Stage 1 Framework and approach paper

Ausgrid, Endeavour Energy and Essential Energy

Transitional regulatory control period 1 July 2014 to 30 June 2015

Subsequent regulatory control period 1 July 2015 to 30 June 2019

March 2013

AUSTRALIAN ENERGY REGULATOR

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Contents

Shortened form

Shortened Form	Extended Form
AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
CPI	consumer price index
CPI-X	consumer price index minus X
current regulatory control period	1 July 2009 to 30 June 2014
DNSP or distributor	distribution network service provider
DUOS	distribution use of system
F&A	Framework and Approach
IPART	Independent Pricing and Regulatory Tribunal of NSW
kWh	kilowatt hours
MAR	maximum allowable revenue
NECF	National Energy Customer Framework
NEM	National Electricity Market
NER or the Rules	National Electricity Rules
NSW	New South Wales
RAB	regulatory asset base
SRMC	short run marginal cost
subsequent regulatory control period	1 July 2015 to 30 June 2019
TNSP	transmission network service provider
transitional regulatory control period	1 July 2014 to 30 June 2015
WAPC	weighted average price cap

About the framework and approach

The Australian Energy Regulator (AER) is the economic regulator for transmission and distribution services in Australia's national electricity market (NEM).[1] We are an independent statutory authority, funded by the Australian Government. Our powers and functions are set out in the National Electricity Law (NEL) and National Electricity Rules (the Rules or NER).

The framework and approach (F&A) is the first step in a process to determine efficient prices for electricity distribution services. The F&A determines, amongst other things, which services we will regulate and the broad nature of any regulatory arrangements. It also facilitates early public consultation and assists network service providers prepare regulatory proposals.

Ausgrid, Endeavour Energy and Essential Energy are licensed, regulated operators of New South Wales (NSW) monopoly electricity distribution networks. The networks comprise the poles, wires and transformers used for transporting electricity across urban and rural population centres to homes and businesses. These distribution network service providers (distributors) design, construct, operate and maintain distribution networks for NSW electricity consumers.

The AER regulates a variety of services provided by the NSW distributors. Where there is considerable scope to take advantage of market power, our regulation is more prescriptive. Less prescriptive regulation is required where prospect of effective competition exists. In some situations we may remove regulation altogether.

The current five year NSW distribution regulatory control period concludes on 30 June 2014. Recent changes to the Rules establish a one year transitional regulatory control period, commencing 1 July 2014 and ending 30 June 2015. A subsequent regulatory period will cover the remaining years, expected to be from 1 July 2015 to 30 June 2019. On 25 June 2012, we published our *Preliminary Positions on the Framework and Approach* (Preliminary F&A paper). This F&A paper sets out the AER's approach in relation to both of those regulatory control periods.

Instead of publishing the F&A by 30 November 2012, the Rules require us to publish the NSW F&A paper in two stages.[2] This Stage 1 F&A paper, sets out our decisions on:[3]

- distribution service classification (which services are to be regulated)
- control mechanisms (how will prices be determined) and the formulae that give effect to the control mechanisms
- dual function assets (how will transmission type assets be treated).

Part A of this Stage 1 F&A paper sets out an overview of our decisions and reasons for each of the above matters. Part B then sets out in Attachments 1 to 3 our substantive reasoning, under the Rules, for each matter. Our position with respect to the control mechanisms and dual function assets are final and binding on the NSW distributors.[4] We may change our position on the classification of

1 In addition to regulating NEM transmission and distribution, we regulate the NEM wholesale market and administer the National Gas Rules.
2 Prior to the November 2012 Rules changes, a single final F&A paper was required.
3 NER, cl. 11.56.4(l)(1).
4 NER, cl. 6.25(d) and cl. 6.12.3(c).

distribution services[5] and the formulae that give effect to the control mechanisms, if unforeseen circumstances arise.[6]

The Stage 2 F&A paper will be published in early 2014 and will set out our decisions on the application of any:[7]

- service target performance incentive scheme
- efficiency benefit sharing scheme
- capital expenditure incentive scheme
- demand management and embedded generation connection incentive scheme
- expenditure forecast assessment guidelines, and
- whether depreciation will be based on forecast or actual capital expenditure.

Following release of the Stage 1 and 2 F&A papers, NSW distributors will submit regulatory proposals. Table 1 summarises the NSW distribution determination process.

Table 1: NSW distribution determination process

Step	Date
AER published preliminary positions F&A paper for NSW distributors	25 June 2012
AER to publish Stage 1 F&A paper for NSW distributors	29 March 2013
AER to publish Stage 2 F&A paper for NSW distributors	31 January 2014
Distributors submit Transitional Regulatory Proposal to AER	31 January 2014
AER to publish distribution determination for Transitional Regulatory Control period	30 April 2014
Distributors submit Subsequent Regulatory Proposal to AER	31 May 2014
Submissions on Subsequent Regulatory Proposal close	August 2014**
AER to publish Draft Distribution Determination	November 2014*
AER hold public forum on Draft Distribution Determination	December 2014**
Distributors to submit revised Subsequent Regulatory Proposal to AER	January 2015
Submissions on revised Subsequent Regulatory Proposal and Draft Determination close	February 2015**
AER to publish distribution determination for Subsequent Regulatory Control period	30 April 2015

* The NER does not provide specific timeframes in relation to publishing draft decisions. Accordingly, this date is indicative only.

** The dates provided for submissions and the public forum are based on the AER receiving compliant proposals. These dates may alter if the AER receives non-compliant proposals.

Source: NER, chapter 6, Part E.

5 NER, cl. 6.12.3(b).
6 NER, cl. 6.12.3(c1).
7 NER, cl. 11.56.4(l)(2).

Part A: Overview

This Stage 1 F&A paper covers three issues: classification of distribution services, control mechanisms and dual function assets.

Classification of distribution services

Classification is important to electricity customers because it determines the need for and scope of regulation applied to distribution services central to electricity supply. Distribution services include, for example, the provision and maintenance of poles and wires and connection or disconnection to electricity. Classification determines how the prices of these services will be set. This has a direct impact on electricity customers.

When we classify distribution services we determine the nature of the economic regulation that we will apply to those services. The Rules establish a limited range of service classification categories, to which varying levels of economic regulation apply. When we classify services we therefore determine whether we directly control prices, become involved only to arbitrate disputes, or do not regulate at all. The classification that we apply to a distribution service also determines whether the NSW distributors recover service costs by averaging across all customers or only charging those benefiting directly from specific services.

The classification of most distribution services will not change for the 2009–2014 regulatory control period. The majority of services provided by distributors relate to building and maintaining the network and these will remain standard control services. Similarly, public lighting will remain an alternative control service. We have changed the classification of some metering services and a number of ancillary network services that are provided to individual customers. Metering services are to be reclassified from standard control to alternative control. This will facilitate more choice for customers. We proposed to classify ancillary network services as alternative control services to create a greater focus on 'user pays' for these services.

Our approach to NSW distribution service classification has changed somewhat since our preliminary F&A in June 2012. Changes relate to some service groupings and our proposed classification of connection, metering and ancillary network services. Some changes reflect distributor and stakeholder submissions. These assisted us to understand better the nature of distribution services in NSW and their future opportunities.

Our NSW distribution service classifications represent our proposed approach for the transitional and subsequent regulatory control periods. The NSW distributors must adopt the classifications set out in this paper unless we consider that unforeseen circumstances justify departing from them.[8]

Direct control services

The Rules contain factors we must consider when determining appropriate levels of economic regulation for the range of electricity distribution services. Following consideration of those factors, we may determine a prescriptive approach is required. We will classify such services as direct control services. That is, we will directly set prices distributors will charge customers, or set revenues distributors may recover from customers.[9]

[8] NER, cl. 6.12.3(b).

[9] We regulate distributors by determining either the prices they may charge (price cap regulation) or by determining the revenues they may recover from customers (revenue cap regulation).

Most distribution services fall within the network services group, which include poles, wires, and other core infrastructure of a distribution business.[10] These are central to a distributor's business and are used by the broad customer base. Network services are central to a distributor's monopoly power and are frequently subject to licence restrictions. We therefore classify NSW distribution network services as direct control services. Other NSW distribution services are also subject to limited, or no, supply competition. We therefore also classify as direct control: network augmentation, metering, public lighting, and ancillary network services. We must further determine whether we will classify a direct control service as a standard control or alternative control service.

Standard control services

We classify as standard control services those distribution services that are central to electricity supply and therefore relied on by most (if not all) customers. Most distribution services are classified as standard control, reflecting the integrated nature of an electricity distribution system. We regulate these services, typically, by determining prices or an overall cap on the amount of revenue that may be earned for all standard control services. These standard control services form the core component of an electricity bill.

Standard control services include network services, most network augmentations and, in limited circumstances, network extensions. These services encompass construction, maintenance and repair of the network for existing and new customers.

Alternative control services

Alternative control services are customer specific or customer requested services. These services may also have potential for provision on a competitive basis rather than by a single distributor. Alternatively, certain customers may require these services. For these services, we set service specific prices to enable the distributor to recover the full cost of each service from customers using that service. We will determine prices for individual alternative control services in a variety of ways, suitable to specific circumstances. For example, only a few customers purchase ancillary network services (like a request for special meter reading or to relocate a power pole). It would be inappropriate for all customers to fund provision of these services. We therefore classify ancillary network services as alternative control. Public lighting is also classified as alternative control because a defined group of customers purchase these services, for example, local councils.

Metering services are classified as alternative control because provision of these services is likely to become open to more competition in the near future. Furthermore, the range of metering services customers may wish to use (for example, increasing use of smart meters) suggests unbundling these services from standard control is appropriate.

Negotiated distribution services

Negotiated distribution services are those services we consider require a less prescriptive regulatory approach because all relevant parties have sufficient market power to negotiate the provision of those services. Distributors and customers will negotiate prices according to a framework established by the Rules. We are available to arbitrate if necessary.

None of the services provided by the NSW distributors are suited to be classified as negotiated services. Some submissions were received suggesting public lightning be made a negotiated service. However, numerous other submissions (including certain councils and stakeholders) did not consider

[10] Defined in appendix D.

this approach was appropriate given the market power the distributors hold. We appreciate the concerns held by some that public lighting is not yet ready to become a negotiated distribution service and propose to classify public lighting accordingly, as an alternative control service.

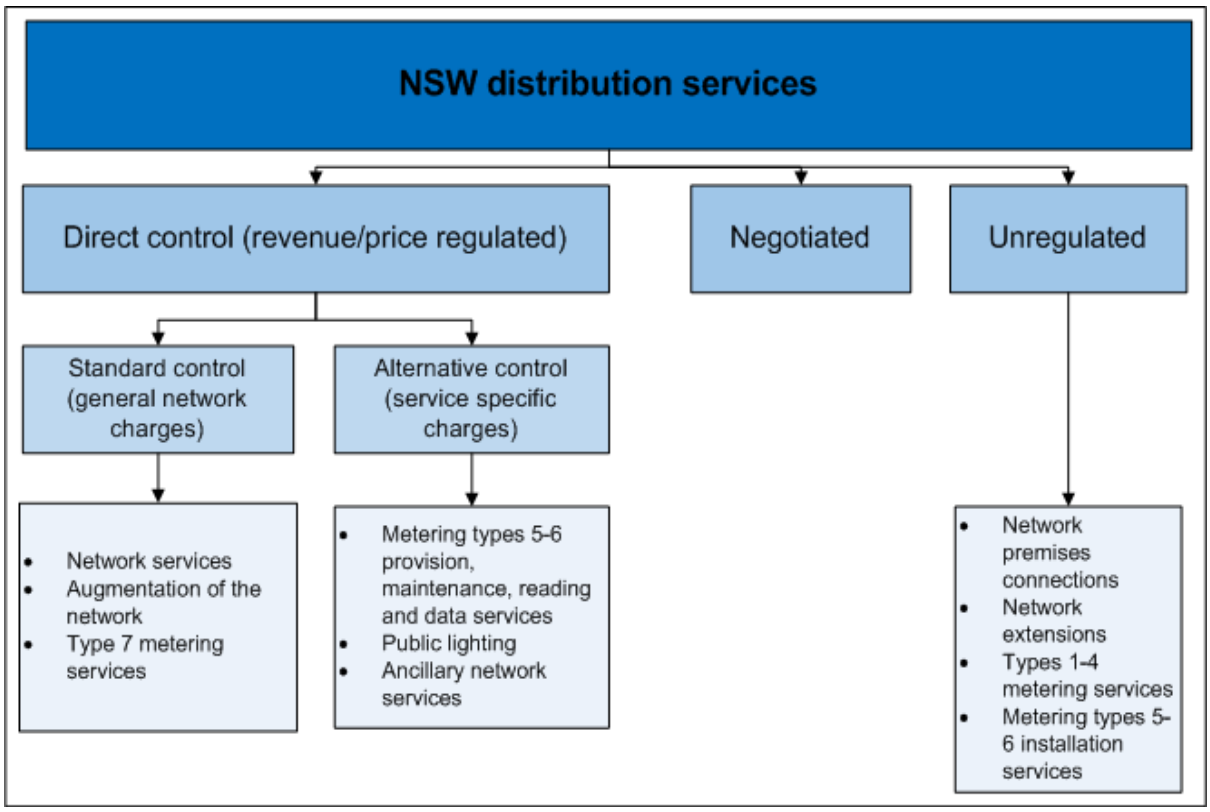
Unclassified (unregulated)

In the case of some distribution services, we may determine there is sufficient competition for no regulation at all. We will not classify such services. We refer to these as unclassified or unregulated distribution services.

A range of NSW connection, extension and metering services are fully contestable. We consider consumers have sufficient capacity, within contestable markets, to negotiate efficient prices for these services effectively. We therefore will not classify these services. This means we will have no role in the pricing of these services over the next regulatory control periods.

We use the above service classifications throughout this Stage 1 F&A paper. Figure 1 sets out our proposed classification of NSW distribution services.

Figure 1: AER's proposed classification of NSW distribution services



Source: AER

Control mechanisms

Following on from service classifications, our determinations must impose controls on direct control service prices and/or their revenues.[11] We may only accept or approve control mechanisms in a

[11] NER, cl. 6.2.5(a).

distributor's regulatory proposal if they are consistent with this paper.[12] To inform our control mechanism decisions, we undertook additional consultation, including releasing a discussion paper in April 2012.[13] We then published draft control mechanism decisions in our Preliminary F&A paper, released in June 2012.

The Rules require us to decide the control mechanism *forms*[14] and the formulae to give effect to the control mechanism, but not the basis of the form of control mechanism. In deciding control mechanism *forms*, we must select one or more from those listed in the Rules.[15] These include price schedules, caps on the prices of individual services, weighted average price caps, revenue caps, average revenue caps and hybrid control mechanisms.

In deciding on the form of control mechanism, the Rules require us to have regard to specified factors.[16] These include the need for efficient tariffs, administrative costs, previous regulatory arrangements and consistency. In light of the above alternatives and considerations, our decisions on the form of control mechanisms for the NSW distributors are:

- standard control services— revenue cap
- alternative control services— caps on the prices of individual services.

For standard control services, the Rules mandate the *basis* of the control mechanism must be the prospective CPI–X form, or some incentive-based variant.[17] For alternative control services, we will confirm a control mechanism basis through the distribution determination process.

Standard control services

Our assessment of possible control mechanisms for standard control services demonstrated that the weighted average price cap (WAPC) has not, and is unlikely to provide an incentive for distributors to set efficient prices. We therefore considered that a revenue cap will provide benefits in terms of efficient cost recovery and incentives for demand side management.

Alternative control services

Our assessment of possible control mechanisms for alternative control services demonstrated caps on the prices of individual services will provide cost reflective pricing benefits. We considered that these benefits outweigh any detriments from a temporary increase in administration costs.

The AER's detailed reasons and analysis on the control mechanisms for direct control services is set out in Part B, attachment 2.

Dual function assets

Dual function assets are high voltage transmission assets forming part of a distribution network. Transmission network service providers (TNSPs) usually operate such assets. Considering

12 NER, cl. 6.12.3(c).
13 AER discussion paper, *Control mechanisms for standard control electricity distribution services in the ACT and NSW*, April 2012. We received 9 submissions.
14 NER, cl. 6.2.5(b).
15 NER, cl. 6.2.5(b).
16 NER, cl. 6.2.5(c) and cl. 6.2.5 (d).
17 NER, cl. 6.2.6(a). The basis of the form of control is the method by which target revenues or prices are calculated e.g. a building block approach.

transmission assets as part of a distribution determination avoids need for a separate transmission proposal. The Rules, by allowing this, save time and money for network service providers and the AER. These savings ultimately benefit electricity consumers and taxpayers.

We are required to decide whether dual function asset prices will be set under distribution or transmission pricing rules. The Rules establish transmission pricing as the default approach where the assets form a material proportion of the distributor's regulatory asset base (RAB). The Rules further require the AER, in deciding pricing approaches, to consider impacts on distribution prices and consumption, production and investment. We may also account for other factors we consider relevant.

Distribution and transmission pricing represent different ways of recovering service costs. Under transmission pricing, distributors may allocate dual function asset costs to both a TNSP's broader customer base and the distributor's customers. However, under distribution pricing rules, distributors with dual function assets may not allocate costs to a TNSP.

For Ausgrid's dual function assets, we determine that transmission pricing will continue to apply. At 12.3 per cent, the assets are a material proportion of Ausgrid's RAB, justifying application of transmission pricing. Further, application of distribution pricing would materially impact Ausgrid's distribution customers and affect consumption, production and investment. In terms of cost reflectivity, Ausgrid's dual function assets support Transgrid's transmission network, so transmission pricing facilitates appropriate cost recovery. Maintaining the current transmission pricing approach avoids additional administrative costs.

For Endeavour Energy, we determine that distribution pricing will continue to apply. At between 1.7 and 3.1 per cent of Endeavour Energy's RAB, these are significantly less material than is the case for Ausgrid. Also, Endeavour Energy submitted that its dual function assets form transmission exit assets supporting only its own distribution network. Therefore, even under transmission pricing rules, Endeavour Energy would allocate its full dual function asset costs to its own distribution customers. Therefore, changing the pricing approach to transmission pricing would not have a material impact on distribution prices. Changing the approach would also incur administrative costs.

Essential Energy reported to the AER that it does not operate any dual function assets. We are not required therefore, to make a determination on dual function assets for Essential Energy.

Part B: Attachments

1 Attachment 1: Classification of distribution services

This attachment sets out the AER's proposed approach to classification of distribution services provided by the New South Wales (NSW) distributors. Classification determines the nature of economic regulation, if any, applicable to specific distribution services. Classification therefore determines whether we directly control prices, allow parties to negotiate services and prices and only arbitrate disputes if necessary, or do not regulate at all.[18] If we intend to control prices directly, classification further determines whether distributors will recover service costs from all customers or only those benefiting directly from specific services.[19]

Classification is important to customers as it determines which network services to include in basic electricity charges, which services will be sold as additional services and which services will not be regulated by the AER. Our decisions reflect our assessment of competition or the potential for competition of distribution services. Where limited competition for the provision of services exists, we classify them to achieve a more prescriptive form of regulation. If competition exists, we classify to less prescriptive regulation or do not regulate the service at all. If only a limited number of customers use a service, we may consider classifying these services to encourage a user pays approach to pricing.

The AER's proposed approach to classification of distribution services in NSW is for both the transitional regulatory control period (1 July 2014 to 30 June 2015) and for the subsequent regulatory control period (expected to be 1 July 2015 to 30 June 2019).[20] Our classifications set out in this Stage 1 F&A paper must be adopted in a distribution determination unless we consider that unforeseen circumstances justify departing from the classification set out in this paper.[21]

The Rules set out a three stage the classification process we must follow. We must consider a number of specified factors at each stage. Figure 2 outlines the classification process under the Rules.

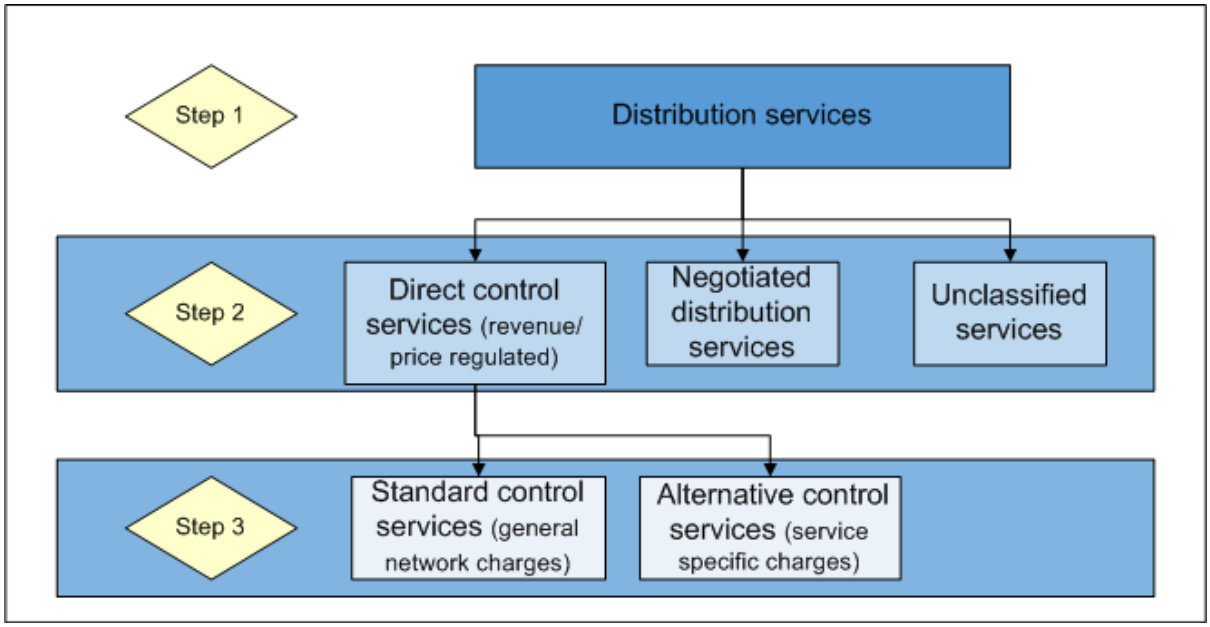
18 The control mechanism available for each service depends on the classification. The control mechanisms available for direct control services are listed under cl. 6.2.5(b) of the Rules. These include revenue caps, average revenue caps, price caps, weighted average price caps, a schedule of fixed prices or a combination of the specified forms of control. Negotiated distribution services are regulated under the negotiate/arbitrate framework set out in Part D of chapter 6 of the Rules. Control mechanisms are discussed in detail in attachment 3 of the F&A paper.

19 In general, the costs of providing standard control services would be expected to be recovered through DUOS tariffs paid by all or most customers. Costs of providing alternative control or negotiated distribution services would be expected to be recovered from the individual customers that are the recipients of such services.

20 We also refer to the transitional and subsequent regulatory control periods as the 'next regulatory control periods'.

21 NER, cl. 6.12.3(b).

Figure 2: Distribution service classification process



Source: NER, chapter 6, part B.

First, we must determine whether a service is a 'distribution service'. At a high level, distribution services are services provided by means of, or in connection with, a distribution electricity network.[22]

Second, we classify distribution services. We may:

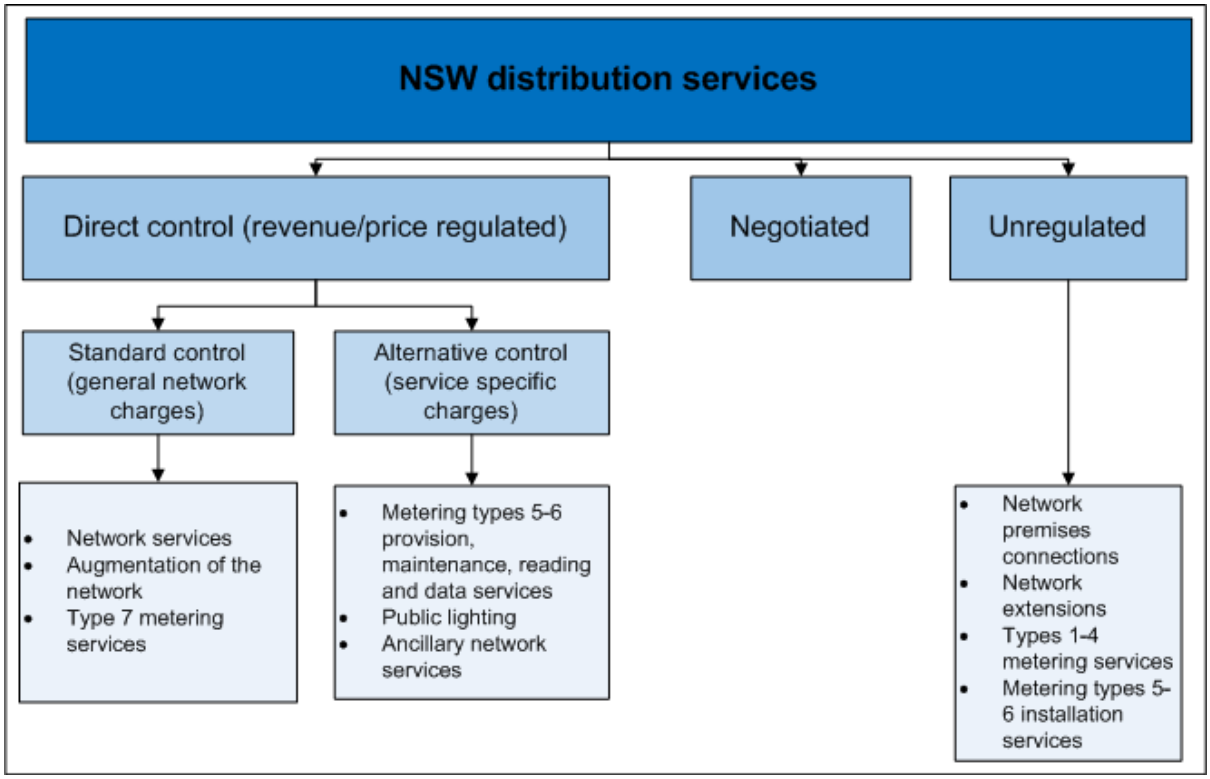
- classify a service that benefits all customers so that the distributor may attribute costs to all customers (direct control and standard control)
- classify a service so that the user benefiting from the service pays (direct control and alternative control)
- allow customers and distributors to negotiate the provision and price of some services. The AER's only role will be to arbitrate should negotiations stall (negotiated distribution service)
- not classify a service. In this instance, the AER has no regulatory control over this service or the prices charged by the distributor for the service (unclassified service).

1.1 AER's proposed approach

The AER classified distribution services consistently for each of the NSW distributors. This means that regardless of the NSW distributor, all distribution services have the same classification. Figure 3 summarises our proposed classification of the NSW distributors' distribution services.

[22] NER, Chapter 10.

Figure 3: AER's proposed classification of NSW distribution services



Source: AER

Most distribution services fall within the network services group. This group of services form the core of what an electricity distributor does and includes activities like constructing and maintaining the network. Distributors provide network services under a restrictive licence issued by the NSW Government which precludes other service providers. As it would be inefficient to have multiple providers of network services, competition for these services would not be in the interests of consumers. When competition is absent, the AER applies the most prescriptive form of regulation—direct control.

Because a distributor's broad customer base consumes network services, it is appropriate to recover costs from across the same customer base. We therefore classify network services as standard control. Similarly, effective competition is not possible for network augmentation and some metering services, also benefiting the broad customer base. We therefore also intend to classify these services as standard control.

Public lighting, ancillary network services and some metering services are provided to meet specific customer needs or are only used by certain customers. It would be inappropriate for the broad customer base to fund the provision of such services. We set service specific charges to recover the full cost of each service from customers using that service. We therefore intend to classify these services as alternative control.

Sitting between direct control and unregulated services, is the negotiated distribution service classification. This is a light handed approach to regulation. Negotiated service prices are set by negotiation between the parties according to a framework set out in the Rules. The AER is available to arbitrate if negotiations stall. This classification relies on both parties possessing sufficient market

power for effective negotiations. We have not applied this classification to any of the services provided by the NSW distributors.

