



Better Regulation

Shared asset guidelines for electricity distribution and transmission

Issues paper

March 2013

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Shortened forms

Shortened form	Full title
AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
Distributor	Distribution network service provider
ESCOSA	Essential Services Commission of South Australia
Guidelines	Shared asset guidelines
NEL	National Electricity Law
NEM	National Electricity Market
NER	National Electricity Rules
Principles	Shared asset principles
QCA	Queensland Competition Authority
RAB	Regulatory asset base
Rules	National Electricity Rules
Shared asset	Any physical or other asset conforming with the Rules' definition of a shared asset
TNSP	Transmission network service provider

Request for submissions

This issues paper is part of the Australian Energy Regulator's (AER) Better Regulation work program, which follows changes that the Australian Energy Market Commission announced in November 2012 for the National Electricity Rules. The AER will publish guidelines by the end of November 2013 to set out our approach to regulation under the new framework.

We invite interested parties to make written submissions to the AER on this issues paper by the close of business, Friday 17 May 2013. Please send submissions electronically to [Costallocations@aer.gov.au](mailto:Costallocations@ aer.gov.au). The AER prefers all electronic submissions to be in Microsoft Word or another text readable document form. Alternatively, please send submissions to:

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The AER prefers all submissions to be publicly available, for an informed and transparent consultative process. For this reason, it will treat submissions as public documents unless otherwise requested, and will place all non-confidential submissions on the AER website (www.aer.gov.au). Parties wishing to submit confidential information are requested to:

- clearly identify the information that is confidential
- provide a non-confidential version of the submission in a form suitable for publication.

For further information on the AER's use and disclosure of information, see the [ACCC/AER Information Policy](#) (October 2008), which is also available on the AER website.

Please direct enquiries about this paper, or about lodging submissions, to the AER's Network Operations and Development Branch on (03) 9290 1444.

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Summary

The Australian Energy Regulator (AER) is responsible for economic regulation of the national electricity market's (NEM) transmission and distribution services. We thus ensure compliance with the National Electricity Law (NEL) and the National Electricity Rules (the Rules or NER). We are beginning the Better Regulation work program to improve energy regulation, focusing on consumers' long term interests. This work follows changes to the Rules that the Australian Energy Market Commission (AEMC) published in November 2012. The Better Regulation program includes establishing shared asset guidelines (the guidelines).

A shared asset is any distribution or transmission asset used to provide both regulated electricity supply services and unregulated services.¹ An example is a power pole supporting both power lines and telephone lines or fibre optic cables for broadband services. In this case, the power pole is a shared asset. By charging a third party to use the pole to provide telephone or internet services, the pole's owner earns additional unregulated revenues.

Under the revised Rules, customers who funded shared assets through their electricity bills can now share the benefits of unregulated activities (that is, the additional revenues). Customer benefits will come in the form of lower regulatory asset costs, with cost reductions determined by us under a mechanism principally established in the Rules. Electricity prices reflect the regulatory value of assets used to supply electricity. Therefore, reducing the regulatory value of shared assets will help contain or reduce electricity prices. By reducing shared asset costs, we aim to ensure electricity customers will pay less for regulated assets also used to provide unregulated services.

The revised Rules establish only a high level framework for a shared asset mechanism. We must publish shared asset guidelines (guidelines) on our intended approach—that is, our proposed steps for making shared asset cost reductions. The guidelines may also detail a method for how we will determine cost reductions, such as a formula or detailed principles. This issues paper is our first formal step in consulting stakeholders on the guidelines' content. We seek feedback on:

- our shared asset approach
- whether guidelines should include a detailed method
- if so, what the method should be.

The Rules' shared asset mechanism is different from similar mechanisms operated in South Australia and Queensland. It is not a profit sharing mechanism, as South Australia's was, and does not replicate the Rules' cost allocation framework, as Queensland's currently does.

The scale of shared asset unregulated revenues across the NEM currently may not be significant. Available information suggests they are less than 1 per cent of regulated revenues. However, unregulated revenues may grow with roll-out of fibre optic cable, energy network digitalisation and increasing network easement values. Establishing a shared asset mechanism now will enable more efficient regulated electricity prices in future.

¹ Electricity supply services are either transmission (higher voltage) or distribution (lower voltage) services. Transmission and distribution are different segments of the electricity market. Within those segments, services are further classified into groups and regulated in different ways depending on their classification. Shared asset rules relate to distribution standard control services and prescribed transmission services, comprising most distribution and transmission services respectively.

Notwithstanding potential growth in unregulated revenues, benefit sharing under the shared asset mechanism will be constrained. By focussing on asset costs, the Rules' mechanism restricts potential electricity customer benefits to 100 per cent of regulatory asset values. And by requiring unregulated revenues to be material before activating, the Rules' mechanism will not reflect relatively small unregulated revenues. Because the Rules also require us to retain asset owner incentives for unregulated services, cost reductions may need to be conservative. We seek stakeholder views on these and related issues.

Once we receive submissions on this issue paper, a draft guideline will be prepared for stakeholder comment. We will publish a final guideline by 29 November 2013.

This paper is structured as:

- chapter 1 describes the revised Rules' shared asset mechanism
- chapter 2 provides contextual background on similar schemes operated in Queensland and South Australia and their differences with what is provided under the revised Rules
- chapter 3 sets out our proposed shared asset approach
- chapter 4 discusses options for a shared asset method
- chapter 5 briefly outlines the next steps in our guideline development process
- Appendix A summarises the service classification framework central to the Rules' shared assets definition
- Appendix B discusses the cost allocation framework and its relationship to the shared asset mechanism.

1 The Rules' shared asset mechanism

This chapter describes the revised Rules' shared asset definition, cost reductions, the shared asset principles and how regulatory asset values limit benefit sharing. The chapter briefly touches on the relationship between the shared asset mechanism and cost allocation. It then outlines why a shared asset mechanism may become increasingly important in future.

