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Assessment of Outsourcing Arrangements

A report prepared for Envestra

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Contents

1.	**Introduction**	**1**
2.	**Assessment of Outsourcing Contracts Under the NGR**	**3**
2.1.	Relevant Provisions in the NGR and the NGL	4
2.2.	Test to Apply When Assessing Outsourcing Arrangements	5
2.3.	Application of the Test in Practice	10
2.4.	Other Matters Relevant to the Consideration	11
2.5.	Summary	11
3.	**AER's Assessment Framework**	**12**
3.1.	Key Features of the Framework	12
3.2.	Stage 1: Presumption threshold	14
3.3.	Stage 2: Detailed assessment	15
4.	**Critique of the AER's Assessment Framework**	**18**
4.1.	Test to Apply in Stage 2B	19
4.2.	Ability to Access the Same Level of Efficiency	20
4.3.	Conclusion	31
5.	**AER's Assessment of the OMA**	**32**
5.1.	Overview of the OMA	32
5.2.	AER's Assessment of the OMA	33
5.3.	Critique of the AER's Assessment	34
5.4.	Conclusion	43
Appendix A.	**EBIT Margin Study Results**	**44**
Appendix B.	**Statement of Compliance with Expert Witness Guidelines**	**46**
Appendix C.	**Materials Relied Upon**	**47**
Appendix D.	**Instructions**	**48**

1. Introduction

1.1 My name is Katherine Lowe and I am a Senior Consultant at NERA Economic Consulting (NERA). I have over eight years professional experience working as a regulatory economist and hold both a Master of Economics from the University of Sydney and a Master of Applied Finance from Macquarie University.

1.2 I have been asked by Johnson Winter Slattery (JWS), on behalf of Envestra, to prepare an expert report that addresses certain matters that have arisen in the context of the Australian Energy Regulator's (AER) review of Envestra's proposed access arrangements for the South Australian and Queensland gas distribution systems. The particular area of this review that I have been asked to focus on is the framework that the AER has applied in the *Draft Decision - Access arrangement proposal for the SA gas network* (South Australian Draft Decision) when assessing whether the expenditure incurred by Envestra under the Operating and Management Agreement (OMA) including the Network Management Fee (NMF) satisfies the operating expenditure criteria set out in rule 91(1) of the National Gas Rules (NGR).

1.3 The specific questions that I have been asked by JWS to consider in this context are appended at Appendix D and are reproduced below:

> 1 under rule 91 of the National Gas Rules, recoverable operating expenditure is that which would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of delivering pipeline services. In light of this position, what are the economic principles which should inform the AER as to whether or not an outsourcing arrangement satisfies the test in rule 91;
>
> 2 the extent to which (if any) the AER's framework differs from the principles you have identified;
>
> 3 please identify any principles you have identified in your answer to question 1 above which were not taken into account by the AER in making its decision to disallow the NMF; and
>
> 4 please comment on whether the AER should have taken these principles into account.

1.4 I address each of these questions in the remainder of this report, which I have structured as follows:

- Chapter 2 sets out the economic principles that, in my opinion, should guide a regulator's assessment as to whether the price struck under an outsourcing arrangement satisfies the relevant tests in the NGR;
- Chapter 3 describes the framework that has been developed by the AER for the purposes of assessing outsourcing arrangements;
- Chapter 4 sets out my views on the extent to which the AER's framework differs from the principles that I identified in Chapter 2 as being relevant to an assessment of whether an outsourcing arrangement satisfies the relevant tests in the NGR; and
- Chapter 5 examines the specific questions posed by JWS about the AER's decision to disallow the NMF in the South Australian Draft Decision.

1.5 In keeping with my instructions, I confirm that I have undertaken this engagement having regard to the Guidelines for Expert Witnesses in Proceedings in the Federal Court of Australia and the requisite statement to this effect is included in Appendix B. A list of the material that I have relied upon in the preparation of this report is contained in Appendix C. A copy of my curriculum vitae is attached at Appendix D of my earlier report entitled, *Benchmark Study of Contractor Profit Margins*, which I understand was submitted to the AER in September 2010.

2. Assessment of Outsourcing Contracts Under the NGR

2.1 Firms commonly outsource myriad services to specialist providers because they recognise that it is likely to be more efficient and cheaper in the long-run to pay for that specialist expertise than to supply the service themselves. The potential cost savings arising from outsourcing can accrue as a result of economies of scale,[1] scope,[2] other synergies such as specialist knowledge ('know how') and/or resources that may be available to the contractor but unattainable at a reasonable cost by the firm.

2.2 The potential efficiency benefits to be derived from outsourcing arrangements have largely been accepted by regulators, as reflected in the following statements made by the AER in the South Australian Draft Decision and the Victorian Essential Services Commission in the context of the 2008-2012 Gas Access Arrangement Review (GAAR):

> "The AER recognises that there is a body of economic literature that in some cases supports outsourcing as being efficient. Where significant economies of scale, scope and low transaction costs exist, firms such as Envestra might well find it more efficient to outsource particular operational activities to a much larger firm such as the APA Group. The literature indicates that in such situations, the decision to outsource not only allows the contractor to perform the outsourced activities more efficiently, but allows the firm to obtain efficiencies from specialising in what it does best."[3]

> "A prudent distributor is not necessarily likely to undertake all the activities required in order to deliver the Reference Services. It is consistent with good industry practice that various functions may be outsourced to an external provider of services that has specialist skills in undertaking particular activities. For example, a distributor may engage a specialist provider to undertake call centre activities, meter reading, gas field operations or specific capital projects. There may be efficiencies and cost savings that are achievable by outsourcing activities to a specialist provider."[4]

2.3 Notwithstanding the efficiency gains that can ordinarily be expected to flow from outsourcing arrangements, there is a risk in a cost-of-service based regulatory framework that regulated service providers may, in certain circumstances, agree to pay an artificially inflated contract price, or otherwise agree to non-arm's length terms. It is this potential that has prompted regulators to subject outsourcing arrangements to a greater degree of scrutiny.

2.4 The concerns held by regulators about the potential for some outsourcing arrangements to operate to the detriment of end-users and efficiency more generally are, in my view, well founded. I also agree that where the circumstances are such that the regulated service provider may have had an incentive to agree to non-arm's length

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[1] Economies of scale arise when the average cost of providing a good or service falls as the amount that is provided increases. Scale economies typically arise in industries characterised by large capital costs, such that the additional cost of providing a greater quantity of output is relatively small.

[2] Economies of scope arise when there are cost savings available from producing complementary goods or services. For example, these may be associated with managing similarly located gas and electricity distribution networks.

[3] AER, *Draft Decision - Access arrangement proposal for the SA gas network 1 July 2011 – 30 June 2016*, February 2011, p138.

[4] ESC, *Gas Access Arrangement Review 2008-2012: Draft Decision*, August 2007, p39.

terms, then these arrangements should be closely examined to ascertain whether the incentive was actually acted upon and resulted in the price being above that, which would be incurred by a 'prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost'. In accordance with the NGR, an examination of this nature requires consideration to be given to the specific criteria applying to operating expenditure and where relevant, capital expenditure, as set out in rules 91(1) and 79(1)(a), respectively.

2.5 In the remainder of this chapter, I set out the economic principles that, in my opinion, should guide a regulator's assessment as to whether or not the price struck under an outsourcing arrangement satisfies the relevant provisions in the NGR and the *National Gas (South Australia) Act 2008* (NGL). Commencing with an overview of the relevant provisions in the NGR and the NGL, I then set out my views on:

- the test that should be applied when assessing whether or not the price specified within an outsourcing arrangement complies with the relevant provisions in the NGR and the NGL;
- how this test could be applied in practice; and
- other matters that could inform a regulator's consideration of whether an outsourcing agreement complies with the relevant provisions in the NGR and NGL.

2.1. Relevant Provisions in the NGR and the NGL

2.6 In accordance with rule 91(1) of the NGR, the AER must apply the following criteria when assessing a service provider's forecast operating expenditure:

> "Operating expenditure must be such as would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of delivering pipeline services."

Similar criteria are also embodied in rule 79(1)(a), which relates to new capital expenditure.

2.7 In addition to having regard to the criteria embodied in rule 91(1) and, where relevant rule 79(1)(a), section 28 of the NGL states that when exercising an economic regulatory function or power, the AER must:

- perform or exercise that function or power in a manner that will, or is likely to, contribute to the attainment of the national gas objective (section 28(1)); and
- take into account the revenue and pricing principles when exercising a discretion in approving or making those parts of an access arrangement relating to a reference tariff (section 28(2)(a)).

2.8 The national gas objective is set out in section 23 of the NGL and states:

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

2.9 The revenue and pricing principles are prescribed in section 24 of the NGL. Of particular relevance in the current context are the following principles set out in section 24(2), (3), (6) and (7), which are reproduced below:

> (2) A service provider should be provided with a reasonable opportunity to recover at least the efficient costs the service provider incurs in—
>
> (a) providing reference services; and
>
> (b) complying with a regulatory obligation or requirement or making a regulatory payment.
>
> (3) A service provider should be provided with effective incentives in order to promote economic efficiency with respect to reference services the service provider provides. The economic efficiency that should be promoted includes—
>
> (a) efficient investment in, or in connection with, a pipeline with which the service provider provides reference services; and
>
> (b) the efficient provision of pipeline services; and
>
> (c) the efficient use of the pipeline.
>
> (6) Regard should be had to the economic costs and risks of the potential for under and over investment by a service provider in a pipeline with which the service provider provides pipeline services.
>
> (7) Regard should be had to the economic costs and risks of the potential for under and over utilisation of a pipeline with which a service provider provides pipeline services.

2.10 My opinion on how the principles embodied in these provisions of the NGR and NGL could be applied when assessing outsourcing arrangements is set out in the following section.

2.2. Test to Apply When Assessing Outsourcing Arrangements

2.11 The idea that members of society benefit by specialising in what they do best has a long history and a wide body of economic literature developed by prominent economists,[5] which defines those circumstances where it will be efficient for a firm to outsource as opposed to providing services in-house. The principal finding of this body of literature is that it will be economically efficient for operations to be grouped together within one firm when the costs of co-ordinating[6] them by means of contracts exceed the benefits to the firm of acquiring them in such a market.

2.12 It follows from this finding that it will be both prudent and efficient to enter into an outsourcing arrangement where the expected costs of outsourcing (including the incremental co-ordination costs) are less than the expected cost of providing the

[5] See for example, Coase, R.H., “The Nature of the Firm”, Economica, 1937, 4: pp. 386-405, Wiliamson, O.E., “Markets and Hierarchies”, Free Press 1975; “The Economic Institutions of Capitalism”, Free Press, 1985; ‘Transaction Cost Economics’, in Holstrom and Tirole, 1989, Handbook of Industrial Organization, Ch. 3. p135.

[6] It is important to recognise in this context that the costs of co-ordination represent the incremental cost of administering the contract given that an in-house provider will also incur costs in administering its work force and managing projects.

services in-house. By extension, if an outsourcing arrangement were to result in a reduction in the risk faced by the service provider (such as would occur under a contract that involved a fixed price for specified services), then its expected costs may be taken to be lower than the risk-adjusted expected costs of providing the service in-house, even if the price payable to a contractor is equal to the expected cost of providing the services in-house.

2.13 In keeping with the economic principles outlined above, the price payable under the contract can be taken to be consistent with the expenditure that would be incurred by a service provider acting in the manner prescribed in rule 91(1), if at the time the service provider negotiated the contract terms[7] it agreed to pay a price that it reasonably expected to be *less than or equal to* the risk-adjusted cost[8] of providing the service in-house,[9] after taking into consideration any incremental co-ordination costs. Where it is found that the contract price and the incremental co-ordination costs *exceeds* this benchmark, and this should reasonably have been anticipated by the service provider at the time it entered into the contract, then the extent of any difference should be viewed as being inconsistent with rule 91(1) and deducted from the forecast operating expenditure.

2.14 It is this test that, in my opinion, provides the appropriate benchmark against which to assess outsourcing arrangements and will ensure that:

- end-users are accorded appropriate protection from inflated end-use prices in circumstances where the contract price is found to have been artificially inflated and also benefit from those arrangements that genuinely constitute a prudent and efficient outcome; and
- regulated service providers are not unfairly penalised in circumstances where their outsourcing arrangement genuinely constitutes a prudent and efficient outcome.

2.15 Given these attributes, the application of this test, in my view, will contribute to the attainment of the NGO and the revenue and pricing principles set out in sections 24(2), (3), (6) and (7). Specifically, the application of this test will ensure that:

- the regulated service provider is accorded a reasonable opportunity to recover at least the efficient costs incurred in providing the reference service (section 24(2) of the NGL);
- the regulated service provider is provided with effective incentives to promote economic efficiency (section 24(3) of the NGL);

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7 Either at the formation of the contract or at a subsequent price review.

8 If an outsourcing arrangement were to result in a reduction in the risk faced by the service provider, such as may occur under a contract that involved a fixed price for specified services, then the expected costs of the contract may be taken to be lower than the risk-adjusted expected costs of providing the service in-house, even if the price payable to a contractor is equal to the expected cost of providing the services in-house.

9 I note that in principle it may also be relevant to consider whether the contract price is less than the price that would be payable to an alternative contractor but in practice it is unlikely that there will be any readily available information on the price that another contractor would have charged for the services given the bespoke nature of outsourcing arrangements. The specification of the test that I have adopted therefore adopts the in-house cost of provision as the appropriate benchmark.

- investment decisions on the part of the regulated service provider are not distorted (section 24(6)), which could occur if either the regulated service provider was not able to recover at least the efficient costs of providing the services or if it was allowed to recover costs in excess of those that would be recovered by a prudent service provider acting efficiently; and
- service utilisation decisions on the part of end-users are not distorted (section 24(7)), which could occur if either the regulated service provider was not able to recover at least the efficient costs of providing the services or if it was allowed to recover costs in excess of those that would be recovered by a prudent service provider acting efficiently.