Finally, a range of connection, extension and metering services are fully contestable. We consider consumers have sufficient market power, within contestable markets, to negotiate efficient prices for these services effectively. We therefore do not classify these services. This means we will have no role in pricing these services over the transitional and subsequent regulatory control periods.

The AER's proposed approach to the classification of services has changed somewhat since its Preliminary Framework & Approach (F&A) in June 2012. The changes relate to some service groupings and the AER's proposed classification of connection, metering and ancillary network services. Some changes reflect distributor and stakeholder submissions, which assisted us to understand better the nature of distribution services in NSW and their future opportunities.

1.2 AER's assessment approach

The AER follows a three stage assessment when classifying distribution services. Figure 2 outlines this process.

1. We must first satisfy ourselves that a service is a 'distribution service' (step 1 in figure 2). The Rules define a distribution service, which in general terms is a service provided by means of, or in connection with, a distribution system.[23] A distribution system is a 'distribution network, together with the connection assets associated with the distribution network, which is connected to another transmission or distribution system'.[24]

2. We then consider whether economic regulation of the service is appropriate for the distribution service (step 2 in figure 2). Where we do not think economic regulation is appropriate, because of the presence of competition, we will not classify the service. If there is little or no competition in relation to a service, we consider whether to classify the service as either a direct control or negotiated distribution service.[25]

3. Where we consider a service should be a classified as a direct control service, we further classify it as either a standard control or alternative control service (step 3 in figure 2).[26]

The AER must consider factors set out in the Rules when classifying distribution services. These are set out at appendix A.[27]

The Rules also specify that for services regulated previously, we must act on the basis that unless a different classification is clearly more appropriate:

- there should be no departure from a previous classification (if the services have been previously classified); and

- if there has been no previous classification, the AER's classification should be consistent with the previous regulatory approach.[28]

[23] See Chapter 10 of the NER for the definition of 'distribution service'. Connection assets alone do not constitute a distribution system.
[24] NER, ch. 10.
[25] NER, cl. 6.2.1.
[26] NER, cl. 6.2.2.
[27] NER, cll. 6.2.1 and 6.2.2.
[28] NER, cll. 6.2.1(d) and 6.2.2(d).

The Rules also allow the AER to group distribution services when classifying. We may classify a class of activities rather than the specific activities that form part of the service. This provides distributors with flexibility to alter the exact specification (but not the nature) of a service during the regulatory control periods.[29] Where we make a single classification for the group of services, it applies to each service in the group.

If the AER determines that a light-handed regulatory approach is preferable it may classify a service as a negotiated distribution service. However, we do not determine the terms and conditions of negotiated distribution services. Instead, they are subject to a process of negotiating and dispute resolution.[30] Two instruments support the negotiation process:[31]

1. Negotiating distribution service criteria— sets out the criteria that distributors are to apply in negotiating distribution services. The AER also applies the negotiating distribution service criteria in resolving disputes.

2. Negotiating framework— sets out the procedures a distributor and any person wishing to receive a negotiated distribution service must follow.

The AER intends to group distribution services provided by the NSW distributors as:

- network services
- connection services
- metering services
- ancillary network services
- public lighting services.

We have varied the groups from those proposed in our Preliminary F&A paper. Specifically, we intend to replace the groups of 'fee based services' and 'quoted services' with a group called 'ancillary network services'. Section 1.3.4 details our reasons for this change.

The AER considers that the groups of services above are distribution services. They each provide services by means of, or in connection with, a distribution service.[32]

The AER's Preliminary F&A paper set out its proposed distribution service classifications and sought submissions on those positions. The AER received submissions in response to its proposed classification of services. We considered these submissions in determining our proposed approach to service classification.

1.3 Reasons for AER's proposed approach

Generally, classification is an assessment of the extent to which distributors provide services in a competitive market. The AER also considers whether all customers benefit from the service or whether customers request specific services for their direct benefit.

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30 NER, cl. 6.7 sets out principles and criteria around negotiated distribution services.

31 NER, cl. 6.7. These instruments are not established by the AER as submitted by TTEG in its email of 10 October 2012, p. 4.

32 NER, chapter 10. The AER considers that each service group is provided 'in connection' with or 'in conjunction' with a distribution system. The AER also relies on *Ergon Energy Corporation Ltd v Australian Energy Regulator* [2012] FCA 393.

The majority of distributors' services are provided in a monopoly environment. Often this is because of strict legislative licensing provisions permitting only the distributor to perform the service. Most of these services benefit all customers and the costs are shared across the customer base as general network charges. Such services include network services, network augmentation and type 7 metering services. Our intended classification of these services as direct control and further, as standard control services is not controversial.

The AER also received stakeholder support for its intended classification of types 5 and 6 metering provision, maintenance, reading and data services, and ancillary network services as alternative control services. This proposed classification facilitates unbundling of costs to allow for customer specific metering services. A distributor generally provides these services for the benefit of an identifiable customer and/or there is potential to develop competition in these areas. In these instances, we consider it appropriate that the distributor levy service specific charges to the customer receiving these alternative control services. This provides transparency in the real cost of the service and allows for a 'user pays' system where appropriate.

The AER intends not to regulate a range of services that are competitively available. This includes network premises connections and extensions, types 1 to 4 metering services (used by large electricity consumers) and installation of types 5 and 6 meters (household/small business meters). Again, a number of submissions supported our intended classification of these services.[33]

However, we identified a small number of services requiring closer analysis. These included public lighting and types 5 to 7 metering services. Early consultation by the AER provided a range of views on how we should classify these services.

Types 5 to 7 metering services are currently one group and the charges spread across the customer base as standard control services. Initially, there were some dissenting views on the AER's intention to separate types 5 to 7 metering services into identifiable groups. However, the AER's approach, which seeks improved transparency of costs and potential for competition, is consistent with the Australian Energy Market Commission's recent recommendations.[34] We also undertook further consultation on this issue, providing additional reasoning for our intended approach. Appendix B details our consultation on metering services and the submissions we received.

NSW distributors typically earn 0.5 to 2 per cent revenue from providing public lighting services.[35] While this represents a small portion of a distributor's revenue, it is a significant annual expenditure for local government councils as the primary customers. Submissions provided a range of customer views on how the AER should classify public lighting services. Having considered all submissions, we intend to classify public lighting services, including emerging public lighting technology,[36] as direct control and further, as alternative control services. Some parties submitted that we should classify public lighting services as negotiated distribution services.[37] However, we consider customers do not possess sufficient market power to negotiate with the NSW distributors effectively.

This attachment will now address, in detail, the classification of each of the service groups.

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33 NSW DNSPs, *Response to the AER's preliminary framework and approach paper*, 17 August 2012, p. 8; REROC, *Submission on the AER framework and approach paper*, August 2012, p. 4.

34 AEMC, *Power of choice review draft report, Supplementary paper, Principles for metering arrangements in the NEM to promote installation of DSP metering technology*, 6 September 2012, p. 4.

35 The range was obtained from 2010-11 and 2011-12 Regulatory Information Notices (RIN) responses from the respective NSW distributors.

36 Emerging public lighting technology refers to technology related to public lighting that the NSW distributors do not offer at the time of our distribution determination.

37 TTEG, *Submission on the AER's preliminary positions F&A paper*, 7 September 2012; TTEG, *EE Councils' submission on the AER's preliminary positions F&A paper*, August 2012.

1.3.1 Network services

The AER considers network services predominately relate to a distributor's services provided over its shared distribution network to service all customers connected to it. Network services are an important group of distribution services. These services are associated with the safe and reliable conveyance, and controlling the conveyance, of electricity through the network.[38] Consumers use or rely on network services on a daily basis. General examples of network services include:

- maintenance of substations, poles, lines and cables
- pole and other asset repairs and replacements[39]
- planning and designing the network.

Network services do not include metering services, connection services or public lighting services.[40]

We intend to classify network services as direct control services and further, as standard control services. We also propose not to classify emergency recoverable works,[41] even though they are a distribution service. This proposed approach is consistent with our Preliminary F&A paper.

The NSW distributors each hold the only electricity distribution licence for their respective distribution district.[42] Similarly, the *Electricity Supply Act 1995* (NSW) prevents a person from distributing and supplying electricity unless they hold a licence authorising them to do so. Therefore, only the NSW distributors can provide network services relating to the safe and reliable conveyance, and controlling the conveyance, of electricity through the distribution network. Additionally, consumers cannot source network services in their district from external providers.

These arrangements together effectively amount to an absolute regulatory barrier preventing third parties from providing network services.[43] Therefore, we consider that there is no market for network services for third parties to compete. Because of the current legislative arrangements, the NSW distributors possess complete market power due to the licensing and legislative arrangements in place.[44] Therefore, we intend to classify network services as direct control services.

The AER must further classify direct control services as standard or alternative control services.[45] We intend to retain the current classification of network services as standard control services as:

- There is little, if any, potential to develop competition in the market for network services. The absence of competition is due to the NSW distributors holding the only licences to provide network services in each distribution district.
- There would be no material effect on administrative costs to the AER, the NSW distributors, users or potential users. This is because classifying network services as standard control services is consistent with the current regulatory approach.

38 NER, chapter 10.
39 NSW DNSPs, *Response to the AER's preliminary framework and approach paper*, 17 August 2012, p. 8. The NSW distributors sought confirmation that services relating to the ongoing maintenance and eventual replacement of components of the distribution system are included in the AER's classification of network services.
40 Network services exclude metering data services. However, the AER considers distributor's use of meter data for managing and planning the network, for example, are included in network services.
41 'Network services' is a new service group. Currently, services of this nature are referred to as 'miscellaneous and monopoly' services. This includes emergency recoverable works.
42 Licences are issued by Independent Pricing and Regulatory Tribunal of NSW.
43 NEL, s. 2F(a).
44 NEL, s. 2F(d).
45 NER, cl. 6.2.2(c).

- We currently classify network services in NSW and all other NEM jurisdictions as standard control services.
- Distributors provide network services through a shared network and they cannot directly attribute the costs of these services to individual customers.

For the above reasons, we consider that we should further classify network services as standard control services. The NSW distributors' supported our proposed approach.[46]

The AER currently classifies emergency recoverable works as standard control services. Emergency recoverable works relate to the distributors' emergency work to repair damage following a person's act or omission, for which that person is liable. For example, repairs to a power pole following a motor vehicle accident.

We consider that emergency recoverable works are analogous to emergency response works.[47] This is because distributors carry them out as part of the normal maintenance and repair to the network to ensure the safe and reliable supply of electricity. Only a distributor may perform these types of repairs on its assets and this creates a monopoly.

For these reasons, we consider that emergency recoverable works are a distribution service. However, in terms of classification we consider that emergency recoverable works are distinguishable from other network services. This is because the cost of these works may be recoverable at common law. For this reason, we intend not to classify emergency recoverable works. The NSW distributors supported this proposed approach.[48]

Therefore, we intend to classify network services as direct control services, and further, as standard control services. While a distribution service, we propose not to classify emergency recoverable works.

1.3.2 Connection services

Chapter 10 of the Rules defines connection services.[49] Put simply, a connection service refers to the services a distributor or alternative service provider (ASP) performs in order to:

- connect a person's home, business or other premises to the electricity distribution network
- get more electricity from the distribution network than is possible at the moment;
- extend the network to reach a person's premises.

The above services currently form part of 'customer funded connections'. The AER does not currently regulate this group. However, we consider it possible to separate connections into clearly identifiable types of connections. The connection types are premises connections, extensions and augmentations. Table 2 lists the definitions of each connection type together with our proposed classification of each type. Table 2 also sets out our preliminary position on connection services.

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46 NSW DNSPs, *Response to the AER's preliminary framework and approach paper*, 17 August 2012, p. 1.

47 Works performed by the distributor to repair the distribution network following a natural disaster or, for example, a lightning strike to a pole.

48 NSW DNSPs, *Response to the AER's preliminary framework and approach paper*, 17 August 2012, p.1.

49 NER, Chapter 10 defines connection services as consisting of entry services and exit services. An entry service is a service provided to serve a generator or group of generators, or a network service provider or group of network service providers, at a single connection point. An exit service is a service provided to serve a distribution customer or a group of distribution customers, or a network service provider or group of network service providers, at a single connection point.

The AER has amended its preliminary position on connection services.[50] Our proposed approach no longer includes 'incidental services' as a type of connection service. Rather, section 1.3.4 deals with services this component would otherwise capture to avoid potential duplication or overlap of service types. Additionally, the NSW distributors sought clarification on some definitional issues. We address these issues in our reasons below.

Table 2: AER's preliminary position and proposed approach to connection services in NSW

AER's preliminary position		AER's proposed approach	
Service group	**Classification**	**Service group**	**Classification**
Augmentation of premises connection assets at the retail customer's connection point (premises connection assets)	Unclassified	Premises connections—additions or upgrade to the connection assets located on the customer's premises.[51] (Note: excludes all metering services)	Unclassified
Extensions— an augmentation that requires the connection of a power line or facility outside the present boundaries of the transmission or distribution network owned, controlled or operated by a Network Service Provider	Unclassified	Extensions— new assets, other than shared network assets, required to connect a power line or facility outside the present boundaries of the transmission or distribution network owned or operated by a Network Service Provider[52] that is: a. undertaken by an ASP on behalf of a customer (unclassified) b. undertaken by a customer but partly funded by a NSP (NSP contribution would be classified as a standard control service while the customer funded component of the service would be unclassified) c. undertaken by the network service provider (standard control service)	Unclassified
Augmentations— any augmentation undertaken by a distributor which is not an extension or network augmentation dedicated to a customer	Standard control	a. Any shared network enlargement/enhancement undertaken by a distributor which is not an extension (standard control) b. Any shared network enlargement/enhancement undertaken by a customer, but partly funded by a NSP (NSP contribution would be classified as a standard control service while the customer funded component of the service would be unclassified) c. Any shared network enlargement/enhancement undertaken by a customer (unclassified)	Standard control
Incidental services— including the provision of administration, design, certification and inspection services	Alternative control	Incidental services - defunct service group	Subsumed

Source: AER analysis

We must consider each connection type.[53] We have done so below.

50 AER, *Preliminary positions paper, Framework and approach for NSW DNSPs, Regulatory control period commencing 1 July 2014*, June 2012, p. 21.
51 Also referred to as 'premises connection assets' at cl. 5A.A.1 of the NER.
52 NER, glossary.
53 NER, cll. 6.2.1 and 6.2.2.

a. Premises connections

In the AER's Preliminary F&A, we indicated our intention not to classify premises connections. We have not changed our proposed approach or reasons for our approach.[54]

We consider that premises connections refer to any additions or upgrades to the connection assets located on the customers' premises (but excludes all 'metering services'). This definition varies from our Preliminary F&A paper. The NSW distributors submitted that 'premises connections' applies to a broader group than retail customers, which we had originally stated.[55] We accept this point.

New South Wales has a working and competitive market to provide premises connections under the *Electricity Supply Act 1995* (NSW) and contestability framework. This means customers can choose their own service provider and negotiate a price for premises connections. Where no third party service provider exists, such as in a rural area, the distributor acts as the 'service provider of last resort' under ring-fencing arrangements. In this instance, the distributor provides the service on a competitive neutral basis.[56] Otherwise, the NSW distributors do not offer premises connections.

For the above reasons, we intend not to classify premises connections in the next regulatory control periods. We consider that this is appropriate as the service is subject to competition on the open market.[57]

b. Extensions

In our Preliminary F&A, we indicated our intention not to classify extensions. The NSW distributors supported our proposed approach but sought clarification on the definition of an extension. The NSW distributors submitted that it understands 'extensions' to be extensions the distributor does not perform. The NSW distributors submitted that it is not accurate for us to state that distributors perform extensions in limited circumstances.[58]

We therefore revised our definition of an extension as follows:

1. Network assets, other than shared network assets, necessary to connect a power line or facility outside the present boundaries of the transmission or distribution network owned, controlled or operated by a Network Service Provider that is:

    i. undertaken by an ASP on behalf of a customer (unclassified)

    ii. undertaken by a customer but partly funded by a network service provider (where the network service provider contribution would be classified as a standard control service while the customer funded component of the service would be unclassified).

    iii. undertaken by the network service provider (standard control).[59]

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54 AER, *Preliminary positions paper, Framework and approach for NSW DNSPs, Regulatory control period commencing 1 July 2014*, June 2012, pp. 20-27.

55 NSW DNSPs, *Response to the AER's preliminary framework and approach paper*, 17 August 2012, p. 9.

56 NEL, s. 2F(a), (d), (f) and (g).

57 NER, cl. 6.2.1(d).

58 NSW DNSPs, *Response to the AER's preliminary framework and approach paper*, 17 August 2012, p. 9.

59 Element iii. was proposed by the NSW distributors in the NSW DNSPs, Response to AER's request on Classification of services, received by the AER on 13 February 2013, p. 2. The AER is comfortable with this addition to the definition. This is because any request from the distributor for a capital contribution will invoke the NSW contestability framework. Otherwise, if the distributor performs the extension, Chapter 5A of the NER and the distributor's connection policy would apply.

Similar to premises connections, NSW has a working and competitive market to provide extension services. Customers can choose their own service extension provider. We consider that this balances the economies of scale and scope otherwise available to the NSW distributors.[60] Where no third party service provider exists, such as in some rural areas, the distributor acts as the 'provider of last resort'. This is a ring-fencing arrangement, which provides competitive neutrality.[61]

Despite ring-fencing arrangements, REROC's submission raised concern that a conflict exists in rural areas. Its example is that a distributor, acting as the 'ASP of last resort' may install a dedicated augmentation (extension) in excess of the customer's capacity request. REROC supports our preliminary position on connection services. However REROC is concerned the customer may cover the full cost of an extension so the distributor may offset its own costs of extending the shared network servicing the customer's area.[62] This should not concern RERCO because extensions, by definition, are not a shared network asset. The NSW distributors may reasonably require works to facilitate further connections however, the costs will be apportioned between the customer seeking the extension and any additional work the distributor elects to undertake. In the event that subsequent customers do connect to the extension, the customer may seek to share its extension cost under a cost sharing scheme (pioneer scheme) operated by the distributor.[63]

Having considered the Rules' requirements and for the reasons above,[64] it is clearly more appropriate for extensions to be unclassified. Therefore, we intend not to regulate extensions in the next regulatory control periods.

c. Augmentations

In our Preliminary F&A, we indicated our intention to classify augmentations as direct control services and further, as standard control services.

Augmentations refer to any shared network enlargement/enhancement undertaken by a distributor, which is not an extension.[65] For example, expansion of the shared network to accommodate increased demand. We adopted this definition after considering the NSW distributors' submission on the Preliminary F&A paper. The NSW distributors' submitted that they rarely dedicate augmentations to a customer.[66] We accepted this point and removed 'dedicated to a customer' from our proposed definition. However, we acknowledge there may be some circumstances where a customer may be required to contribute to an augmentation in order to connect to the network. Typically, network augmentation is not attributable to a specific customer. However, we do not wish to preclude the possibility of a customer contributing to augmentation at this point. The NSW distributors will be required to identify these circumstances in their Connection Policies that will form part of their regulatory proposals. The NSW distributors are yet to submit their Connection Policies (indeed, they may be some way from being drafted). Consequently, the classifications may be inconsistent with the Connection Policies. Depending on the circumstances, the AER may consider the situation unforeseeable and accept adjustments to the classifications. The AER would consider any such adjustments in its draft determination.

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60 NEL, s. 2F(b) and (c).
61 NEL, s. 2F(a), (d), (f) and (g).
62 REROC, *Submission on the AER framework and approach paper*, August 2012, p. 3.
63 NER, chapter 5A and AER, *Connection charge guidelines for electricity retail customers, Under chapter 5A of the National Electricity Rules*, June 2012, p. 22.
64 NER, cl. 6.2.1.
65 The full definition, including elements b. and c. are listed in table 1. Elements b. and c. were proposed by the NSW distributors in its response to the AER's request on Classification of services received on 27 February 2013. The AER is comfortable with this addition to the definition. This is because any request from the distributor for a capital contribution will invoke the NSW contestability framework. Otherwise, if the distributor performs the augmentation, Chapter 5A of the NER and the distributor's connection policy would apply.
66 NSW DNSPs, *Response to the AER's preliminary framework and approach paper*, 17 August 2012, p. 10.

The NSW distributors each hold an electricity distribution licence to provide services for their respective distribution districts in NSW. We consider that these NSW licensing arrangements create a regulatory barrier for third parties to perform augmentations.[67] The NSW distributors may engage a third party to perform augmentations. However, we understand that in most instances, the NSW distributors will not permit third parties to perform augmentations because of the potential impact on the safety, security and reliability of the network.[68]

Additionally, NSWs' contestability framework, which allows ASPs to perform premises connections and extensions competitively, does not apply to augmentation of the shared network. This is because in most cases, if not all, augmentation of the network is a cost shared by all customers. We therefore consider that the NSW distributors possess significant market power in providing augmentations to the shared network. A third party can only perform an augmentation at a distributor's discretion. This creates a monopoly, which requires a stringent regulatory approach. Additionally, we have classified connection services in other NEM jurisdictions as direct control services.[69]

The AER must further classify direct control services as standard or alternative control services.[70] Our proposed approach is to classify augmentations as standard control services. This is consistent with the current regulatory approach because:

- There is little, if any, prospect for competition in the market for augmentations. Our classification will not influence the potential for competition. Rather, the absence of competition is due to the NSW distributors performing augmentations to ensure the safe and reliable supply of electricity to network customers. Additionally, the contestability framework does not extend to augmentations.
- There would be no material effect on administrative costs to the AER, the NSW distributors, users or potential users. This is because classifying augmentations as standard control services involves the whole customer base sharing the cost.
- We currently regulate augmentations in all other NEM jurisdictions under a direct form of control.
- The distributors provide augmentations to benefit the shared network and cannot directly attribute costs to individual customers.

For these reasons, we consider that it is clearly more appropriate to retain the current standard control service classification for augmentations.[71]

Component d. Incidental services

Incidental services refer to distributors' providing support services to ASPs and customers for premises connections and extensions. Support services include administration, design information, certification and inspection services. These services are different to design and construct services, which are contestable in NSW.[72]

Our preliminary position was to classify incidental services as direct control services and further, as alternative control services.[73] REROC agreed with our proposed classification.[74] The NSW distributors

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67 NEL, s. 2F(a).
68 Endeavour Energy, *Classification of electricity distribution services in the ACT and NSW*, 15 February 2012, p. 3.
69 NER, cll. 6.2.1(c)(2) and (c)(3).
70 NER, cl. 6.2.2(c),
71 NER, cl. 6.2.2(d).
72 Ausgrid, *Response to the AER's consultation paper on classification of electricity distribution services in NSW and the ACT*, 21 February 2012, pp. 6 and 7.
73 AER, *Preliminary positions paper, Framework and approach for NSW DNSPs, Regulatory control period commencing 1 July 2014*, June 2012, pp. 26-27.

also agreed with our proposed classification. However, they submitted that incidental services have characteristics consistent with our proposed fee-based and quoted services. For these reasons, the NSW distributors suggested that we include incidental services under fee-based or quoted services (as appropriate). This would avoid potential duplication or overlap of service types.[75]

We agree with this point. Section 1.3.4 sets out reasons for our proposed approach to services captured in the now defunct 'incidental services' component.

In summary, we must not depart from a previous regulatory approach unless another classification is clearly more appropriate.[76] Based on the above analysis, we consider that the NSW distributors' connection services should be dealt with as follows:

i. Premises connections— unclassified and therefore not regulated by the AER.

ii. Extensions— unclassified and therefore not regulated by the AER.

iii. Augmentations— classified as direct control services and further, as standard control services.

We intend not to include 'incidental services' as a connection service.

1.3.3 Metering services

All electricity customers have a meter that measures the amount of electricity they use.[77] However, not all customers have the same type of meter. There are different types of meters, each measuring electricity usage in different ways.

The NSW distributors are the monopoly providers of type 5 and 6 meters.[78] The distributors provide these default meter types to households and other small consumption users. Type 6 meters simply record total electricity usage over a period of time. Type 5 meters can record electricity usage and time of use.[79]

Type 4 meters or 'smart meters' are available from NSW distributors or alternative providers competitively and households or other small consumption users may purchase them. These are also interval meters that have a communications capability allowing the NSW distributors or a third party to read them remotely. Customers are increasingly seeking smart meters because they offer frequent information about usage. This allows customers to manage their electricity use better.

The NSW distributors are the monopoly providers of type 7 metering services, which are special unmetered connections (for example, public lighting connections).[80]

Following an assessment of the various elements of metering services, we amended our preliminary position on metering services.[81] We consider it appropriate to separate metering services into clearly identifiable services. This approach differs to our preliminary position where we bundled all metering services for types 5 to 7 meters together and classified them as alternative control services. We now propose service components for types 5 and 6 meters. These are installation services, and meter

74 REROC, *Submission on the AER framework and approach paper*, August 2012, p. 4.
75 NSW DNSPs, *Response to the AER's preliminary framework and approach paper*, 17 August 2012, p. 11.
76 NER. cl. 6.2.2(d).
77 All connections to the network must have a metering installation (NER, cl. 7.3.1A(a)).
78 The NSW DNSPs are the 'responsible person' for types 5, 6, and 7 metering installations (NER, cl. 7.2.3(a)(2)).
79 Interval meters record electricity usage every 30 minutes.
80 NER, cl. 7.2.3(a)(2).
81 AER, *Preliminary positions paper, Framework and approach for NSW DNSPS, Regulatory control period commencing 1 July 2014*, June 2012, p. 28.

provision, maintenance, reading and data services. We intend to classify each metering service differently. We will deal with types 1 to 4 and type 7 meters separately. Table 3 summarises our preliminary position and proposed approach on the classification of metering services.

Table 3: AER's preliminary position and proposed approach for metering services

AER's preliminary position	AER's proposed approach
Metering types 1 to 4 – unclassified	Metering types 1 – 4 unclassified
Metering types 5 and 6 – alternative control	The AER intends to classify type 5 & 6 metering services by components:
	a. **Metering installation services** which include on site connection of a meter at a customer's premises, and on site connection of an upgraded meter at a customer's premises where the upgrade was initiated by the customer - **unclassified**
	b. **Metering provision, maintenance, reading and data services**. Meter provision refers to the capital cost of purchasing the metering equipment to be installed. Meter maintenance covers works to inspect, test, maintain, repair and replace meters. Meter reading refers to quarterly or other regular reading of a meter. Metering data services involve the collection, processing, storage, delivery and management of metering data in accordance with the NER[82] – **alternative control services**
Meter type 7 – alternative control	Meter type 7 – standard control

Source: AER

Customers must pay for metering services, as they do for all other electricity services. At issue is whether the NSW distributors should bundle the cost of types 5 to 7 metering services in basic electricity network charges (standard control services) as currently is. Alternatively, whether the NSW distributors should separate or unbundle these charges (alternative control services). Whether the distributors bundle or unbundle these charges depends on the way we classify metering services.

Type 1 to 4 metering services

Types 1 to 4 metering services are contestable in NSW.[83] For this reason, we intend not to classify these services. Consequently, we will not regulate these services. This is consistent with the current regulatory approach.

Types 5 and 6 metering services

We reviewed each submission[84] and consequently, amended our preliminary position on the classification of types 5 to 7 metering services as alternative control services. We intend to classify type 7 metering services separately. We also intend to separate metering services for type 5 and 6 meters and classify each according to its characteristics. The service groups are:

a. installation services

b. provision, maintenance, reading and data services.

82 To avoid doubt, metering data services are defined in cl. 7.11.2 and chapter 10 of the NER. The metering data provider performs these services. The Local Network Service Provider may act as the metering data provider, or engage another party (NER, cl. 7.2.5(c1) and cl. 7.4.1A).

83 Industrial and large customers may use types 1, 2, 3 or 4 meters. These meters are already open to competition and are not regulated by the AER (NER, cl. 7.2.3(a)(2) and 7.3.1.A(a)).