1.1 What are shared assets?

Shared assets provide both regulated electricity services and other unregulated services. An example is a power pole that, aside from supporting power lines, also supports telephone lines or fibre optic cables. We regulate electricity supply, but we don't regulate telephone and internet services, so the power pole is a shared asset. The Rules permit electricity supply assets to be used to provide other services, so long as electricity services are not prejudiced.² Therefore, unregulated services may use assets also supplying electricity, but only if electricity supply is not impacted.

The Rules define shared assets as providing both unregulated services and particular categories of regulated electricity supply services:³

- For distribution, shared assets provide unregulated services and regulated standard control services.⁴
- For transmission, shared assets provide unregulated services and regulated prescribed transmission services.⁵

Any distribution or transmission asset used to provide standard control or prescribed transmission services and unregulated services is a shared asset. It need not be fixed (like power poles), and may be mobile (like vehicles). In our initial Better Regulation stakeholder forum,⁶ attendees asked whether radio frequency spectrum or network easements⁷ may be shared assets. Our view is that any asset providing the above categories of regulated electricity supply services is a shared asset if it also provides unregulated services.

By allowing a power pole to provide telephone or internet services, the distribution network service provider (distributor—the pole's owner) earns revenues greater than the cost of providing the pole. The November 2012 changes to the electricity Rules permit electricity customers to formally share in this benefit to the asset owner.

1.2 Shared asset cost reductions

Under the revised Rules, we may reduce shared asset costs that the asset owner can recover from electricity customers.⁸ The Rules refer to this reduction as a shared asset cost reduction.⁹

² NER, cl. 6.4.4 (distribution) and 6A.5.5 (transmission).

³ Standard control and prescribed services represent core electricity supply activities. These form the majority of distribution and transmission services respectively, and earn the bulk of revenues accruing to network owners. Appendix A discusses service classifications.

⁴ NER, cl. 6.4.4(a).

⁵ NER, cl. 6A.5.5.

⁶ 18 December 2012.

⁷ Easements are rights to use someone else's land for a specific purpose (Oxford Dictionary). In an energy network context, easements are the land corridors through which power lines, or gas and oil pipelines, provide services. Easements are a form of property right.

⁸ NER, cl. 6.4.4 (a).

⁹ NER, cl. 6.4.4(b)(2).

Nearly half of electricity prices paid by customers relates to the cost of infrastructure, or assets such as poles and wires. We use the regulatory asset values of an electricity network to determine the network charges that asset owners may charge customers for providing regulated services. The higher those asset values, the higher regulated prices or revenues must be to cover the asset costs. We may now account for revenues from unregulated services provided with those assets by reducing the assets' regulatory value. The result will be lower prices for electricity customers.

Example 1 sets out a simplified shared asset reduction scenario. In this example, the distributor receives payment from a third party that provides an unregulated service using the shared asset. These payments form an unregulated revenue stream. Equally, a distributor may itself provide an unregulated service with assets that it uses to also provide regulated services. Examples of such unregulated services are staff training, the relocation of electricity assets and contracting services.

Example 1

A distributor rents space on some of its low voltage power poles to a telecommunications carrier. The carrier attaches fibre optic cable to the poles to provide broadband services, such as internet services. The AER does not regulate telecommunications or internet services, so these are unregulated services under the NEL and Rules.

The carrier pays the distributor to use its pole assets. The distributor initially constructed the power poles to provide standard control distribution services. It recovers the cost of the poles over time from electricity customers through regulated returns determined by the AER. However, because the poles are now used to also provide internet services, the poles are now treated as shared assets.

To account for unregulated use of standard control assets, the regulatory value of these poles would be reduced. Accordingly, electricity prices would be reduced to reflect the lower asset values (all else being equal).

1.3 Shared asset principles

In making shared asset cost reductions, we must consider the shared asset principles (the principles) established by the November 2012 Rule change:¹⁰

- Unregulated services' use of standard control or prescribed transmission assets should be encouraged when it does not affect regulated services.
- Shared asset cost reductions should not depend on electricity supply businesses making profits from unregulated services.
- Unregulated services' use of assets must be material, or significant, for shared asset cost reductions to apply.
- We should have regard to previous cost recovery or revenue reduction approaches (as under similar state schemes).
- Shared asset cost reductions must be compatible with the cost allocation principles and cost allocation method (CAM) of relevant electricity supply businesses.

¹⁰ NER, cl. 6.4.4(c) and 6.A.5.5(c).

The principles limit the extent to which shared asset costs can be reduced. First, unregulated use of shared assets must be material. We discuss materiality in chapter 3. Second, because regulatory asset values may not be negative, benefit sharing is limited to 100 per cent of those values. Depreciated asset values exacerbate this second constraint. We discuss these issues below.

1.4 Regulatory asset values cap potential benefit sharing

Potential benefit sharing under shared asset rules is capped at 100 per cent of regulatory asset values. Benefit sharing is, therefore, also capped at 100 per cent of regulated revenues earned from shared assets. Network service providers may, however, earn significant unregulated revenues from shared assets earning relatively low regulated revenues. That is, unregulated revenues exceeding regulated revenues from the same asset will accrue to the distributor or transmission network service provider (TNSP) that owns those assets. Example 2 illustrates this issue.

Example 2

A distributor leases part of a power pole's capacity to a third party carrier to install fibre optic cable (as in example 1). The power pole provides standard control electricity distribution services as well as supporting the fibre optic cable. The services provided using the fibre optic cable are not regulated by the AER.

As usual, the Rules allow the distributor to earn a regulated return on its investment in the power pole for electricity distribution purposes. For simplicity, let's assume it costs the distributor \$10 a year for this particular pole (the costs are depreciation and cost of capital). This cost of \$10 forms part of the calculation used by the AER to determine the regulated revenue the distributor may earn.

Let's now assume the distributor also earns \$20 a year by renting space on the pole to the owner of the fibre optic cable. Therefore, the power pole is now a shared asset. Under the revised Rules, the AER may reduce the regulatory cost of the power pole. The AER may reduce this cost up to its full regulatory cost, which in this case is \$10 a year. Potentially, therefore, the shared asset cost reduction could mean customers will pay nothing for the pole.

