- Institute of Chartered Accountants in England and Wales

Profile/Overview

Keith co-leads KPMG's 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 1995.

Experience

- *Legal advisors to Envestra – Independent report on a management fee claimed as a recoverable cost* 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 Multinet - Independent report on a management fee claimed as a recoverable cost:* Keith was engaged as an expert witness to report on the efficiency of the business's cost structures. Keith used benchmarks, cost modeling of staffing structures and referred to corporate legal and regulatory obligations to provide an independent assessment of the efficient non-capital costs of a distribution business where management and governance services are provided to the business by other entities.

- *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.

- *Assessment of a gross retail margin for franchise electricity retailers*: Keith led a KPMG team that was engaged by Queensland Treasury to assess a benchmark efficient gross margin.

- 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.

- Allgas - Keith provided an expert report on benchmark corporate cost to inform the AER's assessment of the efficiency of costs included in Allgas' s proposed access arrangement revision.

- Goldfields Gas Pipeline - Keith provided an independent report on benchmark corporate cost to inform the AER's assessment of the efficiency of costs included in a proposed access arrangement revision

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

- *Gas & Fuel Corp*: Keith conducted a benchmarking review.

- *Benchmarking training – University of Melbourne and Council of Capital City Lord Mayors*: Keith provided both benchmarking training and advice on its practical implementation.

- *Utility – Assessment of efficient overhead and indirect costs for regulatory purposes:* Keith advised a major utility on the potential for efficiency improvements in indirect and overhead costs. This included reviewing cost accounting and allocation processes, and staffing structures.

- *Assessment of potential for cross-subsidies in a vertically integrated energy utility:* Keith reviewed the potential for economic cross-subsidies both within the utility and with other parties.

- *Electricity Transmission Network Owners Forum (ETNOF) - Transmission Cost Allocation Guidelines 2007*: Keith assisted ETNOF to critique and draft a submission on Cost Allocation Guidelines published by the Australian Energy Regulator.

- *Electricity transmission network business.* Keith advised on the regulatory cost allocation and costing principles and assisted the business to develop a model, to priced negotiated transmission services

- *Electricity transmission network business.* Keith led a KPMG team that drafted a "Cost Allocation Methodology" required by the Australian Energy Regulator, and for the network, an accompanying cost allocation and regulatory reporting procedures and process manual.

- *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.

- *ACCC* – Review of Electricity Transmission Business Co Regulatory Information Guidelines: Keith reviewed and provided advice to the ACCC on proposed regulatory information guidelines and subsequently drafted revised Guidelines that were published in 2001.

- *Office of Regulator General, Victoria ("ORG")*: 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.

- *Cost allocation in the gas industry:* Keith has worked with gas pipeline operators in Australia and New Zealand to develop and explain regulatory models to attribute costs to pipeline businesses.

- *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 a cost allocation model.

C Detailed cost breakdown for bottom-up estimates

This table shows the detailed cost breakdown of each component in each function benchmarked using a bottom-up approach. Appendix D explains the various cost inclusions in more detail.

Table C 1: Detailed costs of bottom-up benchmarked roles

Bottom-up benchmarked positions	Base salary (Jun 2012 dollars)			Source	Salary on costs		Overheads		Accommodation		Total		
	Low	Median	High		Statutory on costs	Performance pay	Office overheads	Travel	Workspace	Cost	Low	Median	High
Board of Directors													
Chairman	23,956	48,942	81,060	AIM	0.00%		757		O	1,222	**25,935**	**50,921**	**83,039**
Non-Executive Director	18,882	31,075	48,363	AIM	0.00%		757		O	1,222	**20,862**	**33,054**	**50,342**
Office of the Chief Executive													
Chief Executive Officer	168,516	222,989	278,715	AIM	7.99%	59,345	5,300	14,674	O	8,554	**269,853**	**328,679**	**388,857**
Executive Assistant (to CEO)	50,000	58,000	65,000	Hays	16.99%		5,300		W	2,844	**66,639**	**75,998**	**84,187**
Regulation and Strategy													
Regulatory Analyst	70,000	80,000	90,000	Hays	16.99%		5,300	14,674	W	2,844	**104,710**	**116,409**	**128,108**
Contracts Management													
Procurement Administrator	70,000	85,000	100,000	Hays	16.99%		5,300	14,674	W	2,844	**104,710**	**122,259**	**139,807**

D Bottom-up benchmarking methodology

As outlined in Section 3.1, the benchmarking incorporates either:

- whole of activity benchmarking using 'empirical' or overall benchmarks of observed and reported total activity costs; or
- 'bottom-up' benchmarking using cost modelling.

This chapter details the method used to estimate the costs of functions that have been modelled using a bottom-up approach. This approach includes the following key cost components:

- base salary;
- salary on costs;
- overhead costs; and
- accommodation costs.