84 Appendix B has a summary of the submissions.

We consider that these separate services are consistent with the Rules, the NSW distributors' submissions, and broadly consistent with our approach in other decisions.[85]

The AER received submissions supporting its preliminary position to classify types 5 to 7 metering services as alternative control services from Metropolis Metering Assets Pty Ltd, Better Place Australia, Simply Energy, Origin, Energy Retailers Association of Australia and REROC.[86] Generally, these parties submitted that unbundling types 5 to 7 metering services from network services would allow for more transparent costing. This in turn would create favourable conditions to develop competition.[87] We received further submissions supporting our revised approach to unbundle components of types 5 and 6 metering services from standard control services. These were from AGL, Energy Australia, Energy Retailers Association of Australia, Macquarie Corporate and Asset Finance Group, Metropolis Metering, Origin, Simply Energy and SSROC. These submissions also urged us to unbundle meter data services from standard control services.[88]

- Overall, we consider that our final proposed approach to type 5 and 6 metering services will have non-price benefits for customers. This includes promoting competition and providing customers with more information and greater choice. Appendix C contains a table outlining the proposed impacts on customers.

Further analysis of each type 5 and 6 metering service group follows.

a. Installation services

For the following reasons we intend not to classify type 5 and 6 metering installation services. Consequently, we will not regulate these services.[89]

The AER relies on the *Electricity Supply Act 1995* (NSW) which gives the customer the right to choose who performs installation services for types 5 and 6 meters. Further, installing electricity meters is a 'contestable service'.[90] Similar to connection services, this creates contestability in meter installation in NSW, which the ASP scheme underpins. This low barrier to entry, combined with the high number of ASPs in most regions substantially mitigates the distributors' market power. This provides customers with the ability to negotiate the prices for meter installation services.[91] We therefore understand that significant competition exists in the market for meter installation services in NSW.

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85 NER, schedule 7.2;
NER, chapter 10;
NSW DNSPs,' *Response to the AER's preliminary framework and approach paper, Regulatory control period commencing 1 July 2014*, 17 August 2012, (DNSPs, Submission on the preliminary F&A, August 2012), pp. 15–16; NSW DNSPs,' *Response to the discussion paper, Classification of metering services in NSW - Matters relevant to the framework and approach for NSW DNSPs 2014–19*, 1 February 2013, (DNSPs, Submission on the metering discussion paper, February 2013), pp. 7, 9–11.

86 Submissions on the AER's preliminary framework and approach relating to metering services: Metropolis Metering Assets Pty Ltd, 10 August 2012, p. 2; Better Place, 17 August 2012, p. 2; Simply Energy, 17 August 2012, p. 1; Origin, 24 August 2012, p. 1; Energy Retailers Association of Australia, 24 August 2012, p.1; REROC, August 2012, p. 4.

87 For example, Origin, *Submission on the AER's preliminary framework and approach paper*, 24 August 2012, p. 1. The AER notes that in REROC's submission at page 4, it agrees with the AER's preliminary position to classify metering services (types 5 to 7) as alternative control services. However, REROC goes on to state that '...metering services is more efficiently undertaken as part of the integrated distribution function and that it should be charged through DUOS.'

88 Submissions on the AER's discussion paper on the classification of metering services: AGL Energy Ltd, 3 February 2013; Energy Australia, 1 February 2013; Energy Retailers Association of Australia, 1 February 2013; Macquarie Corporate and Asset Finance Group, 31 January 2013; Metropolis Metering Assets Pty Ltd, 31 January 2013; Origin Energy Ltd, 1 February 2013; Simply Energy, 1 February 2013; SSROC, 22 January 2013.

89 NER, cl. 6.2.1(c)(2) and 6.2.1(d)(1).

90 See s. 29 of the *Electricity Supply Act 1995* (NSW) and r. 3 of the *Electricity Supply (General) Regulation 2001* (NSW). New South Wales' contestability framework was discussed in further detail in section 1.3.2 on connection services. NER, cl. 7.11 also sets out metering data arrangements.

91 NEL, s. 2F(a), (d), (f) and (g).

Similarly, we consider that the NSW distributors' ability to draw on extensive resources is unlikely to prevent third parties from competitively providing meter installation services.[92] Again, the contestability framework and ASP scheme counteract the NSW distributors' ability to drive the market for meter installation services.

Regulatory consistency across jurisdictions is less relevant because the contestability framework is unique to NSW.[93] It creates a competitive market for meter installation services that does not exist elsewhere.

We must retain a previous service classification unless a different classification is clearly more appropriate.[94] However, based on the above assessment, we consider it is clearly more appropriate not to classify meter installation services. Therefore, we intend not to regulate type 5 and 6 metering installation services in the next regulatory control periods.

b. Provision, maintenance, reading and data services

The AER intends to classify metering provision, maintenance, reading and data services as direct control services and further as alternative control services.

We consider it necessary to apply a direct form of regulation for the following reasons.[95]

We consider that there is currently a regulatory barrier to any party other than the NSW distributors for types 5 and 6 metering provision, maintenance, reading and data services.[96] This is because all customers must have a meter and each meter requires provision, maintenance, reading and data services.

The *Electricity Supply Act* and Market Operation Rules restrict meter provision, maintenance, reading and data services to the Local Network Service Provider.[97] In this instance, the NSW distributors operate as the Local Network Service Provider for their respective distribution district.[98]

We consider it necessary to classify provision, maintenance, reading and data services as direct control services because, currently due to legislative requirements,[99] there are no real substitutes for these services.[100] This provides the NSW distributors with significant market power in providing these services.[101] Additionally, types 5 and 6 metering services are subject to a direct form of regulation in NSW and other NEM jurisdictions.[102]

By adopting a direct control service classification, we must further classify meter provision, maintenance and reading services as standard or alternative control services.[103] We consider that these services should be alternative control services because:

- There is potential for contestability of metering provision, maintenance, reading and data services in the near future. We recognise that the NSW distributors are currently the monopoly providers of

92 NEL, s. 2F(b) and (c).
93 NER, cl. 6.2.1(c)(3).
94 NER, cl. 6.2.1(d).
95 NER, cl. 6.2.1.
96 NEL, s. 2F(a).
97 ESA, s. 63D; MOR (NSW Rules for Electricity Metering) No 3 of 2001, cll. 7 and 10.
98 NER, ch. 10.
99 NER, cl. 7.2.3.
100 NEL, s. 2F(e) and (f).
101 NEL, s. 2F(d).
102 NER, cl. 6.2.1(c)(2), 6.2.1(c)(3), and 6.2.1(d)(1).
103 NER, cl. 6.2.2(c).

types 5 and 6 metering services.[104] However, we consider that separating the costs of meter provision, maintenance, reading and data services from shared network charges will enhance competition should contestability for these services change.[105] If charges for these services remain bundled in distribution charges, any future changes in contestability may be far less effective.

- Additionally, our proposed approach is consistent with the Australian Energy Market Commission's (AEMC) draft report for its Power of Choice Review. The AEMC's recommendations included that:
  - the current metering arrangements need reform to promote investment in better metering technology and promote customer choice
  - metering costs should be unbundled from shared network charges.[106]

  The AEMC also released a Power of Choice supplementary paper on metering services, exploring the arrangements necessary to implement its recommendations.[107] The AEMC recommended that metering provision be contestable and open to competition among approved service providers. Further, it stated that customers should be able to choose a metering service provider.[108] The AEMC designed its recommendations to promote the investment in, and use of, advanced metering infrastructure ('smart' metering). It considers there will be demand management benefits for customers, retailers and distributors.[109]

  Our proposed approach is also consistent with the NSW Smart Meter Task Force discussion paper. They consider a market led approach to rolling out smart meters in NSW is the best option, where consumers choose whether to install a smart meter. A key principle for consumers to benefit from a smart meter rollout is not to pay twice for metering services.[110]

  The NSW distributors submitted that changing the classification would have no impact on competition because NSW distributors are the monopoly providers of types 5 and 6 metering services.[111] We note based on the AEMC's Power of Choice Review, this position may change. Therefore, an alternative control classification would better accommodate the AEMC's recommendations.

  We also consider that unbundling meter provision, maintenance and reading services from other standard control services will enhance competition for providers of type 4 meters. It will enable alternative providers to compete with the NSW distributors on both price and non-price aspects.

  The NSW distributors submitted that changing metering services' classification to unbundle charges would drive customers to type 6 meters as the lowest cost meters. The NSW distributors submitted that type 6 meters are the least appropriate for facilitating cost-reflective tariffs and

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104 NER, cl. 7.2.3(a)(2) provides that a DNSP, as the local network service provider, is the responsible person for all types 5 and 6 metering installations.

105 NER, cll. 6.2.2(c)(1) and (c)(6).

106 AEMC, *Draft report, Power of choice - giving consumers options in the way they use electricity*, 6 September 2012, pp. 47-56.

107 AEMC, *Power of choice review draft report, Supplementary paper, Principles for metering arrangements in the NEM to promote installation of DSP metering technology*, 6 September 2012 (AEMC, Power of choice metering paper, September 2012).

108 AEMC, *Power of choice metering paper*, September 2012, p. 4.

109 AEMC, *Power of choice metering paper*, September 2012, pp. 7–9.

110 For example, when a customer purchases a type 4 metering service, in addition to that cost, the customer will continue to pay for any metering services that are included in DNSP's standard network charges; NSW Smart Meter Task Force, *Discussion Paper*, November 2012, pp. 9, 13.

111 NSW DNSPs, *Submission on the preliminary F&A*, August 2012, p. 13; NSW DNSPs, *Submission on the metering discussion paper*, February 2013, p. 7.

better demand management.[112] However, we consider that unbundling metering charges may allow type 4 meters to compete with type 6 meters on non-price aspects. For example, type 4 meters offer features such as real-time access for customers to meter data showing their electricity use. We cannot assume that upfront costs alone drive customer choice. Customers may look for long term savings. Therefore, customers may find type 4 meters beneficial in managing household demand to take advantage of time based electricity tariffs.[113] Further, unbundling charges will also allow type 4 meters to compete on price with similar functioning type 5 meters.

- The NSW distributors submitted that there would be significant administrative costs in moving away from a standard control classification. This is because establishing a separate metering asset base would require additional distributor internal resources.[114] We acknowledge the distributors' will incur some costs in implementing our revised position, which distributors would need to recover from customers. However, we consider the potential benefits for customers discussed above will outweigh the burden of administrative costs over time.[115]

- As noted above, there is some variation in the classification of metering services across NEM jurisdictions. However, separating metering into components and classifying them differently to allow for potential growth in competition[116] is consistent with our approach in other NEM jurisdictions.[117]

- The AER considers that an alternative control classification for metering provision, maintenance, reading and data services is appropriate, as customers will only pay for services they receive. Under the current regulatory approach, a customer potentially pays twice for metering services. For example, when a customer purchases a type 4 metering service, in addition to that cost, the customer will continue to pay for types 5 and 6 metering services through their standard network charges. Additionally, any customers with one type 5 or 6 meter may be currently cross-subsidising customers with multiple type 5 or 6 meters. For example, a residential customer with solar panels may have two type 6 meters: one to measure electricity use and another to measure solar electricity production. Again, bundling metering costs into standard network charges results in the costs being averaged across the customer base. This results in a cross-subsidy from customers with one meter to those with additional meters.

- Another relevant factor[118] we considered is creating a more transparent and accurate way of providing customers with costing information. Directly attributing costs under an alternative control classification would allow customers to make more informed choices on metering provision, maintenance, reading and data services. We acknowledge that customers may initially consider that charges and options for metering services are more complex.

- The NSW distributors submitted that cost transparency is achievable for customers without altering the current standard control classification. They suggested that reporting requirements

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112 NSW DNSPs, *Submission on the preliminary F&A*, August 2012, p. 15; NSW DNSPs, *Submission on the metering discussion paper*, February 2013, pp. 3–4.

113 The same point was made in the Department of Resources, Energy and Tourism, *Energy White Paper 2012, Australia's Energy Transformation*, October 20120, pp. 162-163.

114 NSW DNSPs, *Submission on the preliminary F&A*, August 2012, p. 17; NSW DNSPs, *Submission on the metering discussion paper*, February 2013, pp. 2–3.

115 NER, cl. 6.2.2(c)(2).

116 NER, cl. 6.2.2(c)(4).

117 AER, *Final Framework and approach paper, ETSA Utilities, 2010–15*, November 2008, pp. 31–33; AER, *Queensland draft decision*, November 2009, pp. 14–17; AER, *Final Framework and approach paper, Victorian electricity distribution regulation, Citipower, Powercor, Jemena, SP AusNet and Uniting Energy, regulatory control period commencing 1 January 2011*, May 2009, p. 3; AER, *Preliminary positions, Framework and approach paper, Aurora Energy Pty Ltd, Regulatory control period commencing 1 July 2012*, June 2010, pp. 17–32.

118 NER, cl. 6.2.2(c)(6).

and regulatory decision processes might achieve a similar outcome.[119] We acknowledge that this approach may offer improved price transparency. However, consumers would have access to more accurate cost information if the AER separated meter provision, maintenance and reading services from other standard control services. This is because there would be a regulatory obligation on distributors to price these services on the direct costs of providing these services.

Based on the analysis above, we consider it clearly more appropriate to classify types 5 and 6 metering provision, maintenance, reading and data services as alternative control services.

Type 7 metering services

In our Preliminary F&A, we proposed to classify type 7 metering services as alternative control services.[120] We have amended our preliminary position in line with our proposed approach to separate metering services as table 4 shows. We intend to classify type 7 metering services as direct control services and further, as standard control services for the following reasons.

A type 7 metering service is a metering installation that does not measure the flow of electricity. Examples include streetlights or traffic lights. Distributors charge customers, usually councils or government agencies, for unmetered connections by estimating the usage using standard data. For example, the distributor estimates streetlight usage using the total time the lights were on, the number of lights in operation, and the light bulb wattage. As only NSW distributors estimate usage, only they can bill customers.

The NSW distributors are the monopoly providers of type 7 metering services. This is because as indicated above, the cost of providing type 7 metering services is nominal.[121] For this reason, an alternative provider has limited incentive to enter the market for the provision of type 7 metering services. The NSW distributors are already performing data management services for type 5 and 6 meters. Providing type 7 metering services is a logical extension for the NSW distributors to undertake.

We therefore consider that there is no potential to develop competition in the provision of type 7 metering services.[122] Therefore, we intend to classify type 7 metering services as direct control services and further, as standard control services.

On the basis of our analysis above, our proposed approach is to classify metering services as follows:

119 NSW DNSPs, *Submission on the AER's preliminary F&A,* August 2012, p. 13.
120 AER, *Preliminary positions Framework and approach paper, NSW DNSPs, Regulatory control period commencing 1 July 2014*, June 2012, (AER, F&A, June 2012), p. 31.
121 This is because an equation is used to calculate type 7 metering usage. No physical meter or associated services are necessary.
122 NER, 6.2.2(c)(1).

Table 4: AER's proposed approach to classifying metering services

AER's likely approach	
Service	**Proposed classification**
Metering types 1 – 4	Unclassified
The AER intends to classify type 5 & 6 metering services by service types:	
a. Metering installation services	Unclassified
b. Metering provision, maintenance, reading and data services	Alternative control
Metering type 7	Standard control

Source: AER

1.3.4 Ancillary network services

In our Preliminary F&A paper, we proposed service groups called 'fee-based services' and 'quoted services'.[123] Following consultation with the NSW distributors, we intend to create a service group called ancillary network services. This group will replace the fee-based and quoted services groups. The AER no longer considers 'fee based services' and 'quoted services' appropriate service groupings. Rather they describe the basis on which services captured in the ancillary services group are charged. Ancillary network services share the common characteristic of being non-routine services provided to individual customers on an 'as needs' basis. Examples include temporary supply, supply enhancement or after hours service provision.

Our proposed classification of these services as alternative control services remains unchanged. Our proposed approach is set out in table 5.

Table 5: AER's revised classification of ancillary network services

AER's preliminary position		AER's proposed approach	
Service group	**Classification**	**Service group**	**Classification**
Fee based services	Alternative control	Ancillary network services (excluding customer specific services, but including 'incidental services')	Alternative control
Quoted services (including customer specific services)	Alternative control		
		Customer specific services	Unclassified

Source: AER

Our reasons for not classifying customer specific services and for classifying proposed additional ancillary network services and ancillary network services are below.

[123] AER, *Preliminary positions paper, Framework and approach for NSW DNSPs, Regulatory control period commencing 1 July 2014*, June 2012, p. 15.

'Customer specific services'

The NSW distributors submitted that some customer specific services are not distribution services and we should not regulate them. Alternatively, if they are distribution services, they should be unclassified.[124] Customer specific services include asset relocation works and conversion to aerial bundled cable. They also include other services the distributor provides, at the customer's request, relating to connecting the distribution customer to the distribution system.[125] We currently do not regulate customer specific services.

The AER, consistent with the Federal Court decision in *Ergon Energy Corporation Ltd v Australian Energy Regulator* [2012] FCA 393, considers that 'customer specific services' are services provided by the distributor 'in conjunction with' the distribution system.[126] Hence, we consider that 'customer specific services' are distribution services.

Our preliminary position was to include 'customer specific services' in the former quoted services group. We have amended our preliminary position. We understand that the NSW contestability framework applies to customer specific services such as relocating network assets.[127] Similar to premises connections and extensions in section 1.3.2, customers are able to choose an ASP to perform customer specific services.

Therefore, we intend not to classify customer specific services. We will therefore not regulate customer specific services. The NSW distributors support this intended approach.[128]

Proposed additional ancillary network services

The AER has briefly reviewed the NSW distributors' proposed additional ancillary network services.[129] The NSW distributors consider these additional services necessary to satisfy the National Energy Customer Framework's requirements. The NSW distributors state that they provide some of the proposed services but do not charge individual customers. We will assess the additional services as part of each distributor's regulatory proposal. However, in the interim, we consider that at face value, the additional services fall in the ancillary network services group. We have included these services as ancillary network services at appendix D.

Ancillary network services

Ancillary network services,[130] which include proposed additional ancillary network services and incidental services, involve work on, or in relation to, parts of the NSW distributor's distribution network. Therefore, only the distributor can undertake these services.

We consider that, similar to network services, there is a regulatory barrier preventing any party other than the NSW distributors providing ancillary network services.[131] Because of this monopoly position, customers have limited negotiating power in determining the price and other terms and conditions on which the distributors provide these services. Furthermore, the scale of resources available to the

124 NSW DNSPs, *Response to the AER's preliminary framework and approach paper*, 17 August 2012, pp. 25 and 29.
125 Private power line inspections, miscellaneous and monopoly services and emergency recoverable works are excluded from customer specific services.
126 *Ergon Energy Corporation Ltd v Australian Energy Regulator* [2012] FCA 393 at p. 21, paragraph 54.
127 NSW Department of Trade and Investment, *Electricity network connections - contestable works*, 19 March 2012, www.trade.nsw.gov.au/energy/electricity/network-connections/contestable.
128 NSW DNSPs, Response to AER's request on Classification of services, received by the AER on 13 February 2013.
129 NSW DNSPs, *Response to the AER's preliminary framework and approach paper*, 17 August 2012, pp. 25, 26 and 28.
130 Ancillary network services will be charged on either a fee or a quotation basis. A fee will be charged for homogenous services where costs can be estimated with reasonable certainty. A quote will be provided for services of a unique nature where the DNSP must assess the task, materials and time involved in performing the service.
131 NEL, s. 2F(a).

NSW distributors is also likely to prevent alternative providers from competitively providing ancillary network services. These factors contribute to the view that, like network services, the NSW distributors possess significant market power in providing ancillary network services.[132]

We note that numerous 'miscellaneous services' are currently subject to a direct form of control in NSW.[133] Miscellaneous services appropriately fall within the ancillary network services group. A similar arrangement exists in the ACT.[134]

For the above reasons, we consider that we should classify ancillary network services as direct control services.

We intend to classify ancillary network services as alternative control services because:

- We are currently unaware of competitors willing to provide ancillary network services. We are also not aware of any initiatives by the NSW Government to encourage contestability of these services in the next regulatory control periods. Therefore, the NSW distributors are performing the majority, if not all, ancillary network services.
- There would be no material effect on the administrative costs of the AER, the distributors, users or potential users. This is because classifying ancillary network services as alternative control services involves the AER regulating in a similar manner to that which we currently use. For example, NSW distributors are currently quoting for services where the work involved is more complex or outside business hours.[135]
- We currently regulate services NSW distributors provide on a quotation basis. Queensland and Victorian distributors charge for some services on a fee basis. These are alternative control services.[136] We also regulate quoted services including customer specific services in other NEM jurisdictions. We are currently proposing the same approach to ancillary network services in the Australian Capital Territory.[137]
- The nature of ancillary network services is that the customer requesting the service will benefit from that service. As such, the costs of that ancillary network service are directly attributable to an individual customer.[138] This results in costs that are more transparent for customers. Additionally, the note to clause 6.2.2(c)(5) of the Rules states that:

  > In circumstances where a service is provided to a small number of identifiable customers on a discretionary or infrequent basis, and costs can be directly attributed to those customers, it may be more appropriate to classify the service as an alternative control service than as a standard control service.

  We consider that ancillary network services should be alternative control services as costs are attributable to an individual customer. This is because of the specific nature of the services only benefiting an individual or small sub-set of customers. We adopt this view even though ancillary network services do not exhibit signs of competition or potential for competition.

  If we continued to classify ancillary network services as standard control services, the distributors would share the services' costs across all customers. We will continue to regulate the fees

132 NEL, s. 2F.
133 NER, cll. 6.2.1(c)(2) and (3).
134 AER, *Final Decision, ACT distribution determination 2009-10 to 2013-14*, 28 April 2009, pp. x, 17 and 179-181.
135 For example, Endeavour Energy, *Network Price List 2011-12 for Standard Form Customer Connection Contract*, Effective 1 July 2012 at p. 23.
136 AER, *Queensland final distribution determination,* May 2010, pp. 378–384; AER, *Victorian draft distribution determination–Appendices*, June 2010, pp. 2–3.
137 AER, *Preliminary positions paper, Framework and approach for ActewAGL (ACT), Regulatory control period commencing 1 July 2014*, June 2012, p. 14.
138 NER, cl. 6.2.2(c)(5).

distributors charge for ancillary network services we classify as alternative control services. This addresses REROC's concern that the distributor may 'set any price it determines the market will bear for these services'.[139]

For these reasons, we intend to classify ancillary network services as alternative control services in the transitional and subsequent regulatory control periods. The NSW distributors and REROC support this approach.[140]

Appendix D lists ancillary network services, including additional services for the next regulatory control periods for each of the NSW distributors.[141] Based on the above assessment, we intend to classify ancillary network services as direct control services and further, as alternative control services. We intend not to classify customer specific services.

1.3.5 Public lighting

The NSW distributors operate and maintain the public lighting systems throughout NSW. The distributors provide these services on behalf of local councils and government departments responsible for public lighting in NSW.

The Rules do not define public lighting services. However, we have consistently defined the following public lighting services in other distribution determinations as:

- the operation, maintenance, repair and replacement of public lighting assets
- the alteration and relocation of public lighting assets, and
- the provision of new public lighting.[142]

We also propose including emerging public lighting technology (emerging technology) as part of the public lighting services group. Emerging technology relates to luminaires that the NSW distributors do not provide at the time of our distribution determination. However, emerging technology may become available during the next regulatory control periods. We did not state a preliminary classification of emerging technology in our Preliminary F&A.[143]

We intend to classify public lighting (including emerging public lighting technology) as a direct control service and further, as an alternative control services. Our reasons follow.

In its Preliminary F&A, the AER indicated its intention to classify public lighting services as direct control services and further, as alternative control services. The NSW distributors, REROC, Gosford City Council, SSROC and Bankstown City Council supported our preliminary position.[144] Submissions from the Trans Tasman Energy Group (TTEG) independently and on behalf of Endeavour Energy

139 REROC, *Submission on the AER framework and approach paper*, August 2012, p. 4.

140 NSW DNSPs, *Response to the AER's preliminary framework and approach paper*, 17 August 2012, p. 25; REROC, *Submission on the AER framework and approach paper*, August 2012, p. 4.

141 Excluding 'new' services proposed by the NSW DNSPs.

142 AER, *Framework and approach paper for Victorian electricity distribution regulation–CitiPower, Powercor, Jemena, SP AusNet and United Energy for regulatory control period commencing 1 January 2010 (final)*, May 2009, pp. 25–26; AER, *Preliminary positions, Framework and approach paper for Aurora Energy Pty Ltd for regulatory control period commencing 1 July 2012*, June 2010, p. 33.

143 AER, *Preliminary positions paper, Framework and approach for NSW DNSPs, Regulatory control period commencing 1 July 2014*, June 2012, p. 42.

144 NSW DNSPs, *Response to the AER's preliminary framework and approach paper*, 17 August 2012, pp. 3; REROC, *Submission on the AER framework and approach paper*, August 2012, p. 5; Gosford City Council, *Submission on the AER framework and approach paper*, 23 August 2012, p. 1; SSROC, *Submission on the AER framework and approach paper*, 24 August 2012, p. 1; Bankstown City Council, *Submission on the AER framework and approach paper*, 28 August 2012, p 1.

Supplied Councils (EE Councils) did not support the AER's preliminary position.[145] The AER's proposed approach has not changed. However, we reached this position after significant consideration of all submissions. We considered the EE Council's submission and the potential for public lighting to become a negotiated distribution service. However, it was clear from a number of submissions that many NSW public lighting customers thought the distributors do not devote sufficient time to their public lighting interests.[146] Therefore, we are concerned the NSW distributors lack commercial incentives to engage meaningfully with their public lighting customers. That is, public lighting forms a small part of the distributors' revenue. Furthermore, it appears many customers (although not all) oppose lighter handed forms of regulation inherent in classification as a negotiated distribution service, due perhaps to a lack of trust.[147] Recent Rule changes require the NSW distributors to build their capacities to engage with customers in the next regulatory period.[148] We also expect that councils will engage with the NSW distributors as they develop improved business and customer engagement systems.

Given the current circumstances, we consider a direct form of regulation is necessary. We consider there to be significant barriers preventing third parties from providing public lighting services. While the NSW distributors do not have a legislative monopoly over these services, a monopoly position exists. This is because the NSW distributors own the majority of public lighting assets. That is, other parties would need access to poles and easements for instance to hang their own public lighting assets. However, the NSW distributors own and control such supporting infrastructure. Therefore, similar to network services, ownership of network assets restricts the operation, maintenance, alteration or relocation of public lighting services to the NSW distributors. There is some limited scope for other parties to provide some public lighting services. For example, other parties may construct new public lights or perform works on independently owned public lighting assets.[149] Apart from these limited exceptions, the AER considers that a high barrier exists preventing third parties from entering this market. This limits competition in public lighting.[150]

SSROC submitted that its member councils are mindful of the NSW distributors' significant market power. SSROC stated that it already effectively and successfully negotiates with its distributor on a range of public lighting technology, maintenance, information provision and other service issues. However, SSROC submitted that it has achieved suitable outcomes with the NSW distributors in the context of the AER's direct involvement in price setting.[151] Therefore, any reduction to the AER's 'proper pricing oversight' would concern SSROC.[152] SSROC acknowledged that the NSW Public Lighting Code[153] provides some guidance on the relationship between NSW distributors and customers. However, the Code is non-binding and SSROC finds it deficient.[154] Other submissions

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145 TTEG, *Submission on the AER's preliminary positions F&A paper*, 7 September 2012; TTEG, *EE Councils' submission on the AER's preliminary positions F&A paper*, August 2012.

146 For example, Bankstown City Council, *Submission on the AER's preliminary positions F&A paper*, 28 August 2012, p. 2; SSROC, *Submission on the AER's preliminary positions F&A paper*, 24 August 2012, p. 5; REROC, *Submission on the AER's preliminary positions F&A paper*, August 2012, p. 5.

147 For example, Bankstown City Council, *Submission on the AER's preliminary positions F&A paper*, 28 August 2012, p. 2; SSROC, *Submission on the AER's preliminary positions F&A paper*, 24 August 2012, p. 5; REROC, *Submission on the AER's preliminary positions F&A paper*, August 2012, p. 5.

148 AEMC, *Rule determination: Rule change: Economic regulation of network service providers and price and revenue regulation of gas services*, 29 November 2012. See for example, NER, cl. 6.8.2(c).

149 That is, assets, like poles, not owned by the NSW distributors.

150 Ausgrid, *Response to the AER on the approach to the regulation of public lighting*, May 2012, p. 3; Bankstown City Council, *Submission on public lighting services in NSW*, 10 May 2012, p. 5; SSROC, *Submission on public lighting services in NSW*, 11 May 2012, p. 4; NSROC, *Submission on public lighting services in NSW*, 11 May 2012, p1; Centroc, *Submission on public lighting services in NSW*, 9 May 2012, p. 4; REROC, *Submission on the AER's preliminary positions F&A paper*, 24 August 2012, p. 2.