Even under this approach, which provides the maximum possible benefit to electricity customers, there is a net revenue gain by the distributor.

1.5 Depreciation of regulatory asset values

Depreciation is a cost to the business of assets becoming less valuable, eventually requiring replacement. Each year the AER adjusts downwards the regulatory value of established assets providing regulated services. The rate at which regulatory asset values decline (the depreciation rate) is an element of our distribution and transmission determinations. Depreciation rates vary according to the type of asset, but depreciation continues until the regulatory asset value reaches \$0 (when it is fully depreciated).

Asset costs recovered from regulated service customers decline in line with asset depreciation. If an asset is depreciated fully (having zero regulatory value), then the regulated prices no longer reflect any costs for that asset. We consider the revised Rules' shared asset mechanism confines shared asset cost reductions to depreciated regulatory asset values. Therefore, the upper limit on benefit sharing for a given asset will decline in line with asset depreciation.

Unlike regulated service prices, unregulated service prices may not reflect depreciated asset values. How such prices are set is outside the AER's scope as they are commercial arrangements between asset owners and third party providers or unregulated service customers. Unregulated service prices and related revenue streams may be significantly higher than depreciated asset values would suggest. In these cases, the distributor is no longer charging electricity customers for the asset, but still earning additional revenues from other users. This scenario shows the shared asset mechanism in the new Rules is concerned with affecting the charges that electricity customers pay, not necessarily with limiting the revenues or the profits that the network business earns from other users.

1.6 Cost allocation and shared assets

At the time an asset is purchased, a regulated business determines the amount it will be used for regulated purposes and for other purposes and allocates the costs accordingly. Done correctly, cost allocation means the price of regulated services properly reflects the cost of assets providing these services. However, cost allocation is done generally only once, when an asset is first established.

The circumstance of a shared asset arises when the use of a regulated asset, subsequent to its initial cost allocation, has changed. While the asset may still be providing all the services it provided when installed, the asset may now also be providing unregulated services.¹¹ Alternatively, unregulated revenues may have grown since the asset's initial cost allocation.

1.7 A shared assets framework for the future

Unregulated revenues from shared assets are relatively small. Available information suggests they are less than one per cent of regulated revenues in businesses with experience of similar reductions. However, we expect unregulated revenue streams may grow. Large scale roll-out of fibre optic cable, for example, presents electricity network infrastructure sharing opportunities. Similarly, increasing urban congestion may raise the value of established energy network easements for similar or other uses. And the increasing digitalisation of energy networks, including new metering, may facilitate new consumer services.

For the above reasons, and potentially others, shared asset cost reductions may lead to more efficient regulated prices. We intend to establish an effective shared asset cost reduction approach that can apply over the longer term.

1.8 Why we must establish guidelines

The revised Rules establish only a high level framework for shared asset cost reductions. The Rules require us to establish shared asset guidelines on how we propose to apply the shared asset principles. Once established, shared asset guidelines must always be in force. That is, we may amend the guidelines, but guidelines must always be in operation.

As a minimum, the Rules require that the guidelines set out our approach. The approach may also detail our method for making shared asset cost reductions. For this reason, we seek feedback on:

- the approach to be included in the guidelines
- whether the guidelines should include a detailed method

¹¹ The Rules' cost allocation arrangements and their relationship to shared assets are discussed in more detail in Appendix B of this paper.

- if so, what the detailed method should be.

We discuss these issues in detail in the chapters below. First, though, we discuss similar mechanisms operated at the state level.

2 Shared asset mechanisms in Queensland and South Australia

This chapter describes the shared asset mechanisms that apply in Queensland and that previously applied in South Australia. These mechanisms have important differences from the shared asset mechanism newly established in the Rules. The Queensland mechanism performs a different role from that of the Rules' mechanism. South Australia's mechanism was based on profit sharing, which is a method the Rules do not allow.

2.1 Queensland

Queensland distributors Energex and Ergon earn relatively small unregulated revenue streams from assets that also provide standard control services. Those revenues are from unregulated services that include:

- broadband internet services
- watchman lights
- high load escorts¹²
- contestable metering services
- contracting services.

The distributors provide some of these unregulated services and third parties provide others using standard control assets.

Under its shared asset mechanism, the Queensland Competition Authority (QCA) reduces standard control revenues to account fully for unregulated revenues, but also to reflect revenues from alternative control services (NEM regulated electricity supply services) that are provided by common assets. Internal charges, that one business unit levies on another, permit asset cost recovery only once. In effect, this mechanism performs the role performed by cost allocation methods under the Rules.¹³ This role is fundamentally different from that of the Rules' shared asset mechanism.

Queensland's shared asset mechanism still applies under current transitional regulatory arrangements. That is, while Energex and Ergon are transitioning from the old Queensland regulatory framework to the national regulatory framework, the shared asset mechanism remains in force. However, the mechanism will end when the current regulatory period ends in 2015. From the next regulatory period, the Queensland distributors will move fully under the national framework, including the Rules. When they do so, Energex and Ergon will need to establish and apply cost allocation methods consistently with other NEM distributors.

From the beginning of the next regulatory period, Energex and Ergon will also become subject to the shared asset mechanism for which the AER is developing guidelines. Energex's and Ergon's experience indicates the scale of current additional revenues from unregulated services across the NEM. Table 1 shows only the businesses' annual shared asset adjustments for unregulated services for the current regulatory period. It also compares shared asset adjustments for unregulated revenue

¹² Escorting high vehicles, or vehicles with high loads, along roadways to clear impeding electricity wires from the route.

¹³ See appendix B for discussion of cost allocation.

with total annual regulated revenues. For both distributors, annual unregulated revenues are under 0.5 per cent of annual regulated revenues.