2.16 In addition to being consistent with accepted economic theory and relevant provisions in the NGR and NGL, the test outlined above is also consistent with the approach adopted by the ESC in the context of the 2008-2012 GAAR process. During this process the ESC accepted that while the circumstances surrounding the entry into the contract may mean that it could not be presumed to be efficient, it could still constitute a genuinely prudent and efficient outcome if the contractor were able to access efficiencies not otherwise available to the regulated service provider. In such circumstances, the ESC accepted that the contract price would satisfy the criteria embodied in rule 91(1) and 79(1)(a),[10] as reflected in the following statements:

> "Where the Commission can be satisfied that the costs incurred under an outsourcing contract are **lower than those costs that would be likely to be incurred by the distributor in undertaking those activities, then the payments made under those contracts are likely to meet the specific requirements in relation to the approval of operating and capital expenditure under the Code** and be consistent with other Code objectives as well."[11] [emphasis added]
>
> "In these cases, the Commission proposes to use the actual costs incurred by the contractor as a starting point estimate of what it would cost to provide the outsourced functions in-house. From that starting point, the Commission will consider whether there are reasons why an efficient and prudently operating distributor could not itself undertake those activities for the same costs. Consistent with NERA's observations, the Commission will consider whether the contractor's costs reflect:
>
> - a return on relevant assets employed by the contractor in the provision of the contracted activities where such a return is not otherwise provided for and
> - the recovery of relevant or appropriate portion of common or overhead costs.

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[10] I note that at the time the ESC considered this issue it was operating under the *National Third Party Access Code for Natural Gas Pipeline Systems* (Gas Code). Although the drafting of the Gas Code differs slightly from the drafting in the NGR, the provisions in substance require the same enquiry:

Gas Code - Section 8.37

A Reference Tariff may provide for the recovery of all Non Capital Costs (or forecast Non Capital Costs, as relevant) except for any such costs that would not be incurred by a prudent Service Provider, acting efficiently, in accordance with accepted and good industry practice, and to achieve the lowest sustainable cost of delivering the Reference Service.

NGR - Rule 91(1)

Operating expenditure must be such as would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of delivering pipeline services.

[11] ESC, *Gas Access Arrangement Review 2008-2012, Draft Decision*, 28 August 2007, p40.

> In looking at the actual costs incurred by the contractor in undertaking the contracted activities, the Commission is not adopting the position that only the contractor's actual costs form a reasonable basis for the benchmark of prudent and efficient costs. The Commission accepts that, consistent with the views of both NERA and ACG, if over the relevant time horizon, the contractor incurs lower expected costs relative to providing the service in-house then this is a prudent and efficient outcome. **Provided the overall contract payments do not exceed the amount that would have been incurred by the distributor undertaking the activity itself, the full contract amount would represent an efficient level of expenditure."** [12] [emphasis added]

2.17 The position taken by the ESC in the GAAR differed fundamentally from the position that it had taken in the 2007-2011 Electricity Distribution Price Review (EDPR) process, which was that where a contract could not be presumed to be efficient then the regulated service provider should only be able to recover the direct and indirect costs incurred by the contractor. The ESC's decision to refine its framework in the GAAR process was, as noted in the extract above, informed by expert reports submitted by NERA and its own consultant, the ACG. Although not explicitly stated, another factor that influenced the ESC's decision was that the nature of the contracts considered in the GAAR process differed in a number of fundamental respects from those that it had considered in the EDPR process, which involved contractors that formed part of the same corporate group as the regulated service provider.

2.18 The Envestra outsourcing arrangement was one such example, which involved a contractor that did not have the same parent company and did not form part of the same corporate group. In this case the ESC accepted that OEAM (APA's predecessor) would be able to access efficiencies that would not otherwise be available to Envestra:[13]

> "The Commission knows that the relevant services can be provided at a level of cost that is equal to OEAM's actual costs. However, the Commission also recognises that OEAM is likely to have access to some efficiency synergies by way of economies of scale and scope that may not be available to Envestra or were not available to Envestra in 1999."

2.19 In the following section I set out how the test described above could be applied in practice. However, before doing so it is worth noting that while there may be a tendency when assessing outsourcing arrangements to focus on the margin payable under the contract, it must be borne in mind that the payment of a margin in excess of the contractor's directly incurred expenses is consistent with predictions of economic theory and will reflect, amongst other things:

- § the return on and return of capital required by the contractor to compensate it for the use of the physical and intangible[14] assets employed in the provision of the services;
- § the allowance required to enable the contractor to recover its common costs;

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12 ESC, *Gas Access Arrangement Review 2008-2012, Draft Decision*, 28 August 2007, pp 54-55.

13 ESC, *Gas Access Arrangement Review 2008-2012, Final Decision*, 7 March 2008, p90.

14 The term intangible assets is used to describe non-physical assets and includes intellectual property, patents, copyrights, trademarks, business practices, 'know how' (specialist knowledge) and goodwill.

- the allowance required by the contractor to self insure against the asymmetric risks posed by the contract; and
- the margin paid to ensure the incentives of the contractor are aligned with those of the asset owner.

2.20 Each of the factors listed above represents a legitimate cost that a contractor should reasonably expect to be able to recover through the contract price, as was recognised by the ESC in the context of the 2008-2012 GAAR process: [15]

> "The Commission accepts that any third party contractor will require compensation for its endeavours over and above the actual cost of undertaking the contracted activities. A third party contractor would expect to be able to recover all of the economic costs that it incurs to provide the outsourced activity and would expect to benefit from superior performance. Otherwise it would not contract to undertake those activities. Such compensation is not necessarily inconsistent with an efficient level of costs, particularly where the contractor has the ability to provide the service at a lower cost than the distributor could do so itself or obtain elsewhere. Further payments above direct costs may, as NERA suggested, also provide a return to the contractor for:
>
> - the assets employed by it in the provision of the outsourced services
>
> - efficiencies on the part of the contractor over the life of the contract
>
> - the contractor's common costs."

2.21 A margin in excess of these factors may also be observed to occur if the contractor is able to access economies of scale, scope or other synergies not otherwise available to other participants in the market.

2.22 The payment of a margin above the contractor's directly incurred expenses is also consistent with observed good industry practice, as demonstrated by the results of the benchmark study of the margins that I undertook for Envestra, which examined the margins earned by contractors providing comparable services to those provided under the OMA.[16] The principal finding of this study was that, consistent with predictions of economic theory, contractors providing services in competitive markets do earn margins in excess of their directly and indirectly incurred costs and have done so throughout the study period. While this study focused on contractors providing asset management services, I would expect that similar observations could be made if one were to look at the margins earned in other service related industries (ie, legal services and consulting services).

2.23 It follows from the preceding discussion that a concern about the potential for the price struck within an outsourcing contract to be 'artificially inflated' should *not,* in my view, be addressed by excluding the entire margin on a *per se* basis. Rather, if a regulator were concerned about the potential for this to have occurred, then a detailed examination of the contract price and other terms and conditions should be undertaken having regard to the test outlined above.

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[15] ESC, *Gas Access Arrangement Review 2008-2012, Final Decision*, 7 March 2008, pp. 76-77.

[16] NERA, *Benchmark Study of Contractor Profit Margins*, September 2010.

2.3. Application of the Test in Practice

2.24 To implement the test described in the previous section, consideration must, in the first instance, be given to the costs that would be incurred if the services were provided in-house. Once established, consideration can then be given to whether the contract price is above or below the in-house cost of provision.

2.25 There are a multitude of ways in which the in-house cost may be estimated. The two most obvious approaches would involve:

§ undertaking a detailed bottom-up analysis of the costs that would be incurred if the services were provided in-house; or

§ using the contractor's directly incurred costs as a *starting point* and then adjusting this to take account of:

- a return on and of physical and intangible assets owned and employed by the contractor;
- an appropriate share of the contractor's common costs;
- any asymmetric risk allowance required by the contractor to self insure against risks arising under the contract; and
- any economies of scale and scope and other efficiencies *unattainable* by the regulated service provider. If it is established that the regulated service provider could access the same efficiencies as the contractor then this element will be zero. However, where it is established that the contractor is able to access efficiencies that would not otherwise be available to the regulated service provider, this element will need to be quantified.

2.26 Once the cost of in-house provision has been estimated, a comparison with the contract price can then be undertaken to determine whether the contract price plus the incremental costs of contract co-ordination is:

§ *less than or equal to* the risk adjusted cost of in-house provision and therefore *consistent* with the relevant provisions of the NGL and the NGR. In such circumstances the *contract price* should be used to establish forecast operating expenditure under rule 91(1) of the NGR; or

§ *greater than* the risk adjusted cost of in-house provision and therefore *inconsistent* with the conduct one would expect from a prudent service provider acting efficiently, in accordance with accepted and good industry practice, to achieve the lowest sustainable cost of delivering the service. In these circumstances, the in-house cost should be used to establish forecast operating expenditure requirements under rule 91(1) of the NGR.

2.27 In the context of the 2008-2012 GAAR, the ESC also set out the ways in which a service provider could demonstrate that the costs incurred under its outsourcing arrangement were lower than the costs that it would incur if it undertook the activities itself:[17]

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[17] ESC, *Gas Access Arrangement Review 2008-2012, Final Decision*, 7 March 2008, p52.

> "There are various ways a distributor may seek to demonstrate that the costs it incurs under the outsourcing arrangements are lower than the costs that it would likely incur if it undertook the activities itself. One way to do this would be to produce evidence that it considered this factor when it entered into the contract and weighed up the alternatives before entering into the contract. Another way is to identify economies of scale, scope or other efficiencies that are available to the contractor that are not available to it. Another way is to provide evidence that shows that if it undertook the activities itself its costs would be higher than the contract payments."

2.28 I agree with the views expressed by the ESC in this context and note that the latter two alternatives are similar in nature to those that I have identified.

2.4. Other Matters Relevant to the Consideration

2.29 In addition to applying the test described above, other matters that, in my opinion, could inform a regulator's assessment as to whether the expenditure incurred under the outsourcing arrangement is consistent with the principles contained in rule 91(1) include:

- the governance arrangements established by the contract and, in particular, whether the regulated service provider retains responsibility for approving expenditure and monitoring the performance of the contractor;
- the extent to which the contract provides the contractor with the incentive to continuously seek out efficiencies and to pass those efficiencies back to the regulated service provider, and in turn, end-users;
- the cost and productivity performance of the regulated service provider *vis-à-vis* other regulated service providers; and
- the level of the margin paid under the contract relative to the margins being earned by comparable contractors.

2.5. Summary

2.30 To summarise, I am of the opinion that any assessment of outsourcing arrangements under rule 91(1) of the NGR should be made having regard to the test set out in section 2.2. Specifically, an outsourcing arrangement should be viewed as being consistent with the criteria set out in rule 91(1) and other relevant provisions in the NGL, if at the time the contract was negotiated,[18] the expected cost of outsourcing (ie, the contract price plus any incremental contract co-ordination costs) was less than or equal to the risk-adjusted cost of providing the services in-house. In those cases where the contract price is found to exceed this benchmark, then the difference should be viewed as being inconsistent with rule 91(1) and excluded from forecast operating expenditure.

[18] Either at contract formation or at a subsequent contract review.

3. AER's Assessment Framework

3.1 The second question that JWS has asked me to consider is the extent to which the framework that the AER has developed for the purposes of assessing outsourcing arrangements differs from the principles that I have identified as being relevant to a consideration of whether an outsourcing arrangement complies with the relevant provisions in the NGR. Before setting out my response to this question, it is useful to outline my understanding of the framework that the AER has developed. This chapter therefore provides an overview of the AER's assessment framework while the following chapter sets out my views on the extent to which the framework is consistent with the principles identified in Chapter 2.

3.1. Key Features of the Framework

3.2 The AER's framework for assessing outsourcing contracts had its genesis in the 2011-2015 Victorian electricity distribution price review (EDPR). During this review process, the AER outlined the framework that it had developed for the purposes of assessing whether the outsourcing arrangements entered into by the Victorian distribution network service providers satisfied the relevant tests contained in the National Electricity Rules (NER) and signalled its intention to use this framework in future regulatory decisions.[19]

3.3 The framework that the AER has had recourse to when assessing whether Envestra's outsourcing arrangement satisfies the operating expenditure criteria specified in rule 91(1) of the NGR appears to be largely the same as that which was adopted in the Victorian EDPR. I have therefore had recourse to both the South Australian Draft Decision and the Victorian EDPR draft and final decisions to get a better understanding of how the framework is intended to operate and the rationale underpinning its key elements.

3.4 Figure 3.1 provides a summary of the pertinent features of the AER's framework. This framework, at its most elementary, comprises a two stage inquiry process that involves:

§ distinguishing between those contracts entered into by a regulated service provider that can be *presumed* to 'reflect efficient costs and costs that would be incurred by a prudent operator' and those that cannot (referred to as the 'presumption threshold'); and

§ undertaking a more detailed review of the contracts entered into by the regulated service provider to determine whether the contract price, the contractor's actual costs or some measure in between the two should be used when establishing the regulated service provider's forecast operating and/or capital expenditure.