151 SSROC's submission also evidences that councils are directly consulting with the distributors on public lighting services. This is contrary to TTEG's submission that an alternative control classification fails to enable consultation — see TTEG, *Submission on the AER's preliminary positions F&A paper*, 7 September 2012, p. 3.

152 SSROC, *Submission on the AER's preliminary positions F&A paper*, 24 August 2012, p. 4.

153 Department of Energy, Utilities and Sustainability, *NSW public lighting code*, 1 January 2006.

154 SSROC, *Submission on the AER's preliminary positions F&A paper*, 24 August 2012, p. 2.

supporting the AER's preliminary position shared this concern.[155] For these reasons, we consider that customers do not have adequate countervailing market power.

Some public lighting customers are concerned whether they would have sufficient information to negotiate on an informed basis with NSW distributors. SSROC, REROC, Centroc, Gosford City Council and Bankstown City Council remain concerned around the lack of transparency regarding the terms on which distributors' provide public lighting services to them.[156]

Under a direct control classification, the AER has powers to compel distributors to provide information. This includes pricing models and tender information requested under a Regulatory Information Notice. If the distributor does not provide information to the AER, it may result in civil penalties. SSROC acknowledged that our ability to obtain detailed information for analysis resulted in significant downward revisions of the distributor's claimed costs.[157] SSROC acknowledged that customers are unable to obtain the same degree of information under a negotiated distribution classification.[158] This is because the Rules do not require a distributor to provide another person's information supplied to it in confidence.[159] For this reason, SSROC considers that it would have insufficient information to negotiate on an informed basis.[160]

The EE Councils submitted that classifying public lighting services as negotiated distribution services would overcome any issues around providing confidential information.[161] The negotiating framework, under the Rules, requires the distributors to disclose all such commercial information the Councils may reasonably require to engage in effective negotiations.[162] However, this excludes confidential information.[163] We acknowledge that there are issues around customers accessing information under a direct (alternative) control or negotiated classification. However, we consider that our power to obtain significant information from the distributors outweighs any confidentiality restrictions imposed on us. The AER is able to compel distributors to provide detailed information across a broad range of matters required to set cost-reflective prices. The same level of information would not be available under a negotiated distribution classification. On this basis, it is not certain that customers would be in a better position to respond to distributors' pricing proposals.

The AER currently regulates public lighting services in all NEM jurisdictions except the Australian Capital Territory (where public lighting is government owned). The AER has classified some public lighting services in South Australia and Victoria as negotiated distribution services. However, the NER does not require us to classify similar services consistently between NEM jurisdictions.[164] We are not satisfied that the NSW distributors or their customers are adequately equipped to negotiate the provision of public lighting services. Therefore, we do not agree with the EE Councils' submission that we should classify NSW public lighting services consistently with South Australia.[165]

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155 Gosford City Council, *Submission on the AER framework and approach paper*, 23 August 2012, p. 1; *Bankstown City Council, Submission on the AER framework and approach paper*, 28 August 2012, p 1; Centroc, *Submission on the AER framework and approach paper*, 14 August 2012, p. 1.

156 SSROC, *Submission on the AER's preliminary positions F&A paper*, 24 August 2012, p. 4; REROC, *Submission on the* AER's preliminary positions F&A paper, 24 August 2012, p. 2; Centroc, Submission on the AER framework and approach paper, 14 August 2012, p. 1; Gosford City Council, *Submission on the AER framework and approach paper*, 23 August 2012, p. 1; *Bankstown City Council, Submission on the AER framework and approach paper* 28 August 2012, p 1.

157 SSROC, *Submission on the AER's preliminary positions F&A paper*, 24 August 2012, p. 4.

158 SSROC, *Submission on the AER's preliminary positions F&A paper*, 24 August 2012, p. 4.

159 NER, cl. 6.7.6(a)(1).

160 SSROC, *Submission on the AER's preliminary positions F&A paper*, 24 August 2012, p. 4.

161 TTEG, *EE Councils' submission on the AER 's preliminary positions F&A paper*, August 2012, pp. 26-27.

162 NER, cll. 6.7.5(c)(2) and 6.7.6.

163 NER, cl. 6.7.6.

164 NER, cl. 6.2.1(c)(3).

165 TTEG, *EE Councils' submission on the AER's preliminary positions F&A paper*, August 2012, p. 31.

The NSW distributors and a number of councils raised similar concerns around the classification of emerging technology. For this reason, they submitted that we should regulate emerging technology.[166] The AER does not currently regulate emerging technology in NSW. This creates a presumption that we should not classify this service unless a different classification is clearly more appropriate. We consider that a different classification is clearly more appropriate. Similar to public lighting services, customers do not possess sufficient market power to negotiate emerging technology with distributors effectively. Therefore, some level of regulatory protection is necessary, hence our inclusion of emerging technology in the public lighting services group. The EE Councils, WSROC and TTEG submitted that emerging technology should also be a negotiated distribution service.[167]

The EE Councils submitted that we should classify emerging technology consistently with Tasmania where it is a negotiated service. The EE Councils refer to our reasoning in the Tasmanian final F&A paper.[168] In that paper, we acknowledged difficulties in setting charges for luminaries that may not be available (or exist) at the time of our distribution determination.[169] However, in NSW, we consider the imbalance in market power significant and warrants a consistent classification within NSW as a direct control service. We have outlined below how prices may be set for public lighting (including emerging technology) as an alternative control service.

Based on the above analysis, we consider that it is clearly more appropriate to classify public lighting services, including emerging technology, as direct control services.[170]

As direct control services, the AER must further classify public lighting services as either standard or alternative control services.[171] We intend to classify public lighting services as alternative control services for the following reasons:

- classifying public lighting services as alternative control services provides scope for third parties and new entrants to provide public lighting services for new public lighting assets.
- classifying public lighting services as alternative control services may encourage other potential service providers to enter the market in the future— if the NSW Government implements a contestability regime. In the meantime, an alternative control classification supports the National Electricity Objective by ensuring distributors provide safe and reliable public lighting services to the community.
- there would be no material effect on administrative costs to the AER, NSW distributors, users or potential users. This is because we are retaining the current classification. Notably, administrative costs to the customers under a negotiated distribution classification may increase. This is because the distributors may seek payment of reasonable direct expenses they incur in processing an application to provide a negotiated distribution service.[172] The NSW distributors also suggest that classifying emerging technology as a negotiated service would create an unnecessary administrative burden on them and the AER.[173]

166 NSW DNSPs, *Submission on the AER's preliminary positions F&A paper*, 17 August 2012, p. 32; REROC, *Submission on the AER's preliminary positions F&A paper*, August 2012, p. 4; Bankstown City Council, *Submission on the AER's preliminary positions F&A paper*, 28 August 2012, p. 2.

167 TTEG, *EE Councils' submission on the AER's preliminary positions F&A paper*, August 2012, p. 37; WSROC, *Submission on the AER's preliminary positions F&A Paper*, 11 September 2012, p. 1; TTEG, *Submission on the AER's preliminary positions F&A paper*, 7 September 2012, p. 4.

168 TTEG, *EE Councils' submission on the AER's preliminary positions F&A paper*, August 2012, p. 37.

169 AER, *Final framework and approach paper, Aurora Energy Pty Ltd, Regulatory control period commencing 1 July 2012*, 29 November 2010, p. 37.

170 NER, cl. 6.2.1.

171 NER, cl. 6.2.2(c).

172 NER, cl. 6.7.5(c)(7).

173 NSW DNSPs, Response to AER's request on Classification of services, received by the AER on 13 February 2013, p. 10.

- the NSW distributors can directly attribute the costs of providing public lighting services to a specific set of customers. This includes local councils and other government agencies.

For these reasons, we consider that there is insufficient basis to move away from the presumption that public lighting services in NSW should be alternative control services. Similarly, the AER disagrees with the EE Councils' submission to classify public lighting services as negotiated services in the Endeavour Energy distribution district.[174] Notwithstanding strong support from the EE Councils, WSROC and TTEG, support for a negotiated distribution classification was not unanimous within the Endeavour Energy district. Additionally, Councils that sit across distribution districts would be subject to two regulatory approaches. These councils would experience additional complexity. At this time, the AER is unwilling to trial a negotiated distribution service classification in a specific area of NSW. The same concerns around classifying public lighting services as negotiated distribution services for the whole State remain for an individual area.

Based on the above, we intend to classify public lighting services as direct control services and further as, alternative control services.

The NSW distributors and several councils submitted that if we classify emerging technology as an alternative control service there should be provision for the AER to set interim tariffs for emerging technology.[175] The EE Councils stated that if we adopt an alternative control classification the distributor could not include the new light types in its regulatory proposal or our determination.[176]

We will be unable to set specific prices for emerging technology in our determination. This is because the costs of providing these services will be (by definition) unknown. In these circumstances, the AER would approve the basis on which prices will be set. For example, by using a formula that identifies the inputs needed to provide the service. We expect that the distributors would submit input prices reflecting the cost of providing these services in their annual pricing proposals.

Other submissions

TTEG provided a submission on behalf EE Councils disagreeing with our preliminary position.[177] TTEG stated that EE Councils include:

- member councils of the Western Sydney Regional Organisation of Councils Ltd (WSROC)
- seven other councils in the Endeavour Energy region.[178]

Additionally, WSROC submitted that although Bankstown City Council, a WSROC council, had made its own submission, it supported the EE Councils' position.[179]

Bankstown City Council does not appear to support the EE Councils' position. Rather, it indicated support for the AER's preliminary position to classify public lighting assets as an alternative control

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174 NER, cl. 6.2.4(a).

175 NSW DNSPs, *Submission on the AER's preliminary positions F&A paper*, 17 August 2012, p. 32; REROC, *Submission on the AER's preliminary positions F&A paper*, August 2012, p. 4; Bankstown City Council, *Submission on the AER's preliminary positions F&A paper*, 28 August 2012, p. 2.

176 TTEG, *EE Councils' submission on the AER's preliminary positions F&A paper*, August 2012, p. 37.

177 TTEG, *EE Councils' submission on the AER's preliminary positions F&A paper*, August 2012, p. 2.

178 Member councils of WSROC are the city councils of Auburn, Bankstown, Blacktown, Blue Mountains, Fairfield, Hawkesbury, Holroyd, Liverpool, Parramatta and Penrith. The additional councils represented by TTEG are Bathurst City Council, Camden Council, Shoalhaven City Council, The Hills Shire Council, Wingecarribee Shire Council, Wollongilly Shire Council and Wollongong City Council.

179 WSROC, *Submission on the AER's preliminary positions F&A Paper*, 11 September 2012, p. 1. TTEG's submission on behalf of the EE Councils also listed Bankstown City Council as one of its clients at p. i.

service.[180] The AER received written confirmation from Bankstown City Council noting WSROC's claims. It reiterated that it did not support the position taken by WSROC or TTEG as its consultant.[181]

The EE Councils and TTEG also submitted that we should classify emerging technologies as negotiated distribution services.[182]

The EE Councils and TTEG raised numerous issues. We considered these submissions and comment as follows:

- The EE Councils submitted that the current alternative control classification of public lighting services and distributor practices are preventing competition. These practices include the 'mandatory' vesting of ownership of new public lighting assets to distributors and the distributors' 'automatic right' to replace lights at the end of their economic life.[183] The EE Councils highlighted practices which are issues outside the AER's jurisdiction and therefore not relevant to its considerations in the F&A process.[184] For this reason, we have not commented on this aspect of the EE Council's submission.

- The EE Councils stated that 'all public lighting services are currently contestable' in NSW and the AER could 'unclassify' them.[185] Legislation or other regulatory instruments determine contestability and is beyond our control. The EE Councils have relied on a number of statements. For example, NSW distributors have the discretion to engage a third party to perform public lighting services. While in a narrow sense the statements are correct, none support its submission that contestability exists for *all* public lighting services in NSW.[186] This is because there is no legislation, like the *Electricity Supply Act* (NSW) 1995, allowing a customer to engage any third party for the supply of all public lighting services. As noted above, there are some exceptions for the construction of new public lighting assets. However, contestability of public lighting services is not as broad as submitted by the EE Councils.

- The EE Councils stated that 'the AER was required to' classify public lighting as an alternative control service under the transitional provisions.[187] The AER disagrees with this statement. With the agreement of the NSW distributors, we were able to classify services differently under the transitional provisions.[188] However, for the reasons stated in its 2009-14 distribution determination we adopted the deemed classification.[189]

- The EE Councils also submitted that we did not classify public lighting services in accordance with 'clause 6 of the NER' and 'did not consider the National Electricity Objective'. On this basis it submits that we should adopt a 'clean slate' when classifying public lighting services.[190] We disagree with this proposition. The Rules require the AER to retain a classification unless a different classification is clearly more appropriate.[191] For the above reasons, we consider that an alternative control classification is clearly more appropriate than a negotiated service classification. Further, the National Electricity Laws clearly state that the Rules may contain transitional provisions.[192] Therefore, we will not adopt a 'clean slate' approach or consider our

180 Bankstown City Council, *Submission on AER's preliminary positions F&A paper*, 28 August 2012, p. 1.
181 Bankstown City Council, *Letter to AER on submission from WSROC*, 5 October 2012, p. 1.
182 TTEG, *EE Councils' submission on the AER's preliminary positions F&A paper*, August 2012, p. 37.
183 TTEG, *EE Councils' submission on the AER's preliminary positions F&A paper*, August 2012, pp. 23 and 34.
184 NER, cl. 6.8.1.
185 TTEG, *EE Councils' submission on the AER's preliminary positions F&A paper*, August 2012, pp. 4, 6, 25 and 33.
186 TTEG, *EE Councils' submission on the AER 's preliminary positions F&A paper*, August 2012, pp. 6, 25-26.
187 TTEG, *EE Councils' submission on the AER's preliminary positions F&A paper*, August 2012, p. 28.
188 NER, cl. 6.2.3B(i).
189 AER, *Final decision, NSW distribution determination 2009-10 to 20013-14*, 28 April 2009, pp. 11-28.
190 TTEG, *EE Councils' submission on the AER's preliminary positions F&A paper*, August 2012, pp. 28-29.
191 NER, cl. 6.2.1(d) and 6.2.2(d).
192 NEL, s. 34(3)(p).

previous determinations 'transitional in nature'.[193] Rather we have considered our position on public lighting services in accordance with the Rules[194] and circumstances unique to each jurisdiction.

- the AER 'has not been fully informed regarding aspects of services available within the public lighting sector'. Consequently, we have not properly considered all 'aspects under the Rules'.[195] The AER disagrees with this view. The AER presented considered reasoning of all 'aspects under the Rules' in its Preliminary F&A and this paper. Additionally, the AER publicly consulted on public lighting issues in NSW in April 2012.[196]

- EE Councils are the only NSW councils that have any insight into the benefits of a negotiated distribution services classification.[197] The AER cannot determine the level of 'insight' of other NSW councils. However, we consider submissions in response to our public lighting discussion paper and Preliminary F&A are well thought out.

- EE Councils later submitted that the 'AER classify public lighting services provided via a Service Level Agreement pursuant to the Public Lighting Code as a negotiated distribution service'.[198] The Public Lighting Code referred to is the NSW Public Lighting Code (Code) published by the NSW Department of Energy, Utilities and Sustainability.[199] The Code is not binding. In short, the Code provides that 'where a Service Level Agreement is proposed by either party, it must be negotiated in good faith...'.[200] We have investigated this suggestion. The Department circulated a Draft NSW Public Lighting Code calling for comments by 25 February 2011.[201] The Department's website has no further updates on the position of this review. It appears that no firm recommendations from that review are imminent. Therefore, at this time it is not clear that the Code can give any guidance on how public lighting ought to be regulated in the next regulatory control periods. The AER must therefore be guided by the Law and Rules and be mindful of circumstances presented above that customers do not possess sufficient market power to negotiate public lighting services with NSW distributors.

1.4 AER's proposed approach to service classification

In summary, the AER intends to group and classify the NSW distributors' distribution services as set out in table 6. Appendix D contains a full list of the NSW distributors' distribution services.

193 TTEG, *EE Councils' submission on the AER's preliminary positions F&A paper*, August 2012, p. 31.
194 NER, cll. 6.2.1(c)(2) and (c)(3).
195 Ibid, p. 2.
196 AER, *Discussion paper: Matters relevant to the framework and approach NSW DNSPs 2014-19*, Public lighting services, April 2012.
197 TTEG, *Submission on the AER's preliminary positions F&A paper*, 7 September 2012, p. 2.
198 TTEG, *EE Councils' further submission on the AER's preliminary positions F&A paper*, 1 December 2012, p. 4.
199 Now, the NSW Department of Trade and Investment, 1 January 2006,
200 NSW Department of Energy, Utilities and Sustainability, NSW Public Lighting Code, 1 January 2006, refer to cl. 5 for full provision relating to Service Level Agreements.
201 Several submissions raised concerns over a range of deficiencies in the Code and that the Draft Code did not suggest fundamental changes to the concerns raised. See: Bankstown City Council, *Submission on public lighting services in NSW,* 10 May 2012, p. 4; SSROC, *Submission on public lighting services in NSW*, 11 May 2012, p. 1; NSROC, *Submission on public lighting services in NSW*, 11 May 2012, p. 1; SEROC, *Submission on public lighting services in NSW*, 10 May 2012, p. 3; SSROC, *Submission on the AER's preliminary positions F&A paper*, 24 August 2012, p. 2.

Table 6: AER's proposed approach to the classification of distribution services in NSW

AER service group	Proposed classification of distribution services	Proposed classification of direct control services
Network services (excluding emergency recoverable works which are unclassified)	Direct control	Standard control
Connection services		
Premises connections	Unclassified	
Extensions	Unclassified	
Augmentations	Direct control	Standard control
Metering services		
Types 1 to 4	Unclassified	
Types 5 to 6:		
a. Installation services	Unclassified	
b. Meter provision, maintenance, reading and data services	Direct control	Alternative control
Type 7	Direct control	Standard control
Ancillary network services (excluding customer specific services which are unclassified)	Direct control	Alternative control
Public lighting services	Direct control	Alternative control

Source: AER

2 Attachment 2: Control mechanisms

This attachment sets out the control mechanisms the AER will apply to NSW distributors' direct control services for both the transitional regulatory control period (2014–15) and the subsequent regulatory control period (expected to be 2015–19). This attachment also sets out the AER's proposed approach on the formulae to give effect to the control mechanisms for direct control services.

The AER's distribution determination must impose controls over the prices (and/or revenues) of direct control services.[202] This Stage 1 F&A paper states our decision, together with our reasons, on the form(s) of the control mechanism(s) to apply to direct control services in the distribution determinations for the transitional and subsequent regulatory control periods.[203] The F&A paper must also state the AER's reasons for deciding on the form(s) of control mechanism(s).[204] We classify direct control services as standard control services or alternative control services. Different control mechanisms may apply to each of these classifications, or to different services within the same classification.

Attachment 1 provides our proposed classification of NSW distribution services. Broadly, we will classify a service as a direct control service if the distributor is a natural monopoly provider of the service.[205] Typically, we split direct control services into standard and alternative control services based on the customer base for the service. For example, if the broad customer base benefits from a service, we will classify it as a standard control service. If a distributor only provides a service to specific customers, or if there is potential for competition to develop in the provision of that service, we will classify it as an alternative control service.

We can only approve the control mechanisms in a distributor's regulatory proposal if they are the same as those set out in the Stage 1 F&A paper.[206] We can also only approve the proposed formulae to give effect to the control mechanisms in a distributor's regulatory proposal if they are the same as the formulae set out in this F&A paper, unless we consider that unforeseen circumstances justify departing from the formulae set out in this paper.[207]

2.1 AER decision

The AER's decision is to apply the following forms of control in the transitional regulatory control period and the subsequent regulatory control period:

- Revenue cap— for services the AER has classified as standard control services.
- Caps on the prices of individual services— for services the AER has classified as alternative control services.

202 NER, cl. 6.2.5(a).
203 NER, cl. 6.8.1(b).
204 NER, cl. 6.8.1(c).
205 A natural monopoly is where one firm can supply the entire market demand at a lower cost than multiple firms.
206 NER, cl. 6.12.3(c).
207 NER, cl. 6.12.3(c1).

2.2 Submissions

The NSW distributors' joint submission stated a preference for a WAPC for standard control services.[208]

The NSW distributors' joint submission did not state a preference for a control mechanism for alternative control services.

2.3 AER's assessment approach

In the 2009–14 distribution determination, the transitional chapter 6 rules required the AER to continue applying the WAPC from the previous regulatory control period.[209] The transitional chapter 6 rules do not apply to the NSW 2014–19 distribution determination. Instead, we will apply chapter 6 of the Rules.

Our assessment approach has included five stages:

- On 16 April 2012, we published Discussion Paper— Control mechanisms for standard control electricity distribution services in the ACT and NSW (the discussion paper). The discussion paper set out and explained the available control mechanisms for standard control services. The discussion paper also stated our initial consideration of the benefits and detriments of each of the control mechanisms under the proposed factors. We received nine submissions to the discussion paper.
- On 25 June 2012, we published the Preliminary F&A paper. We incorporated submissions to the discussion paper into our Preliminary F&A paper. We received 26 submissions to our Preliminary F&A paper.
- On 19 September 2012, we held a public forum discussing our position and submissions to the Preliminary F&A paper. We invited further submissions. The NSW distributors made one further submission.
- On 15 February 2013, we published AER control mechanism formulae discussion paper. The paper set out and sought submissions on our consideration of the control mechanism formulae to apply to standard and alternative control services. We received one submission to this paper.
- This Stage 1 F&A paper incorporates the submissions from the Preliminary F&A paper, the submission to the public forum and the submission to the control mechanism formulae discussion paper.

2.3.1 Available control mechanisms

The AER's consideration of the control mechanisms for direct control services consists of three parts:

- the control mechanism[210]
- the basis of the control mechanism[211]
- the formulae to give effect to the control mechanisms.

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208 Ausgrid, Endeavour Energy and Essential Energy, *NSW DNSPs' response to the AER's Preliminary Framework and Approach paper*, 17 August 2012, p. 34.
209 AER, *Final Decision– New South Wales Distribution Determination 2009–10 to 2013–14*, 28 April 2009, p. 46.
210 NER, cl. 6.2.5(b).
211 NER, cl. 6.2.6(a).

Clause 6.2.5(b) of the Rules sets out the control mechanisms that may apply to both standard and alternative control services:

- a schedule of fixed prices

  A schedule of fixed prices specifies a price for every service provided by a distributor. The specified prices are escalated annually by inflation, the X factor and applicable adjustment factors. Distributors comply with the constraint by submitting prices matching the schedule in the first year and then escalated prices in subsequent years.

- caps on the prices of individual services[212]

  Caps on the prices of individual services are the same as a schedule of fixed prices except that a distributor may set prices below the specified prices.

- caps on the revenue to be derived from a particular combination of services (revenue cap)

  A revenue cap sets a maximum allowable revenue (MAR) for each year of the regulatory control period. Distributors must then recover revenue equal to or less than the MAR. Distributors comply with the constraint by forecasting sales for the next regulatory year and setting prices so the expected revenue is equal to or less than the MAR. At the end of each regulatory year, the distributor reports its actual revenues to the AER. We account for differences between the actual revenue recovered and the MAR in future years. This operation occurs through an 'overs and unders' account, whereby any over-recovery (under-recovery) is deducted from (added to) the MAR in future years.

- tariff basket price control (WAPC)

  A WAPC is a cap on the average increase in prices from one year to the next. This allows prices for different services to adjust each year by different amounts. For example, some prices may rise while others may fall, subject to the overall WAPC constraint. A weighted average is used to reflect that services may be sold in different quantities. Therefore, a small increase in the price of a frequently provided service must be offset by a large decrease in the price of an infrequently provided service. Distributors comply with the constraint by setting prices so the change in the weighted average price is equal to or less than the CPI–X cap. Importantly, the WAPC places no cap on the revenue recovered by a distributor in any given year. That is, if revenue recovered under the WAPC is greater than (less than) the expected revenue, the distributor keeps (loses) that additional (shortfall) revenue.

- revenue yield control (average revenue cap)

  An average revenue cap is a cap on the average revenue per unit of electricity sold that a distributor can recover. The cap is calculated by dividing the MAR by a particular unit (or units) of output, usually kilowatt hours (kWh). The distributor complies with the constraint by setting prices so the average revenue is equal to or less than the MAR per unit of output.

- a combination of any of the above (hybrid).[213]

[212] A price cap and a schedule of fixed prices are largely the same mechanism, with the only difference being that a price cap allows the DNSPs to charge below the allocated price on some or all of the services.

[213] NER, cl. 6.2.5(b).

A Hybrid control mechanism is any combination of the above mechanisms. Typically, hybrid approaches involve a proportion of revenue that is fixed and a proportion that varies according to pre-determined parameters, such as peak demand.

2.3.2 Standard control services

In determining a control mechanism to apply to standard control services, the AER considered the factors in clause 6.2.5(c) of the Rules:

- the need for efficient tariff structures
- the possible effects of the control mechanism on administrative costs of the AER, the distributor, users or potential users
- the regulatory arrangements (if any) applicable to the relevant service immediately before the commencement of the distribution determination
- the desirability of consistency between regulatory arrangements for similar services (both within and beyond the relevant jurisdiction)
- any other relevant factor.

We proposed in our Preliminary F&A paper and the discussion paper to have regard to three other factors which we consider are relevant to assessing the most appropriate control mechanism:

- volume risk and revenue recovery
- price flexibility and stability
- incentives for demand side management.

The basis of the control mechanism for standard control services must be of the prospective CPI–X form or some incentive-based variant.[214]

The following subsections outline the factors the AER has considered in determining the form of control for standard control services.

The need for efficient tariff structures

Appendix E outlines some high level considerations about the concept of efficient pricing structures. Broadly, we consider prices are efficient if they reflect the underlying cost of supplying distribution services and take into account customers' willingness to pay.

Efficient pricing is important for several reasons:

- Where prices are cost reflective, allocative efficiency is maximised because consumers can compare the cost of providing the service to their needs and wants.[215]
- Where prices are cost reflective, consumers and providers of demand side management face efficient incentives because they can take into account the cost of providing the service in decision making.

[214] NER, cl. 6.2.6(a).

[215] Allocative efficiency is achieved when the value consumers place on a good or service (reflected in the price they are willing to pay) equals the cost of the resources used up in production. The condition required is that price equals marginal cost. When this condition is satisfied, total economic welfare is maximised.

- Cost reflective prices allow distributors to make efficient investment decisions. Because consumers base consumption decisions on the cost of providing the service compared to their value of consumption, increases and decreases in demand signal the potential need for extra network capacity.

Administrative costs

Where possible, a control mechanism should minimise the complexity and administrative burden for the AER, distributors and users.

The existing regulatory arrangements

We consider that consistency across regulatory periods for similar services is generally desirable.

The desirability of consistency between regulatory arrangements

We consider that consistency within and across jurisdictions for similar services is generally desirable.

Volume risk and Revenue recovery

The AER set out in its Preliminary F&A paper that a control mechanism should give distributors an opportunity to recover efficient costs. The AER also considered that a control mechanism should limit revenue recovery above such costs. Revenue recovery above efficient costs results in higher prices for end users. Further, distributors recovering additional revenue through prices above marginal cost reduces allocative efficiency.

Pricing flexibility and stability

Price flexibility enables distributors to restructure existing prices and/or introduce charges for new services.

The stability and predictability of distribution network prices is important because it affects consumers' ability to manage bills and retailers' ability to manage risks incurred from changes to network prices.

Incentives for demand side management

Demand side management refers to the implementation of non-network solutions to avoid the need to build network infrastructure to meet increases in annual or peak demand.[216]

We consider that demand side management should be considered in deciding on the form of control. As noted by the AEMC in its Power of Choice Review, the control mechanism (along with other factors inherent in the regulatory determination) can influence the distributors' decisions to conduct demand side management.[217] Moreover, the AER[218] and previous jurisdictional regulators[219] have considered the incentives for demand side management when determining the control mechanism in past decisions.

