Response to Commerce Commission's Input Methodologies Draft Reasons papers - Cost Allocation

An economic expert statement

August 2010
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Executive Summary

This statement has been prepared by Euan Morton (Principal), Sam Lovick (Principal) and Matt Rodgers (Director) of Synergies Economic Consulting Pty Ltd (Synergies). This is the fourth of our statements in relation to the Commerce Commission's development of Cost Allocation Input Methodologies for electricity distribution and gas distribution services. Our CVs are an Attachment to this statement.

Synergies is aware of Vector's position that the Commission should not seek to share efficiency gains with consumers arising from supply of regulated and unregulated services together.

If, contrary to this position, the Commission is required to seek to share such efficiency gains, in our view, its proposed fully distributed cost (FDC) methodology does not best meet the Part 4 Purpose Statement in relation to shared cost allocation between regulated and unregulated businesses.

Rather, the Stand Alone Cost/Incremental Cost (SAC/IC) approach is materially better to meet the Purpose Statement requirements because:

- it will create strong incentives for entities regulated under Part 4 to innovate and to invest in regulated and unregulated services, which will facilitate the achievement of dynamic efficiency gains;
- it provides the regulatory certainty required to encourage regulated businesses to pursue unregulated service opportunities to meet consumer demands, which will promote the long term benefit of consumers;
- it will not unduly deter investment by a supplier of regulated goods or services in the provision of other goods or services (consistent with section 52(T)(3)) because the Commission will not have to second guess what level of common cost allocation is sustainable for particular unregulated services for which it will have insufficient information to make informed decisions; and
- consumers of regulated services will be no worse off through adoption of the SAC/IC allocation approach.

Our concerns with the Commission's proposed approach are set out in more detail in this statement and are summarised below.

Basis of Commission's shared cost allocation approach

The Commission proposes two theoretical bases for allocating shared costs to achieve outcomes consistent with workably competitive markets (WCM):

(a) by reference to Ramsey principles; and

(b) by reference to long term contracts.

Having regard to these theoretical bases, the Commission concludes its default accounting-based (FDC) methodology is likely to lead to cost allocation outcomes which are consistent with WCM outcomes while the SAC / IC methodology is unlikely to do so.

Application of Ramsey principles

In relation to Ramsey principles:

- Synergies agrees with (and has supported in previous statements) the Commission's view that Ramsey principles provide the most pertinent insights regarding shared cost allocations, although it is not practical to strictly adopt this allocation method;
- Applying Ramsey principles to shared cost allocations between regulated electricity distribution businesses (EDBs) and gas pipeline businesses (GPBs), given likely demand characteristics of regulated and unregulated services, the Commission acknowledges that an allocation close to (but not at) SAC for the regulated services may in many (but not all) cases be consistent with Ramsey principles in the long term.[1]
  - Further, a shared cost allocation at or beyond SAC/IC would not be observed in WCMs.

Synergies makes the following comments in relation to this reasoning from an economic perspective:

- applying Ramsey principles to the allocation of shared costs will identify the appropriate allocation of these costs to regulated and unregulated services between the SAC/IC boundaries;
  - the optimal allocation of shared costs between SAC/IC boundaries should be driven by the demand characteristics of regulated and unregulated services not the cost allocation methodology;
  - however, the Commission has not established an approach which enables an EDB/GPB to operationalise the Ramsey principles;

[1] Commerce Commission, Input Methodologies (Electricity Distribution Services) Draft Reasons paper, p62

  - this is notwithstanding the Commission's draft gas pricing principles which provide that costs above incremental costs should be recovered in a manner that minimises the effect on consumption and investment decisions while having regard to the impact on users (ie recovery in accordance with demand elasticities);[2]

- in particular, there is no economic basis for the Commission to consider that an accounting-based FDC allocation will result in a socially efficient allocation of costs (including in the long term) because:
  - given inelastic demand for services in the regulated market, if there is a degree of competition in the unregulated services market (as would appear likely given its unregulated nature), the most plausible assumption is that the shared cost allocation to unregulated services will be close to or at the IC boundary;
    - indeed, arbitrary cost allocation methodologies, such as FDC, are very likely to result in a socially inefficient low allocation of such costs to the regulated businesses (the net effect will be to tax the regulated business).

- in any event, the Commission cannot be sure that allocation at the SAC/IC boundaries for regulated and unregulated services respectively would not be observed in WCMs, so an avoidable cost allocation methodology (ACAM) is plausible, if not likely, to be the consistent with outcomes of WCMs while clearly being superior to FDC in achieving the Purpose Statement objectives in s 52A(1)(a)-(d).

Application of long-term contract analogy

In relation to the long term contract analogy, the Commission argues that a contract between an EDB/GPB and an informed customer of regulated services would likely provide for a mechanism for efficiencies from economies of scope to be passed on (although no evidence is provided for such an outcome).

However, in our view, the economic rationale for including a 'scope efficiency' sharing rule for regulated customers in such a hypothetical contract is unclear for the following reasons.

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2 Commerce Commission, Draft Commerce Act (Gas Distribution Services Input Methodologies) Determination 2010, paragraph 2.6.2 and and Draft Commerce Act (Electricity Distribution Services Input Methodologies) Determination 2010, paragraph 2.6.2

First, there appears to be a presumption that unregulated services are being supplied in competitive markets (otherwise they would need regulation). Under such a paradigm, competition would drive prices to costs, thereby passing all efficiency gains to the customers of the unregulated services. Any contractual impost that passed gains to regulated rather than unregulated customers would render the EDB/GPB uncompetitive in the relevant unregulated services market. Hence, it is unclear why, *ex ante*, an EDB/GPB would agree to such terms and also unclear why consumers (as customers of both regulated and unregulated services) would agree to them.

Second, even if there is some justification for allocation of shared costs to some unregulated services (thereby 'sharing' some of the benefits with customers of regulated services), it is unlikely that an EDB/GPB would enter into a long-term contract to do so *unless* that contract allowed the allocation to vary in accordance with conditions in the unregulated service market.

Hence, it follows that a cost allocation rule in a regulatory context should not be enshrined in a fixed FDC framework with some prescribed scope efficiency sharing mechanism, but should simply allow cost allocations within IC and SAC boundaries based on the Ramsey principles that the Commission appears to accept.

Third, it could also be expected that the customers of the regulated service under long term contracts would be required to bear some of the 'downside' revenue/profit risks associated with delivery of any unregulated services if they expect to share in any revenue/profit 'upside' due to scope efficiency gains. However, to do so would expose the EDB/GPB and its customers of the regulated service to losses on its unregulated services in the event that demand becomes more elastic or competition more intense in that market over time. Indeed, longer term demand elasticities will be relevant to the cost allocation issue and these will tend to favour more strongly the SAC/IC approach. However, the Commission has not been inclined to recognise this two-way risk sharing in developing its cost allocation methodology.

Given these considerations, in our view, the long term contract analogy as developed by the Commission is of little practical assistance in developing a Cost Allocation IM without allocation rules that reflect the Ramsey paradigm.

Test for undue deterrence

The Commission allows for an EDB/GPB to apply for an optional variation to the accounting based default allocation if the business judges that investment incentives in relation to unregulated services will be unduly harmed.

In so far as EDB's are required to submit a certification and supporting evidence in a request for a shared cost allocation variation, which evidence the Commission may review, it should be sufficient for the Director to certify that the default cost allocation approach is a *significant* factor in deterring the proposed investment not *solely* responsible as proposed by the Commission.

We are also concerned that under the optional variation mechanism, the Directors of an EDB/GPB will be required to re-allocate shared costs only to the extent that a proposed investment will not be unduly deterred (and no more than this) and certify that this is the case. This is unreasonable and implies an *ex ante* shared cost re-allocation can be precisely calibrated when there is no guarantee that the proposed investment in unregulated service will be successful or not and hence whether the shared cost allocation will be appropriate or not. The unregulated market circumstances will ultimately determine that outcome, which will depend on an efficiency gain actually being achieved.

Finally, the lack of details in the proposed Cost Allocation IM regarding the Director certification process means that the allocation variation mechanism is less likely to be utilised. (The section below further discusses the Commission's assessment process regarding shared cost allocations.)

Cost Allocation Materiality Screening Criteria (CAMSC) thresholds

While remaining concerned about the Commission's preference for the FDC approach, we recognise, in principle, the potential benefit of applying a revenue threshold test and subsequent operating cost and asset value thresholds tests to allow an EDB/GPB to apply the ACAM rather than FDC.

However, we consider that the proposed 5% revenue threshold is too low and should be at least 10%. This would screen out unregulated services of such a small scale that allocation of a proportion of shared costs would not materially affect the prices of regulated services but may adversely affect delivery of the unregulated service, and would minimise administrative costs for EDBs/GPBs associated with CAMSC. The Electricity Networks Association's (ENA's) submission provides a quantified example of the potentially beneficial effect of a higher revenue threshold.[3]

In contrast, the level of the operating cost and asset value thresholds seems reasonable. We also support ENA's proposal for an additional gross profitability screen, which

[3] Electricity Networks Association, Submission 2, Cost Allocation Input Methodology, pp 8-12

would allow an EDB/GPB to demonstrate to the Commission the capability of an unregulated activity to support a shared cost allocation.

Commission's assessment process

The Commission is silent on the process for approving or not approving an EDB's departure from the FDC approach, whether it will publicly disclose the reasons for its decision, whether it intends not to formally make a decision to approve or reject but rather simply subject the EDB's alternative cost allocation approach to the information disclosure requirements.

However, in our view, prescription around the Commission's assessment processes will provide regulatory certainty regarding incremental investments in unregulated services. Consequently, it is essential that details of the cost allocation variation approval process and Director certification and supporting information provision process are included in the Cost Allocation IM.

The current lack of certainty and transparency around these processes means it is less likely that EDBs/GPBs will utilise them, which may result in potential investment in unregulated services being unduly deterred or not made.

Conclusion

The Commission's proposed use of the FDC approach as its default cost allocation methodology is unlikely to lead to an optimal allocation of shared costs between regulated and unregulated services because of its accounting basis, which has no regard to the demand characteristics of the respective services.

In contrast, the IC/SAC methodology is transparent, easy to apply in practice and has a sound economic efficiency foundation. On these grounds, it is the most likely of the identified cost allocation alternatives to provide the regulatory certainty required to encourage regulated businesses to pursue unregulated opportunities consistent with the Part 4 Purpose Statement and section 52T(3).