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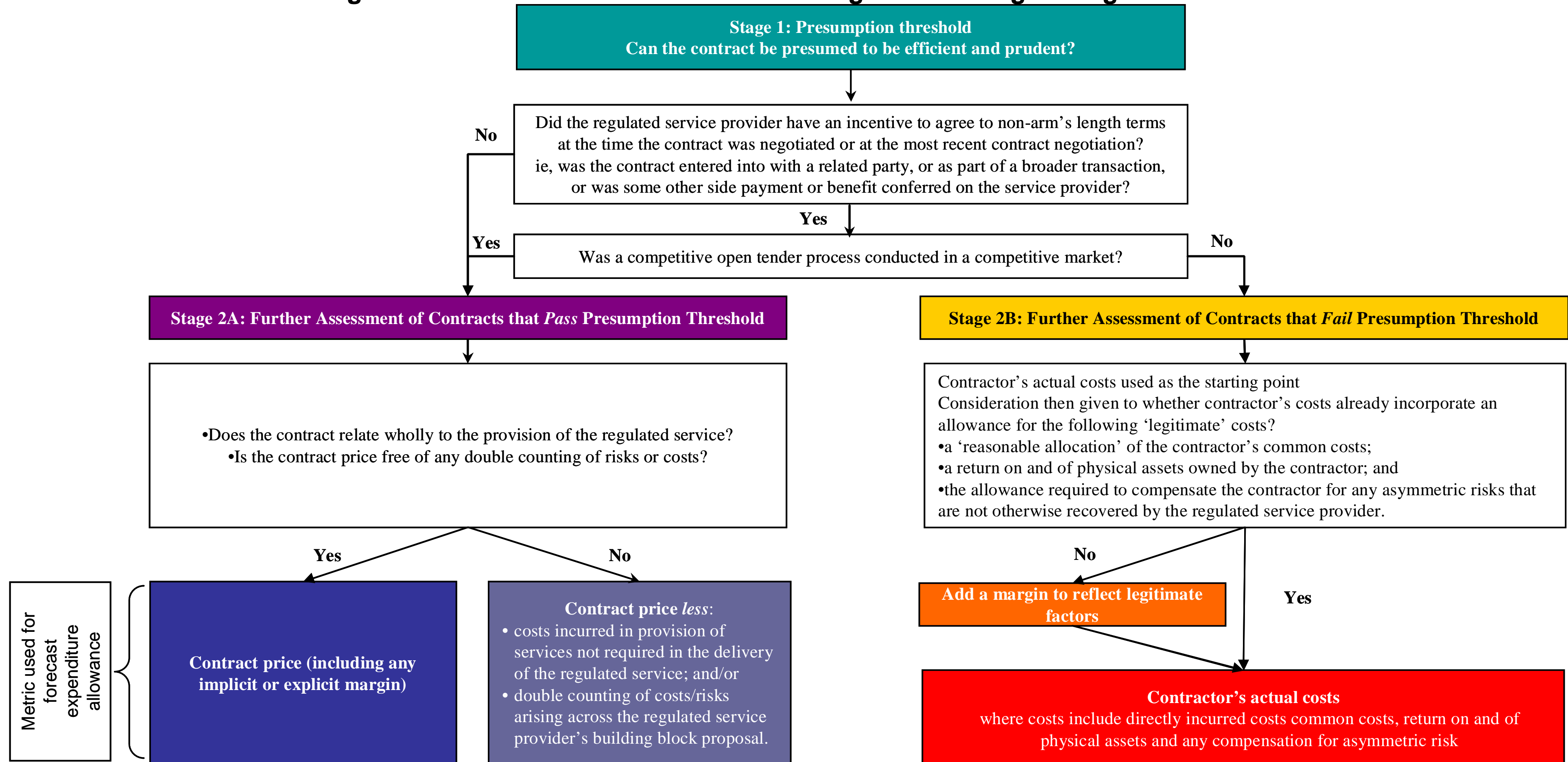
[19] AER, *Final Decision - Victorian electricity distribution network service providers - Distribution determination 2011-2015* October 2010, p204.

Figure 3.1: AER's Framework for Assessing Outsourcing Arrangements



Source: AER, Final Decision - Victorian electricity distribution network service providers - Distribution determination 2011-2015, p303.

3.2. Stage 1: Presumption threshold

3.5 The first stage of the AER's framework is designed to distinguish between those contracts that can and cannot be *presumed* to be prudent and efficient. The first question that the AER has identified as being relevant to this consideration is whether the service provider may have had an incentive to agree to pay an 'artificially inflated' price at the time the contract was negotiated, or at its most recent re-negotiation. Situations that the AER has indicated could give rise to a service provider having such an incentive include:[20]

- where the parties are 'related' – under the AER's framework, parties will be 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. The AER has also acknowledged that where the owner (or majority shareholder) of the regulated service provider only has a minority interest in the contractor, it would be unlikely to have an incentive to agree to such terms because a transfer of profit would result in a 'net loss for the service provider's majority shareholder'; and
- where the outsourcing contract is entered into as part of a broader transaction (ie, through the negotiation of another contract or the conferral of some other form of benefit on the regulated service provider by the contractor), the circumstances of which gives rise to the regulated service provider agreeing to pay an 'artificially inflated' price for the services provided under the outsourcing contract. The AER has noted that in such circumstances the parties to the contract would not necessarily need to be 'related'.

3.6 Where a regulated service provider is found to have had *no* incentive to agree to non-arm's length terms, the contract will be deemed to *pass* the presumption threshold and any further analysis of the contract will be undertaken having regard to the criteria specified in stage 2A of the framework. In those cases where a regulated service provider is found to have had an incentive to agree to non-arm's length terms, the contract may still pass the AER's presumption threshold if it was subject to a 'competitive open tender process in a competitive market'.[21] In the absence of such a tender, the contract will be deemed to *fail* the presumption threshold and any further analysis of the contract will be undertaken having regard to the criteria specified in stage 2B of the framework.

3.7 Further clarification on the role played by the presumption threshold was provided by the AER in the South Australian Draft Decision, where it was noted that the threshold 'does not replace the NGR criteria but rather assists the AER in determining whether such contracts and the payments therein are consistent with the NGR'.[22]

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[20] AER, *Final Decision – Victorian electricity distribution network service providers – Distribution determination 2011-2015*, October 2010, pp. 164-165.

[21] AER, *Final Decision – Victorian electricity distribution network service providers – Distribution determination 2011-2015*, October 2010, p151.

[22] AER, *Draft Decision - Access arrangement proposal for the SA gas network 1 July 2011 – 30 June 2016*, February 2011, p140.

3.3. Stage 2: Detailed assessment

3.8 The second stage of the AER's framework requires a more detailed review of the contracts 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 when establishing the regulated service provider's forecast operating/capital expenditure allowances. The level of enquiry required by this stage of the AER's framework depends on whether the contract in question passes or fails the presumption threshold, as reflected in the following statement made by the AER in the context of the Victorian EDPR:[23]

> "In summary, the AER's approach involves the following assessment:
>
> § where a contract passes the presumption threshold—the 'starting point' for setting future expenditure allowances should be the contract price itself, with limited further examination required. This further examination involves checking whether the contract wholly relates to the relevant services (for example, standard control services) and whether the (efficiently presumed) contract price already compensates for risks or costs provided for elsewhere in the building blocks.
>
> § where a contract fails the presumption threshold—the 'starting point' for setting future expenditure allowances should be the contractor's actual costs itself, with a 'margin' above this level permitted only where the service provider is able to establish the efficiency and prudency of such a margin against legitimate economic reasons for the inclusion of the margin (including its quantum)."

3.9 Those factors that the AER has cited as providing a 'legitimate economic' basis for the payment of an amount in excess of the contractor's costs in cases where the contract fails the presumption threshold (stage 2B), include:[24]

§ the return on and of capital required to compensate the contractor for any assets it owns and uses in the provision of services;

§ the allowance required by the contractor to enable it to recover a 'reasonable allocation' of its common costs; and

§ the allowance required by the contractor to self insure against asymmetric risks, to the extent that it does not give rise to a double counting of costs across other aspects of the regulated service provider's revenue requirement.

3.10 Within the Victorian EDPR price review process the AER also considered the legitimacy of a number of other factors that had previously been identified as warranting the payment of an amount in excess of the contractor's directly incurred costs, such as economies of scale, scope and other efficiencies, a return on 'know-how' and efficiency related incentive payments. However, the AER concluded that no additional allowance, on top of that already provided by the existing efficiency sharing

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[23] AER, *Draft Decision – Victorian electricity distribution network service providers – Distribution determination 2011-2015*, June 2010, p169.

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

mechanisms,[25] would be required to compensate contractors for these factors.[26] The AER's rationale for excluding any additional allowance for the aforementioned factors in the Victorian EDPR process, can be summarised as follows:

§ *economies of scale and scope and other efficiencies* – the AER's dismissal of the need to consider the effect of any economies of scale, scope and other efficiencies available to the contractor in the Victorian EDPR decision was predicated on both:

  - an interpretation of the NER, which the AER contended permitted it to 'look through' regulated service provider's corporate structure and to have regard to the economies of scale, scope and other efficiencies that would be available to the corporate group to which the regulated service provider belongs rather than being limited to considering the efficiencies that would be available to a hypothetical 'fully in-sourced, standalone' business;[27] and

  - the proposition that in a workably competitive market contractors would not, in the long run, be able to charge a margin above its 'full economic costs and earn abnormal profits due to the efficiencies available to the contractor that are not currently available to the service provider or other contractors'.[28] The 'long run' has been defined by the AER in this context as being a period in excess of that allowed under the existing efficiency sharing mechanisms.

  It is worth noting in this context that in the South Australian and Queensland Draft Decisions, the AER has only sought to rely on the latter of these factors and has not claimed that the NGR permit it to have regard to the specific circumstances of the regulated service provider.

§ *return on 'know how'* – an additional allowance for historic 'know how' has been rejected by the AER on the basis that it 'has most likely already been funded by customers'. It is worth noting that the view expressed by the AER in this context appears to be predicated on an assumption that the contractor and regulated service provider form part of the same corporate group (ie, the regulated service provider and contractor are fully owned subsidiaries of the parent company) and that any know how available to the contractor would therefore also be available to the regulated service provider.[29] In relation to future 'know how', the AER has stated

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[25] In the case of operating expenditure related efficiencies, the AER has assumed that the contractor would be rewarded through the efficiency sharing mechanism for a period of six years while capital expenditure related efficiencies are assumed to be retained by the regulated service provider in the regulatory period. *See* AER, *Final Decision – Victorian electricity distribution network service providers – Distribution determination 2011-2015*, October 2010, p213.

[26] AER, *Final Decision – Victorian electricity distribution network service providers – Distribution determination 2011-2015*, October 2010, p217.

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

[28] AER, *Final Decision – Victorian electricity distribution network service providers – Distribution determination 2011-2015*, October 2010, p185.

[29] This assumption can be seen in the full text of the AER's reasoning on page 181 of the Victorian EDPR Final Decision:

> "The AER stated that one of the considerations it takes into account in assessing DNSPs' forecasts is the 'revealed cost' (particularly opex) that is projected from historical actual expenditure. Importantly, the AER noted that the ESCV's opex and capex allowances for the Victorian DNSPs in the current regulatory control period were based on the historical opex and capex of the DNSPs and their **related parties**. Accordingly, to the extent that a service provider currently possesses 'know-how', this know-

that these efficiencies should be rewarded through the existing efficiency sharing mechanisms;[30] and

§ *efficiency related incentive payments/penalties* – in keeping with its view that the existing efficiency sharing mechanisms provide sufficient reward for historic and future efficiencies, the AER has contended that no additional allowance would be required for this factor.[31]

3.11 One important point that is not borne out in the summary provided above is that in the Victorian EDPR process, the AER's view on the ability of the regulated service provider to access the *same* efficiencies as the contractor and its decision to rely on the existing efficiency mechanisms to reward such efficiencies, was largely predicated on an assumption that the ownership interests in the regulated service provider and the contractor were identical. It therefore assumed that any efficiencies available to the contractor would also be available to the regulated service provider. This perspective can be seen in a number of extracts in the Victorian EDPR Final Decision but the following extracts are apposite:

> "The core of this issue is whether the benefit of economies of scale, scope and other efficiencies realised by **related party contractors** through operating multiple networks should be retained indefinitely within a DNSP's corporate group, or whether these benefits should be shared with consumers.
>
> The AER's view is that efficiencies realised by **related party contractors** should be treated the same as other operating and capital efficiencies under the regulatory regime, That is, DNSP's and **related party** contractors should retain the benefit of these efficiencies for a period of time but eventually should be passed on to consumers…" [emphasis added] [32]
>
> "In these circumstances the AER considered it appropriate to adopt the contractor's actual (direct) costs—which in most circumstances will be the actual costs of a **related party**—as the 'starting point' and then examine whether there are legitimate economic reasons to justify a 'margin' above these direct costs." [emphasis added] [33]

3.12 Although the nature of Envestra's and APA's relationship differs to those considered in the Victorian EDPR process, the AER does not appear to have given any explicit consideration in the South Australian Draft Decision to how this would affect its assumption that a regulated service provider would be able to access the *same* efficiencies as the contractor. I explore this matter in further detail in the following chapter.

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how has most likely already been funded by customers. This is because the DNSPs' current expenditure allowances were for the most part based on their historical actual costs in the past before it acquired this know-how and so when it was relatively less efficient than it currently is."

[30] AER, *Final Decision – Victorian electricity distribution network service providers – Distribution determination 2011-2015*, October 2010, pp. 180-181.

[31] AER, *Draft Decision - Victorian electricity distribution network service providers - Distribution determination 2011-2015*, p188.

[32] AER, *Final Decision – Victorian electricity distribution network service providers – Distribution determination 2011-2015*, October 2010, p182.

[33] AER, *Final Decision – Victorian electricity distribution network service providers – Distribution determination 2011-2015*, October 2010, p173.

4. Critique of the AER's Assessment Framework

4.1 Turning now to the second question that JWS has asked me to consider, which is the extent to which the AER's framework differs from the principles that I have identified as being relevant to the consideration of whether an outsourcing arrangement complies with the relevant provisions in the NGR and the NGL as summarised in section 2.5.

4.2 At the outset, it is worth noting that I do not have any specific concerns with either stage 1 or stage 2A of the AER's assessment framework. The stage of the AER's framework that I do have concerns with is stage 2B, which is engaged if a contract fails the presumption threshold. One of the more elementary concerns that I have with this stage of the AER's framework is that it essentially assumes that the price struck in any contract that fails the presumption threshold must *necessarily* be artificially inflated. That is, the AER gives no consideration to the potential for the price struck under these contracts to genuinely constitute a prudent and efficient outcome and simply assumes that the only costs that should be recovered by the regulated service provider are the contractor's directly incurred costs and an allowance for the 'legitimate economic' factors identified in paragraph 3.9.

4.3 A finding that a regulated service provider may have had an *incentive* to agree to non-arm's length terms, is not, in and of itself, sufficient to conclude that the contract price has *actually* been artificially inflated. Rather, a more detailed examination of the arrangement and the prices contained therein must be undertaken to determine whether the *incentive* the regulated service provider had to engage in such behaviour was actually acted upon. Such an examination should, in my opinion, be guided by the application of the test set out in section 2.2.

4.4 The other element of Stage 2B that could, depending on the nature of the outsourcing arrangement, give rise to an inaccurate assessment of whether the contract price complies with the relevant provisions in the NGR and the NGL, is the implicit assumption that the regulated service provider would be able to access the *same* economies of scale, scope and other efficiencies available to the contractor.[34] The practical effect of this assumption is that any outsourcing arrangement that fails the presumption threshold will *never* be viewed by the AER as being more efficient than the regulated service provider undertaking the services itself.

4.5 I understand that this element of the AER's framework was developed in the context of the Victorian EDPR process and that no specific consideration has been given by the AER to whether the assumption would hold if the regulated service provider and contractor did not form part of the same corporate group. Further consideration must therefore, in my view, be given to whether the AER's assumption that a regulated service provider can access the same level of efficiency (and by implication achieve

[34] This can be inferred from the fact that the AER will only allow recovery of the direct costs incurred by the contractor and an allowance for the 'legitimate economic' factors identified in paragraph 3.9. Excluded from this list of 'legitimate economic' factors is any allowance for economies of scale, scope and other efficiencies that would be available to the contractor but not otherwise available to the regulated service provider. Such an allowance is excluded because the AER assumes that the regulated service provider will be able to access the *same* efficiencies as those available to the contractor.

the same level of costs) as the contractor has any merit in circumstances where the contractor and regulated service provider are not wholly owned or majority owned by the same parent company.