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216 Peak demand is generally referred to as the maximum load on a section of the network over a very short time period.

217 AEMC, *Power of Choice Review Directions Paper - Supplementary Paper: Demand Side Participation and Profit Incentives for Distribution Network Businesses*, 23 March 2012, pp.19-24.

218 For example, see AER, *Proposed positions - Framework and approach paper - Classification of services and control mechanisms - Energex and Ergon Energy 2010–15*, July 2008, p. 45.

219 For example, see QCA, *Final Determination – Regulation of Electricity Distribution*, May 2001, p. 25.

2.3.3 Alternative control services

In determining a control mechanism to apply to standard control services, we considered the factors in clause 6.2.5(d) of the Rules:

- the potential for the development of competition in the relevant market and how the control mechanism might influence that potential
- the possible effects of the control mechanism on administrative costs of the AER, the distributor and users or potential users
- the regulatory arrangements (if any) applicable to the relevant service immediately before the commencement of the distribution determination
- the desirability of consistency between regulatory arrangements for similar services (both within and beyond the relevant jurisdiction)
- any other relevant factor.

We consider another relevant factor is the provision of cost reflective prices.

We must state what the basis of the control mechanism is in our distribution determination.[220] This may utilise elements of Part C of chapter 6 of the Rules with or without modification. For example, the control mechanism may use a building block approach or incorporate a pass-through mechanism.[221]

2.4 Reasons for decision— control mechanism and formulae to give effect to control mechanism for standard control services

The AER considers the benefits of a WAPC rest on a theoretical argument that it provides an incentive to set efficient prices. The AER considers the theoretical arguments have not eventuated in practice because the assumptions underpinning the WAPC do not apply to the supply of network services by distributors within the NEM. Based on analysis of pricing in the current and previous regulatory periods, we do not consider the WAPC has generally resulted in, or created an incentive for efficient pricing.

Distributors under a WAPC can retain revenue recovered above the expected revenue calculated by the AER. Theoretically, this provides distributors with an incentive to set prices efficiently. That is, distributors are able to increase profit by reducing the price on price sensitive services towards marginal cost. This incentive arises because when a distributor reduces the price of any service(s) under the WAPC it is allowed to increase the price on another service(s). The distributor can therefore increase profit by simultaneously decreasing the price on price sensitive services and increasing the price on price insensitive services. This is because customers of price sensitive services are likely to respond to lower prices by using more of those services. The decrease in a distributor's revenue caused by it lowering prices is therefore offset by the increase in sales. Meanwhile, customers of price insensitive services are likely to respond to higher prices by using the same amount, or only slightly less, of those services.

We consider the WAPC's theoretical advantages have not eventuated in practice because they rely on assumptions that do not apply to electricity distributors. These assumptions include:

220 NER, cl. 6.2.6(b).
221 NER, cl. 6.2.6(c).

- distributors have the expertise, incentive, infrastructure and independence to set prices to maximise profit:
  - distributors must have the expertise to estimate the price sensitivity of different services (and components of services) and adjust prices accordingly
  - distributors' objective in setting prices must be to maximise profit
  - distributors must have, or have the ability to install, the necessary metering technology to provide cost reflective tariffs
  - distributors must be free from outside influence to set profit motivated prices.
- Pass through of distribution costs to consumers
  - Often retail charges do not reflect the underlying structure of network costs and changes in network prices are not passed through in full to consumers. This is especially the case where retail price regulation applies.
  - Distribution charges represent only one component of network charges. Where distributors have discretion to set transmission and other charges, which do not fall under the WAPC, these charges may be adjusted to impact network charges.
- Fully informed consumers
  - Consumers must know of price changes when they happen. Particularly where retail price regulation exists many consumers do not see price changes until bills are received midway through the regulatory year.
  - Consumers must be capable of understanding and incentivised to respond to price signals. Where complicated price structures exist (such as inclining block tariffs), many consumers are not able to understand the price they are charged for electricity usage.

The AER considers that where these assumptions do not hold the WAPC does not provide an incentive to set efficient prices. For example, where the first assumption holds but the last two do not the incentive to maximise profit remains but it does not result in an incentive to set efficient prices. Instead, distributors maximise profits by increasing prices on services expected to increase in quantity. Alternatively, where the first assumption does not hold distributors may be more likely to maintain previous pricing structures/levels regardless of their efficiency.

We consider that without the incentive to set prices efficiently under a WAPC, a revenue cap meets the factors under clause 6.2.5(c) of the Rules better than a WAPC. As outlined below, we consider the benefits of a revenue cap are individual tariff price stability, efficient cost recovery and incentives for demand side management.

We expect that a review of the pricing principles in the Rules providing a more prescriptive set of pricing principles is likely in the near future.[222] We consider it is more likely that efficient pricing will eventuate if a revenue cap is applied in combination with more prescriptive pricing principles, rather than relying on a WAPC. That is, distributors will be obliged to set efficient prices under more prescriptive pricing principles and a revenue cap will reduce the risks distributors will face when implementing such prices. Further, because the assumptions underpinning a WAPC do not currently

[222] AEMC, *Power of Choice Review – giving consumers choice in the way they use electricity, Final Report*, 30 November 2012, p. 185.

apply in practice, under a WAPC there will likely be cases in future where distributors will face an incentive to increase revenue by making price changes that are not efficient. Customers should not be asked to contribute more revenue than necessary unless there is corresponding benefit through more efficient prices and investment decisions.

2.4.1 Efficient tariff structures

Consistent with the Preliminary F&A paper, we consider the WAPC has not provided an incentive for, or resulted in, increased pricing efficiency. The AER considers that across the distributors subject to WAPCs in the previous and current regulatory control periods there has not been an overall increase in pricing efficiency. Further, we consider that in certain circumstances the WAPC has created an incentive to set, and has resulted in, less efficient prices. We have reached this conclusion based on:[223]

- a comparison of revenue recovered under efficient and inefficient charging parameters throughout the WAPC's operation in NSW and Victoria
- assessment of the joint submission by the NSW distributors that the WAPC has increased pricing efficiency. The AER considers this analysis does not demonstrate improved pricing efficiency
- analysis of the NSW distributors most utilised tariffs which indicated no substantive improvement in pricing efficiency under the WAPC

Appendix E provides the AER's detailed assessment of efficient pricing under the WAPC.

Consistent with the Preliminary F&A paper the AER considers that by itself the revenue cap provides a limited incentive for distributors to set efficient prices. The AER therefore considers that a new set of pricing principles or guidelines to encourage efficient pricing structures should accompany a revenue cap. The AER supports the AEMC's proposed review of the pricing principles.

2.4.2 Administrative costs

The AER maintains its view from the Preliminary F&A paper that there is little difference in administrative costs under a revenue cap and a WAPC.[224] No submissions disagreed with this view.

2.4.3 The existing regulatory arrangements

The AER maintains its view from the Preliminary F&A paper that consistency across regulatory control periods is generally desirable. However, it should not be a primary consideration. We consider how consistency across regulatory control periods affects the other factors under clause 6.2.5(c) of the Rules. The AER considers this is appropriate because consistency in and of itself has no direct affect on distributors, the AER or customers.[225]

The Energy Networks Association (ENA) considered the AER did not give enough weight to the consistency criterion.[226] We disagree with this view. We consider that by taking into account the effects of consistency in the other factors under clause 6.2.5(c) of the Rules the AER will appropriately address the benefits of consistency across regulatory control periods.

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223 See AER appendix E.
224 AER, *Preliminary Positions F& A paper*, June 2012, p. 61.
225 AER, *Preliminary Positions F& A paper*, June 2012, p. 61.
226 Energy Networks Association (ENA), *Response to the AER Preliminary Positions - Framework and Approach Paper*, August 2012, p. 2.

2.4.4 The desirability of consistency between regulatory arrangements

We maintain our preliminary view that consistency between regulatory arrangements is generally desirable but should not be a primary consideration. Further, similar to consistency across regulatory control periods, the AER considers it should take into account the impact of consistency across jurisdictions on the other factors under clause 6.2.5(c) of the Rules.

2.4.5 Volume risk and revenue recovery

We consider the WAPC provides an opportunity for distributors to recover revenue systematically above forecast. That is, under a WAPC distributors have the opportunity to recover revenue substantially above forecast revenue when actual quantities exceed forecast quantities, and to recover revenue close to forecast when actual quantities are below forecast quantities. Revenue recovered by NSW and Victorian distributors under WAPCs is provided in Appendix F.

The NSW distributors submitted the scope to earn revenue above or below forecast provides an incentive for distributors to promote outcomes that are more efficient. The NSW distributors considered it is therefore not inappropriate to earn revenue above forecast.[227] We consider the offer of a small financial advantage to the distributors through the WAPC in return for more efficient pricing and investment decisions would advantage consumers. However, we consider the WAPC has not resulted in more efficient outcomes and is unlikely to do so in the current circumstances. Appendix E presents analysis of pricing outcomes under the WAPC. This analysis does not show a general move toward more efficient outcomes under the WAPC. We therefore consider the increased revenues have resulted in higher bills for consumers without corresponding gains in efficiency.

The AER maintains its position from the Preliminary F&A paper that a revenue cap provides a high likelihood of efficient cost recovery. The NSW distributors submitted the revenue cap does not ensure such recovery. We disagree. We consider that because costs for distributors are largely fixed and unrelated to energy sales, revenue recovery should also largely be fixed and unrelated to energy sales. We therefore consider the revenue cap is likely to result in efficient cost recovery. The AER notes that differences from forecast peak demand may cause differences in distributors' costs. Variations from efficient cost recovery may result under the revenue cap. We have therefore considered adjustment mechanisms (hybrid control mechanisms) to the revenue cap for variations from forecast peak demand. Section 2.4.8 outlines our consideration of hybrid control mechanisms.

2.4.6 Price flexibility and stability

Price flexibility

The AER maintains its view from the Preliminary F&A paper that price flexibility is similar for all forms of control. We considered that pricing flexibility is primarily influenced by the side constraints and the pricing principles in the Rules.[228] No submissions disagreed with this view.

Price stability

The AER maintains its view from the Preliminary F&A paper on price stability. We consider price instability can occur under both a revenue cap and a WAPC. This is because the Rules require various annual price adjustments regardless of the control mechanism.[229]

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227 Ausgrid, Endeavour Energy and Essential Energy, *NSW DNSPs' response to the AER's Preliminary Framework and Approach paper*, 17 August 2012, p. 42.

228 AER, *Preliminary F&A paper*, June 2012, p. 58.

We agree with the NSW distributors' joint submission that there is increased likelihood of overall price instability within a regulatory control period under a revenue cap.[230] That is, the distributors must adjust prices during the regulatory control period to account for differences between forecast and actual sales volumes. We consider that tolerance limits and the design of the unders and overs account can limit price adjustments in any one year. For example, in Queensland the AER adopted the previous regulator's approach and applied tolerance limits to the unders and overs account. In Tasmania, we designed the unders and overs account as a rolling account with an estimate year to help smooth the price adjustments year on year.

We consider the WAPC can increase overall price stability within the regulatory control period compared to a revenue cap. However, a WAPC does not necessarily, and has not in practice, increased price stability or predictability for individual tariffs or customers. This is because distributors face an incentive to re-balance tariffs to maximise profit under a WAPC (incentives are described in appendix F) and this incentive may result in large changes to tariffs within the regulatory control period.[231] We have observed significant price fluctuations under the WAPC in recent years. For example, Table 7 provides movements in Tariff EA305, one of Ausgrid's medium business tariffs. Appendix G provides further examples of within period price instability under the WAPC.

Table 7: Changes in tariff components of tariff EA305

Year	Fixed ($ per year)	Peak energy (c/kWh)	Shoulder energy (c/kWh)	Off-peak energy (c/kWh)	Peak capacity (c/kW/day)	Average WAPC increase (%)
2010-11	40.93%	18.70%	5.27%	5.27%	42.28%	20.45%
2011-12	86.28%	-14.37%	-3.39%	59.74%	86.14%	21.43%
2012-13	357.14%	66.67%	11.11%	33.33%	18.52%	21.94%

Source: AER analysis

Consistent with the Preliminary F&A paper we consider that the WAPC can result in greater price instability across regulatory control periods compared to the revenue cap. This issue is particularly pronounced if a trend of falling volumes has set in throughout the regulatory control period, prompting a large upward adjustment in the X-factors (and hence prices) for the next regulatory control period under the WAPC. In contrast, the volume forecasts are updated annually under a revenue cap. This would mean that prices would rise gradually over the regulatory period (rather than jump up at the end of the period) if a trend of falling demand was evident.

Implication of inaccurate volume forecasting

Inaccurate volume forecasting has potential implications for customers. We consider volume forecasts can be more crucial under a WAPC than under a revenue cap. Under a WAPC, we must determine consumption volume forecasts for the five year regulatory period at the time of the regulatory determination. These forecasts contribute to setting the X-factors. In turn, they contribute to the price constraint over the regulatory control period. Thus, if the volume forecasts are not robust at the time

229 These include cost pass throughs, jurisdictional scheme obligations, tribunal decisions and transmission prices passed on to the distributors from the Transmission Network Service Providers (TNSPs).

230 Ausgrid, Endeavour Energy and Essential Energy, *NSW DNSPs' response to the AER's Preliminary Framework and Approach paper*, 17 August 2012, p. 34.

231 NER, cl. 6.18.6(b). This clause states the expected weighted average revenue to be raised from a tariff class for a particular regulatory year of a regulatory period must not exceed the corresponding expected weighted average revenue for the preceding regulatory year in that regulatory control period by more than the permissible percentage.

of the regulatory determination, we would have allowed an incorrect price path over the regulatory control period. The Office of the Tasmanian Economic Regulator (OTTER) was also concerned with volume forecasting under the WAPC.[232] In addition, distributors may be able to increase their revenues above forecast revenues depending on the pricing strategies employed and the actual volume of sales during the regulatory control period.

On the other hand, the AER considers a revenue cap reduces reliance on consumption volume forecasts. Inaccurate volume forecasts result in fluctuations in the overs and unders account balance and therefore impact price stability. However, the AER determines volume forecasts annually under a revenue cap. Therefore, the risk of volume forecast error will be considerably less than under a WAPC, as we need to determine volume forecasts five years in advance. Additionally, volume forecasts under a revenue cap do not affect the maximum allowable revenues or the X-factors. The ENA's submission suggested the consequence of inaccurate volume forecasts under a revenue cap is that the maximum revenue allowed to a business is under or overestimated.[233] The AER considers this is not correct. Volume forecasts do not affect the maximum allowable revenue. Rather, it is the peak demand forecasts we take into account when assessing the efficient costs of distributors and consequently the allowable revenues.[234]

2.4.7 Incentives for demand side management

Consistent with the Preliminary F&A paper, the AER considers a revenue cap provides an incentive to undertake demand side management, at least in the short run.[235] On the other hand, a WAPC provides a disincentive to undertake demand side management in the short run and in the long run.[236]

We discussed these incentives in the Preliminary F&A paper.[237] In summary:

- Under a revenue cap— a distributor's revenue is fixed by the AER over the regulatory control period. Distributors can therefore increase profits by reducing costs. This creates an incentive for distributors to undertake demand side management projects that reduce costs.
- Under a WAPC— a distributor's profits are directly linked to the actual volumes of electricity distributed. This is because, in practice, distributors have chosen energy based network tariffs in most instances. Because the marginal cost of energy sales is very low this results in marginal revenues being greater than marginal costs. As a result, a distributor's profits increase when actual sales increase. Under these conditions, distributors have a disincentive to undertake demand side management projects, if doing so results in lower energy sales.

The AEMC's Power of Choice review also discussed the incentives above.[238] Moreover, three submissions to the Preliminary F&A paper supported our views above.[239] However, the NSW

232 OTTER, *2007 Investigation of Prices for Electricity Distribution Services on Mainland Tasmania, Decision and Statement of Reasons – Form of Regulation*, March 2006, p. 27.

233 Energy Network Association (ENA), *Response to the AER Preliminary Positions - Framework and Approach Paper*, August 2012, p. 4.

234 Peak demand has grown much faster than average consumption volume in the past number of years.

235 AER, *Preliminary Positions F& A paper*, June 2012, pp. 60-61.

236 In the long run, regardless of the form of control, distributors have a diminished incentive to undertake demand side management. This is because under the building block framework, a DNSP may have an incentive to increase the size of the regulated asset base if it is confident that the allowed return exceeds actual funding costs.

237 AER, *Preliminary Positions F& A paper*, June 2012, pp. 60-61.

238 AEMC, Power of Choice Direction Paper - Supplementary paper, 23 March 2012, pp. 19-23. However, the AEMC's final report stated that it did not support a move from a WAPC to a revenue cap, as a revenue cap may not incentivise DNSPs to set efficient prices and may encourage DNSPs to overstate their sales forecasts at the time of the distribution determination. See AEMC, Power of Choice - Final Report, 30 November 2012, p. 218.

239 Riverina Eastern Regional Organisation of Councils (REROC), Submission on the AER Framework and Approach Paper for Essential Energy and others, 23 August, p. 6; Total Environment Centre (TEC), *Submission to the AER: Preliminary Framework and Approach Paper*, 15 August 2012, p. 4; Energex, *Submission to Framework and Approach Paper - Ausgrid, Endeavour Energy and Essential Energy*, 17 August 2012, p. 1.

distributors' joint submission disagreed with these views. The submission cited two reasons why distributors have a strong incentive to undertake demand side management under a WAPC:[240]

- a WAPC provides an incentive for distributors to restructure prices to provide price signals that more closely reflect underlying marginal costs
- the reduction in peak demand always lowers costs by an amount greater than lost revenue given the predominant use of flat time of day tariffs for a high proportion of distributors' customer base.

The AER disagrees with these reasons. First, we consider a WAPC has not resulted in cost reflective prices in NSW overall. Second, the relationship between peak demand, costs and profits is less straightforward than described. The AEMC's Directions Paper discussed the profit incentives for distributors to pursue demand side management.[241] Broadly, the AEMC considered there are several factors inherent in the regulatory framework that impact profit incentives, with the form of control one of the most significant. Importantly, the AEMC considered the incentive for demand side management is stronger under a revenue cap than under a WAPC, because distributors do not lose revenue associated with demand side management.[242] Further, that a control mechanism linking profits to volumes distributed is likely to provide low incentives for demand side management.[243]

The ENA submitted a revenue cap does not incentivise distributors to share the benefits of cost savings arising from demand side management with consumers.[244] We agree with the ENA that consumers do not share the benefits from demand side management under a revenue cap within the regulatory control period. However, we consider that the revenue cap does share the benefits of demand side management with consumers in all future regulatory control periods. That is, where demand side management under a revenue cap reduces capital expenditure, consumers benefit in future regulatory control periods from lower prices due to lower regulatory asset bases.

2.4.8 Hybrid form of control

The AER does not consider a hybrid form of control, based on either a WAPC or a revenue cap should apply to NSW distributors' standard control services.

Hybrid form of control based on a WAPC

The AER considers a hybrid form of control based on a WAPC would not address the inherent problem with the WAPC. That is, the WAPC has not incentivised distributors to set efficient prices and is unlikely to do so in the future. Inefficient prices have consequences for allocative efficiency, demand side management and recovery of efficient costs.

We considered a hybrid option that uses a correction factor within a WAPC. A correction factor can restrict the degree to which distributors' revenues change when actual sales volumes exceed (or fall short of) forecast sales volumes. Therefore, a correction factor can reduce volume risks and limit distributors' ability to recover above efficient costs. We do not consider moving from a WAPC to this form of hybrid control mechanism will have substantial benefits. Firstly, we consider a hybrid control mechanism does not eliminate the incentive to opportunistically re-balance tariffs; it merely dampens it. That is, a distributor will still have an incentive (albeit reduced) to increase prices on tariffs where it

240 Ausgrid, Endeavour Energy and Essential Energy, *NSW DNSPs' response to the AER's Preliminary Framework and Approach paper*, 17 August 2012, p. 57.
241 AEMC, *Power of Choice Direction Paper - Supplementary paper*, 23 March 2012, pp. 19-23.
242 AEMC, *Power of Choice Direction Paper - Supplementary paper*, 23 March 2012, pp. 19-23.
243 AEMC, *Final Report: Power of choice review - giving consumers options in the way they use electricity*, 30 November 2012, p. 214.
244 Energy Network Association (ENA), *Response to the AER Preliminary Positions - Framework and Approach Paper*, August 2012, p. 3.

expects sales volumes to grow. Secondly, this form of hybrid control mechanism requires an 'overs and unders' account, similar to a revenue cap. We consider this will increase administration costs throughout the regulatory control period. We also agree with the NSW distributors and the ENA that this could lead to overall price instability within the regulatory control period.[245]

The AER has considered the options that the NSW distributors presented as alternatives to the current WAPC control mechanism. These options include:

- introducing a volume or revenue correction mechanism, or volume or revenue dead band thresholds to address forecasting errors relating to reasonable estimates[246]
- modifying the existing WAPC formula by using an aggregate quantity forecast. That is, the AER changing the quantity forecasts (or weights) from a tariff component level to a tariff class level. Additionally, base year prices would change from prices for each tariff component to average prices within a tariff class.[247]

Similar to any correction factor we do not consider these types of hybrid control will address the WAPC's inherent problems.

Hybrid revenue cap

The AER considers that higher administrative costs to distributors and the AER under a hybrid revenue cap outweigh its potential benefits.

There are many formulations for designing a hybrid revenue cap. The AER considered a hybrid revenue cap that incorporates parameters closely reflecting cost drivers. This design enables distributors' revenues to align more closely to the cost drivers compared with a revenue cap. However, it may be difficult to develop an effective revenue function under a hybrid revenue cap as there are a large number of cost drivers.[248] Furthermore, under the hybrid revenue cap we must recalculate the distributors' maximum allowable revenue each year. This would involve substantial administrative costs to distributors and the AER throughout the regulatory control period. Additionally, because a large proportion of distributors' costs are fixed rather than variable such adjustments may only result in small adjustments to distributors' maximum allowable revenues. For these reasons, IPART moved away from a hybrid revenue cap to a revenue cap in the 1999–2004 distribution determination.[249] Other regulators (Queensland Competition Authority and OTTER) also noted the difficulties and complexities involved in developing and applying a hybrid revenue cap.[250]

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245 Ausgrid, Endeavour Energy and Essential Energy, *NSW DNSPs' response to the AER's Preliminary Framework and Approach paper*, 17 August 2012, p. 61; Energy Network Association (ENA), *Response to the AER Preliminary Positions - Framework and Approach Paper*, August 2012, p. 4.

246 Ausgrid, Endeavour Energy and Essential Energy, *NSW DNSPs' response to the AER's Preliminary Framework and Approach paper*, 17 August 2012, pp. 61-63.

247 Ausgrid, Endeavour Energy and Essential Energy, *NSW DNSPs' response to the AER's Preliminary Framework and Approach paper*, 17 August 2012, p. 60.

248 Some of the variable cost drivers include the number of customers, the type of new connections, the amount of energy distributed, the length of network lines and system losses associated with electricity distribution. In terms of fixed cost drivers, peak demand is one of the most significant factors.

249 IPART, *Form of Economic Regulation for NSW Electricity Network Charges: Discussion Paper 48*, August 2001, p. 10.

250 QCA, *Final Determination – Regulation of Electricity Distribution*, May 2005, p. 30; OTTER, *Investigation of Prices for Electricity Distribution Services and Retail Tariffs on Mainland Tasmania Final Report and Proposed Maximum Prices*, September 2003, p. 99.

2.4.9 Formulae for control mechanism

The AER is required to set out its proposed approach to the formulae that give effect to the control mechanisms for standard control services in the F&A paper.[251] The AER must include the proposed formulae in its distribution determination, unless it considers that unforeseen circumstances justify departing from the formulae as set out in that paper.[252]

On 15 February 2013, the AER consulted on the proposed formulae.[253] The AER received one submission, from Networks NSW.

We propose to apply the following formulae to standard control services. We consider that the formula gives effect to the revenue cap.

(1) $MAR_t = \sum_{i=1}^{n} \sum_{j=1}^{m} p_{ij}^{t} q_{ij}^{t*}$ i=1,...,n and j=1,...,m and t=1,...,5

(2) $MAR_t = AR_t + I_t + T_t + B_t$

(3) $AR_t = AR_{t-1}(1+CPI_t)(1-X_t)$

Where:

MAR_t is the maximum allowable revenue in year t.

p_{ij}^{t} is the price of component i of tariff j in year t.

q_{ij}^{*t} is the forecast quantity of component i of tariff j in year t.

AR_t is the annual smoothed revenue requirement in the Post Tax Revenue Model for year t.

I_t is the sum of incentive scheme adjustments in year t. To be decided upon in the final decision.

T_t is the sum of transitional adjustments in year t. Likely to incorporate but not limited to adjustments from the transitional regulatory control period. To be decided upon in the final decision.

B_t is the sum of annual adjustment factors in year t. Likely to incorporate but not limited to adjustments for the overs and unders account. To be decided upon in the final decision.

CPI_t is the percentage increase in the consumer price index. To be decided upon in the final decision.

X_t is the X-factor in year t. To be decided upon in the final decision.

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251 NER, cl. 6.8.1(b)(2)(ii).
252 NER, cl. 6.12.3(c1).
253 AER, *Formulae for control mechanisms– Revised*, February 2013,

AR_1 is the annual smoothed revenue requirement in the Post Tax Revenue Model in the transitional regulatory control period.

We have adopted the NSW DNSPs requested changes in relation to further explanations and definition of the AR_t , p_{ij}^t , T_t , B_t ,and CPI_t parameters.

The NSW DNSPs also proposed to change equation (1) in order to limit price instability arising from the overs and unders account to:

$$MAR_t \geq \sum_{i=1}^{n} \sum_{j=1}^{m} p_{ij}^t q_{ij}^{t*}$$

We do not agree with this change. We consider that price stability from the unders and overs account is best addressed through the implementation of tolerance limits. We will specify tolerance limits within the annual adjustment factors (B_t) in the final decision. Furthermore, the proposed change would allow distributors discretion to recover below the MAR in any given year and then recover above the MAR in future years. We consider this is not appropriate as it undermines the smoothing mechanism provided by the X-factors.

The NSW distributors suggested combining the (T_t) and (B_t) parameters in equation (2) for simplicity. We have not adopted this suggestion. Instead, we have provided further explanation of both of these parameters. We consider it is useful for external stakeholders for these parameters to be separated. The separation will provide clarity because stakeholders will be able to identify which changes are related to adjustments for the transitional regulatory period (T_t) and which changes are for annual adjustments (B_t).

2.5 Reasons for decision—control mechanism for alternative control services

The AER has decided to apply caps on the prices of individual services in the next regulatory control period to all alternative control services. The following services are classified as alternative control services:

- metering services – types 5 and 6 metering provision, maintenance, reading and data services
- ancillary network services
- public lighting services (excluding emerging public lighting technologies).

The AER's main consideration is that the benefit of caps on the prices of individual services is providing cost reflective pricing. We consider this benefit outweighs any detriment from increased administration costs.

REROC's submission[254] supported applying caps on the prices of individual services to the services that we proposed to classify as alternative control services in the Preliminary F&A paper.[255] We have not received any other submissions on the form of control for alternative control services.

Through the distribution determination process, we will confirm the basis of the control mechanism for alternative control services.[256] That is, whether we will set prices using a building block approach or another method. Prices for certain ancillary network services will be determined on a quoted basis. The NSW distributors will propose the approach to determining quoted prices, which we will consider in our distribution determination. Typically, prices for quoted services are based on quantities of labour and materials with the quantities dependent on the particular task. Ancillary network services to be offered on a quotation basis include:

- reinspection of installation work in relation to customer assets
- off-peak conversion
- rectification works
- connection/relocation process facilitation
- investigation, review and implementation of remedial action association with ASPs' connection work.[257]

The AER's consideration of the relevant factors is set out below.

2.5.1 The influence on the potential for development of competition

The AER maintains its view from the Preliminary F&A paper that the control mechanism for alternative control services will not have a significant impact on potential competition development. We consider the primary influence on competition development will be the classification of services as alternative control services. Attachment 1 discusses classification.

No submissions raised any issues under the influence on the potential for competition development.