Table 1: QCA’s shared asset adjustments for unregulated revenue (\$m, nominal)

		2010-11	2011-12	2012-13	2013-14	2014-15
Energex	Adjustment	-4.5	-5.3	-6.0	-6.5	-6.0
	Total requirement revenue	1140.1	1357.5	1517.1	1681.3	1819.3
	Adjustment %	0.4	0.4	0.4	0.4	0.3
Ergon	Adjustment	-3.2	-3.3	-3.4	-3.5	-3.5
	Total requirement revenue	1054.9	1190.1	1,377.3	1524.0	1630.2
	Adjustment %	0.3	0.3	0.3	0.3	0.2

Source: AER analysis

2.2 South Australia

South Australian distributor SA Power Networks (formerly ETSA Utilities) provides, or allows to be provided, unregulated services from which it earns additional revenue. These services include:

- pole rental for street light attachment
- pole and duct rental for telecommunications services.

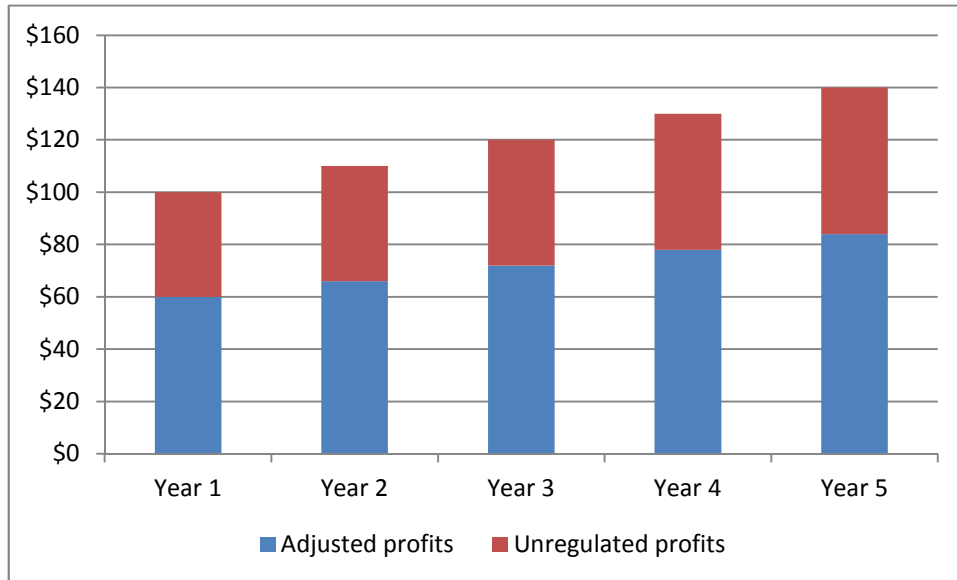
The Essential Services Commission of South Australia (ESCOSA) instituted a profit sharing mechanism to share unregulated revenues with electricity customers. Under this scheme, ESCOSA reduced SA Power Networks’ regulated revenues to reflect its unregulated service profits. In effect, 40 per cent of SA Power Networks’ unregulated service profits were returned to electricity customers. SA Power Networks annually reported its unregulated revenues, on which ESCOSA based profit sharing adjustments for the following year. ESCOSA noted its profit sharing mechanism worked as a proxy for cost allocation.¹⁴ Electricity customers, who paid for regulated assets, benefited from the added unregulated revenues earned with those assets.

The South Australian mechanism differs from that of the Rules in that it directly reduced SA Power Network’s regulated revenues in response to its unregulated service profits. The AEMC considers the Rules do not permit this approach. The South Australian mechanism also did not differentiate types of regulated asset. Rather, it adjusted regulated revenues for unregulated service profits earned from regulated assets broadly. The Rules’ mechanism focuses instead on reducing standard control asset costs.

¹⁴ Essential Service Commission of South Australia, *2005-2010 electricity distribution price determination—part A*, p. 29.

ESCOSA's shared asset mechanism last adjusted regulated revenues in 2010–11. It has since expired because SA Power Networks has transitioned to the NEM framework. Figure 1 illustrates the effect on SA Power Network's unregulated service profits of ESCOSA's profit sharing mechanism.

Figure 1: South Australian profit sharing mechanism



3 Our shared asset approach

This chapter sets out our proposed approach to making cost reductions. The Rules require, at a minimum, shared asset guidelines to set out our approach. We may complement our approach with a more detailed method—that is, precisely how we will determine shared asset cost reductions. Chapter 4 discusses method options. The first part of our approach must be to determine whether unregulated services using regulated assets are material.

3.1 Materiality

Under the Rules, shared asset cost reductions apply only when asset use for unregulated services is material.¹⁵ For this reason, we consider shared asset provisions do not apply when unregulated services are not material. The Rules do not, however, define materiality for shared assets.

The normal meaning of material is ‘significant, or important’. However, this definition presents challenges in a regulatory context. Most obviously, interpretations of importance may vary greatly among different parties to a single event. Electricity customers may consider any potential change that could lower or constrain electricity prices to be important. Alternatively, distributors and TNSPs may consider any existing unregulated revenue streams to be important to them, but insignificant to electricity customers.

Establishing a materiality definition and incorporating it in guidelines would provide asset owners and electricity customers with certainty. It may also assist us to efficiently process shared asset cost reductions. Nonetheless, not defining materiality in the context of shared assets is an option, because we would then have maximum flexibility to respond to circumstances. The possible approaches to materiality in the guidelines thus include:

- not defining materiality
- applying the cost pass through materiality threshold of 1 per cent of the service provider’s total annual regulated revenues—that is, if annual unregulated revenues are at least 1 per cent, then shared asset provisions would apply¹⁶
- basing materiality on physical asset use—for example, if at least 20 per cent of a shared asset’s capacity is used for unregulated services, then shared asset provisions would apply
- basing materiality on unregulated revenues as a proportion of regulated revenues earned from the same assets—for example, if unregulated revenues are at least 20 per cent of regulated revenues, then shared asset provisions would apply.
- establishing a nominal numeric materiality threshold (such as 1 per cent of regulated revenues) but permitting us flexibility in applying the threshold
- establishing materiality principles to help our considerations without being prescriptive.

¹⁵ NER, cl. 6.4.4(b)(3) and 6A.5.5(c)(3).