4.6 The specific concerns that I have with each of these aspects of the AER's framework are set out in further detail in the remainder of this chapter.

4.1. Test to Apply in Stage 2B

4.7 In its current form, stage 2B of the AER's framework does not specify the test against which outsourcing arrangements that fail the presumption threshold should be assessed. In my opinion, this is a fundamental shortcoming of the current framework and could be addressed if the AER were to adopt the test described in paragraph 2.13 (and repeated in paragraph 2.30) which as I noted in this section is consistent with economic theory, the relevant provisions in the NGR and the NGL and is in line with the test adopted by the ESC in the context of the 2008-2012 GAAR.

4.8 In keeping with this test, the price specified within an outsourcing contract should be taken to be consistent with rule 91(1) if, at the time the regulated service provider negotiated the contract terms (either at the formation of the contract or at a subsequent price review) it agreed to pay a price that it reasonably expected to be *less than or equal to* the risk-adjusted cost of providing the service in-house, after taking into consideration any incremental co-ordination costs. Where it is established that the contract price (including any incremental contracting costs) *exceeds* this benchmark, and this should reasonably have been anticipated by the service provider at the time it entered into the contract, then the difference between the contract price and this benchmark should be viewed as being inconsistent with rule 91(1) and deducted from the forecast operating expenditure.

4.9 It is this test that, in my view, is currently missing from the AER's framework and could, if it were incorporated into stage 2B, address the deficiencies outlined in the following section. In addition to addressing these deficiencies, the application of this test and the in-house cost benchmark would enable the level of enquiry required by rule 91(1) of the NGR to be undertaken,[35] ie, its application would require consideration to be given to whether the expenditure and, in so doing, ensure that:

- end-users are accorded appropriate protection from inflated end-use prices in circumstances where the contract price is found to have been artificially inflated and also benefit from those arrangements that genuinely constitute a prudent and efficient outcome; and
- regulated service providers are not unfairly penalised in circumstances where their outsourcing arrangement genuinely constitutes a prudent and efficient outcome.

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[35] That is it would require consideration to be given to whether the expenditure incurred under the outsourcing arrangement is such that would be incurred by a 'prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost' rather than presuming that the contract price is inefficient and only allowing the recovery of the contractor's directly incurred costs and an allowance for the 'legitimate economic' factors.

4.10 Finally, I note that this test could be equally applied to contracts that pass the presumption threshold. However, the value of applying the test where there was no incentive and/or the contract was the subject of a competitive tender may be minimal.

4.2. Ability to Access the Same Level of Efficiency

4.11 The second area of the AER's framework that could give rise to an inaccurate assessment of whether the contract complies with the relevant provisions in the NGR and NGL is the implicit assumption that a regulated service provider whose outsourcing arrangement fails the presumption threshold, could access the *same* efficiencies available to the contractor. It is on the basis of this assumption that the AER dismisses the need to consider whether an additional allowance above the contractor's direct costs and those 'legitimate economic' factors identified in paragraph 3.9 would be required to reflect the potential for the contractor to access efficiencies that would not otherwise be available to the regulated service provider. The practical effect of this assumption is that an outsourcing arrangement that fails the presumption threshold can *never* be viewed as being more efficient than the regulated service provider undertaking the services itself.

4.12 It would appear from the reasoning contained in the AER's Victorian EDPR Final Decision, and to a lesser extent the South Australian Draft Decision, that this presumption has been based on both:

§ an implicit assumption that the regulated service provider and the contractor form part of the same corporate group (ie, the contractor and the regulated service provider are both subsidiaries of the same parent company); and

§ the proposition that in a workably competitive market contractors would not, in the long run, be able to charge a margin above its "full economic costs and earn abnormal profits due to the efficiencies available to the contractor that are not currently available to the service provider or other contractors".[36]

4.13 I consider the merit of these two reasons in the remainder of this section.

4.2.1. Assumption that Parties Form Part of the Same Corporate Group

4.14 One point that becomes clear when reviewing the reasoning set out in the AER's Victorian EDPR Final Decision, is that its view on the ability of a contractor to access economies of scale, scope and other efficiencies (including 'know how') not otherwise available to the regulated service provider and the manner in which efficiencies should be compensated, has been clouded by its assumption that the regulated service provider and the contractor form part of the same corporate group. The following extracts from the AER's Victorian EDPR Final Decision are apposite:

> "The core of this issue is whether the benefit of economies of scale, scope and other efficiencies realised by **related party contractors** through operating multiple networks

[36] AER, *Draft Decision - Victorian electricity distribution network service providers - Distribution determination 2011-2015*, June 2010, p182.

should be retained indefinitely within a DNSP's corporate group, or whether these benefits should be shared with consumers.

The AER's view is that efficiencies realised by **related party contractors** should be treated the same as other operating and capital efficiencies under the regulatory regime, That is, DNSP's and **related party** contractors should retain the benefit of these efficiencies for a period of time but eventually should be passed on to consumers…"[37] [emphasis added]

"The AER concluded that economies of scale or scope or other efficiencies (for example, 'know-how') are not a legitimate reason for a **related party contractor** to charge the service provider above its direct and indirect costs, as this approach would prevent consumers from sharing in these benefits."[38] [emphasis added]

"In these circumstances the AER considered it appropriate to adopt the contractor's actual (direct) costs—which in most circumstances will be the actual costs of a **related party**—as the 'starting point' and then examine whether there are legitimate economic reasons to justify a 'margin' above these direct costs." [emphasis added][39]

"This approach is appropriate because the AER can not reasonably rely on the DNSPs and their **related parties** to pass back efficiencies to consumers in an appropriate timeframe. The AER also considers the dividing up between the DNSP and its **related party** of the benefit from historical efficiencies is a matter entirely up for them to decide. The AER is concerned about when consumers share in these benefits, not the dividing up of the benefit between the DNSP and **related party** before it is passed back to consumers."[40] [emphasis added]

"Importantly, the AER's approach ensures consistent regulatory treatment of all operating and capital efficiencies regardless of source. That is, regardless of whether the efficiencies are realised directly by the DNSP itself or its **related party contractor**. This treatment (assuming this is the treatment expected by DNSPs), in the AER's view, does not distort the business decisions of DNSPs and their **related parties** to structure their corporate groups and outsourcing arrangements on the basis of different regulatory treatments of efficiencies depending on the particular corporate structure adopted and subsequently 'game' the regulatory regime. In other words, the AER's approach 'sees through' a DNSP's corporate structure to ensure that past or future efficiencies are not afforded a different regulatory treatment purely on the basis of the particular corporate structure and pricing arrangements between **related parties** adopted by the DNSP's shareholders."[41] [emphasis added]

"As DNSPs and their **related parties** will continue to share in the benefits from the scale, scope and other efficiencies realised by the **related party** outsourcing for a period of time… the AER's approach does not provide a perverse incentive to inefficiently internalise functions that could be more efficiently outsourced."[42] [emphasis added]

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[37] AER, *Final Decision – Victorian electricity distribution network service providers – Distribution determination 2011-2015*, October 2010, p182.

[38] AER, *Final Decision – Victorian electricity distribution network service providers – Distribution determination 2011-2015*, October 2010, p184.

[39] AER, *Final Decision – Victorian electricity distribution network service providers – Distribution determination 2011-2015*, October 2010, p173.

[40] AER, *Final Decision – Victorian electricity distribution network service providers – Distribution determination 2011-2015*, October 2010, p197.

[41] AER, *Final Decision – Victorian electricity distribution network service providers – Distribution determination 2011-2015*, October 2010, p195.

[42] AER, *Final Decision – Victorian electricity distribution network service providers – Distribution determination 2011-2015*, October 2010, p198.

4.15 As these and other extracts[43] in the Victorian EDPR demonstrate, the AER's decision not to recognise the ability of a contractor to achieve lower costs than the regulated service provider in the EDPR process was made through a 'related' party lens, which resulted in it concluding that by virtue of their common ownership, any efficiencies available to the contractor would also be available to the regulated service provider.

4.16 The emphasis placed by the AER on these types of arrangements is not surprising given the nature of the contracts it was required to consider in the Victorian EDPR process. However, it is at odds with stage 1 of its framework, which recognises that a contract may fail the presumption threshold where the parties do *not* form part of the same corporate group or where the regulated service provider only has a minority interest in the contractor.

4.17 The outsourcing arrangement that Envestra has in place with APA is one example of a contract that could potentially fail the presumption threshold even though the two do *not* form part of the same corporate group. The nature of the relationship between APA and Envestra differs fundamentally from those arrangements that were considered by the AER in the context of the EDPR process. That is, while APA is a shareholder of Envestra, Envestra does *not* have a direct or indirect interest in APA and could not therefore be expected to derive any benefit from paying APA an artificially inflated contract price. Nor could it expect to be able to access the same efficiencies as those available to APA. Expressed another way, if one were to 'look through' Envestra's corporate arrangements (as advocated by the AER in the Victorian EDPR process) to consider whether or not it could access the same efficiencies as APA, then one would see the nine gas pipelines that are owned by Envestra (see paragraph 5.3) but *not* the *additional* 41 assets that are owned and/or operated by APA (see Table 5.1) but in which Envestra has no financial interest.

4.18 Putting aside the potential for any economies of scope to arise from the non-gas pipeline assets serviced by APA, if one simply focused on the number of gas pipeline assets serviced by APA (36 independently owned gas pipelines (see Table 5.1) plus the nine pipelines owned by Envestra (see paragraph 5.3)), the relative scale of its operation would suggest that it is in a position to access efficiencies that would not otherwise be available to Envestra across its nine assets. These efficiencies are likely to stem from, amongst other things:

§ the ability of APA to spread its fixed costs across a greater number of activities;

§ the scale of APA's operation, which would allow it to obtain greater discounts when procuring materials than would otherwise be available to Envestra;

[43] See for example the statements contained on pages 149, 174, 184, 185, 198, 212, 217 of AER, *Final Decision – Victorian electricity distribution network service providers – Distribution determination 2011-2015*, October 2010.

§ the geographic proximity of Envestra's assets with other assets serviced by APA, which would enable services and personnel to be shared and works to be optimised across assets;[44] and

§ the increased capacity of APA to develop specialist expertise ('know how') across a greater number of gas pipelines and locations and to utilise that expertise in the provision of its services.

In addition to these sources of efficiencies, I understand from information contained in Envestra's Access Arrangement Information, that John Ferguson, APA General Manager Networks, has identified the following examples of efficiencies:[45]

> "(b) by combining the APA Group's and Envestra's intelligent pigging schedule, savings on the cost of shipping pigging tools to Australia are able to be achieved (i.e. because the pigging tools are only required to be shipped once rather than on two separate occasions);
>
> (c) the standards for design, construction, operation and maintenance for transmission and distribution pipelines are the same (given both types of pipeline need to comply with AS 2885) and so Envestra benefits from the costs of such activities being spread over a broader range of pipeline projects;
>
> (d) Envestra is also able to benefit from the allocation of costs of easement management and pipeline surveillance activities over a greater range of such activities;
>
> (e) by bulk purchasing metering equipment, meter control equipment and fittings and bulk purchasing plant and labour required for activities such as traffic control, concrete cutting, under-road boring and excavation, APA is able to achieve savings which could not be achieved if APA and Envestra individually purchased such items;
>
> (f) by obtaining goods from suppliers and services from subcontractors jointly for Envestra and the remainder of the APA Group, such suppliers and subcontractors are able to offer lower prices:
>
> (i) because they avoid the cost of needing to tender twice;
>
> (ii) as they will, if successful, have greater volumes and certainty of supply."

4.19 The foregoing suggests that, contrary to the implicit assumption made by the AER, Envestra could *not* be expected to be able to access the same economies of scale, scope and specialist expertise as are available to APA. The costs incurred by APA in the provision of services to Envestra could therefore be expected to be *lower* than those

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[44] According to the information contained in table 5.1 APA services one or more other pipelines in each of the areas that Envestra's assets are located. Specifically, the information reveals the following cross over in the provision of services to gas pipelines in those states in which Envestra operates:

§ Queensland – in Queensland APA services Envestra's distribution network as well as the Algas distribution system, the Roma to Brisbane Pipeline and the Carpentaria Gas Pipeline;

§ South Australia - in South Australia APA services the SEAGas Pipeline and the SESA Pipeline in addition to Envestra's South Australian distribution network, the Riverland Pipeline and the Berri to Mildura Pipeline;

§ Victoria – in Victoria APA services the Principal Transmission System as well as Envestra's distribution network;

§ Northern Territory – in the Northern Territory APA services the Amadeus Basin to Darwin Pipeline, the Bonaparte Gas Pipeline, the Wickham Point Pipeline, the Darwin Distribution System in addition to Envestra's Palm Valley to Alice Springs pipeline and the Alice Springs Distribution Network; and

§ New South Wales – in New South Wales APA services the MSP, the Interconnect, the Central West Pipeline and the Central Ranges Network as well as Envestra's Albury Gas Distribution Network and the Gas Networks.

[45] Envestra Ltd, *South Australia Access Arrangement Information*, September 2010, pp. 55-56.

that would be incurred if Envestra were to provide the same services. Whether or not the overall price payable to APA under the OMA is lower than what it would cost if Envestra were to provide the services is a separate question, which could be assessed having regard to the test described in section 2.2.

4.20 Although information on the nature of Envestra's and APA's relationship was put before the AER,[46] it would appear from the reasoning contained in the South Australian Draft Decision that the AER has given no explicit consideration to whether the framework developed in the context of the Victorian EDPR process would need to be amended to reflect the potential for APA to access efficiencies not otherwise attainable by Envestra. The rigid application of the framework in this context brings to the fore one of the more elementary concerns that I have with the use of frameworks. That is, that they can be treated as a simple checklist with no consideration given to whether they are appropriately adapted to the circumstances or whether they would enable the enquiry required under the NGR to actually be undertaken. The implications of the AER's assessment in this case are considered in further detail in the following chapter.