2.5.2 Administrative costs

Metering services (types 5 and 6 metering provision, maintenance, reading and data services) and ancillary network services

The AER considers the classification of services and the basis of the form of control mechanism are the primary influence on administration costs. However, we recognise the proposed change in control mechanism may result in some additional administrative costs. We consider these costs will largely be incurred in transitioning to the new control mechanism. We consider the changes will create greater cost reflectivity for the charges of these services and more appropriate charges to end users in a

254 Riverina Eastern Regional Organisation of Councils (REROC), *Submission on the AER Framework and Approach Paper for Essential Energy and others*, 23 August, p. 6.

255 In the Preliminary F&A paper, the alternative control services proposed by the AER were incidental services (a component of connection services), type 5 to7 metering services, fee based services and public lighting services. In this Stage 1 F&A paper, the AER has amended its preliminary positions. See attachment 1 of this Stage 1 F&A paper.

256 The basis of the control mechanism is the method used to calculate the revenue to be recovered or prices to be set for a group of services. Clause 6.2.6(b) of the Rules states that for alternative control services, the control mechanism must have a basis stated in the distribution determination. The AER is able to apply a control mechanism to a distributor's alternative control services as set out under chapter 6, Part C of the Rules. This involves applying the building block approach, although the AER may only apply certain elements of the building block approach. Alternatively, the AER may implement a control mechanism that does not use the building block approach.

257 Appendix D lists all ancillary network services and service descriptions.

user-pays environment. The AER considers these benefits warrant a short term increase in administrative costs.

Public lighting

The AER considers there will be no material impact on administrative costs for public lighting services because caps on the prices of individual services is largely the same mechanism as a schedule of fixed charges.

2.5.3 The existing regulatory arrangements

The AER considers consistency across regulatory control periods is generally desirable. However, we consider pursuing consistency across regulatory control periods should not be the primary consideration in determining a control mechanism. This is because we assess each jurisdiction on a case by case basis to determine the most appropriate control mechanism. We have therefore placed more weight on the other factors in clause 6.2.5(d) of the Rules.

Metering services (types 5 and 6 metering provision, maintenance, reading and data services) and ancillary network services

As we have reclassified these services a change in regulatory arrangements will be made regardless of the control mechanism we determine.

Public lighting

The AER considers caps on the prices of individual services are consistent with the regulatory arrangements in the current period as they are largely the same mechanism as a schedule of fixed prices.

2.5.4 The desirability of consistency between regulatory arrangements

The AER considers consistency across jurisdictions is generally desirable. However, we consider pursuing consistency in control mechanisms across jurisdictions should not be the primary consideration in determining a control mechanism. This is because we assess each jurisdiction on a case by case basis to determine the most appropriate control mechanism. We have therefore placed more weight on the other factors in clause 6.2.5(d) of the Rules.

2.5.5 Cost reflective prices

The AER maintains its view from the Preliminary F&A paper that caps on the prices of individual services are more appropriate than other control mechanisms for delivering cost reflective prices. Under caps on the prices of individual services, we will estimate the cost of providing each service and set the price at that cost. If competition develops within the period on some or all services, distributors will be able to compete by charging below the cap. However, unlike under a WAPC, distributors will not be compensated for such reductions by increasing the price on non-competitive services. This will enhance cost reflectivity on both competitive and non-competitive services.

No submissions raised any issues under cost reflectivity.

2.5.6 Formulae for alternative control services

The AER is required to set out its proposed approach to the formulae that give effect to the control mechanisms for standard control services in the F&A paper.[258] The AER must include the proposed formulae in its distribution determination, unless it considers that unforeseen circumstances justify departing from the formulae as set out in that paper.[259]

On 15 February 2013, the AER consulted on the proposed formulae.[260] The AER received one submission from Networks NSW.[261]

Services currently classified as alternative control services and remain classified as alternative control services

We propose to apply the following formulae to alternative control services, which remain classified as alternative control services. We consider that the formula gives effect to the cap on the prices of individual services:

$$\overline{p}_i^t \geq p_i^t \qquad \text{i=1,...,n and t=1,2,3,4}$$

$$\overline{p}_i^t = \overline{p}_i^{t-1}(1+CPI_t)(1-X_i^t) + A_i^t$$

Where:

$\overline{p}_i^t$ is the cap on the price of service i in year t

p_i^t is the price of service i in year t

CPI_t is the percentage increase in the consumer price index. To be decided upon in the final decision.

X_i^t is the X-factor for service i in year t. To be decided upon in the final decision.

$\overline{p}_i^0$ is the cap on the price of service i in the transitional regulatory control period. As specified in the transitional rules, $\overline{p}_i^0$ will be prices from the final year of the 2009–14 regulatory control period escalated by CPI.

A_i^t is an adjustment factor. Likely to include, but not limited to adjustments for residual charges when customers choose to replace assets before the end of their economic life.

We have adopted all of the submitted changes by the NSW distributors. Of note are the changes in the X-factor from X_t to X_i^t and the addition of the A_i^t parameter. These changes allow for separate

[258] NER, cl. 6.8.1(b)(2)(ii).
[259] NER, cl. 6.12.3(c1).
[260] AER, *Formulae for control mechanisms– Revised*, February 2013,
[261] Ausgrid, Endeavour Energy and Essential Energy, *NSW DNSP Submission on the Formulae for Control Mechanisms Discussion Paper*, February 2013.

X-factors for different services and for adjustments to prices for customers which choose to replace assets before the end of their economic life.

We also consider that further information is required in relation to certain elements of the proposed formulae:

- The time subscript t is set as t=1,2,3,4 because the control mechanism will not apply in the transitional regulatory control period. As noted by the NSW distributors, prices in the transitional regulatory control period will be CPI escalations of prices in the final year of the 2009–14 regulatory control period (denoted here as $\overline{p}_i^0$)

- The NSW distributors sought our view on whether an adjustment from prices in the transitional regulatory control period would be necessary. We have not formed a position on an adjustment. We will decide whether an adjustment is required in the final decision. We agree with the NSW distributors that if an adjustment is required it could be made through the X-factors.

Services currently classified as standard control services which may be reclassified as alternative control services

We propose to apply the following formulae to standard control services, which may be reclassified as alternative control services. We consider that the formula gives effect to the cap on the prices of individual services:

$$\overline{p}_i^t \geq p_i^t \qquad \text{i=1,...,n and t=1,...,5}$$

$$\overline{p}_i^t = \overline{p}_i^{t-1}(1+CPI_t)(1-X_i^t)+A_i^t$$

Where:

$\overline{p}_i^t$ is the cap on the price of service i in year t

p_i^t is the price of service i in year t

CPI_t is the percentage increase in the consumer price index. To be decided upon in the final decision.

X_i^t is the X-factor for service i in year t. To be decided upon in the final decision.

$\overline{p}_i^1$ is the cap on the price of service i in the transitional regulatory control period.

A_i^t is an adjustment factor.

We also consider that further information is required in relation to certain elements of the proposed formulae:

- As requested by the NSW distributors we have changed the X-factor parameter from X_t to X_i^t to allow X-factors for individual services.

- We have not formed a position on whether an adjustment from prices in the transitional regulatory control period will be necessary. We consider that if such an adjustment is necessary it could be made through the X-factors.
- The NSW distributors submitted that there is substantial uncertainty regarding the proposed formulae. We agree and consider that until a basis of control and specific service categories are chosen it will not be possible to specify a control mechanism which will provide such information. We have therefore chosen a generic formula which provides flexibility in the distribution determination.
- A_i^t is a generic adjustment factor included due to the uncertainty regarding the basis of the form of control.

3 Attachment 3: Dual function assets

Dual function assets are high voltage transmission assets forming part of a distribution network. Transmission network service providers (TNSPs) usually operate such assets. Considering transmission assets as part of a distribution determination avoids need for a separate transmission proposal. The Rules, by allowing this, save time and money for network service providers and the AER. These savings ultimately benefit electricity consumers and taxpayers.

The AER must set prices for use of dual function assets under either transmission or distribution rules. We make our pricing decisions during the distribution determination process. Before that, however, we must decide whether transmission or distribution pricing rules will apply. The Rules require us to set out our pricing approach decision in this Stage 1 F&A paper.

Under the new Rules' transitional provisions, our dual function asset decisions set out here relate only to 4 years, rather than the usual 5 years. The current dual function asset pricing approach continues over the transitional regulatory control period—1 July 2014 to 30 June 2015.[262] Our decisions set out in this attachment, therefore, relate to the subsequent regulatory control period—1 July 2015 to 30 June 2019.

The AER's decisions, in this case, further continue the current pricing approaches. Current approaches reflect dual function asset materiality compared to total assets and allow cost reflective pricing for benefitting customers. Our decisions are consistent with our preliminary approaches and no submissions objected. Our decisions are also consistent with distributors' preferences.

3.1 AER decision

The AER's decisions set out here are final and binding on NSW distributors throughout the subsequent regulatory control period.

Ausgrid

The AER decided that Ausgrid's dual function asset services would be subject to transmission pricing.[263] Our decision is consistent with our preliminary position, the current approach and Ausgrid's preference.[264]

Endeavour Energy

The AER decided that Endeavour Energy's dual function asset services would be subject to distribution pricing. Our decision is consistent with our preliminary position, the current approach and Endeavour Energy's preference[265].

Essential Energy

The Rules do not require the AER to make a decision for Essential Energy. It does not own, operate or control dual function assets.

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262 NER, cl. 11.56.3(g).

263 Relevant services conform to the definition under cl. 6.24.2 of the Rules.

264 Ausgrid, Endeavour Energy & Essential Energy, *NSW distributors' response to the AER's preliminary framework and approach paper*, August 2012, p. 6.

265 Ausgrid, Endeavour Energy & Essential Energy, *NSW distributors' response to the AER's preliminary framework and approach paper*, August 2012, p. 6.

The AER determines under clause 6.25(b) of the NER that Part J of chapter 6A (transmission pricing) of the Rules:

a. will apply to relevant standard control services provided by Ausgrid's dual function assets in the subsequent regulatory control period

b. will not apply to relevant standard control services provided by Endeavour Energy's dual function assets in the subsequent regulatory control period.

Table 8 sets out the AER's decision, our preliminary position, service provider preferences and asset values.

Table 8: Dual function assets and pricing approaches

	Ausgrid	Endeavour Energy	Essential Energy
Dual function assets ($m)	1721.92	154.7	0
Proportion of distribution Regulatory Asset Base (%)	12.3	1.7[266]	0
Current regulatory period pricing	Transmission	Distribution	n/a
Service provider preference	Transmission	Distribution	n/a
AER preliminary position	Transmission	Distribution	n/a
AER determination	Transmission	Distribution	n/a

Source: AER, *Final decision, New South Wales distribution determination 2009-10 to 2013-14*, 2008; Ausgrid, email, AER Dual function assets questions, 4 May 2012; Endeavour Energy, letter dated 15 June 2012 but received by the AER 27 June 2012; Essential Energy, email, Re. Questions, 17 May 2012. Proportion as a percentage are as provided by the DNSP (Endeavour) or based on the AER's forecast roll forward of the RAB as at the end of the current regulatory control period (Ausgrid).

3.2 Distributors' views

Ausgrid and Endeavour Energy jointly submitted agreement with the AER's preliminary positions.[267]

3.3 AER's assessment approach

Dual function asset rules establish transmission pricing as the default approach where the assets form a material proportion of the distributor's regulatory asset base (RAB). The rules require the AER, in deciding pricing approaches, to consider impacts on distribution prices and consumption, production and investment. We may also account for other factors we consider relevant.

The AER's decisions on dual function assets incorporate two main stages. First, we must be satisfied that relevant assets conform to the Rules' definition.[268] On this, we gave weight to distributor information and statements. Having satisfied ourselves on this first issue, we then considered alternative pricing approaches.

266 In its Preliminary F&A, published 25 June 2012, the AER presented Endeavour Energy's dual function assets (DFA) as 2.5 per cent of its RAB. That proportion was based on the AER's forecast roll forward of the RAB to 30 June 2012. On 27 June 2012, the AER received further information from Endeavour Energy indicating that as at 30 June 2012 its DFA represented 1.7 per cent of its RAB.

267 Ausgrid, Endeavour Energy & Essential Energy, *NSW distributors' response to the AER's preliminary framework and approach paper*, August 2012, p. 6.

268 NER, cl. 6.24.2.

Distribution and transmission pricing represent different ways of recovering service costs. Under transmission pricing, distributors may allocate dual function asset costs to both a TNSP's broader customer base and the distributor's customers. However, under distribution pricing rules, distributors with dual function assets may not allocate costs to a TNSP.

Electricity supply costs transfer along the supply chain, or downstream, onto the next service provider in the process. Hence, generators pass generation costs to retailers who pass them to customers. In the same way, TNSPs pass their costs to distributors, who in turn pass those costs to retailers and then to customers. Costs may not be passed back up the supply chain from distributors to TNSPs, except under transmission pricing rules.[269] Therefore, under distribution pricing rules, a distributor's own customers pay the full cost of dual function assets.

Because transmission networks are upstream of distribution networks, they usually service larger numbers of electricity consumers than distribution networks. Therefore, where TNSPs recover the same service costs, transmission pricing usually provides for lower per unit prices than distribution pricing. The AER notes that this is not necessarily an appropriate outcome. The Rules require us to determine efficient service costs. In principle, electricity consumers who stand to benefit from dual function assets should pay for those services.

In some cases, the potential transmission and distribution customer bases for cost recovery purposes are the same. In such cases, network service providers would recover dual function asset costs from the same number of customers. The AER expects that in such cases price impacts for individual customers under both pricing approaches would be equivalent.

The AER applied a three part test to determine application of either transmission or distribution pricing rules. Firstly, we considered the value of dual function assets as a proportion of the distributor's RAB.[270] Secondly, we considered whether regulating prices under distribution rules rather than transmission would:[271]

- result in materially different prices for distribution customers
- impact on future consumption, production and investment decisions.

Thirdly, we took into account other matters we considered relevant.[272] Specifically, we considered cost reflectivity, or who benefits from the assets and administrative cost implications of changing the current approach. Customers benefitting from dual function assets should contribute to their cost recovery. The Rules define dual function assets as supporting the higher voltage transmission network. Therefore, our default assumption is that a broader customer set than just the distributor's customers are benefiting from shared assets. We also consider that we should avoid administrative costs where possible. Finally, we consider the current approach should continue unless we identify sufficient reasons to change the approach.

As part of our analysis, we took into account submissions that commented on dual function assets.[273]

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269 Under transmission pricing rules, TNSPs allocate fifty per cent of costs to transmission customers on a locational basis. This means that transmission customers in a specific region will bear at least half the dual function asset transmission service costs in that region. TNSPs allocate the remaining fifty per cent of costs across their total transmission customer base. The TNSP bills its costs to its customers as fixed and variable charges, with variable charges dependant on electricity demand in specific regions.

270 NER, cl. 6.25(b).

271 NER, cl. 6.25(c).

272 NER, cl. 6.25(c).

273 NER, cl. 6.25(d)

3.4 Reasons for AER's position

For the following reasons the AER determines that transmission pricing will continue to apply to Ausgrid's dual function assets. At 12.3 per cent, the assets are clearly a material proportion of Ausgrid's RAB, justifying application of transmission pricing. Further, application of distribution pricing would materially impact Ausgrid's distribution customers and affect consumption, production and investment. In terms of cost reflectivity, Ausgrid's dual function assets support Transgrid's transmission network, so transmission pricing facilitates appropriate cost recovery. Additionally, maintaining the current transmission pricing approach avoids additional administrative costs.

For the following reasons, the AER decided that distribution pricing would continue to apply to Endeavour Energy's dual function assets. At between 1.7 and 3.1 per cent of Endeavour Energy's RAB, these are significantly less material than is the case for Ausgrid. Additionally, Endeavour Energy submitted that its dual function assets form transmission exit assets supporting only its own distribution network. This means that even under transmission pricing rules, full asset costs would be allocated to Endeavour Energy distribution customers. Therefore, changing the pricing approach to transmission pricing would not have a material impact on distribution prices. Changing the approach would also incur administrative costs.

We are not required to decide a pricing approach for Essential Energy, as it does not operate dual function assets.

Ausgrid

The AER decided that Ausgrid would continue to apply transmission pricing to its dual function assets. This is consistent with our preliminary position.[274]

Ausgrid operates assets conforming to the Rules' dual function asset definition. We reached this view, firstly, because Ausgrid reported that it currently operates assets conforming to the Rules' definition. As there are significant penalties for reporting incorrect information, we gave weight to Ausgrid's reported information. Secondly, Ausgrid's reported information is consistent with historic information on its dual function assets.

The AER then considered the materiality of dual function assets in terms of Ausgrid's RAB. At 12.3 per cent, Ausgrid's dual function assets are a material proportion of its RAB. The Rules do not define 'material' in the context of dual function assets. We therefore applied its common meaning[275] and considered the consumer price implications of this asset proportion. Removing such a proportion of Ausgrid's RAB would have a more than double-digit impact on customer prices. This impact would be at least five times Australia's year-on-year inflation rate for the September 2012 quarter.[276] Such a price impact would clearly be significant or important to customers. As such, we consider 12.3 per cent is clearly a significant or important proportion of Ausgrid's total RAB.

The AER then considered the materiality of the alternative pricing approaches to Ausgrid's distribution customers. Ausgrid currently applies transmission pricing to most distribution services provided by dual function assets. Ausgrid submitted that changing to a distribution pricing framework could create a material difference to its distribution prices. Ausgrid did not provide an estimate of the price change. Rather, Ausgrid indicated that estimating price impacts would require detailed quantitative

274 AER, *Preliminary positions paper, Framework and approach for NSW DNSPs, Regulatory control period commencing 1 July 2014*, June 2012, p. 102.
275 The Oxford Dictionary notes 'material' is equivalent to 'significant' and 'important'.
276 2.0 per cent — ABS, *Consumer Price Index, Australia, September 2012 6401.0*, eight capital cities, all groups.

assessment reliant on a number of unsettled factors. Ausgrid however, did submit estimates of the change in its x-factors were distribution pricing rules to apply.[277]

X-factors are variables used to determine annual distribution prices. They represent the rate of change in weighted average prices the AER's distribution determination allows. Such price change may be either positive or negative. X-factors have a very significant impact on consumer prices.

Ausgrid submitted that its x-factors would be around 15 percentage points higher under distribution pricing compared to transmission pricing. Ausgrid's estimate is reasonable, for the following reasons. Firstly, under transmission pricing Ausgrid's distribution customers pay a small proportion of the total cost of its dual function assets.[278] On a per customer basis, the current price burden is negligible. Under distribution pricing Ausgrid's distribution customers would pay the full cost of those assets. Secondly, assets as a proportion of Ausgrid's RAB would have around the same percentage point impact on its x-factors. Asset value of 12.3 per cent of Ausgrid's RAB is broadly equivalent to 15 percentage point x-factor changes.

The AER also considers that such a change in x-factors would lead to a material change in Ausgrid's distribution prices. The relationship between x-factors and tariffs is sufficiently strong that a tariff impact over ten per cent is likely.[279] Such a tariff change would likely affect future consumption, production and investment decisions.

The AER further considers that, wherever possible, end-use customers benefitting from specific network assets should bear the cost of those assets. Dual function asset rules, however, do not explicitly establish this principle. Rather, dual function asset rules are premised on transmission pricing being the default approach.[280] To apply distribution pricing rules, a number of tests must be met, relating to asset proportions and consumer price impacts.[281] We therefore give weight to benefitting customers under our power to consider other issues.[282]

Under transmission pricing, dual function asset costs are appropriately directed to both Ausgrid's customers and the broader set of Transgrid customers. The Rules define dual function assets as providing support to the higher voltage transmission network, in this case operated by Transgrid.[283] Ausgrid reported it owns dual function assets. No submissions raised objections to maintaining Ausgrid's current transmission pricing approach, which allows service costs to be directed to Transgrid. We did not receive other relevant new information. So we are satisfied that Ausgrid's dual function assets are indeed supporting Transgrid's network, providing services both to Ausgrid and others. Under distribution pricing rules, only Ausgrid's customers would pay for its dual function assets. Therefore, substituting distribution pricing for the current transmission pricing approach would not be appropriate.

The AER further considers that changing from the current transmission pricing approach may also increase Ausgrid's administrative costs. This is because changing the pricing approach would require changes to Ausgrid's processes and systems. Such administrative costs give weight to maintaining the current approach.

277 Ausgrid, emailed response to AER, 26 April 2012.
278 As the costs of those assets are allocated across Transgrid's customer base.
279 X-factors are the primary determinant of tariffs. Other influences include CPI and incentive schemes, but these are limited in comparison to x-factor impacts.
280 NER, cl. 6.25(b).
281 NER, cl. 6.25(b) and (c).
282 NER, cl. 6.25(c)(3).
283 NER, cl. 6.24.2(a).

The AER therefore considers the current pricing approach should be continued in the next regulatory control period. This position is consistent with the current regulatory approach.

Endeavour Energy

The AER decided that distribution pricing would continue to apply to Endeavour Energy's dual function assets. This is consistent with our preliminary position.[284]

Endeavour Energy provided two alternative valuations of its dual function assets. One incorporated the cost of transformers ($154.7 million, or 3.1 per cent of its RAB). The other excluded transformer cost ($85.8 million, or 1.7 per cent of its RAB).[285] As noted above, the Rules do not define 'materiality' in the context of dual function asset determinations. Additionally, as discussed above, we therefore applied its common meaning.[286]

In comparison with other distributors' dual function assets, Endeavour Energy's are a relatively small proportion of its RAB. This is true regardless which valuation is applied. However, for reasons set out below, Essential Energy's RAB valuations are less relevant than in other contexts.

In terms of the price impact of the alternative pricing approaches, the AER gave weight to Endeavour Energy's views:[287]

> It is unlikely that any appreciable price changes would result by application of the transmission pricing rules. The initial assessment is that the identified DFAs [dual function assets] would predominately be classified as exit equipment for the purposes of transmission pricing.
>
> Consequently, Endeavour Energy would be charged the transmission prices associated with these assets. The net impact would therefore be neutral in terms of the total Network Use of System charges that Endeavour Energy would need to recover from customers in its service area.

The Rules specify that exit equipment, or exit assets, provide transmission 'prescribed exit services'. Such assets link a transmission network to a transmission customer, or group of customers. In other words, electricity 'exits' the transmission network via such assets. The Rules specify that a TNSP operating those services must attribute related costs to benefiting customers. In this case, Endeavour Energy's distribution customers are the only beneficiaries of its dual function assets. Transmission pricing rules would therefore allocate the full cost of Endeavour Energy's dual function assets to its own distribution customers.

Endeavour Energy currently recovers full dual function asset costs from its distribution customers. Therefore, changing to transmission pricing would produce no material change in Endeavour Energy's distribution prices. Without an appreciable price difference, continuing distribution pricing would have little impact on future consumption, production and investment decisions.

The AER further considers that changing from the current distribution pricing approach may also increase administrative costs for Endeavour Energy. This is because changing the pricing approach would require changes to Endeavour Energy's processes and systems. Such administrative costs give weight to maintaining the current approach.

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284 AER, *Preliminary positions paper, Framework and approach for NSW DNSPs, Regulatory control period commencing 1 July 2014*, June 2012, p. 102.

285 Endeavour Energy, email, *distributor questions*, 9 May 2012; Endeavour Energy letter dated 15 June 2012, received by AER 27 June 2012.

286 The Oxford dictionary notes 'material' is equivalent to 'significant' and 'important'.

287 Endeavour Energy, email, *distributor dual function assets questions*, 9 May 2012; Endeavour Energy letter dated 15 June 2012, received by AER 27 June 2012

In light of the above and that no submissions raised objections, the AER considers distribution pricing should continue to apply. This position is also consistent with the AER giving weight to continuing the current approach.

Appendix A: Rule requirements for classification

The AER must have regard to four factors when classifying distribution services.[288]

1. the form of regulation factors in section 2F of the NEL:
    - the presence and extent of any barriers to entry in a market for electricity network services
    - the presence and extent of any network externalities (that is, interdependencies) between an electricity network service provided by a network service provider and any other electricity network service provided by the network service provider
    - the presence and extent of any network externalities (that is, interdependencies) between an electricity network service provided by a network service provider and any other service provided by the network service provider in any other market
    - the extent to which any market power possessed by a network service provider is, or is likely to be, mitigated by any countervailing market power possessed by a network service user or prospective network service user
    - the presence and extent of any substitute, and the elasticity of demand, in a market for an electricity network service in which a network service provider provides that service
    - the presence and extent of any substitute for, and the elasticity of demand in a market for, elasticity or gas (as the case may be)
    - the extent to which there is information available to a prospective network service user or network service user, and whether that information is adequate, to enable the prospective network service user or network service user to negotiate on an informed basis with a network service provider for the provision of an electricity network service to them by the network service provider.[289]
2. the form of regulation (if any) previously applicable to the relevant service or services, and, in particular, any previous classification under the present system of classification or under the present regulatory system (as the case requires)[290]
3. the desirability of consistency in the form of regulation for similar services (both within and beyond the relevant jurisdiction)[291]
4. any other relevant factor.[292]

The Rules specify additional requirements for services the AER has regulated before.[293] They are:

1. There should be no departure from a previous classification (if the services have been previously classified); and
2. If there has been no previous classification - the classification should be consistent with the previously applicable regulatory approach.

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288 NER, cl. 6.2.1(c).
289 NEL, s. 2F.
290 NER, cl. 6.2.1(c)(2).
291 NER, cl. 6.2.1(c)(3).
292 NER, cl. 6.2.1(c).
293 NER, cl. 6.2.1(d).

The AER must have regard to six factors when classifying direct control services as either standard control or alternative control services.[294]

1. the potential for development of competition in the relevant market and how the classification might influence that potential
2. the possible effects of the classification on administrative costs of the AER, the distributor and users or potential users
3. the regulatory approach (if any) applicable to the relevant service immediately before the commencement of the distribution determination for which the classification is made
4. the desirability of a consistent regulatory approach to similar services (both within and beyond the relevant jurisdiction)
5. the extent that costs of providing the relevant service are directly attributable to the customer to whom the service is provided, and
6. any other relevant factor.[295]

In classifying direct control services that have previously been subject to regulation under the present or earlier legislation, the AER must also follow the requirements of clause 6.2.2(d) of the NER.

[294] NER, cl. 6.2.2(c).
[295] NER, cl. 6.2.2(c).

Appendix B: Consultation and submissions on metering classification in NSW

In December 2011, the AER published its first consultation paper on the classification of services in the ACT and NSW, we sought comment on whether a change was necessary to the current classification of types 5 to 7 metering services.[296] In response to the consultation paper the NSW distributors submitted that types 5 to 7 metering services should remain classified as standard control services.[297]

We published our Preliminary F&A for NSW on 25 June 2012. Our preliminary position was to reclassify types 5 to 7 metering services as alternative control services. Submissions on the F&A are summarised in table B.1. These submissions expressed differing views on our preliminary position:

- the NSW distributors and Energex submitted that types 5 to 7 metering services should remain classified as standard control services
- all other submissions on metering services supported the AER's preliminary position.

Stakeholders also expressed differing views during two workshops on the classification of services held on 19 March 2012 and 19 July 2012.

Table B. 1: Summary of submissions on types 5 to 7 metering services received in response to the AER's Preliminary F&A

Party	Summary of submission
NSW distributors - Ausgrid, Endeavour Energy and Essential Energy (Joint submission)	Disagrees with the AER's proposed classification of types 5 to 7 metering services as alternative control services and maintains the view that metering types 5 to 7 services should remain a standard control service, with costs recovered as part of DUOS charges. Sets out arguments relating to the following: - Transparency of costs - Existing contestable arrangements and market efficiencies - Development of competition in the market for 5 to 7 metering services - Administrative burden and cross subsidisation - Multiple metering installations - Costs directly attributable to customers - Other factors - Consistency in classification
Metropolis Metering Assets Pty Ltd	Supports the AER's proposed classification of types 5 to 7 metering services as alternative control services and to unbundle those service charges from DUOS charges. The business case for the uptake of smart meters by residential customers is undermined when one

296 The AER specifically asked whether: metering services (types 5 to 7), as adopted in the current determinations, was appropriate; the issue of metering services (types 5 to 7) being charged with DUOS charges was still current; metering services (types 5 to 7) should be separated from DUOS charges; and if metering services (types 5–7) were separated from DUOS charges, the type of service these should be classified as and the control mechanism that should be applied; AER, Consultation Paper, *Matters relevant to the framework and approach ACT and NSW DNSPs 2014–2019, Classification of electricity distribution services in the ACT and NSW*, December 2011, p. 18.