However, if the Commission persists with its FDC approach, proposed thresholds for application of the FDC approach are supported (subject to a higher revenue threshold) as a means of reducing administrative costs regarding shared cost allocations for EDBs/GPBs. In contrast, the optional variation mechanism is unlikely to be utilised because of the regulatory uncertainty it will create due to its lack of detail/prescription.

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1 Introduction

I, Euan Morton, of Brisbane, Australia, Economic Consultant, affirm that:

I am a Principal of Synergies Economics Consulting, which is an Australian economic and public policy advisory business located in Brisbane. Synergies was established in early 2004 and consults extensively in the infrastructure sector, most particularly on costing and pricing work in the energy, transport and water industries.

This Statement is an expression of the independent expert opinion of my firm. In preparing this Statement, I recognise that it could be used as evidence in any subsequent appeals regarding the Commerce Commission's development of Input Methodologies. Consequently, I have read the code of conduct for expert witnesses appearing before the High Court of New Zealand. To the extent it may be relevant to confirming the independence of my expert opinion as expressed in this Statement, I agree to abide by the terms of the code of conduct for expert witnesses (Schedule 4).

I have been assisted in the preparation of this statement by Sam Lovick (Principal) and Matt Rodgers (Director).

1.1 Qualifications

Our short curriculum vitaes are presented as Attachment A.

1.2 Matters addressed in this Statement

We have been asked by Vector to comment on

- the Commerce Commission's Input Methodologies (Electricity Distribution Services) Draft Reasons Paper, dated June 2010 and the Input Methodologies (Gas Pipelines Services) Draft Reasons Paper, dated June 2010, in so far as they relate to the cost allocation issue; and
- the Expert Reviews of the Commerce Commission's Draft Reasons Papers for Electricity Distribution and Gas Pipeline Services provided individually by Martin Cave, Michael Pollitt, John Small and George Yarrow, dated July 2010, in so far as they relate to the cost allocation issue.

1.3 Summary of Synergies previous statements

Synergies has made three previous statements to the Commission on behalf of Vector regarding the development of a cost allocation input methodology (IM) under the new Part 4 legislative framework.[4]

1.3.1 Key arguments in previous statements

The key arguments raised in our earlier statements can be summarised as follows:

- the issue of cost allocation and unregulated service provision should be considered in an economic rather than an accounting framework;
- from an economic efficiency perspective, provided an unregulated service bears at least its incremental costs of supply, dynamic efficiency gains will accrue if there is profitable investment in and delivery of these services;
  - this emphasises the importance of the incentives provided under the Part 4 regulatory framework for EDBs/GPBs to pursue unregulated service opportunities;
- to undertake the necessary investments in unregulated activities, the regulated business needs sufficient regulatory certainty regarding how costs will be allocated to regulated and unregulated services because the latter are generally likely to be higher risk than the regulated activities and hence are less likely to be pursued if the regulatory framework is unaccommodating;
- the Commission's preference for the accounting-based fully distributed cost (FDC) approach will result in an economically efficient allocation of shared costs only by chance and so is unlikely to promote incentives to invest in unregulated service provision;
- in contrast, the incremental/avoidable cost allocation has a sound economic efficiency foundation and, as a result, is most likely of the available alternatives to provide the regulatory certainty required to encourage regulated businesses to pursue unregulated opportunities consistent with the Part 4 Purpose Statement and section 53T(3).

[4] Refer: Synergies, Selected issues arising from Commerce Commission's Input Methodologies Discussion Paper, August 2009; Synergies, Input Methodologies Post Conference Cross Submissions, October 2009; Synergies, Synergies Post-Workshop Cross Submission Report to the Commerce Commission, March 2010

1.3.2 Facilitating investment in unregulated services

In our view, the most important guiding principle for a regulator in determining a cost allocation approach for a regulated entity supplying both regulated and unregulated services is that consumers of the regulated service should be made no worse off by the allocation approach adopted. To the extent that the regulator's chosen cost allocation approach creates incentives for investment in unregulated services to be made, then a potential net welfare gain to society can result from that new investment.

This potential net welfare gain could be achieved as follows:

- provided the price for the unregulated service is at least equivalent to the incremental or avoidable cost of its supply, and the price for the regulated service is no more than the stand alone cost (SAC) of its supply, then customers of the regulated service will be no worse off from the provision of the unregulated service relative to a situation where the unregulated services are not provided at all;
  - if this results in incremental capital or operating expenditure in relation to unregulated service provision, there will be a net social welfare gain through the expansion of economic activity;
- in contrast, if the cost allocation framework results in a mechanical allocation of common costs with no regard to the capability of the unregulated service to support an allocation of shared costs given market circumstances, then the choice of cost allocation framework may result in the network provider not offering the unregulated service;
  - as a result, none of the possible efficiency gains associated with pursuing the unregulated service will be created.[5]

In general, a regulated entity's delivery of unregulated services will create greater business risk than regulated services, including because the former services will be provided in competitive markets. As a result, the extent to which these services can support shared costs will generally be less than the regulated services. Consequently, any cost allocation method approved by a regulator must have regard to these respective different market circumstances, particularly if the objective is to create incentives for provision of unregulated services.

There must be sufficient potential profit 'upside' to encourage energy network service providers to undertake unregulated activities, in order to offset the associated risks.

[5] Synergies, Selected issues arising from Commerce Commission's Input Methodologies Discussion Paper, p XII

This is especially the case where the benefits from the unregulated activities will be truncated, as is envisaged by the Commission. If service providers are required to share any positive returns derived from delivering unregulated services early in the life of the new investment and/or are allocated a common cost share regardless of any benefit being delivered, this is likely to unduly deter this type of investment being pursued by making it significantly more expensive to pursue.

If any efficiency gains are simply taxed away, by transferring the gains to customers of the regulated businesses by reducing the allowed allocation of common costs to the regulated business[6] or where the business is actually worse off by virtue of its commercial position being superior by operating only regulated services, then the firm will have very weak incentives to continue with or undertake unregulated activities.

This does not represent a simple transfer from suppliers to customers or from diversified to stand alone suppliers,[7] but is an absolute efficiency loss to society. To the extent that there are scope economies[8] available to diversified businesses that cannot be realised by separate stand alone businesses,[9] and that the effective tax on regulated businesses (imposed albeit inadvertently by the regulator) discourages these activities, then the scope efficiency gains will never be realised.

In other words, either society will lose from the cessation of the provision of the service altogether (an allocative efficiency loss) or less of the service will be provided in an inherently less efficient way (a loss of productive and allocative efficiency). Neither of these outcomes is in the long-term interests of consumers. Moreover, because consumers of electricity lines services are ubiquitous in New Zealand, the loss of the provision of unregulated services (whether this manifests in a reduction in competition in the relevant markets or a cessation of the service altogether) cannot by definition be in their long-term interests.

1.3.3 Limitations of FDC approach

We have previously argued in favour of the SAC/IC allocation approach on the grounds that it is most likely of the range of cost allocation available to the Commission to promote investment in unregulated services consistent with the Part 4

6 The expected result, for example, if the allocation is based on fully distributed costs or activity based costing.

7 Adopting the premise that stand alone businesses will supply the services if diversified businesses have not incentives to do so.

8 One should not think of these merely in terms of joint and common costs, although this is the focus of this discussion. Scope efficiency gains can also arise when diversification provides a more effective base for business and service innovation.

9 An increasingly realistic outcome with the increase in large scale IT based business support systems.

Purpose Statement. As noted above, this is because of its greater potential to create efficiency gains through network provider's provision of unregulated services, which is consistent with section 52T(3) of Part 4.[10]

Our main concern with the Commission's reliance on the accounting-based FDC allocation approach as its default cost allocation methodology is that it has no economic basis. This is because the accounting framework is focussed on the allocation of costs across various business units for internal or external financial reporting purposes, with no regard to how this allocation may facilitate or hinder the achievement of economic efficiency across regulated and unregulated services. As a result, it is only by chance that an allocation of shared costs that is consistent with outcomes in WCM will result. In effect, the economic and accounting frameworks have fundamentally different purposes.[11]

For the cost allocation approach to not unduly deter investment generally, and to be in the long term interests of consumers more specifically, it is necessary that it not change the regulated businesses' incentives to pursue such activities or to pursue them to the same extent relative to the world which would be expected to emerge if an IC approach were adopted.

1.3.4 Structure of statement

The remaining chapters of this statement are set out as follows:

- Chapter 2 summarises the Commission' approach taken in its Draft Reasons papers for electricity distribution and gas distribution
- Chapter 3 provides our critique of the arguments in the Draft Reasons papers under the following headings:
  - Section 3.2 - Application of Ramsey principles; Section 3.2 - Use of long term contract analogy; Section 3.3 - The Commission's default FDC approach; Section 3.4 - Materiality thresholds; Section 3.5 - Test for undue investment deterrence; Section 3.6 - Summary of experts' reviews of Draft Reasons papers; and Section 3.7 - Mergers and acquisitions;
- Chapter 4 concludes.

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10 Section 52T(3) provides that an input methodology must not unduly deter investment by a supplier of regulated goods or services in the provision of other goods or services.

11 Synergies, Selected issues arising from Commerce Commission's Input Methodologies Discussion Paper, p 60

2 The Commission's approach in the Draft Reasons papers

The Commission in its Draft Reasons papers has continued to rely on the accounting-based FDC approach as its default cost allocation methodology, but has changed its proposed optional profitability disclosure measure.

The Commission has refined its approach by the introduction of an initial revenue threshold and subsequent operating cost and asset value threshold screening tests, which are intended to allow an EDB/GPB to depart from the default FDC approach.

2.1 Key elements of Commission's proposed approach

The Commission now proposes a cost allocation IM, which requires that:

- causal allocators must be used where they are available; and
- proxy allocators must be used where causal allocators are not available.

This default allocation approach must be used to allocate non-attributable (shared) costs between electricity distribution services, other services regulated under Part 4 (such as gas pipeline services) and unregulated services (in aggregate). In respect of unregulated services, this FDC approach must be used unless unregulated services do not exceed a materiality threshold of 5% of total regulated revenue, in which case the avoidable cost allocation methodology (ACAM) may be used.

If this unregulated revenue threshold is breached, re-allocation of shared costs is allowable so as not to unduly deter investment in unregulated services. Specifically, if shared operating costs exceed 15% of total operating costs and shared asset values exceed 10% of total value of the regulatory asset base (RAB), then an EDB/GPB can re-allocate the shared costs to other regulated services up to the point where the investment in the unregulated service is not unduly deterred.[12] The EDB/GPB can propose to the Commission the level of the shared cost allocation that will not deter investment in the unregulated service, but the proposed allocation must be no less than the avoidable costs of the service.