4.21 The Envestra-APA example, in my opinion, demonstrates that the AER's assumption that a regulated service provider, whose contract fails the presumption threshold, would be able to access the *same* economies of scale, scope and other synergies (including 'know how')[47] as its contractor may *not* hold in circumstances where the contractor and regulated service provider do not form part of the same corporate group. This is, in my view, a deficiency with the framework and should be addressed given the potential for alternative types of outsourcing arrangements to fail the AER's presumption threshold.

4.2.2. Workably Competitive Market Hypothesis

4.22 The second argument cited by the AER in support of its presumption that a regulated service provider would be able to access the *same* level of efficiencies and costs as its contractor, is based on the following hypothesis:[48]

> "In a workably competitive market, a contractor could not in the long run charge a premium (i.e. a margin) above its full economic costs and earn abnormal profits due to the efficiencies available to the contractor that are not currently available to the service provider or other contractors. This is because in a workably competitive market, it is assumed that over time existing contractors will become more efficient or new efficient contractors will enter the market and bid away these abnormal profits. In other words, in a workably competitive market a contractor could not earn abnormal profits in the long run for efficiencies it has realised in the past, it could only continue to earn abnormal profits if it were able to continually improve its efficiency relative to its competitors."

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46 Envestra Ltd, *South Australian Access Arrangement Information*, 1 October 2010, Chapter 5.

47 This example also highlights the weakness of the AER's assumption that customers of the regulated service provider would have already paid for 'know how'. That is, if the 'know how' is generated from operating across a large number of other assets, then it cannot simply be assumed that customers of the regulated service provider have paid for the acquisition of that 'know how'.

48 AER, *Final Decision – Victorian electricity distribution network service providers – Distribution determination 2011-2015*, October 2010, pp. 174-175.

4.23 This proposition is also relied upon by the AER to support its view that a margin in excess of those factors that it has identified as forming a 'legitimate economic'[49] basis for the payment of a margin would *not* be warranted for periods in excess of that allowed under the existing efficiency sharing mechanisms (ie, more than six years for operating expenditure related efficiencies and a period in excess of the regulatory period for capital expenditure related efficiencies). This point can be seen in the following statement contained in the AER's South Australian Draft Decision:[50]

> "The regulatory framework's intent is such that monopoly service providers are provided with incentives to ensure that price outcomes are consistent with what would be expected to be realised in a workably competitive market…
>
> …
>
> The [efficiency sharing] scheme operates such that…after 6 years from the time in which the efficiencies are realised, the service provider is required to share these benefits with consumers. At the commencement of a new access arrangement period, expenditures realised in the earlier period are used as the basis on which to forecast expenditures. This process attempts to replicate what would be expected to occur in a competitive market, where premiums cannot be charged for indefinite periods of time, unless one assumes continuous service improvements."

4.24 While I would largely agree with the AER's characterisation of the conditions that could be expected to prevail in a workably competitive market where there are no significant barriers to entry or where contractors do not continuously innovate, I do *not* agree that it necessarily follows from this hypothesis that either:

§ a regulated service provider would be able to achieve the same level of efficiency as its contractor and/or other contractors participating in the relevant market; or

§ a margin in excess of the factors identified by the AER as forming a 'legitimate economic' basis for the payment of a margin would *not* be warranted for periods in excess of that provided under the efficiency sharing mechanism.

I address each of these matters in turn below.

4.2.2.1. Ability of service provider to access same efficiencies

4.25 One of the more significant concerns that I have with the AER's line of reasoning in this context stems from the reliance that it has sought to place on the hypothesis to support its view that a regulated service provider would be able to access the *same* level of efficiency (and by implication incur the same level of costs) as its contractor and/or other contractors in the market.

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49 Those factors that have been identified by the AER as constituting a 'legitimate economic' basis for the payment of a margin include:

§ the return on and of capital required to compensate the contractor for any assets it owns and uses in the provision of services;

§ the allowance required by the contractor to enable it to recover a 'reasonable allocation' of its common costs; and

§ the allowance required by the contractor to self insure against asymmetric risks, to the extent that it does not give rise to a double counting of costs across other aspects of the regulated service provider's revenue requirement.

50 AER, *Draft Decision - Access arrangement proposal for the SA gas network 1 July 2011 – 30 June 2016*, February 2011, pp. 140-141.

4.26 I do not agree that such an inference can be drawn from the workably competitive market hypothesis and note that for such an assumption to hold, it would need to be assumed that either:

- there are *no* benefits of specialisation or economies of scale, scope or other synergies associated with the provision of these types of services. I am unaware of any evidence that would suggest that this assumption has any validity and note that such an assumption would be contrary to the views expressed elsewhere by the AER;[51] or
- the regulated service provider and contractor form part of the same corporate group and that by virtue of their common ownership the regulated service provider is able to access the same efficiencies as the contractor. For the reasons set out in the preceding section I do not agree that such an assumption could be made in this context given that the design of stage 1 of the AER's framework could result in contracts between parties that are 'unrelated' or that have a minority interest being deemed to fail the presumption threshold.

4.27 Another weakness with the AER's line of reasoning, although not explicitly acknowledged by the AER, is that it implicitly assumes that the regulated service provider could achieve the same level of efficiency as its contractor at the same cost. That is, it assumes that the regulated service provider could obtain any benefits of specialisation, economies of scale, scope and other efficiencies *without* incurring any transitional costs or transaction costs and *without* encountering any competition issues under section 50 of the *Competition and Consumer Act 2010.* In my opinion, it is unreasonable to assume that a regulated service provider could either:

- acquire the synergies likely to be available to the contractor through its acquired specialist knowledge and resources without incurring any transitional costs; or
- implement the ownership and operating structure that would be required to deliver identical scale and scope economies, in such a way that it incurred no transitional costs and encountered no competition issues.

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[51] See for example the following quotes:

> "The AER recognises the significant economies of scale and scope or other efficiencies that a DNSP may gain access to through outsourcing."

See AER, *Final Decision – Victorian electricity distribution network service providers – Distribution determination 2011-2015*, October 2010, p149.

> "The AER recognises that there is a body of economic literature that in some cases supports outsourcing as being efficient. Where significant economies of scale, scope and low transaction costs exist, firms such as Envestra might well find it more efficient to outsource particular operational activities to a much larger firm such as the APA Group. The literature indicates that in such situations, the decision to outsource not only allows the contractor to perform the outsourced activities more efficiently, but allows the firm to obtain efficiencies from specialising in what it does best."

See AER, *Draft Decision - Access arrangement proposal for the SA gas network 1 July 2011 – 30 June 2016*, February 2011, p138

4.28 It follows that I disagree with the assumption made by the AER that a regulated service provider could achieve the same level of efficiency as its contractor. I am also of the opinion that the reliance placed by the AER on the workably competitive market hypothesis in this context is misplaced.

4.2.2.2. Margin in excess of 'legitimate economic' factors

4.29 The other concern that I have with the AER's line of reasoning in this context stems from the reliance it has sought to place on the workably competitive market hypothesis to support its more general contention that a margin in excess of a contractor's directly incurred costs, common costs and a return on and of physical assets would not be warranted. The reliance placed on the hypothesis in this context is, in my view, misguided and does not explain why, in practice, contractors are observed to earn margins in excess of the 'legitimate economic' factors identified by the AER and for periods in excess of that deemed appropriate by the AER.

4.30 I understand that the AER has also sought to rely on a number of empirical studies to support its proposition that 'the period of above normal returns in actual competitive markets is generally limited to a maximum of five years'.[52] Although the methodology differed in each of these studies, they all purported to examine the time taken for competitors to enter markets/industries in response to product innovation. Each of these studies was undertaken in the United States and in two cases the studies focused on household products while the third focused on the chemical, drug, electronics and machine industries.

4.31 The weight that the AER has sought to place on these studies in this context is, in my view, peculiar given that the studies were undertaken in the United States in the 1980s and 1990s in markets that are fundamentally different from the market for the provision of asset management services. While the AER has acknowledged that these studies are 'not necessarily the most 'authoritative' evidence on observed market practice',[53] it has nevertheless sought to accord the results of these studies greater weight than the empirical study of margins earned by contractors providing asset management services that I have undertaken.

4.32 I do not agree with the position taken by the AER on this issue and am of the opinion that greater weight should have been accorded to the results of this study. In my view, this type of study is directly relevant to the question at hand and provides greater

[52] AER, *Final Decision – Victorian electricity distribution network service providers – Distribution determination 2011-2015*, October 2010, p217. The three studies cited in this context were:

- Mansfield, E., Schwartz, M. and Wagner, S. *Imitation Costs and Patents: An Empirical Study,* Economic Journal. 91(364), 1981, pp.907-918.
- Golder, P. and Tellis, G., *Pioneer Advantage: Marketing Logic or Marketing Legend?,* Journal of Marketing Research. 30, 1993, pp. 158-170.
- Agarwal, R. and Gort, M., *First-Mover Advantage and the Speed of Competitive Entry, 1887-1986*, Journal of Law and Economics, XLIV, 2001, pp. 161-177.

[53] AER, *Final Decision – Victorian electricity distribution network service providers – Distribution determination 2011-2015*, October 2010, p217.

insight into the propositions made by the AER about the ability of contractors to earn margins in excess of the 'legitimate economic' factors it has identified and the period over which such margins may be earned, than could be gleaned from the studies cited by the AER.

4.33 My study of the margins earned by contractors providing asset management services in Australia was originally undertaken in 2007[54] and was updated in 2010[55] to include an additional three years of data. The study examined the margins earned by 18 contractors (22 business units) utilising relatively low levels of physical capital in the provision of services.[56] To measure the margins earned by these contractors, I used the earnings before interest and tax (EBIT) margin metric, which in the current context may be viewed as a proxy[57] measure of the margin received by a contractor that is in excess of that which would be deemed by the AER to be appropriate having regard to the list of 'legitimate economic' factors.

4.34 A summary of the results of this study can be found in Appendix A. In short, the results reveal that over the period 2002-2009, the average[58] EBIT margin earned by the contractors included in the sample was 5.7 per cent[59] while over the period 2005-2009 the average EBIT margin rose to 6.4 per cent.[60] Based on the data presented in Appendix A, the following observations can also be made about the margins earned by contractors:

- First, while a number of new contractors commenced operations in the period the average EBIT margin earned by contractors actually *increased* over the period. Thus contrary to the expectation that margins would fall in the face of competition, the EBIT margin actually increased from 2.2 per cent in 2002 when 11 contractors were providing services to 6.8 per cent in 2009 when 15 contractors were providing services; and
- Second, of the contractors that have been operating for six or more years, the majority have consistently earned positive EBIT margins (see Figure A.1).

4.35 The results of this study suggest that either:

- the list of 'legitimate economic' factors identified by the AER is *not* complete and that there are other factors that would support the payment of an additional margin.

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54 NERA, *Allen Consulting Group's Review of NERA's Benchmarking of Contractors' Margins Critique*, October 2007.

55 NERA, *Benchmark Study of Contractor Profit Margins*, September 2010.

56 NERA, *Benchmark Study of Contractor Profit Margins*, September 2010, Chapter 3.

57 The EBIT margin represents the margin received by an entity that is in excess of its directly incurred costs, overheads and depreciation. By limiting the sample to contractors that utilise relatively low levels of physical capital, the EBIT margin can also be assumed to be well in excess of any return on capital that might otherwise be required for any physical assets used by the contractor. The EBIT margin observed in this study may therefore be viewed as a proxy measure for the margin received by a contractor that is in excess of that, which would be deemed by the AER to be appropriate having regard to the list of 'legitimate economic' factors

58 The term average is used in this context to refer to the arithmetic mean.

59 The 95 per cent confidence interval for the true population mean ranged from 4.8 per cent to 6.6 per cent.

60 The 95 per cent confidence interval for the true population mean ranged from 5.4 per cent to 7.4 per cent.

Other factors that I have previously identified as potentially giving rise to the payment of such a margin include a return on intangible assets and the allowance required by contractors to align their interests with the asset owner; [61] and/or

- the period over which contractors are able to retain their competitive advantage exceeds that which has been assumed by the AER, which could occur if a contractor was able to continuously innovate and/or if there were barriers to entry. In such circumstances the payment of a margin to reflect the efficiencies available to a contractor that are not otherwise available to a regulated service provider may be warranted for periods in excess of that assumed by the AER.

4.36 Irrespective of the manner in which the results of this study are interpreted, they do suggest that little, if any, reliance can be placed on the workably competitive market hypothesis to dismiss the potential for contractors to earn a margin in excess of the 'legitimate economic' factors identified by the AER for periods exceeding that deemed appropriate by the AER.

4.37 It is important to recognise in this context that the payment of a margin for factors other than those identified by the AER and/or for longer periods than assumed by the AER would not necessarily be inconsistent with the workably competitive market hypothesis because, as the AER has itself acknowledged, the hypothesis assumes that a margin in excess of 'full economic costs' could not be sustained in the 'long run'. To the extent that the full economic cost of delivering the service is greater than the costs deemed by the AER to be 'legitimate' then it is possible that in a workably competitive market a margin in excess of these costs may be maintained over the longer run. Similarly, to the extent that the 'long run' is greater than that assumed by the AER then it is possible that a margin above the 'full economic cost' may be observed for periods in excess of six years.

4.38 One final matter that is worth addressing in this context is the statement made by the AER about the relevance of the benchmark study of contractor's margins to its analysis: [62]

> "…the AER concludes that these benchmarking studies:
>
> - do not demonstrate that there are 'missing factors' in the AER's legitimate economic reasons for a margin—nor was this the intention of NERA is presenting this data, and
> - do not demonstrate that the AER's adopted retention periods for past efficiencies are unreasonable or clearly at odds with observed commercial practice."

For the reasons set out in paragraphs 4.33 - 4.37 I disagree with both of these claims.

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[61] NERA, *Benchmark Study of Contractor Profit Margins*, September 2010, p10.

[62] AER, *Final Decision – Victorian electricity distribution network service providers – Distribution determination 2011-2015*, October 2010, pp. 217-218.

4.2.2.3. Conclusion on workably competitive market hypothesis

4.39 Based on the foregoing, I am of the opinion that little, if any, weight can be placed on the workably competitive market hypothesis to support either of the contentions made by the AER.