297 Ausgrid, *Response to the AER's consultation paper on classification of electricity distribution services in NSW and the ACT*, 21 February 2012, pp. 1 and 20; Endeavour Energy, *Classification of electricity distribution services in the ACT and NSW*, 15 February 2012, p. 4; Essential Energy, *Submission on the classification of distribution services in the ACT and NSW*, 17 February 2012, p. 5.

Party	Summary of submission
	considers that when opting for a Type 4 smart meter service the electricity retailers (and therefore consumers) will continue to pay for the NSW distributors' type 5 to 7 metering services. The lack of distributor price transparency/bundling of metering services charges within DUOS acts as a significant barrier to competition that impedes the take-up of smart meters within NSW. All metering in NSW is contestable. Retailers have the right of choice under the NER and the consumer has a right of choice under the ASP Scheme. However, the financial benefit from exercising choice is diminished when the local Distribution business continues to be paid for a service it no longer provides. The bundling of metering services within DUOS is inherently inefficient and inequitable.
Better Place Australia	Strongly support the AER's proposed classification of types 5 to 7 metering services as alternative control services. Customers or energy services providers seeking to procure innovative metering services from alternative providers other than the distributor must currently pay for metering twice. This creates a major barrier to competition in metering services and in those energy services markets that are enabled by metering services. Unbundling metering services charges from DUOS at small customer sites in NSW is a critical priority. This step will encourage innovation in metering services and stimulate competition in other energy services – like electric car charging – that rely on metering technology.
Energex	Supports the classification of metering services as direct control services but not as alternative control services. Energex agrees with the NSW distributors that increasing the contestability of these services should not be a driver for consideration at this point. The cost of unbundling these services is neither efficient nor practical. Energex agrees that where a customer requests special metering services it is more appropriate to classify the service as an alternative control service.
Simply Energy	Strongly support the AER's proposed classification of types 5 to 7 metering services as alternative control services. The bundling of metering charges into network charges is one of the key barriers to competition in metering services for residential and small business customers. There has been reduced opportunity for NSW customers to access the range of products and services that innovative metering services could provide them, such as more timely and accurate billing, reduced bill shock and products and services that allow customers to better manage their energy consumption and costs. It has also restricted the potential for more efficient and lower cost metering services, such as remote re-energisation and de-energisation.
Origin Energy	Supports the classification of metering services as alternative control services, with a view to encouraging further competition in these services. Unbundling these costs will allow for a transparent allocation of cost, creating better conditions for further competition in the provision of metering services.
Energy Retailers Association of Australia	Supports the AER's preliminary position on the classification of metering services. Agrees that the unbundling of metering service costs from standard control service costs is essential.
Riverina Eastern Regional Organisations of Council	Agrees with the AER's preliminary position to classify metering services (types 5 to 7) as direct control assets and further as alternative controls services, while all other metering remains unclassified. The provision of metering services is more efficiently undertaken as part of the integrated distribution function and that it should be charged through the DUOS. However, given the substantial market power the NSW distributors possess it is extremely important that the AER classify the service as a direct control service.

We published a discussion paper on the classification of types 5 to 7 metering services in NSW on 21 December 2012. We presented a revised position, breaking down type 5 to 7 metering services into component services and considering the appropriate classifications. We sought comment on our revised position to:

- reclassify types 5 and 6 meter provision, maintenance and reading services as alternative control services
- not classify types 5 and 6 metering installation services
- classify types 5 and 6 energy data services as standard control services
- classify type 7 metering services as standard control services.

Submissions on the metering discussion paper are summarised in table B.2. Again, stakeholder's expressed differing views:

- the NSW DNSPs stated they would work with us to implement any reclassification of types 5 to 7 metering services, but submitted all types 5 to 7 metering services should remain classified as standard control services
- all other submissions supported the AER's classification of types 5 and 6 meter provision, maintenance and reading services as alternative control services, and types 5 and 6 meter installation as unregulated services
- all other submissions disagreed with the AER's classification of types 5 and 6 energy data services as standard control services, submitting these should be alternative control services
- the Southern Sydney Regional Organisation of Councils (SSROC) supported the AER's proposed classification of type 7 metering services as standard control services.

We also held a workshop with the NSW distributors on the classification of metering services on 13 February 2013.

Our consultation on the classification of types 5 to 7 metering services helped form our final position on metering classification in attachment 2.

Table B.2: Summary of submissions on types 5 to 7 metering services received in response to the AER's metering discussion paper

Party	Summary of submission
NSW distributors - Ausgrid, Endeavour Energy and Essential Energy (Joint submission)	Disagrees with the AER's proposed classification of types 5 and 6 meter provision, maintenance and reading services as alternative control services. They maintained the view that types 5 and 6 metering services should remain standard control services, with costs recovered as part of DUOS charges. Sets out arguments relating to the following: - Cost-reflective charges for metering services - Administrative burden - Economic welfare - Existing contestable arrangements and market efficiencies - Development of competition in the market for 5 to 7 metering services - Establishing metering service charges - Description of components of metering services - Other factors
AGL Energy Limited	Fully supports the AER's proposed unbundling of metering charges from standard electricity network charges. This is consistent with the AEMC's recommendations, promotes competition and consumer choice, and encourages investment. Supports the AER's breakdown of metering services into

Party	Summary of submission
	component services. Did not support the AER's proposed classification of energy data services as standard control services. If energy data services remain bundles in DUOS charges, this will severely limit micro-economic reform of metering services. Classifying energy data services as alternative control services will further promote the AER's objectives.
Energy Australia	Supports the AER's approach to unbundling metering services. This supports a market based approach to smart metering. Disagrees that energy data services should remain standard control services. These services should be unbundled to create transparency and facilitate consumer choice. These services can and should be distinguished and attributed to individual customers.
Energy Retailers Association of Australia	Supports the AER's proposed unbundling of metering services from standard electricity charges. Agrees the advantages of unbundling will, in the long run, outweigh any potential disadvantages. Does not support the AER's position to classify energy data services as standard control services. This contradicts the identified benefits of unbundling metering services and is inconsistent with the AEMC's recommendations and the NSW Smart Meter Task Force discussion paper. Unbundling energy data services has long term benefits.
Macquarie Corporate and Asset Finance Limited	Supports the AER's proposed classification of metering services. Based on their experience in the United Kingdom's and with potential service providers in Australia, unbundling metering services should deliver innovation, choice and better value to NSW electricity consumers. There is a substantial market seeking to provide these services.
Metropolis Metering Assets Pty Ltd	Supports the AER's unbundling of metering services from DUOS charges. Considers all types 5 and 6 metering services should be unregulated or, at least, alternative control services. Metering services are not a distribution service and the NSW DNSPs should not recover these costs in DUOS charges. The AER should also unbundle energy data services.
Origin Energy Limited	Supports the AER's approach to unbundling metering services. This will promote competition, transparency and avoid customer's paying twice. Unbundling of metering services in Victoria and South Australia has supported uptake of Origin's demand-side participation schemes. Does not support the AER's proposed classification of energy data services as standard control services.
Simply Energy	Supports the AER's proposal to unbundle types 5 and 6 metering services from DUOS charges. This promotes transparency and will facilitate uptake of new metering products and services. Does not support the AER's proposed classification of energy data services as standard control services. These services can be efficiently delivered by the competitive market. There are no significant barriers to entry nor are there declining economies of scale that would their treatment as monopoly services. The DNSP's fixed costs result from past investment and are not a relevant consideration.
Southern Sydney Regional Organisation of Councils (SSROC)	Supports the AER's proposal to classify type 7 metering services as standard control services. Agrees there is no prospective benefit from unbundling these services.

Source: AER analysis

Appendix C: Likely impacts on customers

Table C.1: Impact of the AER's proposed classification of metering services on prices for residential and small business customers

Classification	Customer impacts	
Changing the classification of types 5 and 6 meter installation services to unregulated services	None	Customers already pay for meter installation in NSW because the ASP scheme creates contestability in NSW.
Keeping the classification of type 7 metering services as standard control services	None	Charges for this service will remain in standard control services, bundled in DUOS charges.
Changing the classification of metering provision, maintenance, reading and data services for types 5 and 6 meters to alternative control services. Standard network charges (DUOS charges) should decrease, as charges for these metering services will be taken out. However, this decrease is fully or partly offset by new metering service charges customers pay depending on the services they use.	None	Customers with a single type 5 or 6 meter will see new charges for these services. But, these are charges customers were already paying becoming visible.
	Better off	Customers with one or more type 4 meters will no longer pay for these services in DUOS charges. Customers with a single type 5 or 6 meter will no longer subsidise customers with multiple type 5 or 6 meters who use additional metering services.
	Worse off	Customers with more than one type 5 or 6 meter will pay new charges for the services associated with owning more than one type 5 or 6 meter. NSW DNSPs will now attribute these charges to those customers, rather than the entire customer base.

Source: AER analysis.

Appendix D: Proposed classification of NSW distributors' distribution services

Table D.1: Proposed classification of distribution services - Networks NSW[298]

Service group/Activities included in service group	Further description (if any)	AER's proposed classification 2014–19	Current classification 2009–14
AER Service group— Network services			
Emergency recoverable works	Work to repair damage to the distribution network cause by a third party	Unclassified	Standard control
Constructing the network	Network construction (other than construction of connection assets provided contestably) Project planning and works management (works program development, procurement, vendor management, contract management, work scheduling and dispatching) Management of environmental issues Asset deployment and commissioning Asset relocation (other than those undertaken at a customer's request) Works to fix damage to the network (other than emergency recoverable works) Training for internal staff (e.g. safety) Operational technology supporting the network Pole replacement	Standard control	Standard control

[298] Source: Networks NSW provided us with a consolidated list of all services provided by the NSW distributors, 13 February 2013 and 27 February 2013.

Service group/Activities included in service group	Further description (if any)	AER's proposed classification 2014–19	Current classification 2009–14
Maintaining the network	Asset maintenance and network/asset performance management including: Performance and condition monitoring Asset optimisation Asset maintenance/replacement/refurbishment program management Asset performance reporting Network systems maintenance Asset retirement Vegetation management, inspection and testing	Standard control	Standard control
Operating the network for distributor purposes	Implementing Network Management Plan Network/asset operations: network control and operation, outage management, emergency management field operations, commissioning of assets Customer interactions (including in relation to network product development, customer service management, complaints and enquiries, record management, debt collection and disconnections) Market operations: includes revenue management, network billing and disputes, processing and publication of notifications of new connections and alterations, market notifications of retailer changes EHS management (risk assessment, monitoring, program management, reporting and training) GIS (Dial Before You Dig services) Compliance monitoring and reporting External stakeholder interaction (industry, regulatory, government) Pricing and regulatory affairs Financial and commercial management and reporting	Standard control	Standard control

Service group/Activities included in service group	Further description (if any)	AER's proposed classification 2014–19	Current classification 2009–14
Planning the network	Network/asset planning (asset needs assessment, asset investment planning, asset management planning, asset delivery planning. Includes risk and feasibility assessment, estimating and cost planning) Regulatory planning Demand management planning Network business strategy development, strategic initiatives development and management (including business improvement/efficiency initiatives) Participation in industry planning Governance, policies, procedures, standards	Standard control	Standard control
Designing the network	Design standards and designing the network	Standard control	Standard control
Emergency response	Outage management, emergency management (for example, reinstatement of network after natural disaster)	Standard control	Standard control
Administrative support	Includes call centres, network claim processing, network billing (including consumption data storage and analysis)	Standard control	Standard control
AER Service group— Metering services			
Types 5 and 6 metering installation	Includes on site connection of a new meter at a customer's premises, and on site connection of an upgraded meter at a customer's premises where the upgrade is initiated by the customer. Excludes installation of replacement types 5 and 6 meters initiated by the DNSP.	Unclassified	Standard control
Types 5 and 6 metering provision, maintenance, reading and data services	Meter provision refers to the capital cost of purchasing the metering equipment to be installed. Meter maintenance covers works to inspect, test, maintain, repair and replace meters. Meter reading refers to quarterly or other regular reading of a meter. Metering data services are those that involve the collection, processing, storage and delivery of metering data and the management of relevant NMI Standing Data in accordance with the Rules.	Alternative control	Standard control
Type 7 metering services	Administration and management of type 7 metering installations in accordance with the Rules and jurisdictional requirements. Includes the processing and delivery of calculated metering data for unmetered loads, and the population and maintenance of load tables,	Standard control	Standard control

Service group/Activities included in service group	Further description (if any)	AER's proposed classification 2014–19	Current classification 2009–14
	inventory tables and on/off tables.		
AER Service group— Connection services			
Premises connection assets	Includes any additions or upgrades to the connection assets located on the customer's premises which are contestable (Note: excludes all metering services). Premises connection assets can be further described as: A. Design and construction of premises connection assets (where these services are provided contestably)	A. Unclassified	A. Unregulated
	B. Part design and construction of connection assets that are not available contestably, (generally as a result of safety, reliability or security reasons). Those parts of project works that are performed and funded by the distributor.	B. Standard control	B. Standard control
Extensions	An enhancement required to connect a power line or facility outside the present boundaries of the transmission or distribution network owned or operated by a Network Service Provider that is: A. undertaken by an ASP on behalf of a customer (unclassified)	A. Unclassified	Unregulated
	B. undertaken by a customer but partly funded by a NSP (NSP contribution would be classified as a standard control service while the customer funded component of the service would be unclassified.)	B. Unclassified/ standard control based on contribution (see previous column)	
	C. undertaken by a network service provider (standard control)	C. Standard control	
Augmentations	A. Any shared network enlargement/enhancement undertaken by a distributor which is not an extension (standard control)	A. Standard control	Unregulated
	B. Any shared network enlargement/enhancement undertaken by a customer, but partly funded by a NSP (NSP contribution would be classified as a standard control service while the customer funded component of the service would be unclassified)	B. Unclassified/ standard control based on contribution (see previous column)	
	C. Any shared network enlargement/enhancement undertaken by a customer (unclassified)	C. Unclassified	

Service group/Activities included in service group	Further description (if any)	AER's proposed classification 2014–19	Current classification 2009–14
AER Service group— Ancillary network services			
Design related services	Provision of design information, design certification and design rechecking services in relation to connection and relocation works provided contestably	Alternative control	Standard control
ASP inspection services	Inspection and re-inspection of contestable connection and relocation works performed by Accredited Service Providers (ASPs)	Alternative control	Standard control
Reinspection of installation work in relation to customer assets	Reinspection by a distributor of private electrical wiring work undertaken by an electrical contractor, required where the first inspection revealed defective work.	Alternative control	Standard control
Contestable substation commissioning	Includes Contestable substation commissioning (complex) and Contestable substation commissioning (basic). Involves the process of connecting the substation to the network. Complex involves kiosk and chamber substations that may involve protection settings. Basic is generally pole mounted substations.	Alternative control	Standard control
Access permits	The provision of an access permit by a distributor to a person authorised to work on or near distribution systems including high voltage.	Alternative control	Standard control
Clearance to work	The provision of a clearance to work by a distributor to a person authorised to work on or near the system generally at a low voltage.	Alternative control	Standard control
Access (standby person)		Alternative control	Standard control
Notices of arrangement	Work of an administrative nature performed by a distributor where a local council requires evidence in writing from the distributor that all necessary arrangements have been made to supply electricity to a development. This may include receiving and checking linen plans and 88 B instruments, copying linen plans, checking and recording easement details, preparing files for conveyancing officers, liaising with developers if errors or charges are required, checking and receiving duct declarations and any amended linen plans and 88B instruments approved by a conveyancing officer and preparing notifications of arrangement.	Alternative control	Standard control
Authorisation of ASPs	Annual authorisation of individual employees and sub-contractors of ASPs and additional authorisations at request of ASP. Authorisation excludes training costs.	Alternative control	Standard control

Service group/Activities included in service group	Further description (if any)	AER's proposed classification 2014–19	Current classification 2009–14
Administration services relating to work performed by ASPs, including processing work		Alternative control	Standard control
Conveyancing information	Supply of conveyancing information – desk inquiry; Supply of conveyancing information – field visit	Alternative control	Standard control
Site establishment fee services	Site establishment services, including issuing of meters and liaising with the AEMO or market participants for the purpose of establishing NMIs in market systems, for new premises or for any existing premises for which AEMO requires a new NMI.	Alternative control	Standard control
Customer interface coordination for contestable works		Alternative control	Standard control
Preliminary enquiry service	For services provided to connection applicants making a preliminary enquiry requiring site-specific or written response	Alternative control	Standard control
Connection offer service (basic or standard)	For services provided by distributors in assessing the applicant's application and making a basic or standard connection offer	Alternative control	Standard control
Reconnections/Disconnections	Disconnection or reconnection visits (acceptable payment received); Disconnections or reconnections at the meter box (technical/hard disconnect); Disconnections or reconnections at the meter box (non-technical/soft disconnect); Disconnections or reconnections at the pole top/pillar box; Disconnections or reconnections outside of business hours.	Alternative control	Standard control
Ancillary metering services	For example, special meter reading for types 5 and 6 meters; testing for type 5 and 6 meters; franchise CT meter install; customer requested meter accuracy testing; types 5–7 non-standard metering data services; replacement or removal of a type 5 or 6 meter instigated by a customer switching to a non-type 5 or 6 meter that is not covered by any other fee.	Alternative control	Standard control
Off-peak conversion		Alternative control	Standard control

Service group/Activities included in service group	Further description (if any)	AER's proposed classification 2014–19	Current classification 2009–14
Rectification works	Includes rectification of illegal connections, provision of service crew/additional crew, fitting of tiger tails, high load escorts	Alternative control	Standard control
Connection/relocation process facilitation		Alternative control	Standard control
Services to supply and connect temporary supply to one or more customers	Including equipment and related costs) in relation to planned access permits	Alternative control	Standard control
Carrying out planning studies and analysis relating to distribution (including sub-transmission and dual function assets) connection applications		Alternative control	Standard control
Services involved in obtaining deeds of agreement in relation to property rights associated with contestable connection works		Alternative control	Standard control
Investigation, review and implementation of remedial actions associated with ASPs' connection work		Alternative control	Standard control
Network tariff change request	When a customer or retailer requests an alteration to an existing network tariff (for example, a change from an Inclining Block Tariff to a Time of Use tariff), the NSW distributors conduct tariff and load analysis to determine whether the customer meets the relevant tariff criteria. The NSW distributors also process changes in their IT systems to reflect the tariff change.	Alternative control	Standard control
Recovery of debt collection costs – dishonoured transactions	B2B service orders from retailers to obtain a final read for customer move-outs or to obtain a start read where property has been vacant	Alternative control	Standard control
Services provided in relation to a Retailer of Last Resort (ROLR) event	The NSW distributors may be required to perform a number of services as a distributor when a ROLR event occurs. These include: Preparing lists of affected sites, and reconciling data with AEMO listings; handling in-flight transfers; identifying open service orders raised by the failed retailer and determining actions to be taken in relation to those service orders; arranging estimate reads for the date	Alternative control	Standard control

Service group/Activities included in service group	Further description (if any)	AER's proposed classification 2014–19	Current classification 2009–14
	of the ROLR event and providing data for final NUOS bills in relation to affected customers; preparing final invoices for NUOS and miscellaneous charges for affected customers; preparing final debt statements; extracting customer data, providing it to the ROLR and handling subsequent enquiries; handling adjustments that arise from the use of estimate reads; assisting the retailer with the provision of network tariffs to be applied and the customer move in process; administration of any 'ROLR cost recovery scheme distributor payment determination'.		
Attendance at customers' premises to perform a statutory right where access is prevented.		Alternative control	Standard control
Vacant property reconnect/disconnect	Includes customer request for ad-hoc reconnections/disconnections for regular but short periods of time, for example, holiday homes.	Alternative control	Standard control
Move in move out meter reads	Includes customer request for ad-hoc reconnections/disconnections for regular but short periods of time, for example holiday homes.	Alternative control	Standard control
AER Service group— Public lighting services			
Provision, construction and maintenance of public lighting and emerging public lighting technology		Alternative control	Alternative control

Appendix E: Efficient pricing

This Appendix provides high level considerations about efficient pricing structures and analyses pricing efficiency under the WAPC in the current and previous regulatory period.

Broadly, we consider that efficient prices will incorporate two key characteristics:

- the underlying cost of supply
- customers willingness to pay

While there are a variety of methods of incorporating these characteristics, we consider that the resulting prices from each will include many of the same features. Firstly, because the majority of DNSPs cost of supply are fixed or related to peak demand, efficient prices will be structured around fixed or peak prices.[299] Secondly, because customers' willingness to pay for connection to the network is generally higher than for electricity consumption, where the price must be set above the cost of supply the largest margin is likely to be applied to fixed (connection) prices.

Our analysis of pricing efficiency under the WAPC in the current and previous regulatory period demonstrates that:

- revenue recovered by the NSW and Victorian distributors' under efficient charging parameters relative to inefficient charging parameters did not increase over the period
- the NSW distributors' joint submission does not demonstrate that the WAPC has resulted in an overall increase in pricing efficiency.
- the tariffs the NSW distributors' utilise most have not increased in efficiency over the period

On this basis, the AER considers there has not been an increase in pricing efficiency across the distributors subject to WAPCs.

Charging parameter revenue recovery

Broadly, we consider that efficient pricing would match prices to cost drivers. Further, we consider that distributors' costs are primarily fixed or linked to peak demand. Therefore, charges for peak usage, peak demand/capacity and fixed charges are generally efficient. While energy based charges that are unrelated to the networks peak periods and capacity are generally not efficient.

On this basis, we consider that high proportions of revenue recovered from peak usage, peak demand/capacity and fixed charges are likely to represent efficient pricing. While high proportions of revenue recovered from flat, inclining block and off peak charges are unlikely to represent inefficient pricing.

Charts E.1 to E.8 present revenue recovery by tariff type for the NSW and Victorian distributors at the beginning and end of the previous regulatory period under the WAPC.

[299] Peak prices include peak energy, demand and capacity prices.

Chart E.1: Victorian DNSPs revenue by tariff type 2006 revenue

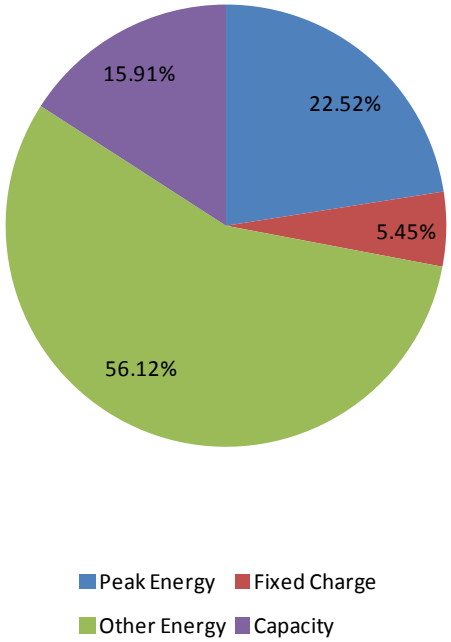


Chart E.2: Victorian DNSPs by tariff type 2010

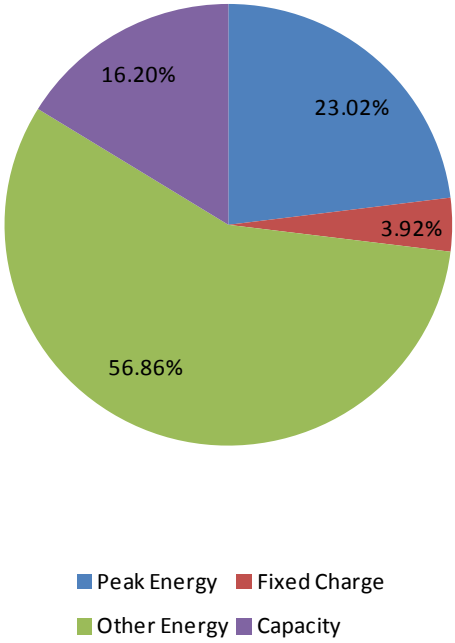


Chart E.3: NSW DNSPs revenue by tariff type 2004-05 by tariff

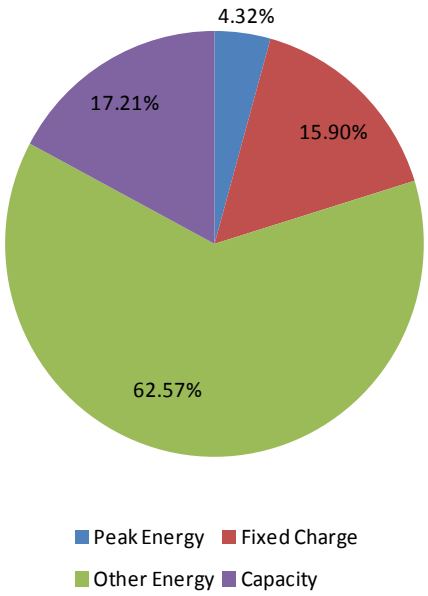


Chart E.4: NSW DNSPs revenue type 2008-09

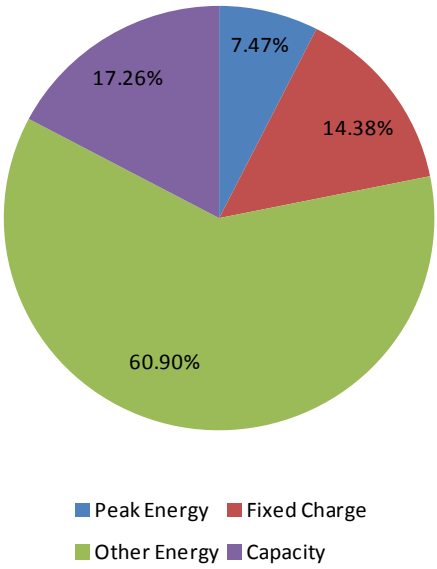


Chart E.5: Essential and Endeavour Energy Energy revenue by tariff type 2004-05

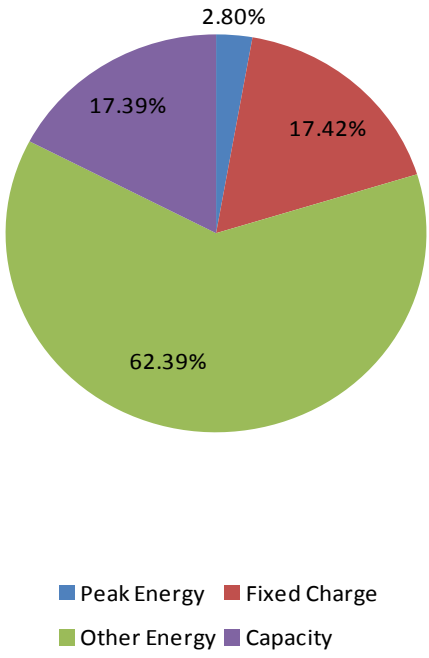


Chart E.6: Essential and Endeavour revenue by tariff type 2008-09

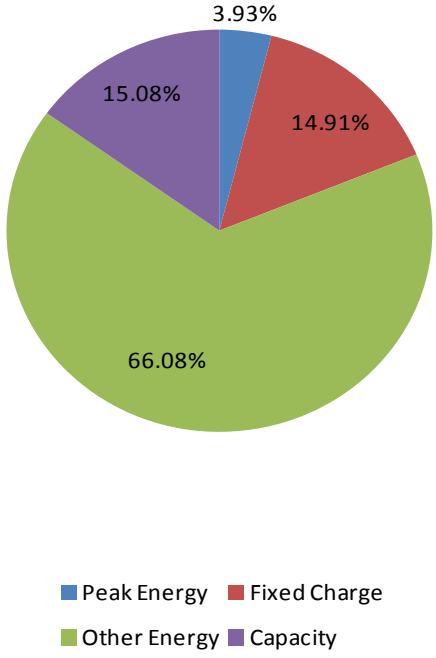


Chart E.7: Ausgrid revenue by tariff type 2004-05

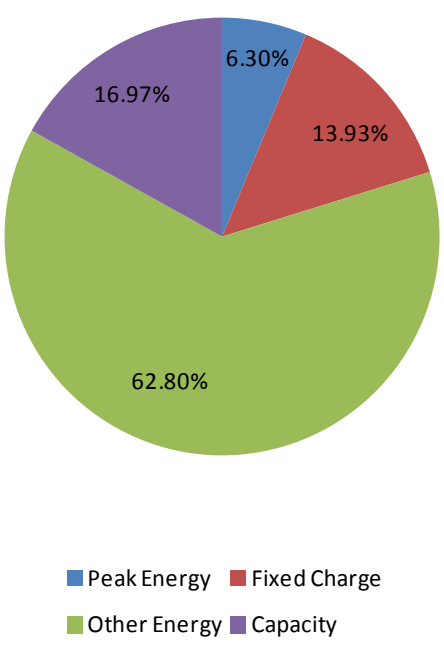
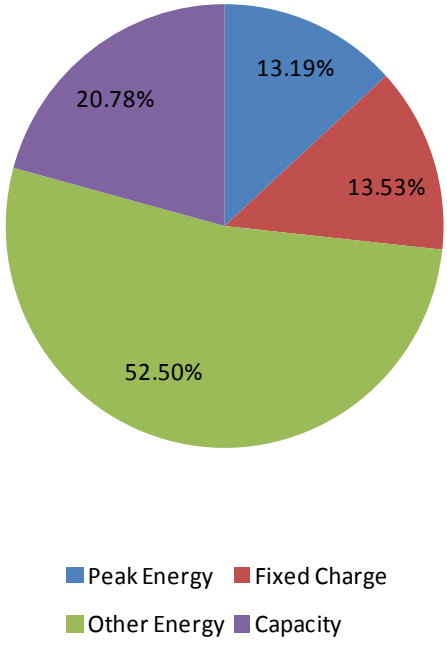


Chart E.8: Ausgrid revenue by tariff type 2008-09



Charts E.1 to E.8 demonstrate that (with the exception of Ausgrid) NSW and Victorian distributors did not increase the proportion of revenue derived from efficient tariff types over the period. For the

Victorian Distributors very little changed over the period. Slight increases in other energy, peak energy and capacity were offset by a drop in fixed charges. For Essential and Endeavour Energy the proportion of revenue from other energy tariffs increased over the period. Simultaneously, the proportion of revenue from fixed and demand/capacity charges decreased.