These components are outlined below.

D.1 Assessment of efficient staffing structure

The first step when using a bottom-up approach (before applying any cost benchmarks) involves assessing the operational requirements of the business and deciding on the appropriate roles and number of staff needed in each role to deliver the operational requirement.

An efficient staffing structure is arrived at using professional experience in conducting similar benchmarking and cost modelling exercises, corporate service delivery and conducting comparisons against actual costs.

The reasoning behind the choice of staffing structures and number of staff is generally provided in the relevant commentary in Section 4.

D.2 Base salary

Once the staffing structure is in place, a base salary is applied to the relevant roles in each function. This base salary is sourced from one of two benchmarking documents:

- Hays Salary Survey 2012 (Hays). This is a leading independent 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. This survey reports base salary exclusive of Superannuation.
- Australian Institute of Management (AIM) *National Salary Survey 2010 - Large Companies*. This is an appropriate benchmark as it is publicly available and independently prepared 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. This survey reports base salary inclusive of Superannuation.

For each role, Hays was first reviewed to find a matching role description. This benchmark was used as a "first choice" because of the wide range of roles included which are relevant to

Murraylink. If the role was not listed in Hays, then the AIM Survey was reviewed. In the event that an exact match could not be found, the most closely analogous role description was taken.

Salary surveys for the most appropriate analogous role description are looked at, to avoid the risk of simply "cherry picking" the cost from the survey with the highest cost benchmark. However a secondary review of the choice of benchmark is also undertaken to ensure benchmark costs which are significantly greater or smaller than the alternative available, or tended towards overall higher or lower costs are not inadvertently selected. .

Both these surveys report base salary in terms of a high, median and low metric and these are utilised to create the ranges displayed in the body of this report.

All other costs outlined in this chapter (such as overheads and accommodation costs) are taken as single median costs and applied to the low, median and high base salary benchmarks. By only adding a single median indicator to the existing base salary range (rather than adding a range to a range which would create an exponential number of cost options), the risk of compounding estimation errors and creating an unduly wide range is reduced.

It is assumed reasonable however to present the base salary costs as a range as these are generally the largest component of the cost.

Cost ranges are shown as illustrative of the degree to which benchmark costs can vary.

Inflation

Wherever base salary is not presented in June 2012 dollars it has been inflated/deflated using the Labour Price Index (LPI) for Australia as published by the ABS.

D.3 Salary on costs

The relevant salary on costs is then applied to each base salary. Salary related on costs comprise:

- statutory on costs of employment – such as superannuation and long service leave; and
- performance pay – applied to relevant senior management staff.

D.3.1 Statutory on costs

The minimum statutory on costs for New South Wales are presented as a percentage of base salary and are outlined in the table below.

Table D 1: Minimum statutory on costs (New South Wales)

Statutory on costs of employment	Percent of salary
Payroll tax[21]	5.45%
Superannuation[22]	9.00%
Long service leave[23]	1.67%
Workers' compensation[24]	0.29%
Leave Loading[25]	0.59%
Total	**17.00%**
Total (excluding Superannuation)	**8.00%**

Hays presents benchmarks for base salary excluding Superannuation while the AIM survey presents them including the cost of Superannuation. Therefore an element of standardisation is required to ensure that the salary ranges used are always inclusive of the same on costs.

For example, a staff member whose base salary was sourced from Hays (which does not include the cost of superannuation) will incur a salary on cost of 17% whereas, a staff member whose base salary has been sourced from AIM (which includes the cost of superannuation) will incur salary on costs of 8%.

D.3.2 Performance pay

It is reasonable (and in accordance with common industry practice) to assume that senior management staff will be rewarded with an element of performance pay. The benchmark cost of performance pay for each position is published in the AIM survey; however, the Hays survey does not include this metric. Therefore, if a position has been benchmarked using Hays, and requires an element of performance pay, 10% of the base salary is applied, based on average performance pay benchmarks taken from analogous roles.

The roles that have been allocated performance pay, along with the benchmark cost of the performance pay, are presented in detail in the tables in Appendix C.

D.4 Overhead costs

Once a salary benchmark range for each position has been reached, certain overhead costs are then added in accordance with the requirements of that particular position. The overhead costs included in the benchmarking comprise:

- office consumable costs – such as printing, stationary and non-specialist training; and
- travel costs where applicable

These costs are explained in more detail below.

[21] Office of State Revenue (New South Wales), *Rates and Thresholds 2012/13*
[22] Australian Taxation Office, *Guide to superannuation for employers*
[23] NSW Industrial Relations, *Long Service Leave*
[24] WorkCover Authority of NSW, *Workcover Insurance Premiums Order 2012/13* – Business Administrative Services
[25] NSW Industrial Relations, *Leave Loading*

D.4.1 Office consumables

Another component of overhead cost is office consumables. This component includes such things as:

- office consumables and stationery (includes statutory & operating expenses);
- telecommunications;
- non-specialist staff training; and
- small miscellaneous items (such as professional subscriptions).