4.40 One final point that is worth highlighting in this context is that while the workably competitive market hypothesis could be assumed to be relevant to contracts that both pass and fail the presumption threshold, the AER has only sought to rely upon the hypothesis when assessing contracts that fail the presumption threshold. I understand that this point was raised in the context of the AER's Victorian EDPR Final Decision and that the AER simply responded by stating that its treatment of contracts that pass the presumption threshold was designed to ensure that its assessment did not place too great a 'burden' on regulated service providers.[63]

4.41 I do not agree that this point can be dismissed in the manner that the AER has sought to do. If the AER is genuinely of the view that in a workably competitive market regulated service providers would be able to access the same efficiencies as contractors and that a margin in excess of the 'legitimate economic' factors would not be warranted, then it should apply these 'principles' in a non-discriminatory manner across contracts that both pass and fail the presumption threshold. The foregoing should *not* be construed as a concession on my part that the inference drawn by the AER is correct. Rather, the point is simply made to highlight the inconsistency with which the AER has sought to rely on the assumption when assessing contracts that fail the presumption threshold.

4.2.3. Conclusion on ability to access the same level of efficiency

4.42 For the reasons set out above, I do not agree that in cases where a contract is deemed to fail the presumption threshold it can necessarily be assumed that the regulated service provider will be able to access the *same* level of efficiency as its contractor (or by implication incur the same level of costs as its contractor). I therefore disagree with the more fundamental assumption implicit in stage 2B of the AER's framework, which is that a contract that fails the presumption threshold can *never* be viewed as being more efficient than the regulated service provider undertaking the services itself.

4.43 In my opinion these are genuine deficiencies with the AER's framework and could, depending on the circumstances, result in:

- a regulated service provider failing to recover the efficient costs incurred under its outsourcing contract in circumstances where the contract (and the price specified therein) genuinely constitutes a prudent and efficient outcome;
- a regulated service provider having a perverse incentive to bring the services back in-house or to enter into another outsourcing arrangement, even though its current arrangement genuinely constitutes a more prudent and efficient outcome; and/or

[63] AER, *Final Decision – Victorian electricity distribution network service providers – Distribution determination 2011-2015*, October 2010, p172.

- a regulated service provider having an incentive not to outsource even though to do so may genuinely constitute a more prudent and efficient outcome.

4.44 As I noted in section 4.1, these deficiencies could be addressed if, rather than confining its consideration to the direct and indirect costs incurred by the contractor, the AER were to instead apply the test set out in section 2.2.

4.3. Conclusion

4.45 To summarise, there are a number of aspects of the AER's framework that, in my opinion, are inconsistent with the economic principles identified in section 2.5 and/or observed industry practice. If these aspects of the AER's framework are not addressed then they could, in certain circumstances, give rise to an inaccurate assessment of whether the expenditure incurred by a regulated service provider complies with the test set out in rule 91(1) of the NGR and other relevant provisions of the NGL.

4.46 One final point that is worth making in this context is that while I can see merit in developing a framework that can be used to guide a regulator's examination of the matters set out in the preceding paragraph, I am also cognisant of the dangers associated with relying on a framework that is not appropriately adapted to the circumstances being considered. Some care must therefore, in my view, be taken to ensure that the due consideration is given at each review to ensure that the framework is appropriately adapted and will enable the assessment required by the relevant rules to be undertaken.

5. AER's Assessment of the OMA

5.1 The final matter that I have been asked by JWS to consider relates to the AER's assessment of the OMA in the South Australian Draft Decision. Specifically, I have been asked to:

- identify the extent to which the AER's decision to disallow the Network Management Fee (NMF) in relation to Envestra's South Australian operations does not take into account the principles identified in Chapter 2; and
- comment on whether the principles should have been taken into account.

5.2 I address these matters in the remainder of this chapter, which commences with an overview of the OMA and the key findings emerging from the AER's assessment of the OMA in the South Australian Draft Decision.

5.1. Overview of the OMA

5.3 Envestra currently owns and operates the following nine pipelines:[64]

- the Envestra (SA) Gas Network (distribution);
- the Envestra (Qld) Gas Network (distribution);
- the Envestra (Vic) Gas Network (distribution);
- the Envestra (Albury) Gas Network (distribution);
- the Country Energy (Wagga) Gas Network (distribution);
- the Riverland Pipeline System (transmission);
- the Mildura System (distribution);
- the Palm Valley to Alice Springs Pipeline (transmission); and
- the Alice Springs Distribution Network (distribution).

5.4 The operation, maintenance and management of each of these assets has been outsourced by Envestra to APA (formerly Origin Energy Asset Management (OEAM) and Boral Energy Asset Management (BEAM)). The terms and conditions upon which these services are supplied by APA to Envestra's South Australian and Queensland distribution networks are set out in the OMA. Of particular relevance in the current context is the pricing mechanism specified in the OMA, which consists of the following three elements:[65]

- a cost pass-through component, which is subject to both a 'reasonably incurred' test and a 5 per cent budget constraint;

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[64] AEMC website, List of Natural Gas Pipelines http://www.aemc.gov.au/Gas/Scheme-Register/Pipeline-list-summary.html

[65] Section 10 of the Amendment and Restatement Deed – Operating and Management Agreement, 2 July 2007.

- a capital and operating expenditure based incentive mechanism, which allows APA to retain 33 per cent of the value of any real reductions in controllable costs per GJ and connection costs in the year in which the saving is achieved following which the savings are passed onto Envestra; and
- the NMF, which has been set equal to 3 per cent of Envestra's network revenues.

Combined these three elements may be viewed as aligning APA's incentives with Envestra's joint objective of minimising costs and maximising revenue.

5.2. AER's Assessment of the OMA

5.5 The AER's assessment of the OMA is set out in chapter 8 of the South Australia Draft Decision. To a large extent, this assessment appears to have been undertaken having regard to the same two-stage inquiry process that was developed in the context of the Victorian EDPR process. An overview of the conclusions reached by the AER in these two stages is provided below.

5.2.1. Stage 1: Presumption Threshold

5.6 The AER's assessment of whether the OMA could be presumed to be efficient involved a review of the circumstances surrounding the entry into the original outsourcing arrangement with BEAM (later OEAM) and the subsequent arrangement entered into with APA, following APA's acquisition of Origin Energy's interest in Envestra. The AER's finding on this issue can be summarised as follows:

- in relation to the original OMA entered into with BEAM in 1997, the AER noted that it had been entered into as part of a broader transaction and as a consequence it was 'not possible to presume that the contract reflected arm's length terms'; [66] and
- in relation to the subsequent OMA entered into with APA in 2007, the AER stated that it had been entered into as part of a broader transaction that involved the acquisition of Origin Energy's interest in Envestra by APA. The AER went on to add that where an outsourcing contract is not determined independently from the negotiation of another arrangement, a service provider 'may not have an incentive to minimise the cost of the outsourcing contract' because the price that the service provider is willing to pay 'may depend on the outcome of the second arrangement'.[67]

5.7 In addition to examining the circumstances prevailing at the time the contracts were entered into, the AER also examined the relationship between APA and Envestra. Having surmised that APA and Envestra were 'related', the AER concluded that the

[66] AER, *Draft Decision - Access arrangement proposal for the SA gas network 1 July 2011 – 30 June 2016*, February 2011, p140.

[67] AER, *Draft Decision - Access arrangement proposal for the SA gas network 1 July 2011 – 30 June 2016*, February 2011, p140.

incentive Envestra had to reduce the cost of outsourcing 'might' be minimised because the 'value of the contract charge has minimal effect due to ownership interests'.[68]

5.8 On the basis of these findings and the more general observation that the OMA was not the subject of a competitive tender, the AER concluded that it could *not* be presumed to be efficient.[69]

5.2.2. Stage 2: Detailed Assessment

5.9 Having concluded that the OMA could *not* be presumed to be efficient, the AER then considered the 'merits' of the expenditure incurred under the OMA. The specific aspects of the OMA pricing mechanism that the AER focused on in this context were the NMF and the incentive payments that Envestra is required to pay in circumstances where APA achieve real reductions in controllable costs and/or connection costs. In short, the AER concluded that the efficiency incentive mechanism would provide Envestra with sufficient reward. The AER therefore concluded that an additional allowance for the incentive payments and the NMF would be contrary to rule 91(1) of the NGR:[70]

> "The AER considers that to allow Envestra and the APA Group to indefinitely withhold from consumers the benefits of efficiencies they derive, through additional costs for margins and incentive payments is at odds with the intention of the regulatory framework, to replicate a workably competitive market. For this reason, such expenditures cannot be considered to be characterised as consistent with the lowest sustainable cost, as set out in r. 91 of the NGR, or for that matter, efficient. Neither would this be in the long term interests of consumers with respect to price, as set out in the national gas objective."

5.10 On the basis of the foregoing, the AER concluded that the NMF and the incentive payments payable under the OMA should be excluded from the calculation of Envestra's forecast operating expenditure for the 2011/12 – 2015/16 regulatory period.[71]

5.3. Critique of the AER's Assessment

5.11 On the basis of my review of the South Australian Draft Decision, it would appear that the AER's assessment of the OMA and, in particular its treatment of the NMF, deviates from a number of the principles identified in Chapter 2. The particular concerns that I have with the AER's assessment of the OMA can broadly be categorised as relating to:

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[68] AER, *Draft Decision - Access arrangement proposal for the SA gas network 1 July 2011 – 30 June 2016*, February 2011, p139.

[69] AER, *Draft Decision - Access arrangement proposal for the SA gas network 1 July 2011 – 30 June 2016*, February 2011, p140.

[70] AER, *Draft Decision - Access arrangement proposal for the SA gas network 1 July 2011 – 30 June 2016*, February 2011, p141.

[71] AER, *Draft Decision - Access arrangement proposal for the SA gas network 1 July 2011 – 30 June 2016*, February 2011, p143.

- the AER's characterisation of the relationship between Envestra and APA, which is inconsistent with principles set out in the Victorian EDPR Final Decision; and
- the implicit assumption made by the AER that Envestra could access the *same* economies of scale, scope and other efficiencies available to APA, which appears to have resulted in the AER giving no consideration to whether the OMA and the price specified therein (including the NMF) could constitute a genuinely prudent and efficient outcome as required by rule 91(1) of the NGR.

5.12 The specific concerns that I have with these aspects of the AER's South Australian Draft Decision are set out in the remainder of this chapter.

5.3.1. Nature of the relationship between Envestra and APA

5.13 One of the more significant concerns that I have with the AER's assessment of the OMA stems from the manner in which it has characterised the relationship between APA and Envestra and the circumstances surrounding the entry into the 2007 OMA. Although information was put before the AER about the nature of the relationship between Envestra and APA in the Access Arrangement Information and the conditions that existed at the time the OMA was entered into,[72] the AER appears to have formed the view that Envestra and APA are 'related'[73] and on this basis has concluded that:

- Envestra may have had an incentive to agree to pay APA an artificially inflated price when it entered into the OMA in 2007;
- Envestra could access the same economies of scale, scope and other efficiencies available to APA; and
- the NMF provides the means by which Envestra and APA can 'withhold from consumers the benefits of the efficiencies derived from their outsourcing agreement for an indefinite period of time'.[74]

5.14 Before moving on to discuss each of these conclusions, it is worth setting out my understanding of the relationship that existed at the time the OMA was entered into and the current relationship between Envestra and APA.

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[72] Envestra Ltd, *South Australian Access Arrangement Information*, September 2010, pp. 47-55

[73] See for example, the following statements contained on pages 140, 141 and 144 of the South Australian Draft Decision:

> "The APA Group is a party related to Envestra. The AER is cautious that such situations might minimise incentives to reduce the cost of the outsourcing, given that the value of the contract charge has minimal effect due to ownership interests."
>
> "A related party contractor may be relatively more efficient in service provision than other service providers. If the maximum charge between a service provider and an outsourcing contractor that was permissible under the NGR were the prevailing industry average, then the service providers could retain the benefit of efficiencies for longer periods than the AER considers appropriate—that is, for 6 years with regard to opex."
>
> "Such margins allow Envestra and the APA Group to withhold from consumers the benefits of the efficiencies derived from their outsourcing agreement for an indefinite time which the AER considers contradicts the intention of the regulatory framework."

[74] AER, *Draft Decision - Access arrangement proposal for the SA gas network 1 July 2011 – 30 June 2016*, February 2011, p141.

5.3.1.1. Relationship between Envestra and APA

5.15 In 2007 Envestra and APA entered into contracts for the provision of asset management services to Envestra's South Australian, Queensland and Victorian assets. The entry into these contracts followed Origin Energy's sale of OEAM and its 17.2 per cent interest in Envestra to APA.[75] At the time this transaction was entered into, the CKI Group was the largest shareholder, holding a 19.97 per cent interest in Envestra.[76]

5.16 In the period following APA's acquisition of Origin Energy's interest in Envestra, its shareholding has increased to 32.4 per cent and APA is now the largest shareholder, followed by the CKI Group (19.3 per cent).[77] Although APA is now the largest shareholder of Envestra, neither Envestra nor APA form part of the same group of companies. I also understand from information contained in Envestra's Access Arrangement Information that the following safeguards mean that APA's shareholding does not affect the operation of the OMA: [78]

§ APA's interest in Envestra is balanced by the 19 per cent interest held by the CKI Group;

§ of the eight Envestra Board members, four are independent directors (including the Managing Director), two are APA appointed Directors and two are CKI appointed Directors; and

§ the two APA Directors that are members of the Envestra Board do not participate in any discussions or decisions relating to the operation of the 2007 OMA.

5.17 In addition to holding a stake in Envestra, APA has an interest in a large number of assets in its own right and provides asset management services to 49 assets, nine of which are owned by Envestra. Table 5.1 identifies those assets that APA provides asset management services to that Envestra has no direct or indirect interest in.

5.18 In the remainder of this section I consider the relevance of this relationship to conclusions reached by the AER about:

§ the incentive Envestra may have had to agree to non-arm's length terms;

§ the ability of Envestra to access the same efficiencies as APA; and

§ the potential for the NMF to act as a vehicle by which any efficiencies could be retained indefinitely by APA and Envestra.

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75 Origin Energy, *ASX Media Release – Origin Energy finalises sale of Network Business to APA*, 2 July 2007.

76 Envestra Ltd, *South Australian Access Arrangement Information*, September 2010, p53.

77 Envestra website, http://www.envestra.com.au/investor-centre/shareholder-information/top-20-shareholders, as at 28 February 2011.