¹⁶ Cost pass through provisions allow unexpected costs incurred while supplying electricity to be passed through to consumers. Cost pass through materiality is established as a fixed numeric value operating as a distinct threshold. Therefore, we cannot exercise discretion with cost pass throughs. If service providers propose to pass through a cost consistent with a defined pass through event and at least equal to the materiality threshold, then we would have to approve it.

We welcome stakeholder input to our approach to shared asset materiality, including suggestions for approaches not considered here. In considering this issue, we ask stakeholders to keep in mind potential administrative costs for the AER and asset owners and the potential for future growth in unregulated revenues. Relatively small cost reductions will incur similar, if not identical, administrative costs as larger reductions. Because electricity networks service large numbers of customers, small cost reductions may also have negligible impact on prices.

Question 1

Should shared asset guidelines incorporate a materiality threshold of 1 per cent of the annual revenue requirement? Please provide your reasons. Alternatively, what approach to materiality might be adopted?

3.2 Cost reductions to be forward looking

When unregulated services begin during a regulatory period, the Rules prevent us from making shared asset cost reductions within the period.¹⁷ That is, we may make shared asset cost reductions only at the start of our five yearly distribution and transmission determinations. Further, the AEMC indicated no ex post reconciliation would occur for any sharing arrangement begun during a regulatory period.¹⁸ Consistent with the AEMC's approach, we propose not to adjust future cost recovery for unregulated service revenues accrued in a previous regulatory period. Rather, we will determine cost reductions for upcoming regulatory periods based on those periods' expected unregulated services. This approach seems consistent with the Rules' phrasing:¹⁹

The AER may, in a distribution determination for a regulatory control period, reduce the annual revenue requirement for [a distributor] to reflect such part of the costs of that asset as the [distributor] is recovering through charging for the provision of [unregulated services].

Use of the present tense appears to limit our focus to real-time cost recovery. Shared asset Rules do permit, however, cost reductions to reflect unregulated services that have not yet commenced at the time of our determination. We may make a cost reduction if a new unregulated service is sufficiently certain at the time of a determination.²⁰ In this case, we would make the reduction for the upcoming regulatory period.

Question 2

We propose to forecast shared asset cost reductions and not require any adjustment once actual outcomes are known. Do you agree with this approach? Please provide your reasons.

3.3 What information we will seek

In the context of a distribution or transmission determination, we will request the network service provider to give details of unregulated service provision. We have broad powers to request

¹⁷ NER, cl. 6.4.4(a).

¹⁸ AEMC, *Final position paper—national electricity amendment (economic regulation of network service providers) Rule 2012*, p. 165.

¹⁹ NER, cl. 6.4.4(a), emphasis added by the AER.

²⁰ AEMC, *Final position paper —national electricity amendment (economic regulation of network service providers) Rule 2012*, p. 165.

information from regulated network service providers, particularly through regulatory information notices (RINs).

One approach would be to mandate comprehensive reporting of unregulated revenues and related issues when unregulated services or revenues reach a specified threshold. We may establish a shared asset comprehensive reporting threshold at 0.5 per cent of total annual regulated revenues, for example. Under this option, if unregulated revenues reach this threshold, then asset owners would be required to provide us with:

- a description of the unregulated services earning unregulated revenues
- the identity of third parties paying the asset owner for access
- details of third party contracts, such as contract length, expected future revenues and contract termination clauses
- details of past unregulated service revenues
- details of the shared assets
- regulated revenues earned by those shared assets.

Alternatively, we may seek such details for any unregulated services without a reporting materiality threshold. We are concerned, however, with minimising regulatory burden. Comprehensive information reporting without a threshold may create regulatory costs without significantly supporting beneficial customer outcomes.

Question 3

We propose that when shared assets produce revenues exceeding 0.5 per cent of the annual revenue requirement that more detailed reporting of these revenue sources would be required on an annual basis. Do you agree? Please provide your reasons.

3.4 Making shared asset cost reductions

Shared asset rules in effect set out, at a high level, the approach the AER must take to making shared asset cost reductions. Consistent with shared asset rules, we will:

- request relevant information from the regulated network service provider, potentially subject to a reporting threshold
- consider the shared asset and cost allocation principles
- consider the network service provider's approved cost allocation method
- determine shared asset cost reductions in consideration of the Rules and the shared asset guidelines
- reduce regulated revenues to be earned by shared assets
- use reduced regulated revenues applicable to shared assets to estimate efficient tariffs for standard control or prescribed transmission services.

The above approach may be further, or better, articulated without incorporating a detailed method. We seek stakeholder views.

Question 4

In light of our proposed approach to shared asset reductions, what other improvements could be made? Please provide your reasons.

4 Our shared asset method

We are required to make and publish shared asset guidelines setting out our approach. However, under the Rules, those guidelines may or may not detail a method to apply. Such a method would determine the asset cost recovery adjustment to apply in a given circumstance. It would complement, but be more detailed than, our approach. A method may be a formula, for example. This chapter examines possible elements of a shared asset method. First, however, it discusses the possibility of not including a method in the guidelines.

4.1 Whether the guidelines should detail a method

Establishing a detailed method in the shared asset guidelines may reduce flexibility. However, constraints on our decision making must be balanced against the following potential benefits of including a method:

- greater certainty to both customers and service providers
- improved investment confidence
- lower administrative costs (avoiding re-consideration of methods).

A method incorporated in the guidelines may also reduce service provider perceived need to provide additional material in support of their proposal, such as consultant reports and other input from independent experts. Distributors and TNSPs ultimately recover the related costs from customers through higher distribution and transmission tariffs.

Question 5

Should shared asset guidelines detail a method for cost adjustment?

4.2 Method background

This section discusses issues readers should keep in mind when considering a potential cost allocation method.

Encouraging unregulated services

The shared asset principles specify that efficient unregulated use of standard control or prescribed service assets should be encouraged. However, they also mandate that shared asset cost reductions should not depend on asset owners deriving positive returns from unregulated services. There is, to some extent, a degree of tension between these different principles.

One mechanism for ensuring incentives are retained to use a shared asset for unregulated services would be to align cost reductions with profits made from those unregulated services, as with the South Australian mechanism. However, this would not fit well with the principle that positive economic returns should not be a pre-requisite for shared asset cost reductions.