The KPMG Consulting, Report for the Office of the Regulator General (ORG)[26] provides a regulatory precedent for the types of cost noted above. This report was used by the ORG to establish efficient indirect costs for distribution businesses

KPMG has reviewed the costs themselves in light of technological and business practice changes to ensure that they are still relevant and reasonable, and to arrive at 2012 equivalent amounts. The table below shows the results of this review.

Table D 2: Office consumable cost

Office consumables	($) per FTE
Office consumables and stationery (includes operating expenses)	1,200
Telecommunications	1,100
Non-specialist staff training	1,500
Small miscellaneous items	1,500
Total	**5,300**

Each staff member working in the corporate office is allocated the office consumables overhead cost. The cost estimates are based on an average corporate function budget for such items.

D.4.2 Travel

It is reasonable to assume that the CEO/General Manager would be required to travel as part of their role. The reason for travel is that it might be responsibly expected to include liaison with investors, industry, government and corporate and industry regulators. It is also reasonable to assume that some travel to the asset itself may be required, but to be conservative no separate benchmark provision has been made for this.

The costs of a return interstate flight at a rate of once per month (twelve per year), and one return international flight per year have been assumed. These costs are only applied to the CEO/General Manager.

To arrive at the cost of the interstate flights, an average cost of 30 flights (on a range of different carriers) from Sydney to other capital cities (Melbourne, Brisbane and Adelaide)[27] is taken. For the international flight, the average cost of 30 flights (on a range of different carriers) to Hong Kong and London is taken.

The costs used in this report are presented in the table below.

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[26] KPMG Consulting, *Office of the Regulator-General, Victoria*, '2001 Price Review – Cost Allocation', 2001
[27] Sourced from webjet.com.au

Table D 3: International and interstate flight costs

Flights	Cost ($ per FTE)
Average Interstate (12 flights)	8,357
Average International (1 flight)	6,317
Total cost per FTE	**14,674**

D.5 Accommodation costs

Murraylink would require offices to accommodate the corporate staff. It is assumed that the building would be located in Sydney's CBD. The cost of accommodation comprises office accommodation costs, office building related overhead costs. These two components make up the *gross face rent* metric that is sourced from Savills property research.

D.5.1 Office accommodation

To calculate the cost of accommodation for each position:

- it is decided whether the position requires an enclosed office or open workstation;
- the space requirement of an enclosed office and open workstation[28] is benchmarked; and
- this space requirement has a benchmark gross face rental cost applied to it.

Workspace type

As a general rule, only senior management are allocated an enclosed office, other staff will utilise open workstations.

Space requirement

The benchmark size assigned to an enclosed office or open workstation is sourced from NSW Government workplace guidelines[29], and as such is considered efficient. In addition to this minimum workspace requirement there are additional provisions for communal and circulation space of an extra 40% is also sourced from Government guidelines[30].

Gross face rental cost

The benchmark cost for rental of office space is presented as *gross face rent* which means the cost includes all building outgoings.

An outline of the benchmarks used to arrive at the various accommodation cost allocations is presented in the table below. These are based on an allocation of certain square metre-age allocated to each position. For the costs applied to each position refer to Appendix C.

[28] Savills Spotlight, *Sydney CBD Office*, Q3 2012
[29] NSW Government, *Workplace Guidelines*, 'Office Type A' and 'Workstation Type 2'
[30] NSW Government, *Workplace Guidelines*

Table D 4: Office accommodation costs

Sydney CBD office accommodation	Cost per annum
Enclosed office (m2/FTE)	13.00
Support Space (40%)	5.20
Total area for enclosed office (m2/FTE)	**18.20**
Average grade A gross face rent - Sydney CBD ($/m2)	470.00
Total cost for enclosed office (office buildings) ($/FTE)	**8,554**
Open Workstation (m2/FTE)	4.32
Support Space (40%)	1.73
Total area for open workstation (m2/FTE)	**6.05**
Average grade A gross face rent - Sydney CBD ($/m2)	470.00
Total cost for open workstation (office buildings) ($/FTE)	**2,844**

E External audit costs

We have sourced benchmark data for the audit fee from the IBISWorld top 500 ASX listed and privately owned companies directory. We considered all companies where revenue was plus or minus 50% that assumed for Murraylink. This provided a list of five businesses.

To be conservative, we have chosen to base the benchmark on the smallest external audit cost in the sample – this is $62,000 from Synergy Plus Limited.

Additionally, in our experience an audit fee of $62,000 is unlikely to be excessive for a business with Murraylink's characteristics.