This is subject to an overall constraint that the total costs allocated to all regulated services, in aggregate, should be no higher than that resulting from application of the ACAM.

[12] If the operating cost and asset value thresholds are not breached, an EDB/GPB can apply the ACAM.

A Directors' certification and additional supporting information is to be provided to the Commission in relation to departures from the default allocation approach. However, the Commission's assessment and approval process is not spelled out adequately in the IM, other than to require that the default allocation approach is *solely* responsible for the investment in the unregulated service being deterred.

The Commission also provides 'illustrations of the information' it will require in order to monitor compliance with the Cost Allocation IM through public disclosure requirements.

Finally, the Commission proposes that where an EDB/GPB enters into a merger or acquisition with another regulated entity, any potential efficiencies may be temporarily retained by the EDB until these efficiencies are shared as part of the starting price adjustment under a DPP or CPP reset. In practice, this will mean that efficiency gains due to a merger or acquisition may need to be shared with customers of the regulated services within a very short period, including one year if the merger or acquisition were to occur towards the end of a regulatory period.

3 Synergies' assessment

The Commission identifies two potential models for allocating costs: by reference to Ramsey principles and by analogy to some form of long term contract agreed *ex ante* between customers of regulated services and the EDB/GPB, the latter incorporating some allocation of the gains from scope economies to the regulated customers. In our view, there is a lack of coherence between the application of Ramsey principles and the Commissions' default FDC approach, which is discussed in section 3.1. Section 3.2 discusses our concerns regarding the relevance of the long-term contract analogy.

The Commission's proposed use of the FDC allocation approach as its default methodology is discussed in section 3.3, having regard to the efficiency objectives of Part 4 and the limitations of the FDC approach in facilitating cost allocation outcomes consistent with those in WCM.

We consider the Commission's proposed use of screening tests prior to the requirement for an EDB/GPB to fully apply the FDC approach to regulated and unregulated services to potentially reduce compliance costs. However, such screening tests are necessarily arbitrary in the level at which they are set. This will create the risk that investments in unregulated services will be unduly deterred. We discuss our concerns about the screening tests in section 3.4.

The proposed optional variation to the application of the FDC approach is a new test, which Synergies addresses in section 3.5 and considers insufficient to address the deterring effects of the default FDC allocation approach.

Section 3.6 outlines our concerns with the Commission's proposed treatment of efficiency gains that accrue when two regulated entities engage in a merger or acquisition. In particular, we consider that the implied retention period for any such gains is too short to provide a meaningful incentive for these entities to pursue commercially beneficial mergers or acquisitions.

Overall, we remain concerned that the Commission's proposed cost allocation IM will unduly deter investment in unregulated services to the detriment of the long term interests of consumers in New Zealand.

3.1 Application of Ramsey principles

The Commission, recognising the potential benefits of investment in and provision of unregulated services by EDBs/GPBs, is concerned that these unregulated services may be provided at the expense of inefficiently high prices for regulated services. In so far as there are shared costs across regulated and unregulated services, there are efficiency

consequences that result from different allocations of these shared costs and different risks of cost recovery across regulated and unregulated businesses.

There are well understood principles in economics for allocating such shared costs in order to minimise inefficiency, and in this regard we support the Commission's analysis that Ramsey pricing principles provide the most pertinent insights for allocation of shared costs between regulated and unregulated services.

We further agree with the Commission that it is not practical to strictly adopt Ramsey pricing in a regulated context. Nonetheless, the principle of Ramsey pricing, that shared costs should be allocated to services where they result in the least impact on decisions regarding consumption of the relevant services is appropriate, even in regulated industries. The Commission's draft gas pricing principles appear to be in agreement on this point. [13] These draft principles provide that costs above incremental costs should be recovered in a manner that minimises the effect on consumption and investment decisions while having regard to the impact on users (ie recovery in accordance with demand elasticities).[14] This suggests support for the SAC/IC cost allocation approach as the best means by which GPBs can give effect to these pricing principles.

We agree with the Commission that the demand characteristics for regulated distribution services, particularly electricity distribution services, in many if not all instances, will be significantly less price elastic than unregulated services.[15]

However, in general, we do not consider that regulated and unregulated services will be complementary in that they will be consumed together. For example, in the EDB/GPB context, use of electricity poles and/or pipeline ducts to carry telecommunications cable (supply complimentarity) does not mean that the electricity /gas distribution service must be consumed with the telecommunication service. Hence, in general, it is unlikely that complementary service provision will complicate the choice of a suitable cost allocation methodology.[16]

Furthermore, the Ramsey pricing framework is usually presented in the context of monopoly where, relevantly, the own price elasticity of demand for the service provider is equal to the market price elasticity of demand. Where firms compete, as

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13 Commerce Commission, Draft Commerce Act (Gas Distribution Services Input Methodologies) Determination 2010, paragraph 2.6.2 and Draft Commerce Act (Electricity Distribution Services Input Methodologies) Determination 2010, paragraph 2.6.2

14 The (Australian) National Gas Rules provide similarly in section 94.

15 Commerce Commission pp 60-61

16 Commerce Commission, p 52

they may well do in the case of unregulated services, the efficient allocation of shared costs for the provider is its *own* price elasticity of demand, which will be more elastic than the market as a whole.[17] Hence, we concur with the Commission that the efficient cost allocation (under a Ramsey type approach suitably tailored for the regulated context) will generally result in costs close to or equal to SAC for the bundle of regulated services. Indeed, if there is a degree of competition in the unregulated services market (as would appear likely given its unregulated nature), it is unlikely that any other allocation will be efficient.

The Commission posits that cost allocations above SAC (or more properly, perhaps) prices that are higher than SAC would not be observed in a workably competitive market. We would accept this proposition over a sufficient time period[18] when there is workable competition.

Given these considerations, the Commission would appear to accept (as does Synergies) that cost allocation should result in costs that lie between IC and SAC boundaries for each and every service and bundle of services,19 and accept that cost allocations of shared costs should be broadly consistent with Ramsey principles, appropriately transferred to a regulatory context.

3.2 Use of long term contract analogy

The Commission posits that, using the analogy of long-term contracts as an indicator of desirable outcomes in regulation, particularly in respect of the RAB, it would expect such a contract between an EDB/GPB and the customers of regulated services to involve an efficiency sharing provision whereby the benefits of scope economies would be shared between customers of regulated and unregulated customers as they are generated.

However, in our view, the Commission's application of the long term contract analogy is under-developed and has limited theoretical appeal in a shared cost allocation context, particularly compared to Ramsey principles. No evidence is provided by the Commission to support its position and it does not assist with the selection of the appropriate Cost Allocation IM.

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[17] That is, the change in demand for services from the firm in response to a change in its price, rather than the change in demand in the market in response to a change in market price. If there are competing firms, own price elasticity will be higher (more elastic) than market price elasticity.

[18] Prices can rise above SAC for short periods of time in workably competitive markets but this will induce new entry and prices will fall back to SAC or less.

[19] So it follows that total allocated costs cannot exceed total costs across all regulated and unregulated and unregulated services.

The main problems we see with the long-term contract analogy are that:

- it is unlikely that an EDB/GPB operating in a WCB would have any commercial incentive to enter into a contract with such terms; and
- even if there was a commercial incentive, for an EDB/GPB to contract to share scope efficiencies with customers of regulated services, the sharing would vary in accordance with conditions in unregulated markets, including exposure to losses in those markets.

These points are explained further below.

The economic rationale for including a 'scope efficiency' sharing rule for regulated customers in a hypothetical long term contract is unclear. There is a presumption that unregulated services are competitive, otherwise they would need regulation. Under such a paradigm, competition would drive prices to costs, thereby passing all efficiency gains to the customers of the unregulated services. Any contractual impost that passed gains to regulated rather than unregulated customers would render the EDB/GPB uncompetitive in the relevant unregulated services market.

Hence, it is unclear why, *ex ante*, an EDB/GPB would agree to such terms. That is, it is entirely possible, indeed likely, that in order to reap the full efficiency gains from EDBs/GPBs in the provision of both regulated and unregulated services, that any scope efficiency gains are returned to the economy through lower prices for the unregulated services.

Furthermore, even if under Ramsey principles there is some justification for allocation of shared costs to some unregulated services (thereby 'sharing' some of the benefits with customers of regulated services), it is unlikely that an EDB/GPB would enter into a long-term contract to do so *unless* that contract allowed the allocation to vary in accordance with conditions in the unregulated service market.

It could also be expected that the customers of the regulated service under long term contracts would be required to bear some of the 'downside' revenue/profit risks associated with delivery of any unregulated services if they expect to share in any revenue/profit 'upside' due to scope efficiency gains. However, to do so would expose the EDB/GPB and its customers of the regulated service to losses on its unregulated services in the event that demand becomes more elastic or competition more intense in that market over time. Indeed, longer term demand elasticities will be relevant to the cost allocation issue and these will tend to favour more strongly the SAC/IC approach. Both of these scenarios are possible, particularly so give the expected shorter time horizon (or longevity) of individual unregulated services when

compared to regulated services. However, the Commission has not been inclined to recognise this two-way risk sharing in developing its cost allocation methodology.

We are of the view that, to the extent EDBs/GPBs are prepared to enter into long-term contracts that 'shared' scope efficiencies with regulated customers they would require an allocation rule that, in effect, reflected Ramsey principles. Hence, it follows that this cost allocation rule should not be enshrined in a fixed FDC framework with some prescribed scope efficiency sharing mechanism, but should simply allow cost allocations between IC and SAC boundaries based on the Ramsey principles that the Commission appears to accept. Under such an approach, the allocation of shared costs could be expected to change over time in line with demand conditions in the unregulated service markets.

Overall, we do not consider that the Commission's analogy of cost allocation as a long-term efficiency-sharing contract is of any practical assistance in the development of a Cost Allocation IM.

3.3 The Commission's default FDC approach

3.3.1 Promoting economic efficiency

The central purpose of the Part 4 regulatory regime is to promote the long-term benefit of consumers in regulated markets by promoting outcomes that are consistent with outcomes produced in competitive markets. However, in our view, it is not possible for a regulator to mimic these outcomes because of the imprecision of the regulatory task, including due to uncertainty (that will also apply to the regulated entity), information asymmetries and lack of market knowledge.

In this regard, the reference to the long-term benefit of consumers is important because it emphasises the efficiency focus of the Purpose Statement. Specifically, the assessment of consumer benefit in the long term must capture the dynamic element of efficiency. As a result, and in the context of unregulated service provision, I believe that the regulator's task is to determine what incentives are necessary for the regulated business to actually pursue business opportunities which will generally be more risky than their core (regulated) services.