Rather than focussing on positive economic returns, the shared asset principles indicate that cost reductions should be made wherever use of the asset for unregulated services is material. That is, our decision to make cost reductions should not be focussed on whether the asset is used to make profits

from unregulated services. Instead, a reduction should be made as an acknowledgement that the asset is being used, in a material way, for purposes other than standard control or prescribed transmission services, for which additional revenues are being earned by the asset owner.

In designing a system intended to both encourage the use of an asset for unregulated activities but also make cost reductions based on use rather than profitability, the cost reductions we make may need to be conservative. The alternative—that is, to aggressively make shared asset cost reductions—could undermine asset owners’ incentives to provide unregulated services.

In addition to being inconsistent with the shared asset principles, this risk from an aggressive approach to shared asset cost reductions would have two negative consequences. First, standard control and prescribed service electricity customers would lose potential pricing benefits from shared asset Rules. That is, if asset owners perceived regulatory decisions erode the profitability of unregulated services, then they may not allow or provide such services. Consequently, electricity customers would not receive benefits in the form of shared asset cost reductions. Second, the community more broadly would not benefit from unregulated services, such as internet services provided by fibre optic cable via electricity networks.

To retain incentives for unregulated service use of standard control and prescribed transmission assets, owners may be permitted to retain a reasonable portion of unregulated revenues. For standard control and prescribed transmission customers, distributors’ retention of some of the unregulated revenues would promote lower regulated prices in the longer term. For the broader community, such an approach would facilitate ongoing provision, or development, of unregulated services.

Example 3 illustrates the conceptual steps for how we may consider a shared asset cost reduction that retains unregulated service incentives. First, we consider an aggressive approach. Second, we consider a conservative potential cost reduction that retains incentives for unregulated service provision.

Example 3

A distributor owns shared assets for which it recovers \$10 million dollars annually from electricity customers. The distributor earns \$5 million annually from unregulated services provided using its shared assets. Unregulated revenues thus equate to 50 per cent of regulated revenues.

If the AER reduces shared asset costs by the full amount earned by providing unregulated services, there would be no incentive to provide these services. This would not be in the interest of consumers. Further, the rules require incentives be retained.

To retain incentives for unregulated service use of regulated assets, the distributor should retain a portion of the benefits of unregulated revenues. For this reason, we may determine a shared asset cost reduction of, say, \$2.5 million, or 50 per cent of the value of unregulated revenues. This approach would reduce regulatory asset costs to \$7.5 million. The distributor would retain \$2.5 million in unregulated revenues. Electricity customers would benefit by \$2.5 million, and the distributor would retain an incentive to provide unregulated services.

Example 3 is an illustration only. We seek stakeholder views on the implications of the shared asset principles for our shared asset cost reductions, particularly in terms of unregulated service incentives.

Question 6

How could cost reductions best share unregulated service benefits with customers while retaining incentives for asset owners?

Profit based mechanisms

The AEMC considers that directly reducing regulated revenues in response to unregulated revenues or profits may be inconsistent with the regulatory framework.²¹ This is because it may have the effect of indirectly regulating services which are unregulated. The shared asset principles also indicate that our decision to make shared asset cost reductions should not depend on whether the unregulated services are delivering a positive return. We consider these factors lead us away from linking shared asset cost reductions to the profitability of unregulated services that use these assets.

A profit based mechanism may also present practical difficulties. It may not be straightforward to obtain information about the costs of providing unregulated services. Given the unregulated services may generally relate to small amounts of revenue, the associated regulatory burden and administrative costs may be prohibitive to detailed examination.

We seek stakeholder views on how the profits associated with unregulated services could be used in the shared asset cost reductions.

Question 7

Should the profit from unregulated services be used to make shared asset cost adjustments?

4.3 Cost reduction method—options

To make a shared asset cost reduction, a method is required to determine the amount. This method must be consistent with shared asset rules and the Rules more generally. It should be compatible with the cost allocation principles, the cost allocation method and other incentives provided under the Rules.

In its final decision on the revised Rules, the AEMC proposed two possible methods:²² (1) the technical or physical use of assets for both regulated and unregulated services, and (2) the ratio of regulated to unregulated revenues earned from particular shared assets.

Technical or physical asset use

The AER may consider the technical or physical use of a shared asset. Under this approach, we would compare asset use for standard control or prescribed transmission services with use for unregulated services. Such analysis would proportionally split asset use, and we would then

²¹ AEMC, *Final position paper—national electricity amendment (economic regulation of network service providers) Rule 2012*, p. 164.

²² AEMC, *Final position paper—national electricity amendment (economic regulation of network service providers) Rule 2012*, p. 168.

determine a proportional reduction in asset costs recoverable from regulated service customers. Example 4 illustrates this approach.

Example 4

A distributor has shared assets from which \$10 million must be recovered annually. An internet provider pays the distributor to install fibre optic cable. Distribution poles in this case may carry up to four separate cables. The internet provider's cable takes up one of those four spots.

In considering the cost adjustment, one quarter of the distribution network's physical capacity is now used by internet cabling. Therefore, if applying a physical asset use approach, one quarter of shared asset costs would be removed from the distributor's RAB. Therefore, annual costs recoverable from customers would change from \$10 million to \$7.5 million.

Unregulated service revenues

The AER may also consider network service provider revenues from unregulated services compared with those from standard control or prescribed transmission services. We may then adjust asset costs recoverable from standard control and prescribed transmission services in proportion to revenues. Example 3 illustrates this method. Other detailed methods to make cost reductions may be available, and we seek stakeholder views.

Question 8

Is a technical/physical asset use approach to a shared asset cost reduction preferable to an approach based on proportional revenues? Please provide your reasons. What other method could the guidelines incorporate?

Fixed or variable cost reduction?

Shared asset guidelines may incorporate a fixed cost reduction proportion, or ratio, that we must apply. Alternatively, the guidelines may allow us to consider this issue on each occasion we determine a cost reduction. Both the Queensland and South Australian shared asset mechanisms incorporate fixed reduction proportions. This approach has the advantage of providing certainty for stakeholders, including network service providers. However, more flexibility for us may also sometimes provide advantages for stakeholders.