External Audit Data	Company Revenue ($'000)	External Audit ($)
Synergy Plus Limited	13,036	62,000
Petsec Energy Ltd	13,772	109,000
Centro Retail Group	15,252	728,000
Oceania Capital Partners Limited	17,950	270,000
Forty Winks Pty Ltd	19,400	66,000

F Sensitivity of results to alternative benchmarks

Mid-point benchmarks are selected from available ranges of benchmarks. One might reasonably ask, "Is there a reasonable possibility that the findings of the report would change if the true benchmark costs lie in the range below the mid-points selected by KPMG?" This question is examined in the following section.

This report uses metrics to estimate low, median and high benchmark figures for costs from separate component costs of Murraylink. The actual figures used to derive the estimates for low, median and high costs for each benchmark form some statistical distribution. The distribution of data within the benchmarks is unknown but there is 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 likelihoods of incurring all low costs or all high costs are 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 (P) of two independent events (x and y) occurring simultaneously is given as:

$$P(x) \times P(y) = P(x) \cap P(y)$$

where:

$P(x)$ is the probability of event x occurring

$P(y)$ is the probability of event y occurring

$P(x) \cap P(y)$ is the probability of BOTH x and y occurring

Therefore, in the case of services acquired by Murraylink:

$P(x)$ = Probability that Murraylink incurs a cost that is below the mid-point benchmark for service x

$P(y)$ = Probability that Murraylink incurs a cost that is below the mid-point benchmark for service y

$P(x) \cap P(y)$ = Probability that Murraylink incurs a cost that is below the mid-point benchmarks for both services x and 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 F 1: Probability of simultaneous low or high benchmark figures occurring (for given standard deviations, a normal distribution and n benchmarks).

Probability analysis			
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)** Note: (A) + 2(B) = 100%	25.00%	15.87%	2.53%
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 per cent**		
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 (per cent)			
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. The wider the range between a low and high event (i.e.; the fewer events occurring outside the reported range in the benchmark) corresponds to a lower probability of a low or high event occurring, and a 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 a the mean of a normal distribution (corresponding to one quartile range 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 per cent 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 per cent 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 Murraylink 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 per cent, or an event less likely than one in one thousand[31]. The more likely outcome is that the actual costs would trend towards the median.

Similarly, this means that while the low and high bounds for costs may occur in Murraylink, the likelihood of this occurring when several statistically independent sources of costs have been used, falls away sharply further away from the median.

[31] For a relatively narrow reported range in any given benchmark that represents the middle 50 per cent of the actual possible observations, or a likelihood of falling on or outside the reported minimum range of one minus 50 per cent: 50 per cent.

G Avoidance of risk of double counting within benchmarks

In order to avoid the risk of accounting for the cost of functions in more than one area of Murraylink, a comparative analysis of the benchmarked activities included in this report is undertaken. The activities included within each of the functions of Murraylink and in each of the benchmarks is analysed in turn. The comparison showed that in general there was no risk of duplication of costs in different activities because the costs relate to specific and well-defined roles and activities.

Board of Directors/Office of the Chief Executive

As the benchmark cost calculated reflects total fees and remuneration, any further salary on costs to these positions has not been applied which avoids any risk of double counting.

The consultancy cost element encompasses the specialised provision of corporate services separate and different to consultancy costs included in the regulatory function and therefore does not risk of double counting.

Finance

The cost of the Finance department is calculated using an empirical benchmark. The costs covered by the benchmark are outlined in Section 4. The functions all relate to activities which are specific to the Finance unit. Provisions are not made for benchmarks of these activities elsewhere.

Information and Communication Technology

The benchmark used to calculate the cost of this function contains the activities outlined in the relevant chapter in Section 4. They are specific to the activity of the ICT department and are not accounted for elsewhere in the benchmarks.

Regulation and Strategy

The benchmark for this department consists of single salary position and consultancy costs. The consultancy costs are tailored for the specific needs of the department

Contracts Management

The benchmark is clearly defined to cover procurement and contracts management costs only.

H Review of selected benchmarks

Table I 1: Benchmark review

	Alternative source	Appropriate/ relevant	Unbiased	Publically available
Board & CEO	The Australian Financial Review's *Executive Salary Database 2011*	✓	✓	✓
Finance	CFO Executive Board *Finance Function Benchmarks 2008*	✓	✓	✓
	Robert Half *Benchmarking the Finance Function 2011*	✓	✓	✓
External Audit	AuditSoftware.net	✓	✓	✓
ICT	Gartner *2009 IT Key Metrics Data Report*	✓	✓	✓
	InfoTech *IT Budgeting Metrics*	✓	✓	✓
Contracts Management	APQC	✓	✓	✓
Salary benchmarks	Hudson *2011 Salary Guide Australia*	✓	✓	✓
	Michael Page *Salary & Employment Forecast*	✓	✓	✓

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