78 Envestra Ltd, *South Australian Access Arrangement Information*, September 2010, pp. 48-49

Table 5.1: Assets serviced by APA *excluding* those owned by Envestra

		Asset name	Asset Ownership
Gas Pipeline Assets			
NSW and ACT	T	Moomba to Sydney Pipeline (MSP)	APA
		Interconnect	APA
		Central West Pipeline (CWP)	APA
		Central Ranges Pipeline	APA
		Central Ranges Network	APA
Vic	T	Principal Transmission System (PTS)	APA
SA	T	SEA Gas Pipeline	Joint venture between APA (33.3%), International Power (33.3%), REST Superannuation Fund (33.3%)
		SESA Pipeline	APA
Qld	T	Roma to Brisbane (RBP)	APA
		Carpentaria Gas Pipeline (CGP)	APA
	D	Allgas Energy Distribution System	APA
WA	T	Goldfields Gas Pipeline	APA 88.2% BBP 11.8%
		Midwest Gas Pipeline	APA 50%, Horizon 50%
		Kalgoorlie to Kambalda Lateral	APA
		Telfer Gas Pipeline	Energy Infrastructure Investments, APA 19.9% interest
		Parmelia Gas Pipeline	APA
		Cape Lambert, Dampier, Paraburdoo and YMP Gas Pipeline	Pilbara Iron
		Nifty Consumer Gas Pipeline	Birla Nifty Pty Ltd
		Plutonic Gas Lateral	Barrick Gold
		Maitland Gas Lateral	EDL Group Operations Pty Ltd
		Onslow Gas Pipeline	Horizon Power
		Burrup Fertilizer	Apache Energy Pty Ltd
		Cawse Gas Lateral	Norilsk Nickel Cawse Pty Ltd
		Cosmos Gas Lateral	Xstrata Nickel Australasia Operations Pty Ltd
		Jundee Gas Lateral	Newmont Yandal Operations Pty Ltd
		Leonora Gas Lateral	Energy Generation
		Wiluna Gold Gas Lateral	APA
		Thunderbox Gas Lateral	Norilsk Nickel Wildara NL
		Jaguar Lateral	Jabiru Metals Ltd
		Magellan Gas Lateral	Redback Pipelines Pty Ltd
		Cockburn Cement Delivery Station (Dongara Pipeline)	Origin Energy Pipelines Pty Ltd
		Woodada Receipt Facilities	Arc Energy Ltd
NT	T	Amadeus Basin to Darwin Pipeline (ABDP)	APA 96%, and remainder PAWA and Centrecorp Aboriginal Investment Corporation Pty Ltd
		Bonaparte Gas Pipeline	Energy Infrastructure Investments, APA 19.9% interest
		Wickham Point Pipeline	Energy Infrastructure Investments, APA 19.9% interest
	D	Darwin Distribution System	APA 96%, and remainder PAWA and Centrecorp Aboriginal Investment Corporation Pty Ltd
Other Assets			
Moomba to Sydney Ethane Pipeline			Ethane Pipeline Income Fund, APA 6.1% interest
Murraylink and Directlnk electricity interconnectors			Energy Infrastructure Investments, APA 19.9% interest
Daandine and X41 power stations			Energy Infrastructure Investments, APA 19.9% interest
Tipton West and Kogan North coal seam methane processing plants			Energy Infrastructure Investments, APA 19.9% interest
Reticulated LPG System in Queensland, Northern NSW, SA and NT			Origin Energy LPG Ltd

Source: Letter from John Ferguson (APA) to Craig de Laine (Envestra), dated 24 June 2010.

5.3.1.2. Incentive to agree to non-arm's length terms

5.19 As I noted in section 5.2.1, the AER has concluded that at the time Envestra entered into the OMA with APA, it may have had an incentive to agree to pay an artificially inflated price. The reasoning underlying this conclusion is captured in the following statement: [79]

> "The APA Group is the largest shareholder in Envestra, owning a significant interest of 30.6 per cent, with the Cheung Kong Infrastructure (CKI) group being the second largest shareholder with 19.97 per cent. These ownership levels afford both groups a presence on the board of Envestra. Despite Envestra's submission that the OMA is managed in an independent manner and subject to strict management protocols, the APA Group is a party related to Envestra. The AER is cautious that such situations might minimise incentives to reduce the cost of the outsourcing, given that the value of the contract charge has minimal effect due to ownership interests. The AER acknowledges that the CKI group's ownership level and presence on the board of Envestra may counter balance the possible influence that the APA Group can exert over Envestra.
>
> The AER is also aware that at the time the APA Group became the outsource service provider to Envestra, it was in the process of acquiring from Origin Energy a 17 per cent equity interest in Envestra. The AER considers that in circumstances where an outsourcing contract is not determined independently from the negotiations for some other arrangement, then a service provider may not have an incentive to minimise the cost of the outsourcing contract. This is because the price that a service provider is willing to pay under the outsourcing contract may depend on the outcome of the second arrangement."

5.20 Based on my understanding of the circumstances that surrounded the entry into the OMA with APA in 2007, it is not clear how the AER has formed the view that the transaction would have given rise to an incentive on the part of Envestra to agree to pay an artificially inflated price. As I understand it, the OMA was entered into following the sale of Origin Energy's interest in OEAM and Envestra to APA.[80] As far as I am aware, Envestra was not a party to the financial transaction involving APA and Origin Energy and so the price that it would have been willing to pay under the OMA could *not* have been affected by this transaction. Expressed another way, the transaction between Origin Energy and APA did not give rise to an opportunity for APA to confer a benefit on Envestra in return for it agreeing to pay an artificially inflated price. I therefore disagree with the AER's contention that the price Envestra would have been willing to pay under the OMA may have been affected by this transaction.

5.21 That Envestra did not have any incentive to pay APA an artificially inflated price is further demonstrated by the following facts:

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[79] AER, *Draft Decision - Access arrangement proposal for the SA gas network 1 July 2011 – 30 June 2016*, February 2011, pp. 140-141.

[80] Origin Energy, *ASX Media Release – Origin Energy finalises sale of Network Business to APA*, 2 July 2007.

- Envestra did not have a financial interest in APA and would not therefore have derived any benefit from agreeing to pay APA an artificially inflated price;
- at the time the OMA was entered into with APA, the CKI Group was Envestra's largest shareholder.[81] Since any decision to pay APA an artificially inflated price would have diminished the value of the CKI Group's and other shareholder's interests in Envestra, the interests of Envestra and APA could not be said to be sufficiently aligned so as to create an incentive to transfer profits from Envestra to APA. I understand that this point was recognised by the AER in the Victorian EDPR process but it does not appear to have applied the same principle in this context;[82] and
- at the time OMA was entered into, the Essential Services Commission of South Australia (ESCOSA) had already excluded the payment of the NMF from forecast expenditure for the South Australian distribution assets.[83] Envestra would have been cognisant of the regulatory risk surrounding the OMA at the time it was entered into and could therefore have been expected to resist any attempt to transfer value to APA, which would have operated to the detriment of the CKI Group and other shareholders. To put this risk into context, it is worth noting that in 2006 the NMF was equivalent to $9.4 million,[84] which is not an insignificant amount.

5.22 On the basis of the foregoing, I disagree with the conclusion reached by the AER about the incentive Envestra would have had to pay APA an artificially inflated price at the time the OMA was entered into.

5.23 One final point that is worth making in this context is that the simple observation that a contract was entered into as part of a broader transaction is not a sufficient basis on which to conclude that a regulated service provider may have had an incentive to agree to non-arm's length terms. The relevant consideration in this context must be whether the broader transaction gave rise to an opportunity for the contractor to confer a benefit on the regulated service provider in exchange for it agreeing to pay an artificially inflated contract price. In this case such an opportunity did not arise because Envestra was not a party to the financial transaction that was entered into by Origin Energy and APA.

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81 Envestra, *South Australian Access Arrangement Information – Public Version*, September 2010, p53.

82 See the following extract taken from page 171 of the AER's Victorian EDPR Draft Decision

"…where an investor is a majority shareholder in a service provider but only a minority shareholder in its related party contractor, then the service provider may not have an incentive to agree to non-arm's length terms. This is because the majority shareholder's portion of the profits (or value) that are transferred out of the service provider is greater than its share of the profits that are transferred to the related party. In other words, the transfer of profits from the service provider to the related party results in a net loss for the service provider's majority shareholder unless it is also a majority shareholder in the related party who receives those inflated profits through the transfer pricing."

83 ESCOSA, *Access Arrangement for the South Australian Gas Distribution System – Final Decision*, June 2006, p10.

84 In 2006 Envestra's Revenue reached $314.2 million. 3% of this amount is $9.4 million. *See* Envestra *Annual Report,* 2007, p33.

5.3.1.3. Ability of Envestra to access the same efficiencies as APA

5.24 Although not explicitly stated by the AER in the South Australian Draft Decision, its decision not to allow any additional margin for efficiencies available to APA that would not otherwise be available to Envestra, implicitly assumes that Envestra would be able to achieve the same economies of scale, scope and other efficiencies available to APA.

5.25 The basis for reaching this assumption has not been set out in the South Australian Draft Decision and I can only surmise that it is a legacy of the framework that was developed in the context of the Victorian EDPR process, which as I noted in section 4.2.1 was developed through a 'related' party lens. Rather than simply applying the framework, the AER should have, in my opinion, considered whether Envestra could access the same efficiencies as those available to APA. Based on the observations contained in paragraphs 4.17-4.20, the AER could, in my view, have been reasonably expected to conclude that APA (which owns and/or operates 41 other assets in which Envestra does not have an interest), was in a position provide services at a lower cost than Envestra would have been able to achieve itself across its assets. Further consideration should therefore, in my view, have been given by the AER to whether the OMA and the payments specified therein, could have genuinely constituted a prudent and efficient outcome. I return to this point in section 5.3.2

5.3.1.4. Ability of Envestra and APA to retain efficiencies indefinitely

5.26 Another element of the AER's decision that seems to have been affected by its conclusion that APA and Envestra are related is the way in which it has sought to characterise the NMF as providing the means by which Envestra and APA can 'withhold from consumers the benefits of the efficiencies derived from their outsourcing agreement for an indefinite period of time'.[85] My concerns with this characterisation are two-fold.

5.27 First, it incorrectly presupposes that Envestra would obtain some form of benefit from the NMF. Since Envestra does not have a financial interest in APA, there is no basis to conclude that the NMF would enable Envestra to withhold any efficiency related benefits.

5.28 Second, it disregards the fact that the cost pass-through component of the pricing mechanism adopted in the OMA ensures that any efficiencies achieved by APA are passed through to Envestra and, in turn, end-users. The cost pass-through component of the OMA is, as noted in paragraph 5.4, subject to a 'reasonably incurred' test and a 5 per cent budget constraint, which are designed to afford Envestra and end-users with some protection against inefficiencies on the part of APA. The capital and operating expenditure based incentive mechanism component of the pricing mechanism also ensures that APA has an ongoing incentive to pursue efficiencies. Through the operation of this mechanism, 67 per cent of the reduction in costs achieved by APA

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[85] AER, *Draft Decision - Access arrangement proposal for the SA gas network 1 July 2011 – 30 June 2016*, February 2011, p140.

are passed through to Envestra in the year in which they are achieved and 100 per cent thereafter. Given these features of the pricing mechanism, it is not clear how the AER has come to the view that the NMF would allow efficiencies to be retained for an indefinite period of time by either Envestra or APA (or the two jointly).

5.29 For the reasons set out above, I disagree with the way in which the AER has sought to characterise the NMF in this context.

5.3.1.5. Conclusion on nature of the relationship

5.30 To summarise, I am of the opinion that the AER has misunderstood both the nature of the relationship that exists between Envestra and APA and the circumstances that surrounded the entry into the 2007 OMA. I therefore disagree with the AER's conclusion that:

- Envestra may have had an incentive to agree to non-arm's length terms when it entered into the 2007 OMA;
- Envestra could access the same efficiencies as APA and should not be able to recover any additional allowance above the direct and indirect costs incurred by APA; and
- the NMF provides a mechanism by which any efficiencies could be retained indefinitely by APA and Envestra.

5.3.2. Detailed assessment

5.31 The second aspect of the AER's assessment that, in my opinion, is inconsistent with the principles set out in Chapter 2, is that it has simply assumed that Envestra would be able to access the same efficiencies as APA and as a consequence has given no consideration to whether the contract could constitute a genuinely prudent and efficient outcome as required by rule 91(1) of the NGR.

5.32 As I noted in paragraphs 4.17-4.20 and 5.25-5.25, a proper consideration of the potential for Envestra to achieve the same efficiencies as APA, would have revealed that by virtue of its scale and expertise in the area of pipeline asset management services, APA could reasonably have been expected to be in a position to provide services at a lower cost than Envestra would have been able to achieve itself across its own assets. In my view, this recognition should have provided the AER with sufficient basis to consider the *potential* for the OMA, and the payments specified therein, to have constituted a prudent and efficient outcome. I use the word 'potential' in this context because to form a firm view on this would require consideration to be given to whether the price payable under the OMA (and any incremental contract co-ordination costs), was less than or equal to the risk-adjusted cost of providing the services in-house.

5.33 I understand that as part of its Access Arrangement Information Envestra provided the AER with an expert report prepared by KPMG entitled, *The Cost of Gas Distribution Services When Capabilities are Retained Internally,* which was intended to address this question. I have not reviewed this report or the methodology that has been

employed by KPMG, but I understand, from information contained within Envestra's Access Arrangement Information, that KPMG has compared the costs incurred by Envestra under the OMA with the costs that a hypothetical in-house service provider would incur to provide the same services and found that the costs incurred by Envestra under the OMA were $4.54 million *less* than those it would have otherwise incurred if it had provided the services in-house.[86]

5.34 I understand that the findings of this report were given limited consideration by the AER in the South Australian Draft Decision because it did 'not accept' that the in-house cost of provision was the appropriate point of reference against which the contract price should be assessed.[87] Interestingly, the AER has not sought to define what it considers to be the relevant reference point against which the prudent and efficient nature of a contract should be measured. For the reasons set out in section 2.2, I disagree with the view expressed by the AER and remain of the opinion that the in-house cost of provision provides the appropriate benchmark against which the contract price should be assessed. This position is, as I noted in section 2.2, consistent with economic theory and the criteria embodied in rule 91(1) of the NGR and is also in keeping with the approach adopted by the ESC in the context of the 2008-2012 GAAR.