This principle is highly relevant in determining the nature of the cost allocation methodology. In our view, the cost allocation framework could unduly focus on short-term concerns about the sharing of the existing pool of common costs (static efficiency). Alternatively, the framework could be interpreted more in terms of facilitating investment in regulated and unregulated services (dynamic efficiency).

In applying an economic framework to the cost allocation issue in practice, the Commission must be guided by the three types of economic efficiency:

- Productive efficiency - this is achieved where output is produced at the lowest possible cost. In order for this to occur, available economies of scale and scope must be realised.
- Allocative efficiency - this is achieved where available resources are allocated to their most highly valued use or, no one can be made better off without making someone else worse off.
- Dynamic efficiency - this is achieved where a firm makes optimal investments in new technology to improve productive capacity and continues to deliver products and services that respond to consumer tastes and preferences.

In the long run dynamic efficiency gains are most important because they can generate increased levels of economic activity through improved asset utilisation, increased competition in related markets, improved customer convenience and the provision of new services. These benefits will accrue both to consumers of the regulated and unregulated services. The distribution of these benefits between the respective consumers or between consumers and producers is a second order consideration from an economic perspective relative to the first order consideration that they be realised. The key economic consideration is that there is potentially a material economy-wide benefit from regulated entries providing services in unregulated markets. Such an outcome is unequivocally consistent with the Part 4 Purpose Statement.

The importance of dynamic compared to static efficiency in promoting improvements in social welfare has been acknowledged in the economic literature. For example, according to Schumpeter:

> the process of creative destruction implies that static efficiency, which is the optimal allocation of society's resources at a given point in time, is less important than dynamic efficiency, the achievement of long-term growth and technological improvement.[20]

New Zealand Treasury has also acknowledged this position as follows;

> Investment and innovation are key elements of dynamic efficiency. Both economic arguments and empirical studies of the literature confirm dynamic efficiency gains are more important for social welfare than static (allocative and productive) efficiency gains. Goolsbee (2000), for example, points out that delayed innovation

[20] http://www.cgu.edu

> and investment lead to missing markets where both consumers' and producers' surplus is missing, not just a welfare triangle. He estimates significant losses attending impediments to broadband investment."[21]

Furthermore the importance of regulatory approaches focusing on dynamic rather than static approaches is being increasingly accepted. As noted by Bauer and Bohlin there has been an evolution from static to dynamic regulation in terms of telecommunications policy in the United States[22]

> We propose the term *static regulation* for an approach that formulates the policy problem as one of controlling market power subject to technological and economic constraints. What we call *comparative static regulation* allows for technical change and asks how regulatory instruments should be designed in response to such developments. However, investment and innovation continue to be treated in an equilibrium framework. In contrast, *dynamic regulation* recognizes investment and innovation as a core challenge of the design of a regulatory framework. It acknowledges the inherent uncertainty of the new environment and conceptualizes investment and particularly innovation as a response by entrepreneurs and firms to market opportunities (and hence as a disequilibrium phenomenon). In contrast to full reliance on antitrust and competition law, dynamic regulation attempts to deliberately shape market rules in ways that are perceived as most conducive to the overarching objectives for the communication industries. In the US, practical regulation was predominantly influenced by the static perspective until the 1970s, more strongly affected by the comparative static approach until the late 1990s, and is presently in another transition to a dynamic approach, relegating the other perspectives to a less prominent role.

Hence, in our view, the promotion of dynamic efficiency should receive priority over static efficiency in choosing the cost allocation methodology. Moreover, static (allocative) efficiency in this context would need to recognise Ramsey principles for cost allocation, with demand elasticities driving the allocation of common costs in competitive markets where multi product firms are price takers. However, a regulator cannot hope to replicate demand elasticity-driven outcomes across all the potential incremental activities a regulated business might seek to provide. Moreover, the demand elasticity for electricity distribution services is known to be inelastic, which

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[21] Evans and Hughes (2003), http://www.treasury.govt.nz/publications/research-policy/wp/2003/03-31/twp03-31.pdf

[22] Bauer and Bohlin (2007), From Static to Dynamic Regulation. Recent Developments in US Telecommunications Policy, Link: http://www.itseurope.org/ITS%20CONF/istanbul2007/downloads/paper/09.08.2007_Bauer-Bohlin-ITS-2007.pdf

suggests these services should receive a relatively large share of common costs compared to unregulated services to maximise potential welfare gains.[23]

The issue of investing to achieve economies of scale and scope from the pursuit of unregulated activities is closely related to, but needs to be distinguished from, the cost allocation methodology applied in relation to the regulated and unregulated activities. This is the subject of the next section.

3.3.2 Distinguishing between efficiency gains and cost allocation

The major difficulty in undertaking cost allocation for electricity distribution (and economic infrastructure more generally) is the existence of significant common or joint costs. In simple terms, common costs are those costs that cannot be directly attributed to a specific service/activity (regulated or unregulated) because a causal basis for attribution/allocation is weak or non-existent. In contrast to directly attributable costs, there is no 'right' way of allocating these common/joint costs.

The allocation of common costs between regulated and unregulated services/activities does not itself generate any efficiency gains. If the unregulated activity is unable to generate sufficient revenues to recover its total effective cost to an EDB/GPB, including any allocated common costs, the business will either not pursue the efficiency enhancing opportunity or record a loss on that activity which reduces overall profitability of the business as a whole (regulated and unregulated activities). Effectively, the common costs allocated to the unregulated service, which could have been recovered from regulated users, are not recoverable from unregulated users. In other words, the inefficient allocation of common cost could mean that there is no efficiency gain to be shared.

As a result, allocation of common costs should occur in the least distortionary way possible having regard to maximising the dynamic efficiency gains from unregulated service provision.[24] Moreover, it should be recognised that cost allocation methodologies are mechanisms for distributing costs in a regulatory context and are inherently imperfect (because they are not market driven) and are therefore not the

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[23] For example, Sinclair Knight Merz in its National Cost Benefit Analysis of Proposals to Take Water from the Waitaki River; Final Report (22 December 2005) prepared for the Ministry of Economic Development used estimates of long-run price elasticity of demand for electricity of -0.21 for residential customers and -0.28 for each of industrial and commercial customers. Similarly, the National Institute of Economic and Industry Research (2007) undertook a review of the long-run price elasticity of electricity demand in the Australian National Electricity Market, and recommended values of -0.25, -0.35 and -0.38 for residential, commercial, and industrial customers, respectively. Naturally the elasticity for an input (such as regulated distribution services) will be less than the elasticity of the integrated product (delivered electricity incorporating the entire supply chain).

[24] Synergies, Selected issues arising from Commerce Commission's Input Methodologies Discussion Paper, pp 63-64

appropriate mechanism(s) for dealing with efficiency gain sharing in any event. This issue is discussed further in the context of mergers and acquisitions in section 3.7 of this statement.

3.3.3 Use of FDC approach

Notwithstanding the Commission's support for Ramsey principles as a guide in the development of its Cost Allocation IM, its proposed default allocation approach is FDC, an accounting-based approach. Synergies accepts that the proposed FDC approach (absent significant measurement errors) is very likely to result in EDBs'/GPBs' cost allocations that lie within the SAC/IC range rather than beyond the SAC boundary for regulated services in aggregate.

However, since there is nothing intrinsic to the FDC approach that would suggest allocations under it are consistent with a Ramsey approach, there are no grounds for believing that the final allocation it results in will reflect a socially efficient allocation of costs (i.e. the allocation that provides appropriate incentives for the EDB's to invest in unregulated services).

The FDC approach has received strong criticism in the economic literature. For example, Breautigam (1989) has stated that:

> FDC pricing will lead to prices which in general are economically inefficient, which is not surprising given the fact that the practice focuses heavily on cost and little on conditions of demand (including demand elasticities), which are important in determining the size of the deadweight losses from any pricing policy.[25]

In addition, Baumol et al (1987) commented more forcefully regarding FDC:[26]

> The "reasonableness" of the basis of allocation selected makes absolutely no difference except to the success of the advocates of the figures in deluding others (and perhaps themselves) about the defensibility of the numbers. There just can be no excuse for continued use of such an essentially random, or, rather, fully manipulable calculation process as a basis for vital economic decisions by regulators.

[25] R. Breautigam, Optimal Polices for Natural Monopolies, 2 Handbook of Industrial Organisation, 1289, 1314, 1989.

[26] W.J.Baumol, M.R. Koehn, R.D. Willig, How Arbitrary is Arbitrary? Or Towards the deserved demise of full cost allocation, 21 Public utility Fortnightly, 1987,

Therefore, it is difficult for the Commission to credibly argue that the FDC approach promotes outcomes consistent with those in WCM (or has regard to Ramsey principles) – this would happen only by chance.

The Commission further argues that allocation at the SAC/IC boundaries would not be observed in WCM and therefore ACAM is inconsistent with the Part 4 Purpose Statement:[27]

> The Commission agrees with submitters that ACAM neither deters nor unduly deters investment. However, the Commission is only required to avoid unduly deterring investments with this IM and as such the legislation allows that the IM might deter some investments. While an approach that allocates IC to unregulated services might not deter investments, such an allocation would not be consistent with those observed in workably competitive markets because in particular cases it would not produce an allocation within the SAC/IC range in the long term.

Leaving to one side our concern that the Commission may implement a Cost Allocation IM that might deter some investments,[28] it would appear that the Commission's rejection of ACAM is primarily on the basis it will result in cost allocation outcomes that lay at, or beyond, the SAC/IC boundaries rather than within them. This, in turn, is not consistent with outcomes in WCM in its view.

In our view, under a well-designed and administered SAC/IC methodology, costs should not be allocated beyond these boundaries rather they will be allocated at or within them. As noted in section 2.1, the Commission has proposed to address the issue of costs being allocated beyond the SAC/IC boundaries by establishing an overall constraint that the total costs allocated to all regulated services, in aggregate, should be no higher than that resulting from application of the ACAM. We support this position.

Moreover, the key issue is not simply whether the shared cost allocation between regulated and unregulated services is within the SAC/IC boundaries, it is that they are at the optimal point within the two boundaries. It cannot be assumed that the FDC approach will deliver that outcome or that it will not deter investment in unregulated services because the allocation outcomes under the FDC approach have no economic basis. In other words, it is somewhat artificial to make a distinction between 'at' or 'within' SAC/IC boundaries because of the questionable underlying basis of the common cost allocation to regulated and unregulated services. It also cannot be

[27] Commerce Commission, p 65

[28] For the reasons discussed in sections 1.2 and 3.3.1 of this statement.

concluded that an allocation outcome within the SAC/IC boundaries is necessarily more efficient than one at the boundaries.