Relevant to this issue is the Rules' requirement that we retain incentives for unregulated service use of standard control or prescribed assets. If we establish a fixed reduction proportion, then it should reasonably retain such incentives. Very high proportional reductions, such as 90 per cent of shared asset costs, may not contain sufficient incentive. Such an approach may erode incentives for innovative asset use, potentially making such use unprofitable for network service providers. As a result, electricity consumers would not benefit from the shared asset cost reductions. For this reason, retaining incentives for asset use by unregulated services is in the interests of electricity customers.

Question 9

Should the guidelines include a fixed cost reduction proportion? If so, what should the proportion be? Should the guidelines set out another approach?

Other approaches?

We welcome stakeholder suggestions of alternative cost reduction methods.

5 Next steps

The AER calls for submissions on this issues paper, which are due by Friday 17 May 2013. We must make shared asset guidelines²³ in accordance with the Rules' distribution consultation procedures²⁴. As such, following closure of the submission period on this issues paper, we will:

- publish proposed guidelines with an explanatory statement
- invite written submissions on the proposed guidelines, allowing 30 business days for interested parties to lodge submissions
- publish our final guidelines within 80 business days of publishing our proposed guidelines.

We will hold at least one working group meeting on the guidelines, based on expressions of interest. We encourage participation by a cross-section of interested parties, including consumer groups.

Timelines

Date	Step
28 March 2013	Release of this Issues paper
April 2013	First working group meeting
17 May 2013	Submission close on this Issues paper
August 2013	AER publication of draft shared assets guideline and explanatory statement
November 2013	AER publication of final shared assets guidelines

²³ NER, cl.6.4.4.

²⁴ NER, cl.6.16.

Appendix A: Service classifications

This appendix summarises the service classification frameworks that are central to the Rules' shared assets definitions. We are responsible for service classification, which we undertake during our five yearly revenue determinations. By classifying services, we group them and apply different forms of economic regulation, or no regulation.²⁵

The Rules provide slightly different service classification categories for the distribution and transmission sectors. As a result, the two sectors have slightly different shared asset definitions (as discussed in chapter 2).

Service classifications—distribution

Distribution service classifications that provide the most prescriptive regulation are standard control and alternative control. These services are collectively known as direct control services, because we directly determine consumer prices for them. Direct control services tend to be subject to monopolistic power, so may not be provided by others.²⁶ Within this classification, standard control services are generally provided for a broad customer base and alternative control services are relatively ad hoc (such as a request to move a power pole) or potentially competitive (such as meter reading).

The remaining distribution service classification is negotiated services, for which service providers and customers negotiate prices under a framework established by the Rules.²⁷

Finally, some services provided by electricity distribution network assets are not classified, or are unregulated services. The two types of unregulated service are unregulated distribution services and services unrelated to electricity distribution. Figure A1 sets out the Rules' process for classifying distribution services.²⁸

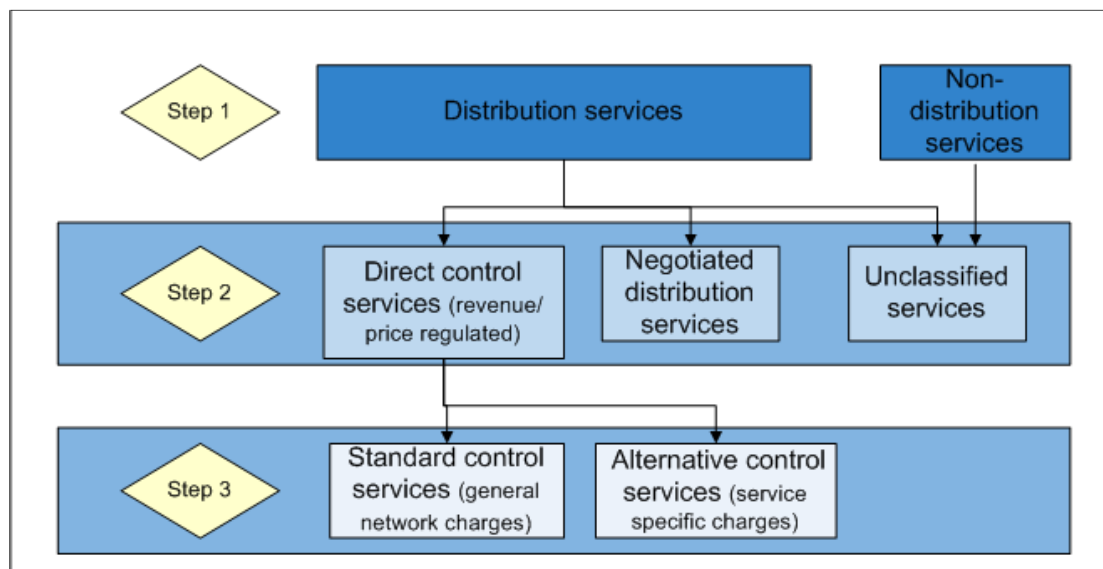
²⁵ We determine service classifications by the degree of competition for service supply. We classify services to a more strict form of economic regulation when competition to supply those services is less. When greater service supply competition exists, we classify to a less strict form of regulation.

²⁶ Direct control services are frequently restricted to licensed network service providers, so legal barriers prevent effective supply competition.

²⁷ Reflecting a degree of supply competition.

²⁸ Comprising three steps. First, we confirm whether a service is a distribution service. We then determine the appropriate level of regulation: strict, less strict or none. And, finally, when direct control is appropriate, we classify services as either standard control or direct control.