5.35 Additional expert reports that I understand were put before the AER to demonstrate that the OMA and the payments specified therein are prudent and efficient include:

§ a report prepared by Marksman Consulting entitled, *Gas Distribution Benchmarking Report Envestra South Australia and Queensland,* which used a number of capital and operating expenditure indicators to examine the relative performance of the two distribution networks *vis-à-vis* the Victorian, JGN, Allgas, ActewAGL and WA Gas Networks gas distribution networks. The key finding of this report were that the levels of capital and operating expenditure incurred by the South Australian network were 'reasonable';

§ a report prepared by Economic Insights entitled, *The Productivity Performance of Envestra's South Australian and Gas Distribution Systems,* which examined the total and partial factor productivity of the two distribution systems and considered the performance of the two systems relative to the Victorian and JGN gas distribution networks. In relation to the South Australian assets, Economic Insights concluded that, notwithstanding its size, the South Australian assets performed 'relatively well' against the larger distribution networks;[88] and

§ the benchmark margin report that I prepared, which compared the NMF and incentive payment elements of the OMA with the margins earned by other contractors providing comparable services. The principal finding emerging from this study was that the payments made under the OMA were in line with the margins earned by other contractors.

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[86] Envestra, *South Australian Access Arrangement Information – Public Version*, September 2010, p60.

[87] AER, *Draft Decision - Access arrangement proposal for the SA gas network 1 July 2011 – 30 June 2016*, February 2011, p143.

[88] Economic Insights, *The Productivity Performance of Envestra's South Australian and Gas Distribution Systems,* 30 September 2010, pp. iii-iv.

5.36 I understand that the AER has 'not placed significant weight on these reports' because it does 'not agree with the premise of such comparisons in regard to payments made under Envestra's OMA'.[89] I agree that benchmark reports cannot, in and of themselves, demonstrate the compliance of the expenditure incurred under an outsourcing arrangement with the criteria set out in rule 91(1) of the NGR. However, they can, as I noted in section 2.4, inform an overall consideration as to whether the expenditure is such as would be incurred by a 'prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost', as required by the NGR. The relevance of these reports to a consideration of whether the costs incurred under the OMA are consistent with rule 91(1) should not therefore, in my view, be dismissed.

5.4. Conclusion

5.37 Based on the foregoing it is apparent that the AER's assessment of the OMA, and in particular its treatment of the NMF, differs in a number of fundamental respects from the principles that, in my opinion, should guide an assessment as to whether an outsourcing agreement satisfies the criteria set out in rule 91(1) of the NGR. One of the more fundamental concerns that I have with the approach employed by the AER in the South Australian Draft Decision is that the application of its assessment framework appears to have come at the expense of undertaking the assessment actually required by rule 91(1) of the NGR. This is, as I noted in Chapter 4, a danger that comes from applying a framework that is not appropriately adapted to the circumstances and could, depending on the circumstances, result in:

- a regulated service provider failing to recover the efficient costs incurred under its outsourcing contract in circumstances where the contract (and the price specified therein) genuinely constitutes a prudent and efficient outcome; and
- a regulated service provider having a perverse incentive to bring the services back in-house or to enter into another outsourcing arrangement, even though its current arrangement genuinely constitutes a more prudent and efficient outcome.

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[89] AER, *Draft Decision - Access arrangement proposal for the SA gas network 1 July 2011 – 30 June 2016*, February 2011, p144.

Appendix A. EBIT Margin Study Results

EBIT Margins Generated Over the Sample Period

Sample Set	Company	Business Unit	Annual Data								Average Over Period	
			2002	2003	2004	2005	2006	2007	2008	2009	2002-09	2005-09
All Infrastructure Sample Set / Network Infrastructure Sub Set	Downer EDI	Infrastructure	3.5%	4.4%	5.6%	5.5%	5.7%	4.6%	6.2%	6.1%	**5.5%**	**5.7%**
	Tenix Alliance		-0.2%	2.9%	0.9%	-1.1%	2.0%	4.5%	3.2%	-0.7%	**1.6%**	**1.7%**
	United Group	Infrastructure	n.a.	n.a.	n.a.	4.9%	6.3%	6.2%	6.1%	6.3%	**6.1%**	**6.1%**
	Worley Parsons	Infrastructure	n.a.	n.a.	6.5%	11.4%	6.8%	9.2%	11.9%	8.1%	**9.5%**	**9.6%**
		Power	n.a.	n.a.	35.5%	11.1%	14.4%	10.2%	11.9%	9.7%	**11.2%**	**11.2%**
All Infrastructure Sample Set	Ausenco		n.a.	3.7%	8.9%	8.7%	9.8%	10.4%	6.5%	1.3%	**6.8%**	**6.7%**
	Bechtel		0.6%	-2.2%	-1.8%	-2.7%	9.9%	3.2%	4.9%	7.4%.	**1.0%**	**3.7%**
	Clough		n.a.	-0.3%	-1.0%	-10.8%	-2.8%	-15.2%	2.5%	7.3%	**-2.9%**	**-4.1%**
	Downer EDI	Engineering	3.9%	3.4%	4.8%	4.3%	0.7%	2.1%	5.2%	6.2%	**3.9%**	**3.8%**
		Rail	3.9%	6.1%	4.2%	6.4%	9.3%	n.a.	7.5%	6.8%	**6.5%**	**7.3%**
	Fluor		2.8%	-4.6%	-8.0%	-0.2%	2.1%	2.9%	0.9%	3.0%	**0.7%**	**1.9%**
	Hatch		2.9%	5.3%	10.8%	13.5%	9.6%	14.6%	14.8%	12.5%	**11.7%**	**13.1%**
	KBR		3.7%	8.6%	-0.7%	3.1%	6.8%	9.0%	14.0%	7.6%	**6.8%**	**8.8%**
	Lend Lease	Project Management & Construction	n.a.	n.a.	1.7%	2.2%	1.8%	0.3%	1.5%	1.9%	**1.5%**	**1.5%**
	SKM		n.a.	n.a.	n.a.	10.7%	12.0%	12.0%	13.8%	10.1%	**11.8%**	**11.8%**
	SMEC		4.6%	5.0%	3.1%	4.6%	7.4%	9.9%	10.5%	11.8%	**8.4%**	**9.8%**
	Thomas & Coffey		-4.0%	1.3%	0.4%	2.2%	3.0%	3.5%	4.3%	2.4%	**2.3%**	**3.1%**
	Transfield Services		2.2%	1.5%	1.5%	1.4%	1.6%	1.8%	2.2%	1.9%	**1.8%**	**1.9%**
	United Group	Rail	n.a.	n.a.	n.a.	6.2%	5.2%	4.4%	7.8%	5.7%	**5.9%**	**5.9%**
		Resources	n.a.	n.a.	n.a.	4.7%	6.4%	9.8%	10.4%	7.9%	**8.0%**	**8.0%**
	Worley Parsons	Hydrocarbons	n.a.	n.a.	11.8%	8.3%	8.7%	9.0%	10.5%	10.0%	**9.7%**	**9.7%**
		Minerals and Metals	n.a.	n.a.	15.7%	14.2%	14.1%	14.2%	17.5%	16.8%	**15.9%**	**15.9%**
Summary Statistics												
Network Infrastructure Sub Set												
Mean			1.6%	3.7%	12.1%	6.4%	7.0%	6.9%	7.8%	5.9%	**7.0%**	**6.8%**
Median			1.6%	3.7%	6.0%	5.5%	6.3%	6.2%	6.2%	6.3%	**6.1%**	**6.2%**
All Infrastructure Sample Set												
Mean			2.2%	2.7%	5.5%	4.9%	6.4%	6.0%	7.9%	6.8%	**5.7%**	**6.4%**
Median			2.9%	3.4%	3.7%	4.8%	6.6%	6.2%	7.0%	7.1%	**5.2%**	**6.3%**
OMA Implied EBIT Margin			**7.3%**	**6.5%**	**6.3%**	**6.0%**	**5.9%**	**4.9%**	**5.7%**	**6.3%**	**6.0%**	**5.8%**

Figure A.1: Margins Earned by Contractors Operating for Over Five Years

Appendix B. Statement of Compliance with Expert Witness Guidelines

I have read the Guidelines for Expert Witnesses in Proceedings of the Federal Court of Australia and confirm that I have made all inquiries that I believe are desirable and appropriate and that no matters of significance that I regard as relevant have, to my knowledge, been withheld from the Court.

Appendix C. Materials Relied Upon

The table below contains a list of the materials that I have relied upon in the preparation of this report.

AEMC website, List of Natural Gas Pipelines
http://www.aemc.gov.au/Gas/Scheme-Register/Pipeline-list-summary.html

AER, *Draft Decision - Access arrangement proposal for the SA gas network 1 July 2011 – 30 June 2016*, February 2011

AER, *Draft Decision - Access arrangement proposal for the Qld gas network*

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

AER, *Draft Decision – Victorian electricity distribution network service providers – Distribution determination 2011-2015*, June 2010.

Affidavit of John Leslie Ferguson, 29 September 2010

Agarwal, R. and Gort, M., *First-Mover Advantage and the Speed of Competitive Entry, 1887-1986*, Journal of Law and Economics, XLIV, 2001, pp. 161-177.

Coase, R.H., "The Nature of the Firm", Economica, 1937, Vol. 4, No. 16, pp 386-405.

Economic Insights, *The Productivity Performance of Envestra's South Australian and Gas Distribution Systems,* 30 September 2010,

Envestra Annual Report, 2007.

Envestra Ltd, *South Australia Access Arrangement Information*, September 2010.

Envestra website, http://www.envestra.com.au/investor-centre/shareholder-information/top-20-shareholders,viewed on 11 February 2011.

ESC, *Gas Access Arrangement Review 2008-2012: Draft Decision*, August 2007.

ESC, *Gas Access Arrangement Review 2008-2012, Final Decision*, 7 March 2008.

Letter from John Ferguson (APA) to Craig de Laine (Envestra), dated 24 June 2010.

Golder, P. and Tellis, G., *Pioneer Advantage: Marketing Logic or Marketing Legend?,* Journal of Marketing Research. 30, 1993, pp. 158-170.

Holstrom and Tirole, 1989, Handbook of Industrial Organization

KPMG, *The Cost of Gas Distribution Services When Capabilities are Retained Internally, September 2010*

Mansfield, E., Schwartz, M. and Wagner, S. *Imitation Costs and Patents: An Empirical Study,* Economic Journal. 91(364), 1981, pp.907-918.

Marksman Consulting, *Gas Distribution Benchmarking Report Envestra South Australia and Queensland* , 28 September 2010.

National Gas (South Australia) Act 2008

National Gas Rules

National Third Party Access Code for Natural Gas Pipeline Systems

NERA, *Benchmark Study of Contractor Profit Margins*, September 2010.

NERA, *Allen Consulting Group's Review of NERA's Benchmarking of Contractors' Margins Critique*, October 2007.

Origin Energy, *ASX Media Release – Origin Energy finalises sale of Network Business to APA*, 2 July 2007.

Wiliamson, O.E., "Markets and Hierarchies", Free Press 1975; "The Economic Institutions of Capitalism", Free Press, 1985.

Appendix D. Instructions

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Our Ref: A3170
Doc ID: 61251658.1.1

17 March 2011

Katherine Lowe
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NERA Economic Consulting
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MELBOURNE VIC 3000

Dear Ms Lowe

Envestra Limited – South Australian Access Arrangement Review

We act for Envestra Limited in relation to the AER's review of Envestra's Access Arrangement for South Australia.

As you have discussed with Envestra, Envestra Limited wishes to engage you to prepare an expert report in connection with the AER's review of Envestra's Access Arrangement for South Australia.

This letter sets out the matters which Envestra Limited wishes you to address in your report and the requirements the report must comply with to be capable of use in the AER review.

Terms of Reference

We refer to the AER Draft Decision entitled "Envestra Ltd Access arrangement proposal for the SA gas network 1 July 2011 – 30 June 2016" and dated February 2011. In particular, reference is made to section 8.6.2.1 of that decision and the conceptual framework referred to in it.

Envestra seeks your opinion, as an expert, on the following matters:

1 under rule 91 of the National Gas Rules, recoverable operating expenditure is that which would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of delivering pipeline services. In light of this position, what are the economic principles which should inform the AER as to whether or not an outsourcing arrangement satisfies the test in rule 91;

2 the extent to which (if any) the AER's framework differs from the principles you have identified;

3 please identify any principles you have identified in your answer to question 1 above which were not taken into account by the AER in making its decision to disallow the NMF; and

4 please comment on whether the AER should have taken these principles into account.

Use of Report

It is intended that your report will be included by Envestra in its response to the AER's Draft Decision. The report may be provided by the AER to its own advisers.

The report must be expressed so that it may be relied upon both by Envestra and by the AER.

The report will be reviewed by Envestra's legal advisers and will be used by them to provide legal advice to Envestra as to its rights and obligations under the National Gas Law and National Gas Rules. You will be required to work with these legal advisers and Envestra personnel to assist them prepare Envestra's submissions in response to the draft and final decisions made by the AER.

Compliance with the Code of Conduct for Expert Witnesses

Attached is a copy of the Federal Court's Practice Note CM 7, entitled "Expert Witnesses in the Federal Court of Australia", which comprises the code of conduct for expert witnesses in the Federal Court of Australia (**the Code of Conduct**).

Please read and familiarise yourself with the Code of Conduct and comply with it at all times in the course of your engagement by Envestra.

In particular, your report prepared for Envestra should contain a statement to the effect that the author of the report has read the Code of Conduct and agrees to comply with it.

Your report must also:

1 give details of the expert's qualifications and of the literature or other material used in making the report;

2 state all of the questions or issues that the expert has been asked to address;

3 state all of the factual premises upon which the report proceeds; and

4 otherwise comply with the Code of Conduct.

It is also a requirement that the report be signed by the expert and include a declaration that the expert has made all the inquiries which the expert believes are desirable and appropriate and that no matters of significance which the expert regards as relevant have, to the expert's knowledge, been withheld from the report.

Please also attach a copy of these terms of reference to the report.

Terms of Engagement

Your contract for the provision of the report will be directly with Envestra Limited. You should forward to Envestra Limited any terms you propose govern that contract as well as

your fee proposal. Your invoices for the production of the report are to be addressed and sent to Envestra Limited.

Contact with us

We request that you contact us or Envestra Limited by telephone in the first instance to discuss any requests for the provision of data or your preliminary conclusions. All enquiries to Envestra Limited should be made to Craig de Laine.

Please sign a counterpart of this letter and forward it to Envestra Limited to confirm your acceptance of the engagement by Envestra.

Yours faithfully

Enclosed: Federal Court of Australia Practice Note CM 7, "Expert Witnesses in Proceedings in the Federal Court of Australia"

………………………………………..
Signed and acknowledged by Ms Katherine Lowe

Date …………………………………..

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