Accordingly, since EDBs/GPBs are likely to be able to better assess at the time of investment the efficient allocation of shared costs to unregulated services and given the arbitrary allocation (within the SAC/IC boundaries) likely to arise from the FDC default approach, we anticipate that EDBs/GPBs will seek to use the proposed optional variation mechanism to re-allocate shared costs away from unregulated services.

We would expect that any re-allocation will be undertaken by the EDB/GPB having regard to Ramsey principles. The most plausible assumption that can be made about this re-allocation given the respective demand characteristics of regulated and unregulated services is that the allocation of shared costs to unregulated services will be close to the IC boundary and the allocation to regulated services, in aggregate, will be close to the SAC boundary. The more competitive the market for the unregulated service (and hence the more elastic the own price elasticity of demand of the regulated business operating in that market), the closer its allocation of shared costs to this service will be to the IC boundary.

For example, it could be postulated what would occur in a WCM if competition in the unregulated service reduced prices to the level that the unregulated operation could not sustain the FDC allocation, ie the EDB/GPB would logically move towards an allocation close to or at IC and still be rational, otherwise it would no longer be able to compete in the provision of the unregulated service.

Moreover, provided the shared cost allocation does not result in the double counting of shared costs allocated to consumers of regulated services (which the Commission's IM is intended to prevent), no consumers of regulated services will be worse off from the resulting cost allocation.

More generally, arbitrary cost allocation methodologies, such as activity based allocation or FDC, are very likely to result in a socially inefficient low allocation of such costs to the regulated businesses. The inefficiency consequences are likely to increase with:

- a regulatory bias towards lower prices of regulated services (which can be achieved through reduced shared cost allocations); and
- the size and extent of any associated unregulated businesses.

The net effect is to tax the regulated business, as follows:

- the extent of recovery of joint and common costs through the regulated business is limited by the lower than optimal allocation allowed by regulators;
- the extent of recovery of joint and common costs from the unregulated businesses is limited by competitive circumstances;
- the integrated business fails to recover all the joint and common costs; so
- there is an effective transfer from the regulated business to its customers (through lower profitability), which is essentially a tax.[29]

As a result, this weakens the incentive of a regulated business to invest in unregulated activities because it creates the opportunity for the regulator to tax the regulated business. This is contrary to the outcomes of a WCM where all potentially profitable opportunities will be pursued and is contrary to s.52T(3) which requires that any IMs must not unduly deter investment by a supplier of regulated goods or services in the provision of other goods or services. The net effects of FDC as the default cost allocation methodology is also contrary to the s.52A purpose of promoting the long term benefit of consumers because it discourages innovative activities and the delivery of new services. These are not outcomes consistent with those produced in competitive markets.

The central point is that there is a tendency for the regulator's desire to minimise the cost of the regulated service to be self defeating – in many instances, regulated businesses will simply not undertake the unregulated activity at all (resulting in there being no difference in the costs of the regulated service). This is because the cost benefit analysis for the unregulated service will need to factor in the loss of regulated revenue arising from the re-allocation of shared costs away from the regulated service.

3.4 Materiality thresholds

3.4.1 The problem with materiality thresholds

It is clear from the debate at the Commission's IM Conference that there are no WCB outcomes that can be used to set the level of the operating or asset value materiality thresholds (or any other thresholds) on a uniform or sectoral basis. As a result, the

[29] Synergies, Synergies Post-Workshop Cross Submission Report to the Commerce Commission, p 26

choice of materiality thresholds will be arbitrary, more or less depending on the level of the chosen thresholds.[30]

Moreover, even with the materiality thresholds in place, there is little doubt that any threshold will have an impact on those regulated EDBS/GPBs considering the transition from an exclusively regulated business model to one that has greater exposure to unregulated markets. Specifically, crossing that threshold line will expose the businesses to both substantial costs (in the form of a requirement to implement FDC accounts) and exposure to the risk of regulatory interference in their allocation of common costs to the unregulated services.

As a result, in isolation, such thresholds could have the perverse effect of encouraging regulated businesses to keep unregulated activities under the thresholds, which is contrary to the long-term interests of consumers, which will be for EDBs/GPBs to expand these activities wherever it is efficient to do so.

3.4.2 The Commission's proposed thresholds

Subject to the above caveats, we are of the view that the thresholds proposed by the Commission, both in respect of the 15% and 10% thresholds for shared operating and capital costs respectively, are reasonable in so far as they provide measurable and certain metrics that can be applied by EDBs/GPBs. However, on balance, we consider the initial 5% revenue threshold to be too low. This threshold is particularly important because it is the first hurdle applied under the Cost Allocation Methodology Screening Criteria (CAMSC) for unregulated services such that if it is not satisfied, the ACAM approach can be applied

In respect of the 5% unregulated revenue threshold, the Commission states that this is a pragmatic rule of thumb, below which the net benefit of an accounting-based allocation approach compared to ACAM may be limited. In reality the threshold is arbitrary and the Commission's suggestions in respect of cost and benefits of alternative accounting approaches are speculative.

In an accounting and auditing context determining materiality of an item is essentially a matter of judgement. The test of materiality under the relevant standard calls for consideration as to the likely users of the particular financial statements and as to the information needs of those users.[31]. In this regard, information is material if its

[30] Commerce Commission, Input Methodologies Conference, 15 September 2009, Airport Services, pp 48-66. Commerce Commission, Input Methodologies Conference,16 September 2009, Gas Pipeline Services, pp 173-177 . Commerce Commission, Input Methodologies Conference, 17 September 2009, Electricity Distribution Services, pp 293-301.

[31] SSAP-6, Materiality in Financial Statements, paragraphs, 4.1.3

omission or misstatement could influence the economic decisions of users taken on the basis of the financial statements. Hence, materiality depends on the size of the item or error judged in the particular circumstances of its omission or misstatement. A statement, fact, or item is material if, given full consideration of the surrounding circumstances at the time of completion of the financial statements, it is of such a nature that its disclosure, or the method of treating it, would be likely to influence the making of decisions by the users of the financial statements.

The SAAP-6 standard provides the following quantitative thresholds as a guide to materiality:

- a variation in amount which is equal to or greater than 10 per cent of the appropriate base amount, could be presumed to be material unless there is evidence to the contrary; and.
- a variation in amount which is equal to or less than 5 per cent of the appropriate base amount could be presumed to be immaterial, unless there is evidence to the contrary.[32]

The choice of materiality threshold should have regard to its context then, and in the context of the Part 4 Purpose Statement, in our view, the Commission should err on the side of a high not low threshold. This would suggest a threshold of at least 10%. We note that ENA's submission proposes an initial revenue threshold of 20%.

We recognise the benefits of safe harbours as a means of reducing regulatory compliance costs. Hence, a 10 or 20% threshold in respect of unregulated service revenues would be a sensible (although somewhat arbitrary) threshold because it would most likely screen out all unregulated services of such a small scale that allocation of a proportion of shared costs under the FDC approach would not have a material effect on the prices of regulated services but may adversely affect delivery of the unregulated service. A high threshold would also minimise administrative costs for EDBs associated with the CAMSC.

By its very nature, application of this revenue threshold is a blunt instrument. However, in our view, there is unlikely to be any economic benefit gained from use of a low revenue threshold because somehow this may more closely replicate outcomes in WCM. Such an outcome will only happen by chance when thresholds are being applied as a proxy for a market-driven outcome.

32 SAAP-6, Appendix

The ENA submission proposes a third screening test (in addition to the Commission's operating cost and asset value tests), which relates to gross profits (defined as unregulated revenues minus direct costs).[33] The screening test is 10% of the proportion of gross profits of unregulated services to regulated services. We consider this to be a reasonable final screen for those unregulated services generating small revenues in relation to their direct costs. In our experience, direct costs are often used as the basis for allocation of shared costs in infrastructure sectors.

A number of implementation issues would also need to be addressed by the Commission in introducing these materiality thresholds, including assessing whether the thresholds are triggered each year, and, if so, what would be the implication of this in terms of application of the FDC approach by an EDB/GPB. For example, the potential exists for fluctuations above and below the thresholds on an annual basis across a 5 year regulatory period.

3.5 Test for undue investment deterrence

3.5.1 'Solely' responsible Director certification

As discussed in section 3.2, we are of the view that the default allocation rule will only result in efficient outcomes temporarily or by chance because it has no regard to Ramsey principles. EDBs/GPBs are therefore likely to seek re-allocation via the optional variation mechanism and will therefore need to follow the 'not unduly deterred' test set out by the Commission.

The Commission's proposed test requires that the investment in an unregulated service is deterred only if the default FDC cost allocation approach is *solely* responsible for the service to be discontinued and/or not provided. In addition, the permissible extent of shared cost variation from the FDC approach is only that which is sufficient not to deter the investment occurring (ie no more shared costs should be re-allocated than is necessary to deter the investment). In our view, both these tests will establish high and problematic certification burdens on the Directors of EDBs/GPBs.

It is normal business practice for firms to evaluate the expected commercial returns from investment activities, including investments in unregulated services. In assessing those returns, an EDB would generally have regard to factors that depend upon the allocation of costs such as:

[33] Electricity Networks Association, Submission 2, Cost Allocation Input Methodology, p5

- expected return relative to its threshold return on investment (i.e. its investment hurdle rate); and
- the time that it takes the investment to become cash positive;

and factors that do not, such as:

- the strategic benefit that the project generates (which may be substantial for projects that have a large R&D component or high optionality); and
- the manageability of the project given resource constraints and resource availability (such as the availability of experienced staff).

While businesses differ in the techniques they use for evaluating these factors, there are generally rate of return criteria[34] that must be met across a proportion of the scenarios appraised (or the expected returns must exceed some threshold amount).

On that basis, an EDB/GPB would likely be able to determine whether a revised shared cost allocation approach is needed for a project to proceed when there are no complicating factors such as resource constraints or external strategic benefits. In such cases, the requirement that a Director certify that cost allocation is the sole deterrent is possible. However, it becomes much more difficult when there are complicating factors, and very difficult when one of the factors that the Director may be concerned about is the circular relationship between the value of the investment to the EDB and the decision that the Commission may make in approving an application for an alternative shared cost allocation.

In our view, in so far as EDB's are required to submit a certification and supporting evidence in a request for re-allocation, which evidence the Commission may review, it should be sufficient for the Director to certify that the default cost allocation approach is a *significant* factor in deterring the proposed investment.