Figure A1: Distribution service classification process



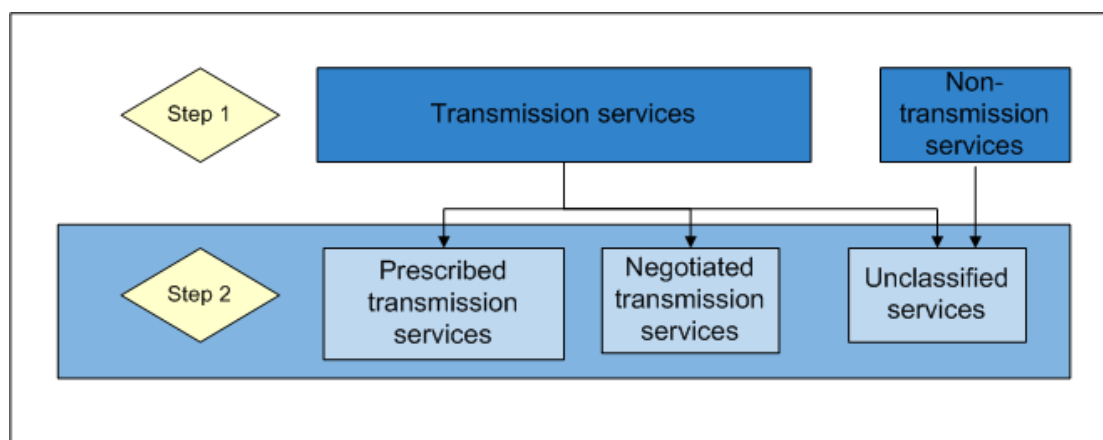
Source: NER, chapter 6, part B.

Service classification—transmission

For transmission, a single direct control classification is available—prescribed transmission services. We generally classify transmission services for the broad customer base as prescribed transmission services. These services provide electricity to transmission customers, so are central to a service provider’s monopoly power. The only other transmission classification available is negotiated services. Negotiated service prices for transmission, as for distribution, are subject to a negotiation framework established by the Rules.

Also as for distribution, electricity transmission assets may provide some services that are not classified at all, or are unregulated. These services may be unregulated transmission services or services unrelated to electricity supply. Figure 2 sets out the Rules’ process for classifying transmission services.

Figure A2: Transmission service classification process



Appendix B: Cost allocation and shared assets

If the allocation of costs between regulated and unregulated services was correct, why would a shared asset mechanism be required? The answer is that it would not. However, as the intended use of an asset may change, this has brought about the need for a shared asset mechanism.

What is cost allocation?

We determine regulated electricity service prices or revenues based on costs that the distributor or TNSP incurs to provide services which are classified into service types. We must, therefore, understand which costs relate to specific service classifications. The Rules facilitate this understanding by requiring each electricity supply business to establish a cost allocation method (CAM), setting out its approach to cost allocation.²⁹ The CAM links costs incurred by distributors and TNSPs to service classifications. Appendix A provides further background on service classifications.

Routine power line maintenance, for example, supports core electricity supply services, so CAMs link asset costs such as maintenance trucks to standard control services. This cost allocation allows the electricity supply business to recover its maintenance costs, through regulated prices, from across its customer base. The cost allocation driver in this case—the metric used to allocate truck costs to services—might be time spent on maintaining lines. The business records time spent by each maintenance truck on line maintenance and allocates the truck's costs to standard control services in the same proportion.

The Rules require CAMs to reflect the cost allocation principles in the Rules.³⁰ These principles mandate that costs be allocated only once. CAMs should prevent double-dip cost recovery by preventing the same cost from being allocated to multiple service classifications. For customers of regulated electricity supply services, cost allocation should ensure they pay only costs related to service supply. This cost includes asset costs. Cost allocation should exclude assets providing other types of service from the standard control and prescribed transmission service regulatory asset bases.

A fleet of maintenance vehicles, for example, may do both routine line maintenance and ad hoc pole relocation jobs, which is not a standard control service. The electricity supply business may negotiate the price of the latter service with customers who require that service. As above, the business's CAM uses time spent on jobs to allocate costs to the standard control and the other classified service respectively. In this way, the standard control asset base should reflect only costs that the distributor or TNSP incurs in providing standard control services. CAMs also guide cost allocation to any unclassified, or unregulated, services.

When a single asset provides two types of service, the cost allocation framework requires asset owners to apportion values to the relevant service classifications. For a vehicle providing both electricity supply services and unregulated services, the standard control asset base would include some of the vehicle's asset value but exclude a proportion that reflects the unregulated service.

²⁹ The Rules require CAMs to be publicly available on network service providers' websites.

³⁰ NER, cll. 6.15.2 and 6A.19.2.

Limitations of cost allocation

Cost allocation drivers, or the basis for allocating costs to service classifications, can vary across different cost types and businesses. However, revenues from unregulated services are rarely a valid driver for cost allocation, because they may not reflect the underlying costs of the service.³¹ For this reason, expected unregulated service revenue streams (no matter how large) may not influence cost allocation. Because unregulated revenues may not relate to asset values, those revenues may become large compared to the cost of the assets earning them.

Also, unless service classifications change, cost allocation largely occurs only once. That is, once asset costs/values are allocated to a service classification, they remain part of the asset base for that service classification. Asset cost allocation generally only changes if the services provided by that asset are re-classified. This semi-permanent cost allocation does not reflect new or growing unregulated revenue streams. Standard control assets may earn additional unregulated revenues without distributors removing any asset value from the standard control asset base or changing their cost allocation.

For this reason, the cost allocation approach will not affect what standard control service customers pay for that service, even if asset owners earn additional revenues from those assets. Therefore, asset owners may earn two revenue streams from a shared asset: one regulated revenue stream and another unregulated. They thus may recover the cost of standard control assets more than once.

How shared asset reductions address cost allocation's limitations

The revised Rules' shared asset mechanism deals with unregulated revenues in a way that cost allocation does not permit. Cost allocation deals with costs, while shared asset reductions deal with unregulated service revenues. Shared asset cost reductions also mitigate the risk of asset owners recovering the cost of assets more than once, from both customers of regulated electricity supply services and customers of unregulated services. If asset owners earn additional unregulated revenue streams from assets previously allocated to the standard control asset base, then we can adjust regulated revenues to reflect the new avenue for asset cost recovery.

³¹ Exceptions do exist, including SA Power Network's allocation of corporate finance costs, based on total revenues for each service class including unregulated services.