Furthermore, to the extent that Directors must certify that the cost allocation is *solely* responsible for deterrence, Synergies would be concerned if that resulted in a dialogue between the Commission and the EDB/GPB, the former suggesting or requiring changes to the unregulated service before supporting a change in cost allocation. This would result in an unnecessary and costly interference in EDB/GPB investment decisions in markets that are deemed to be workably competitive and would increase regulatory costs, as well as the risk of regulatory error.

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[34] Albeit adjusted to reflect other factors.

3.5.2 Interpretation of a Director's certification and supporting evidence

The Commission has only set out the thresholds that would allow an EDB to re-allocate shared costs so as not to deter investment. It has not set out at all how they would interpret the Directors' certification and additional supporting information concerning the EDB's/GPB's proposed variation approach. Since the test that the Commission is, by implication, proposing is its own judgement on the level of cost necessary to provide sufficient incentives for the unregulated investment to take place, it follows that the Commission must have in mind some approach for determining, *inter alia*:

- the level and nature of the risk in the proposed unregulated investment;
- the return of and on capital that investors would require to support the project (noting that these may be substantially different from those that investors would demand from a regulated activity); and
- any other factors relevant to evaluation of the unregulated service such as the value of intellectual property generated from R&D and strategic benefits.

This presents significant problems for EDBs/GPBs.

First, it is unclear without some guidance from the Commission through either the Draft Reasons papers or precedent drawn from elsewhere cited by the Commission, the basis on which it will make such judgements. As a result, the Commission's proposed approach imposes substantial regulatory risk on any investment in unregulated services.

Second, even if the Commission develops and publishes a proposed approach, it is highly doubtful that they will address the evaluation from the same perspective or level of competence (in the sense of market and strategic knowledge) as the EDB/GPB. There is therefore a risk that the Commission's view will inappropriately prevail over the legitimate preferences of the EDB/GPB.

Third, there is a risk that the direct regulatory costs will be unnecessarily high, in that the Commission may require high levels of detail about each proposed unregulated service in order to approve a proposed shared cost re-allocation.

In our view, these concerns will discourage EDBs/GPBs from using the proposed optional variation in all but the starkest situation, and consequently discourage investment in unregulated services. As a result, we maintain our view expressed in previous statements that accepting the SAC/IC boundaries of allowable allocations of shared costs to unregulated services will promote the strongest incentives for efficient investment in unregulated services and, by implication, pose lowest risk of such investments being hindered.

To protect regulated service consumers, we consider that all unregulated services must bear at least their incremental costs ensuring that no incremental costs of unregulated services are allocated to regulated services, and that that the total costs allocated to all regulated services, in aggregate, should be no higher than that resulting from the ACAM (in accordance with the Commission's Draft Reasons papers). This will ensure that:

- all direct costs of unregulated services are borne by the consumers of those services (or, if not, result in a lower return for investors in the unregulated services); and
- consumers of regulated services are no worse off than they would have been had the EDB/GPB not entered into unregulated service provision

while maximising the potential economy-wide benefit achieved through investments in unregulated services regardless of the distribution of that benefit.

Any other allocation of shared costs that is preferred by the Commission (i.e. that effectively enforces a particular allocation of shared cost to unregulated service different from the EDB's/GPB's preferences) cannot result in more efficient investment in unregulated services (than that which arises from the decisions of the EDB/GPB under the SAC/IC framework), but may well result in less. On that basis it must be seen as detrimental.

It may be that the Commission would adopt the SAC/IC approach in reviewing any application for re-allocation of shared costs. If that is the case (which we consider is appropriate), this should be stated in the variation decision, and the Director certification can be confined to the demonstration that this is so.

3.5.3 Commission's assessment processes

We strongly believe that the assessment criteria the Commission will follow for its optional variation mechanism, and the information requirements to meet those criteria, should be established in the IM. This will provide greater regulatory certainty to EDBs/GPBs and should aim to facilitate a timely assessment process. The Draft Reasons papers are deficient in this regard.

Furthermore, the Commission should clarify how the assessment criteria and supporting information requirements are consistent with its position that a shared cost allocation framework should be based on Ramsey principles. Without this detail, unregulated investments are likely to be seen as substantially more risky than is necessary. The Commission provides an indication of what may be required in Appendix C of the IM, but we think this is insufficient. The Commission should state

exactly what is required from EDBs/GPBs to meet its s.52R purpose of promoting certainty for the suppliers and consumers in relation to the rules, requirements and processes applying to the regulation of goods or services.

In addition, the Commission is silent on the process for approving or not approving an EDB's departure from the FDC approach, whether it will publicly disclose the reasons for its decision, whether it intends not to formally make a decision to approve or reject but rather simply subject the EDB's/GPB's varied cost allocation approach to the information disclosure requirements.

In our view, prescription around the Commission's assessment processes will provide regulatory certainty regarding incremental investments in unregulated services. An EDB/GPB must be certain that the allocation in place at the time of any investment in unregulated services will not change, or to the extent that changes are allowed, they follow predictable and understandable paths.

Consequently, it is essential that details of the cost allocation variation approval process and Director certification and supporting information provision process are included in the Cost Allocation IM. As things stand, it would not be possible for an EDB/GPB to approach the Commission with a proposed optional variation having a clear view as to what the assessment process will be, never mind the actual outcome of that process.

The current lack of certainty and transparency around these processes means it is less likely that EDBs/GPBs will utilise the optional variation mechanism, which may result in potential investments in unregulated investments being unduly deterred or not made. The Commission will not then have discharged its statutory purpose.

3.6 Summary of experts' reviews of Draft Reasons papers

The Commission asked four experts to review and comment on its Draft Decisions and Draft Reasons papers for electricity distribution services and gas pipeline services.

Subject to certain caveats, the experts agreed that the Commission's proposed Cost Allocation IM meets legislative requirements, including facilitating outcomes consistent with those in WCM. Key points raised by the experts are identified in the sections below.

3.6.1 Michael Pollitt

Pollitt queries whether Ramsey pricing principles imply that little or none of the fixed cost of EDBs/GPBs should be charged to broadband telephony services because:

- it is by no means clear that the demand for broadband services will be more elastic than demand for energy network services in the long run; and
- given pole/pipe rental is likely to be a smaller percentage of the final cost of broadband compared to energy network services, the price elasticity of demand for broadband with respect to the pole/pipe rental charge might be similar or lower than the price elasticity of demand for energy services with respect to pole/pipe charges.

In his view, to the extent both these observations are correct the broadband service should be charged - at least in the medium run - for the use of EDB/GPB assets.

3.6.2 Martin Cave

Cave notes that proposing a practicable outcome from the operation of WCM is not straightforward given there is no agreed or easily implementable theoretical solution.

He notes that a provider in a WCM seeking to recover the full SAC of each of its separate activities would in normal circumstances be undercut by a rival which was prepared to recover the common costs once only; this implies some kind of sharing of the burden of common cost recovery, and hence implicitly a form of cost allocation.

However, in WCM, it is the degree of price elasticity which a firm's individual demand curves exhibit, not the elasticity of market demand, which will determine the level of common cost allocations across its services.

3.6.3 John Small

Small notes that the Commission has provided a "safety valve" in the form of the cost allocation materiality screening criteria (CAMSC), which would permit EDBs/GPBs to price new unregulated services using ACAM in certain situations.

In his view, these criteria allow firms to launch or maintain new services that would be commercially viable if priced at their incremental cost but not if required to bear a 'normal' share of their common costs. This allows a standardised and low cost method of cost allocation to prevail, unless there are good reasons to depart from it.

3.6.4 George Yarrow

Yarrow notes in the context of an expansion in scale of a multi-product business in a WCM that, while the business needs to know how much its expansion costs, nothing rests on an (arbitrary) allocation of common costs to specific activities within the whole business.

He notes that workable competition provides reference points for thinking about the factors affecting the particular cost allocation that might appropriately be made. For example, where participants in the unregulated markets could make use of the regulated firm's services, then the regulated firm could potentially command a price up to the cost/price of the best alternative service. It may then be appropriate for significant levels of common costs to be allocated to the unregulated business.

Yarrow supports the Commission's proposed decision that, in general, unregulated businesses should bear at least some fraction of common costs. However, it could be disproportionate to insist on common cost allocations at the start-up of an unregulated business activity given a supplier may offer discounts early on in the expectation of achieving higher revenues over time.

In relation to the allocation of shared costs to unregulated services, Yarrow argues that if the relevant unregulated market is characterised by a price that is in excess of marginal costs (as is very frequently the case in WCM), a utility allowed to recover all common costs from regulated services would make supernormal profits on its overall business just by turning up in the related, unregulated market, even if it was less cost efficient than its rivals.

3.6.5 Synergies' response to experts' reviews of Draft Reasons papers

In our view, the responses from the experts make clear that economic regulation involves the allocation of costs to yield prices, whereas businesses providing unregulated services do no such thing: they take prices (as given) and common costs are simply costs.

The experts collectively appear to be in agreement that outcomes in WCM suggest that the sharing of efficiencies between regulated and unregulated services is appropriate over the long term. However, as discussed in section 3.3.3 of this statement, the key issue is not simply whether there is shared cost allocation between regulated and unregulated services, it is that they are at the optimal point within the SAC/IC boundaries. In this regard, the experts do not address the critical issue in our view of whether ACAM is plausible, if not likely, to be the consistent with outcomes of WCMs, while clearly being superior to FDC. In particular, the experts are generally silent on the weaknesses of FDC as an allocation approach, in particular, that it will only result in an efficient allocation of common costs between regulated and unregulated services by chance.

Michael Pollitt

In relation to Pollitt's view that broadband services may be more elastic than energy network services in the long term, this may or may not be the case, but we think it is inherently speculative. There appear to be more practical short and medium term implications for EDBs/GPBs regarding the application of the FDC approach and the incentive to make investments in unregulated services. In this regard, Pollitt focuses on pole/pipe rentals in discussing the relative demand elasticities, when there is a bigger issue about incentives for EDBs/GPBs to make investments in new riskier unregulated services eg investing in broadband service delivery not merely renting space on poles for third party providers.

Martin Cave

We agree with Cave's comments that common costs can only be recovered once in WCM (as would happen under a properly formulated and administered ACAM) and that individual own price elasticities of demand in the relevant services are the key to cost recovery in WCM. However, Cave does not directly address the extent to which the Commission's default FDC approach will allow this outcome to eventuate. As discussed in sections 3.3 of this statement, we do not consider that the Commission's default approach will facilitate EDBs/GPBs using own price elasticities of demand in the relevant services to drive shared cost allocation.

Moreover, in our view, the Purpose Statement requires a balancing of the "harm" to society likely to be caused:

- by allowing EBD's/GPB's to earn a profit on unregulated activity (which Cave has interpreted in terms of allowing the recovery of some of the common costs of the combined regulated and unregulated activities 'more than once' if the unregulated service receives only an IC allocation); and
- on the other hand, if the allocation rules create a sufficient disincentive for the EDB/GPB to abandon some or all of its unregulated activities.

We consider it is the practical very significant difficulties in deriving a cost allocation rule that avoids the latter harm that persuades us to advocate the SAC/IC approach – as:

- for the reasons outlined above (with particular reference to the respective demand elasticities) it is more likely to approximate the outcomes of WCM than the FDC approach; and

- it will do less harm to the community than the FDC approach in terms of foregone investment in unregulated activity. The abandonment of some or all of EDB/GPB unregulated activities in response to the application of a FDC allocation rule will deprive consumers of the benefits of choice and competition in affected markets. However, given that demand for electricity distribution services is inelastic, the economic benefits to consumers from the adoption of the FDC allocation approach will not be significant.

John Small

Small's argument that the CAMSC method will be low cost to apply may, or may not, be the case depending on how it is administered by the Commission. However, there is insufficient detail on the assessment process to determine whether it will be low cost. In addition, we have previously discussed the potentially perverse effects of materiality thresholds and are concerned that the initial revenue threshold is set too low, which may result in the FDC approach being applied unnecessarily (with associated additional administrative costs for EDBs/GPBs).

Small's reference to the potential benefit of the 'safety valve' in the CAMSC has superficial attraction. However, as noted in section 3.5.3, very little detail is provided by the Commission as to how such a mechanism would work in practice.

In our view, for the 'safety valve' to be effective, it must be available to EDBs/GPBs before substantial investment is committed to the project and there must be sufficient detail such that any EDB/GPB contemplating using it understands how it will be applied by the Commission – that is, the test must be applied ex ante and clearly detailed in the Cost Allocation IM. It is our view, that, if such a mechanism were developed and was effective, it would yield allocations consistently at or near those produced by the IC methodology.

It should be noted that there will inevitably be significant information deficiencies at the time of our potential new investment in an unregulated service. This in turn raises a key concern – the very fact that the Commission has pursued a FDC approach suggests that its presumption is in favour of cost allocation that allocates costs away from the regulated services to unregulated services.

Consequently, if this is the presumption that is adopted by the Commission for new activities, it is likely to present a considerable and at times insurmountable informational and evidentiary threshold for EDBs/GPBs.

This is because the information that is of greatest importance (the expected demand elasticity of the unregulated service opportunity for the firm) will not exist by

definition (as the firm would not have engaged in the activity before). This problem is in addition to the challenge that besets any elasticity estimation process.

In turn, for a safety valve to be effective, it is likely to be necessary for the test to confirm that, where there is no clear evidence that the activity can be profitable whilst supporting a FDC allocation (or whatever allocation is allowed by the Commission in the particular circumstances) the presumption is that an IC allocation would apply.

In practice, any other test is likely to present a clear disincentive to investment in unregulated services in contradiction to the Purpose Statement.

Moreover, the Commission's decision on the cost allocation in relation to the specific unregulated activity must be definitive and irreversible. The recent history on the establishment of an initial RAB valuation under Part 4 highlights the concerns that EDBs/GPBs reasonably hold about the Commission's proclivity to succumb to regulatory opportunism. Hence, the only way that the Commission's approach to ex ante decision making will be effective is if an irreversible decision is made at the outset of the process.

Accordingly, if the Commission were to develop an approach that were consistent with the Purpose Statement, in our view, it would be necessary for it to adopt a default position that an IC allocation is to apply in the absence of clear evidence to the contrary presented by the EDB/GPB. Moreover, that election must be irreversible.

Finally, such an approach is unlikely to be costless. It is necessary to consider the resources that will be devoted to the application – noting again that the extreme practical difficulty with estimating ex ante the expected demand elasticity of the unregulated opportunity for the firm. In practice, the risk is that the Commission will descend to second guessing commercial decisions of regulated businesses.

Moreover, there could be considerable costs associated with delays in the Commission's assessment and approval process – both for the parties in assembling the material and for the Commission in its consideration of the matter. These delays impose their own costs for the parties – noting that unregulated opportunities will only generally exist for short periods.

In summary therefore, despite the superficial attraction of the 'safety valve', our view is that the SAC/IC approach is likely to better meet the requirements of the Purpose Statement.

George Yarrow

We agree with Yarrow's comments that there may be situations where an unregulated service could support a relatively large common cost allocation. However, the correct allocation can really only be assessed by reference to the regulated business' own price elasticity of demand and this is essentially an empirical question for the business. In a regulatory context, a flexible common cost allocation rule is required to promote efficient outcomes. However, as discussed in the preceding sections, we have concerns whether the Commission's Cost Allocation IM is likely to deliver such outcomes.

In relation to Yarrow's point that EDBs/GPBs can make 'supernormal' profits in unregulated service markets where prices are in excess of marginal costs[35], this appears to be referring to the unlikely situation of perfect competition existing in the unregulated service market (normal profits are earned where prices equal marginal cost in the short run). However, in a perfectly competitive market, any supernormal profits (where price is in excess of marginal cost in the short run) will be competed away in the long run, as the supernormal profits of the EDB/GPB will encourage new entry and return to a normal level. This suggests that the unregulated service would not be able to support any shared cost allocation in the long turn.

Even if the perfect competition assumption is relaxed, Yarrow appears to ignore the competitive forces that are likely to be operating in a WCM, the drive for market share of participants and the resulting passing of benefits to the unregulated service consumers. As previously discussed, this suggests that the unregulated service may only be able to support a shared cost allocation very close to or at the IC boundary in the long run.

3.7 Mergers and acquisitions

As discussed in section 3.3.2, it is important to make the distinction between the allocation of common costs of a multi-service EDB/GPB and the achievement of efficiency gains in relation to the supply of its services.
In this context, the sharing of efficiency gains in relation to regulated services, which accrue due to mergers or acquisitions, is fundamentally a regulatory price setting issue, not a cost allocation issue. Consequently, in our view, it would be better if this issue was not addressed in the Cost Allocation IM. In this regard, we are in agreement with ENA that an efficiency carryover mechanism is a separate regulatory process or rule

[35] Yarrow refers to 'supernormal' profits earned by the whole business but if the regulated business is constrained to earn a normal profit, then the supernormal profits must be earned from the unregulated services.

that, pursuant to section 52T of the Act, should be included as an IM.[36] This position is consistent with that in Australia under the National Electricity Rules regulatory framework, where the Australian Energy Regulator has been required to develop separately, Cost Allocation Guidelines and an Efficiency Benefit Sharing Scheme. Notwithstanding this broader concern, our views on the Commission's proposed position regarding the treatment of efficiency gains from mergers and acquisitions are set out below.

3.7.1 EDBs/GPBs' incentives to pursue efficiency gains

The sharing of efficiency gains that have resulted from mergers and acquisitions after a period of retention by the EDB/GPB can be consistent with outcomes in WCM and can maintain the incentive for these entities to seek to achieve such efficiencies. In a WCM, market conditions (including existing or new competitors adopting similar business structures to achieve efficiencies that lower their own prices) will determine the timing of the EDBs/GPBs' gain sharing with customers. However, in a regulatory context, the regulator determines this timing.

In simple terms, the Commission must decide whether it wants to create a strong financial incentive to pursue service delivery efficiencies through mergers and acquisitions by EDBs/GPBs or whether it wants to create little or no incentive for EDBs/GPBs to pursue efficiencies in service delivery in this way.

A strong financial incentive for a long period enables the regulated entity to realise and retain the efficiency benefits it achieves. In contrast, a weak financial incentive means that the efficiency gains are less likely to be fully realised and can be retained by the EDB/GPB for only a short period, that is, some lesser amount of the efficiency gains are shared with customers of the regulated services but the sharing occurs relatively quickly.

In terms of the sharing of efficiency gains in the long term, the Commission has recognised that:[37]

> In the longer term, however, competitors will imitate (and potentially improve upon) the business model of the firm that has made efficiency gains due to economies of scope. Consequently, any above-normal or excessive profits will be competed away and the firm will not be able to sustain such profits over the long term, consistent with s52A(1)(d) of the Act.

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[36] Electricity Networks Association, Submission 5, Processes and Rules Input Methodology, p 21.

[37] Commerce Commission, p 49,

In economic terms, reflecting microeconomic production function theory, the long-run is the period in which all factors of production are variable. For electricity and gas network businesses, the long run could potentially be 50 or more years into the future given the long average life of network assets. However, production function theory is not particularly helpful in determining a sharing period for efficiency gains from merger/acquisition activity.

Rather, the period over which efficiency gains tend to accrue from mergers and acquisitions would provide a better basis for a sharing timeframe. However, it is difficult to find definitive evidence on a suitable timeframe given high variability in the achievement and timing of efficiency gains from mergers and acquisitions across industries. In some cases the full efficiencies gains of mergers and acquisitions can take a number of years to be fully realised.

As a result, reliance on the plain meaning of a long (and short) period is likely to be as good an approach as any. One relevant definition of the long term in this context is as follows: 'of, relating to, or constituting a financial operation or obligation based on a considerable term and especially one of more than 10 years'.[38] For example, a long-term bond has a maturity of 10 years.

Having regard to this definition and the Commission's recognition of the importance of the long term to efficiency benefit sharing, the Commission has failed to set a reasonable amount of time for efficiency benefits to be retained by EDBs/GPBs. Its proposed approach simply reflects the existence of a 5 year regulatory period, which bears no relationship to WCM outcomes. In other words, the Commission has created a very weak incentive, if at all, for EBDs/GPBs to contemplate undertaking mergers or acquisitions.

As a result, it is likely that the efficiency sharing mechanism as designed will have little positive influence on merger and acquisition activity by EDBs/GPBs. Significant mergers and acquisitions will either not happen or will likely only happen early in the term of a five year regulatory period. Over time, this will distort investment decisions and increase costs for consumers because mergers and acquisitions that could potentially create efficiency gains to the benefit of consumers of regulated services will not proceed.

Hence, if a merger or acquisition occurred in year one of a regulatory period but the full efficiency gains were only captured by the end of year three (through consolidation of the two businesses, including any costs incurred due to the consolidation process)

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[38] Merriam-Websters Online Dictionary

then the merged entity will only be able to retain the efficiency gains for two years. This is the most favourable outcome possible under the Commission's proposed approach. Clearly, any efficiencies accrued under a merger or acquisition, which occurs after the third year of the regulatory period, would be unlikely to be retained given they would not be fully captured by the EDB/GPB by the end of the regulatory period. Moreover, even if they were, they would need to be shared with customers at the commencement of the next regulatory period, should the Commission's draft decision stand.

3.7.2 Establishing a reasonable retention period

The nature of efficiencies (whether operating or capital) will determine the reasonable period for retention by an EDB/GPB, although this is not helpful in a regulatory context where a specified timeframe is necessary to provide regulatory certainty to entities contemplating mergers or acquisitions.

To the extent that it is desired to recognise the efficiency gains over more than one regulatory period, an efficiency carryover mechanism is required. In an Australian context, efficiency carryover mechanisms for energy network businesses have tended to be based on rolling five-year retention periods, which implies a 30/70 sharing ratio in favour of consumers.[39] [40] This is a relatively weak financial incentive. This would appear to be the minimum acceptable sharing period for the Commission to adopt.

However, in the context of the Part 4 objectives, the length of retention period should be guided by the strength of the incentive required for EDBs/GPBs to facilitate, or at least not hinder, the pursuit of mergers and acquisitions that will improve efficiency and be to the long term benefit of consumers,. Given a merger/acquisition is likely to take a number of years to 'bed down' and for the associated efficiencies to accrue, this would suggest a retention period of 10 years would be more appropriate than 5 years.

We therefore recommend that the retention period for any efficiency gains arising from merger and acquisition activities should be retained by the regulated business concerned for a period of no less than ten years and that this should be carried over between regulatory periods and in no way be limited by the term of the regulatory period.

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[39] We note that these mechanisms are more focussed on internally generated efficiencies rather than efficiencies accruing from mergers and acquisitions. However, the principle of an efficiency carryover mechanism applying across regulatory periods is directly relevant to the case at hand.

[40] The implied sharing ratio associated with an efficiency carryover mechanism can be derived from the ratio of the net present value of a given gain for a given number of years to the value of that gain retained in perpetuity.

4 Conclusion

In developing its Cost Allocation IM, we have argued that the Commission's focus should be on promoting dynamic efficiency gains consistent with the Part 4 Purpose Statement.

It has been accepted by stakeholders during the course of the Commission's development of a Cost Allocation IM, that it is impossible for a regulator to replicate WCMs regarding optimal common cost allocation outcomes. Moreover, WCMs provide no definitive guidance in this regard.

We recognise that the Commission's proposed CAMSC and optional variation mechanism are an attempt to circumvent its lack of knowledge of what level of common cost allocation is likely to be supportable for particular unregulated services. However, it may encourage the regulated entity to restrict its level of investment in order to minimise the likelihood of it having to allocate common costs to its unregulated service, given the cost of transgressing the threshold is potentially very high.

As a result, in an effort to approximate an optimal allocation outcome somewhere between SAC/IC boundaries, we suggest that the Commission is proposing an IM which risks unduly deterring investments in unregulated services, contrary to s52T(3).

We have argued that a SAC/IC approach represents the best practical alternative for cost allocation for regulatory purposes. It alone provides the certainty that will encourage the pursuit of unregulated activities. The introduction of regulatory financial reporting in relation to the unregulated service(s) would be a means of providing comfort that regulated services are not cross-subsidising unregulated services.

Accordingly, in practice, we believe that allocating full incremental costs to unregulated activities best advances the long-term interests of consumers consistent with the Part 4 Purpose Statement.

Attachment A Curriculum Vitae

Staff Curriculum Vitae

Name of Staff: EUAN MORTON

Position: Principal

In Brief:

Euan consults extensively in the infrastructure sector, most particularly on regulatory work in energy, transport, telecommunications and water. Euan has considerable experience in facilitating workshops, particularly in the context of evolving regulatory environments.

Skills and Capabilities:

- Economic regulation advice
- Competition policy and trade practices
- Economic policy advice

Key Appointments:

- Member of the Expert Panel advising the Ministerial Council on Energy on energy access pricing
- Independent Expert under the National Electricity Rules
- Member of the Trade Practices Committee of the Law Council of Australia

Recent Major Projects:

- Advised ENERGEX on interpreting the implications of the AER's DMIS
- Advised ENERGEX on network pricing approaches for achieving demand management objectives
- Advised the National Generators Forum on congestion management in the NEM for the AEMC's congestion management review
- Advised APIA on regulatory reforms associated with the National Gas Law
- Undertook an international review of transmission and distribution pricing reforms to highlight the emerging issues for Australian distributors
- advising the AEMC on demand side participation
- Reviewed the AER's proposed service target performance incentive scheme, highlighting the issues ENERGEX had to consider in the context of the scheme and business impacts
- Prepared a peer review of Professor Stephen Gray's gamma report for the ENA's submission to the AER's WACC review
- Advised a distribution provider on its Cost Allocation Method, including the requirements of the NER for costing
- Advised ENERGEX in relation to the capitalisation of its corporate and network support costs
- Prepared a submission for Powerlink in relation to refuting the AER's analysis of labour cost inflators – demonstrating the lack of realism in the AER's underlying assumptions resulted in a substantial increase in Powerlink's allowed revenue.
- Developed a regulatory test model for ENERGEX to assist it perform assessments of capex options to ensure compliance with regulatory requirements and to meet best practice in regulatory test assessments
- Advised numerous regulated businesses on regulatory strategy, including Ergon Energy, APA, ENERGEX, Telstra and QR
- Facilitated workshops for numerous regulated infrastructure providers, including ENERGEX, Ergon Energy, APIA Regulatory Affairs Committee, APIA Environment Committee, QR, SEQWater and ESAA Distribution Directorate

Staff Curriculum Vitae

Name of Staff: SAM LOVICK

Position: Principal

In Brief:

Sam has recently completed five years as the Chief Economist of CSL Limited, where he worked on a wide range of strategic and public policy issues. He has wide knowledge of health, pharmaceutical and biotechnology in Australia and in major overseas markets.

Prior to joining CSL, Sam worked for 17 years as an economic consultant working in the UK, US and Australia. He worked in the electricity industry, water, airports, health, the plasma fraction and pharmaceutical industries, telecommunications and the economics of performance measurement.

Skills and Capabilities:

- Corporate strategy
- Health and biotechnology
- Electricity
- Water
- Trade practice

Recent Experience:

Power Sector – Market Design and Restructuring

- advisor to Australian generator on anti-trust issues arising in Australian National Electricity Market;
- advisor to the California ISO on transmission investment evaluation, including the development of software tools and algorithms that take into account the cost impacts of uncertainty, the interdependence between transmission and generation investment, and the market power mitigation effects of transmission (after accounting for market structure, contracting behaviour and demand side responses);
- advisor to a major Texas electric utility on proposals for transmission pricing and market design;
- advisor to MEUG in New Zealand on transmission valuation and pricing; and
- advice to the Queensland Government on introducing competition to their electricity industry;
- advisor to the NSW GPT on regulation of the NSW electricity distributors and development of economic performance measures;

Price Regulation Experience

- advice to the Ontario Energy Board on the design of an appropriate performance based rate making regime to cover the Ontario electricity distribution companies;
- advice on the design of an optimal performance based ratemaking regime for a Canadian transmission company;
- consulting expert on anti-trust issues arising in bankruptcy of electricity retailer in Texas;
- advice and modelling of power pools for Pacific Power (New South Wales);
- operational and environmental modelling of the Indian ESI for the World Bank study on long term issues in the Indian power sector;
- an economic appraisal of interconnection between regional power systems in India for the ODA;
- advice to OFFER on the contracting strategies of the RECs, and whether the RECs had satisfied their obligation to purchase economically;
- advice to OFFER on the relative performance of power purchase contracts based on coal and gas during the recent debate on the future of British Coal;
- construction of least cost expansion models of Nigeria and Pakistan using WASP III;
- assessment of appropriate cost of capital in a variety of regulated industries including airports, electricity distribution and transmission, water/sewerage and telecommunications;

Staff Curriculum Vitae

Name of Staff: MATT RODGERS

Position: Director

In Brief:

Matt has broad consulting experience advising in relation to the economic regulation of the energy and transport sectors. Over the past 18 months Matt has been advising Queensland's two electricity distribution businesses, ENERGEX and Ergon Energy, on a wide range of matters associated with the development and interpretation of a new national energy regulatory framework for Australia's National Electricity Market.

Matt joined Synergies in early 2006 after a number of years as a Team Leader at the Queensland Competition Authority. Matt has extensive experience in economic regulation having supervised a number of the QCA's regulatory processes in the electricity and rail sectors. These include the 2005 final revenue determination for Queensland electricity distributors, QR's 2001 Undertaking and reviews with respect to energy pricing, ring-fencing, service quality and metrology.

Skills and Capabilities:

- Extensive knowledge of Australian economic regulatory frameworks, particarly in the transport and energy sectors
- Regulatory compliance and strategic advice
- Regulatory design advice
- Competition and microeconomic policy advice

Recent Major Projects:

- prepared a written report assessing the Australian Energy Regulator's (AER's) proposed service target performance incentive scheme (STPIS) and co-ordinated development of a model to enable ENERGEX to assess the sensitivity of its regulated revenue to the STPIS
- advised ENERGEX on its price modelling requirements for the 2010 15 regulatory control period, including an interpretation of the National Electricity Rules (NER) pricing provisions and a review of electricity distribution pricing across National Electricity Market jurisdictions
- provided a written report interpreting the implications of the AER's demand management (DM) incentive scheme and developed assessment criteria for the incorporation of DM expenditure projects in ENERGEX's regulatory proposal for the 2010-15 regulatory period;
- coordinated audit of ENERGEX's regulatory test model having regard to NER requirements, provided advice on, and implemented, structural improvements to the model;
- advised ENERGEX on the operating and capital expenditure provisions of the NER and how the AER has interpreted these provisions having regard to relevant electricity transmission and distribution precedent;
- advised ENERGEX on alternative ways of handling its capital contributed assets and associated offsetting revenue adjustments in light of these assets being recorded in its regulatory asset base
- advised ENERGEX in relation to the AER's development of its Cost Allocation Guidelines for electricity distribution and the development of ENERGEX's Cost Allocation Method
- providing ongoing advice to ENERGEX in relation to the Australian Energy Market Commission's consideration of a proposed Rule change to the NER to allow total factor productivity to be used as a form of regulation for electricity distribution businesses
- prepared submissions for Vector, a New Zealand electricity distributor and gas pipeline service provider, on asset valuation and cost allocation issues in relation to the Commerce Commission's development of Input Methodologies for price setting purposes.