Assessment of NSW distributors submission on efficient pricing under the WAPC

The NSW distributors provided a joint submission to our Preliminary F&A paper. It stated that the WAPC had led to an increase in pricing efficiency. Specifically, the distributors provided:

- general pricing trends
- specific examples of efficient tariffs
- a comparison of residential tariffs under WAPCs and other control mechanisms.[300]

The following sections provide our analysis of the material provided by the NSW distributors. Broadly, we do not consider that it shows that the WAPC has led to increased pricing efficiency. We consider the material provided falls into the following categories:

- Information which does not demonstrate a trend towards efficient pricing.
- Reforms to prices for large business customers. The AER considers distributors across the NEM have implemented similar reforms regardless of the control mechanism.
- Ausgrid increasingly using time of use tariffs for small customers.

General trends implemented by each distributor

The distributors submitted the following:[301]

> Essential Energy has achieved its long-term objective to simplify its network tariffs.
>
> Ausgrid is well positioned to provide strong demand signals to consumers and so provide greater opportunities for consumers to manage bills given progress made in rolling out Type 5 metering in the small customer segment and the knowledge to be gained from the Smart Grid Smart City Initiative.
>
> Endeavour Energy has been successful in reforming demand charges to business customers to better signal the costs imposed on the network by customers' use of electricity at peak times.

The AER considers:

- that simplifying network tariffs does not necessarily result in greater cost reflectivity
- that small customers transitioning to time of use tariffs is a move towards more efficient tariffs. However, the AER notes that no other distributor within the NEM under a WAPC has implemented similar changes. The AER therefore considers that the transition is likely driven by a policy decision within Ausgrid rather than by the incentives under the WAPC
- similar reforms have been implemented by distributors NEM wide regardless of the control mechanism.

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300 Ausgrid, Endeavour Energy and Essential Energy, *NSW DNSPs' response to the AER's Preliminary Framework and Approach paper*, 17 August 2012, p. 46.

301 Ausgrid, Endeavour Energy and Essential Energy, NSW DNSPs' response to the AER's Preliminary Framework and Approach paper, 17 August 2012, p. 40.

Specific tariffs implemented by distributors under the WAPC

The distributors submitted that the following specific tariffs have been introduced:[302]

> Endeavour Energy has introduced a seasonal peak-period monthly demand charge for large business customers
>
> Ausgrid has introduced a peak-period monthly capacity charge for all customers above 40MWh per annum
>
> SPAusnet has recently introduced a dynamic peak tariff for large business customers
>
> United Energy has recently introduced a summer peak demand incentive charge component for some of the network tariffs.
>
> Ausgrid has recently reformed the inclining block tariff for domestic customers from a two block to a three block structure– consistent with the underlying cost to supply.

The AER considers that introducing demand and capacity charges to large business customers is a move towards more efficient prices. However, introducing these charges to large business customers has been demonstrated by distributors NEM wide regardless of the control mechanism.

The AER considers that the submission that Ausgrid has recently reformed its domestic block tariff to a three block inclining block tariff is not accurate. Within the current regulatory period, Ausgrid has changed its distribution standard domestic customer tariff from a two block inclining block tariff to a three block declining block tariff. We consider this did not result in an increase in cost reflectivity. Changes to, and the cost reflectivity of, Ausgrid's standard domestic customer tariff are discussed in detail below.

Comparison of residential tariffs under WAPCs and revenue/average revenue caps

The NSW distributors' submitted that distributors under WAPCs have generally utilised inclining block tariffs[303] while distributors under other control mechanisms have utilised two-part tariffs.[304] The NSW distributors' considered that this is evidence of increased efficiency under the WAPC. Table E.1 provides the DUOS tariff structure for each distributor within the NEM.[305]

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302 Ausgrid, Endeavour Energy and Essential Energy, *NSW DNSPs' response to the AER's Preliminary Framework and Approach paper*, 17 August 2012, pp. 46-47.

303 An inclining block tariff consists of a fixed charge for connection to the network and per kWh charges for energy usage that increase when a household consumes above certain thresholds. For example, a customer may be charged $100 per year for connection and then 0.05 $/kWh for the first 4000 kWh's of usage per year and 0.10 $/kWh for all usage above 4000 kWh.

304 A two-part tariff consists of a fixed charge for connection to the network and a per kWh charge for energy usage.

305 The AER considers the relevant tariffs for analysis are DUOS tariffs. While NUOS tariffs are set by the DNSPs, only DUOS tariffs are subject to the WAPC.

Table E.1: Most utilised residential customer tariff type by control mechanism

Control mechanism	Distributor	Two-part tariff	Inclining block tariff	Declining block tariff
Weighted Average Price Cap	Ausgrid			✖
	Endeavour Energy		✖	
	Essential Energy	✖		
	CitiPower		✖	
	Powercor		✖	
	SP Ausnet		✖	
	Jemena		✖	
	UED		✖	
	SA Power Networks		✖	
Revenue Cap	Aurora	✖		
	Energex	✖		
	Ergon Energy	✖		
Average Revenue Cap	ActewAGL	✖		

Source: AER analysis

The AER agrees with the NSW distributors' submission that distributors under the WAPC have generally utilised block tariff structures while distributors under other control mechanisms have utilised two-part tariffs. However, we consider this is evidence of less efficient pricing under the WAPC. We consider that block tariffs are less efficient pricing structures than two-part tariffs.

Under block tariff structures, distributors charge consumers different prices for different levels of consumption at a given point in time. The marginal cost of a consumers' consumption is constant at a given point in time. Therefore, prices under inclining block tariffs cannot be set at marginal cost because there is one marginal cost while distributors charge multiple prices. This reduces allocative efficiency because consumers face prices that do not reflect the cost of providing the service. Alternatively, prices can be set efficiently under two-part tariffs because distributors can set the consumption charge at the marginal cost of consumption. Recent economic literature has measured

losses in allocative efficiency from block tariff structures, finding that losses are often significant.[306] We therefore consider the predominant use of block tariff structures under the WAPC is evidence of less efficient pricing under the WAPC.

The additional submission provided by the NSW distributors stated that in some circumstances block tariff structures may be more efficient than two-part tariffs.[307] The NSW distributors argued that if high use customers consume a higher proportion of their usage at peak times than low usage customers, then an inclining block tariff could act as a proxy for time of use pricing. Alternatively, if high use customers consume a higher proportion of their usage at off-peak times than low usage customers, declining block tariffs would act as a proxy for time of use pricing. The AER agrees that if there was a strong correlation between total usage and the proportion of usage at peak times, block tariffs could act as proxies for time of use pricing. However, the AER does not consider this is the case. We have not seen any evidence demonstrating such a correlation within the NEM and the economic literature does not support such a hypothesis.[308]

The NSW distributors also considered that block structure tariffs could provide equity benefits.[309] That is, lower bills for low income customers. In jurisdictions outside of Australia that have introduced inclining block tariffs, equity has often been a primary consideration. We do not consider this is a benefit of block structure tariffs in the NEM. Firstly, equity is not one of the NER criteria for determining the form of control mechanism. Secondly, the economic literature provides that the equity benefits from block structure tariffs are often minor relative to efficiency detriments and other (non-price based) equity schemes.[310] Thirdly, in regard to the NSW distributors' tariffs, Ausgrid's declining block tariff applies to the most residential customers and has the largest differential between blocks. It is therefore likely to have the largest impact on equity and will result in higher bills for low usage customers due to its declining block structure.

In addition to inefficiencies caused by a lack of cost reflectivity, block structure tariffs create substantial information asymmetries due to their complexity. That is, because the price varies as consumption increases, it is difficult for customers to determine the price they are being charged for electricity usage. A customer on a block tariff structure tariff needs to know their households quarterly consumption at every point in time to be able to determine the price. In practice, this requires customers to have detailed information regarding their household consumption profile. Given the lack of expertise of most customers in this area, we consider it is more likely that block tariff structures will send a blunt signal of higher use costing more (inclining block tariff) or less (declining block tariff). We consider these signals are not efficient, as they do not reflect the cost of providing the service.

Specific tariff analysis

The following section analyses each distributors' most important tariffs. It looks at the structure, relative size of prices, and changes made by the NSW distributors' throughout the period.[311]

306 Severin Borenstein, The Redistributional Impact of Nonlinear Electricity Pricing, American Economic Journal: Economic Policy 2012, 4(3): 56–90. p. 56.
307 NERA economic consulting, A Note for Networks NSW, The Australian Energy Regulator's Approach to Choosing a Form of Price Control. p. 8.
308 Severin Borenstein, The Redistributional Impact of Nonlinear Electricity Pricing, American Economic Journal: Economic Policy 2012, 4(3): 56–90. p. 57.
309 NERA economic consulting, A Note for Networks NSW, The Australian Energy Regulator's Approach to Choosing a Form of Price Control. p. 8.
310 Severin Borenstein, The Redistributional Impact of Nonlinear Electricity Pricing, American Economic Journal: Economic Policy 2012, 4(3): 56–90. p. 57.
311 Importance is determined by the revenue recovered under the tariff

Essential Energy

Tariff BLNN2AU is Essential Energy's standard residential customer tariff. The tariff applies to private dwellings not exceeding 160 MWh per year. E.2 below shows:

- The tariff structure has remained the same throughout the period. That is, a two-part tariff consisting of a fixed charge and an energy usage charge.
- The relative size of the fixed and usage charges has also remained relatively constant throughout the period, largely increasing with the average WAPC constraint.

Table E.2: Essential Energy's standard residential customer tariff (BLNN2AU)

	Fixed charge ($ per customer per year)	Change in fixed charge from previous year (%)	Energy usage charge (c/kWh)	Change in energy usage charge from previous year (%)
2004-05	98.96	-	4.80	-
2005-06	105.68	6.80	5.13	6.80
2006-07	113.34	7.25	5.50	7.25
2007-08	122.41	8.00	5.94	8.00
2008-09	140.64	14.89	6.97	17.44
2009-10	165.20	17.46	8.19	17.46
2010-11	200.71	21.50	9.95	21.50
2011-12	253.42	26.26	12.04	21.00
2012-13	313.33	23.64	14.28	18.64

Source: AER analysis

Tariff BLNN1AU is Essential Energy's most used tariff for small business customers. The tariff applies to business premises consuming less than 100MWh per year.

Table E.3 below shows:

- The tariff structure has remained the same throughout the period. That is, a two-part tariff consisting of a fixed charge and an energy usage charge.
- The relative size of the fixed and usage charges has also remained relatively constant throughout the period. In 2009–10 and 2010–11 the usage charge increased by more than the fixed charge. In 2011–12 and 2012–13 the fixed charge increased by more than the usage charge.

Table E.3: Essential Energy's small business customer tariff (BLNN1AU)

	Fixed charge ($ per customer per year)	Change in fixed charge from previous year (%)	Energy usage charge (c/kWh)	Change in energy usage charge from previous year (%)
2004-05	139.14	-	6.89	-
2005-06	144.67	3.97	7.16	3.97
2006-07	155.15	7.25	7.68	7.25
2007-08	167.56	8.00	8.29	8.00
2008-09	192.51	14.89	9.65	16.35
2009-10	193.00	0.25	11.33	17.46
2010-11	200.71	4.00	13.77	21.50
2011-12	253.42	26.26	16.25	18.00
2012-13	313.33	23.64	18.38	13.09

Source: AER analysis

Tariff BLND3AO is Essential Energy's most used business tariff for customers exceeding 100MWh per year.

Table E.4s E.4 and E.5 below show:

- The tariff structure has remained the same throughout the period, a fixed charge, peak, shoulder and off peak energy usage charges and peak, shoulder and off peak demand charges.
- The relative magnitude of fixed, energy and demand charges increased in line with the average WAPC constraint in most years. However, in 2006–07 Essential Energy increased shoulder energy/demand charges in line with peak energy/demand charges. Previously the peak demand charge was higher than the shoulder demand charge and the peak energy charge was lower than the shoulder charge.

Table E.4: Essential Energy's business customer tariff (BLND3AO)

	Fixed ($ per customer per year)	Peak Energy (c/kWh)	Shoulder Energy (c/kWh)	Off-peak Energy (c/kWh)	Peak demand ($/kVA)	Shoulder demand ($/kVA)	Off-peak demand ($/kVA)
2004-05	1835.72	0.28	1.11	0.19	5.34	4.54	1.87
2005-06	1908.60	0.29	1.15	0.20	5.56	4.72	1.94
2006-07	2046.95	0.31	0.31	0.21	5.96	5.96	2.08
2007-08	2087.89	0.32	0.32	0.22	6.14	6.14	2.14
2008-09	2359.51	0.52	0.52	0.34	7.05	7.05	2.46
2009-10	2944.19	0.65	0.65	0.16	8.97	8.97	3.13
2010-11	3535.60	0.78	0.78	0.19	10.75	10.75	3.75
2011-12	4287.27	0.94	0.94	0.24	12.90	12.90	3.50
2012-13	5086.42	1.12	1.12	0.28	15.31	15.31	3.50

Source: AER analysis

Table E.5: Essential Energy's business customer tariff (BLND3AO) – percentage change from previous year

	Fixed ($ per customer per year)	Peak Energy (c/kWh)	Shoulder Energy (c/kWh)	Off-peak Energy (c/kWh)	Peak demand	Shoulder demand	Off-peak demand
2004-05	-	-	-	-	-	-	-
2005-06	3.97	3.96	3.96	3.95	3.97	3.97	3.97
2006-07	7.25	7.25	-72.95	7.25	7.25	26.23	6.96
2007-08	2.00	1.99	1.99	2.02	3.00	3.00	3.00
2008-09	13.01	62.09	62.09	57.47	14.89	14.89	14.89
2009-10	24.78	25.32	25.32	-52.48	27.27	27.27	27.29
2010-11	20.09	20.07	20.07	20.04	19.82	19.82	19.82
2011-12	21.26	21.26	21.26	21.23	20.00	20.00	-6.72
2012-13	18.64	18.64	18.64	18.64	18.64	18.64	0.00

Source: AER analysis

As a whole, Essential Energy's most important tariffs have remained relatively constant throughout the period. The tariffs have maintained the same structure and the relative magnitude of the tariff parameters have remained relatively constant throughout the period. The AER therefore considers that Essential Energy's most important tariffs have neither increased nor decreased in efficiency throughout the period.

Endeavour Energy

Tariff N70 is Endeavour Energy's standard residential customer tariff. Table E.6 below shows:

- The tariff structure has remained the same throughout the period. That is, a two block inclining block tariff.
- The relative magnitude of the fixed and usage charges has also remained relatively constant throughout the period, largely increasing with the average WAPC constraint.

Table E.6: Endeavour Energy's standard residential customer tariff (Tariff N70)

	Fixed ($ per customer)	Changes in fixed charge from previous year (%)	Block 1 (c/kWh)	Changes in Block 1 charge from previous year (%)	Block 2 (c/kWh)	Changes in Block 2 charge from previous year (%)
2004-05	69.35	-	4.69	-	4.93	-
2005-06	69.35	0.00	4.85	3.39	5.34	8.24
2006-07	73	5.26	5.01	3.34	6.03	13.02
2007-08	76.65	5.00	5.37	7.16	6.45	6.96
2008-09	76.65	0.00	5.73	6.74	6.86	6.30
2009-10	91.25	19.05	6.73	17.46	8.13	18.50
2010-11	98.55	8.00	7.87	16.88	9.50	16.86
2011-12	113.46	15.13	9.27	17.86	10.94	15.20
2012-13	127.75	12.59	9.61	3.65	10.57	-3.35

Source: AER analysis

Tariff N90 is Endeavour Energy's most used tariff for small business customers.

Table E.7 below shows:

- The tariff structure has remained the same throughout the period. That is, a two block inclining block tariff.
- The relative magnitude of the fixed and usage charges has also remained relatively constant throughout the period, largely increasing with the average WAPC constraint.

Table E.7: Endeavour Energy's small business customer tariffs (Tariff N90)

	Fixed ($ per customer)	Changes in fixed charge from previous year (%)	Block 1 (c/kWh)	Changes in Block 1 charge from previous year (%)	Block 2 (c/kWh)	Changes in Block 2 charge from previous year (%)
2004-05	69.35	-	3.96	-	4.16	-
2005-06	69.35	0.00	4.03	1.79	4.43	6.61
2006-07	73.00	5.26	4.09	1.46	4.82	8.73
2007-08	76.65	5.00	4.33	5.82	5.10	5.81
2008-09	76.65	0.00	4.66	7.78	5.47	7.30
2009-10	102.20	33.33	5.399	15.53	6.45	17.82
2010-11	131.40	28.57	6.23	15.55	7.45	15.51
2011-12	157.38	19.77	7.37	18.40	8.70	16.80
2012-13	182.50	15.96	7.58	2.79	8.94	2.77

Source: AER analysis

Tariff N19 is Endeavour Energy's most used low voltage demand tariff. Tables E.8 and E.9 below show:

- Endeavour Energy introduced an off-peak demand charge in 2007–08 resulting in a fixed charge, peak, shoulder and off peak energy usage charges and peak and off peak demand charges.
- The relative size of fixed, energy and demand charges has remained relatively constant over the period. The two changes that Endeavour Energy has undertaken are a larger difference between the peak and shoulder energy charges and introducing the off peak demand charge.

Table E.8: Endeavour Energy's low voltage demand tariff (N19)

	Fixed ($ per customer per year)	Peak Energy (c/kWh)	Shoulder Energy (c/kWh)	Off-peak Energy (c/kWh)	Peak capacity ($ kVA)	Off peak ($ kVA)
2004-05	1832.30	0.88	0.69	0.010	6.54	-
2005-06	1876.10	0.92	0.71	0.011	6.81	-
2006-07	2252.05	1.12	0.73	0.012	6.99	-
2007-08	2482.00	1.47	0.72	0.012	7.43	7.08
2008-09	2613.40	1.50	0.66	0.013	8.32	7.92
2009-10	3266.75	1.77	0.72	0.015	9.82	9.27
2010-11	4248.60	2.02	0.61	0.015	11.40	10.66
2011-12	5522.94	2.34	0.61	0.016	13.28	12.38
2012-13	6405.75	2.45	0.63	0.016	13.90	12.84

Source: AER analysis

Table E.9: Endeavour Energy's low voltage demand tariff (N19) – percentage change from previous year

	Fixed (%)	Peak Energy (%)	Shoulder Energy (%)	Off-peak Energy (%)	Peak capacity (%)	Off peak (%)
2004-05	-	-	-	-	-	-
2005-06	2.39	4.55	2.46	10.00	4.11	-
2006-07	20.04	22.50	3.39	9.09	2.66	-
2007-08	10.21	30.08	-2.19	0.00	6.32	-
2008-09	5.29	2.57	-7.26	5.83	11.93	11.95
2009-10	25.00	18.00	9.09	17.32	18.00	17.00
2010-11	30.06	13.84	-15.99	2.01	16.10	15.00
2011-12	29.99	16.00	0.00	5.26	16.50	16.10
2012-13	15.98	4.50	2.96	0.00	4.70	3.70

Source: AER analysis

As a whole, Endeavour Energy's most important tariffs have changed little throughout the period. The tariffs have maintained the same structure and the relative magnitude of the tariff parameters has generally not changed throughout the period. The AER therefore considers that Endeavour Energy's most important tariffs' efficiency has neither increased nor decreased throughout the period.

Ausgrid

Ausgrid substantially changed its most important tariffs throughout the period. Ausgrid altered both the structure of its tariffs and the magnitude of its charging parameters. Furthermore, Ausgrid has moved many customers between tariffs, altering the most important tariffs. A sample of Ausgrid's most important tariffs is presented below. The AER considers that some changes have increased pricing efficiency while others have not.

Tariff EA010 is Ausgrid's most used residential customer tariff. Tariff EA010 is the most used tariff within the NEM, averaging just over one million customers a year over the period. Table E.10 below shows:

- The tariff is a block structure comprising a fixed charge and usage charges depending on the consumption level. Ausgrid introduced a third usage block in 2012–13.
- The relative size of the fixed and block usage charges changed substantially throughout the period. At the beginning of the period the tariff was an inclining block structure. In 2005–06 and 2006–07 the incline grew larger, such that by 2006–07 customers paid almost 50% more for block two usage than block one. However, after 2006–07 the tariff switched to a declining block tariff. By 2012–13 customers pay less than 25% for second block usage than first block usage and pay nothing for third block usage.

Table E.10: Ausgrid's standard residential customer tariff (EA010)

	Fixed ($ per customer)	Changes in fixed charge from previous year (%)	Block 1 (c/kWh)	Changes in Block 1 charge from previous year (%)	Block 2 (c/kWh)	Changes in Block 2 charge from previous year (%)	Block 3 (c/kWh)	Changes in Block 3 charge from previous year (%)
2004-05	47.85	-	3.47	-	4.31	-	-	-
2005-06	48.95	2.28	3.67	5.80	5.00	15.99	-	-
2006-07	50.23	2.63	3.79	3.30	5.62	12.42	-	-
2007-08	52.89	5.30	4.58	20.83	3.71	-33.96	-	-
2008-09	55.20	4.35	4.80	4.66	3.88	4.65	-	-
2009-10	72.57	31.47	5.77	20.33	7.95	104.79	-	-
2010-11	85.10	17.27	8.50	47.30	4.55	-42.86	-	-
2011-12	103.05	21.10	10.32	21.36	4.55	0.00	-	-
2012-13	138.70	34.59	12.40	20.21	2.78	-38.74	0.00	-

Source: AER analysis

The AER considers that EA010 shows how the WAPC created an incentive that has resulted in a distributor setting inefficient tariffs. That is, Ausgrid has faced an incentive to increase the price on services with increasing volumes (or only declining slightly) and decrease the price on services with decreasing volumes, regardless of the marginal cost of providing the service.

Energy consumption per customer on EA010 increased until 2006–07. This created an incentive for Ausgrid to increase block two usage prices relative to the fixed and block one prices. This is because block two usage grew faster than block one usage or customer numbers. Later in the period, as energy consumption per customer began to fall Ausgrid faced the opposite incentive. That is, to reduce block two usage prices relative to the fixed and block one prices. This is because block two usage fell faster than block one usage or customer numbers.

As detailed above, we consider that block tariff structures do not represent efficient pricing structures. This is particularly the case regarding EA010. Currently, low usage residential customers (below 4000kWh) face a marginal distribution price of 12.40c/kWh. Medium usage residential customers (between 4000 and 8000kWh) face a marginal distribution price of 2.78c/kWh. High usage residential customers (above 8000kWh) face a marginal distribution price of 0.00c/kWh.[312] We consider that these tariff charges vary substantially from marginal cost because marginal cost is constant across a customers' consumption. Furthermore, we consider these tariff charges create perverse incentives for consumers to consume above efficient levels because of the 0 price of high usage.

The AER also noted above that inclining block tariff have been introduced with an equity objective in mind. That is, to provide low income earners (assumed to use less energy) with lower bills. While equity is not one of the selection criteria, we consider that declining block tariffs are likely to have the opposite effect. That is, to increase bills for low income earners.

[312] kWh hour blocks apply quarterly. Consumption below 1000kWh per quarter is charged at the first block rate. Between 1000kWh and 2000kWh at the second block rate and consumption above 2000kWh at the third block rate.

Tariff EA050 is Ausgrid's most used small business tariff. Ausgrid has made similar tariff changes to EA050 as it has to EA010. That is, Ausgrid increased the relative magnitude of the second block to the first in the early years of the period when consumption was increasing. When consumption began to fall in the latter years of the period Ausgrid decreased the second block charge, creating a declining block tariff. Similar to EA010, the AER considers that this represents inefficient tariff setting because of the incentives provided by the WAPC. The AER also notes the perverse incentives created by the declining block tariff in terms of consumption above efficient levels by high consumption customers due to the low second block price. Also similar to EA010 there will be equity effects from higher bills for lower usage businesses.

Tariffs EA025 and EA225 are time of use tariffs for residential and small business customers respectively. Ausgrid has progressively moved customers from tariffs EA010 and EA050 to these tariffs. The AER considers that moving customers from block tariff structures to time of use tariffs improves pricing efficiency because prices reflect the cost of peak network usage.

Tariff EA025 is Ausgrid's residential time of use tariff. Tables E.11 and E.12 below demonstrate that:

- The tariff structure has remained the same over the period. That is, a fixed charge combined with peak, shoulder and off-peak usage charges.
- The relative magnitude of the charges remained relatively constant in the early years of the period. In the latter years the peak energy charge increased less than the other charges.

Table E.11: Ausgrid's residential time of use tariff (EA025)

EA025	Fixed ($ per year)	Peak energy (c/kWh)	Shoulder energy (c/kWh)	Off-peak energy (c/kWh)
2004-05	63.44	8.16	1.29	0.13
2005-06	64.97	8.54	1.29	0.13
2006-07	66.63	9.00	1.36	0.14
2007-08	72.26	9.99	1.51	0.15
2008-09	75.41	10.45	1.58	0.16
2009-10	98.72	12.97	2.63	0.33
2010-11	118.48	16.26	3.74	1.74
2011-12	143.48	16.26	4.00	2.00
2012-13	182.50	14.50	4.50	2.40

Source: AER analysis

Table E.12: Ausgrid's residential time of use tariff (EA025) – percentage change from previous year

EA025	Fixed ($ per year)	Peak energy (c/kWh)	Shoulder energy (c/kWh)	Off-peak energy (c/kWh)
2004-05	-	-	-	-
2005-06	2.41%	4.59%	0.00%	-0.34%
2006-07	2.56%	5.42%	5.43%	5.41%
2007-08	8.46%	11.02%	11.02%	11.06%
2008-09	4.36%	4.65%	4.65%	4.63%
2009-10	30.91%	24.03%	66.51%	107.02%
2010-11	20.01%	25.36%	42.29%	430.44%
2011-12	21.10%	0.00%	6.85%	14.84%
2012-13	27.20%	-10.80%	12.50%	20.00%

Source: AER analysis

Ausgrid has a wide variety of medium and large business tariffs that recover substantial revenue throughout the period. These tariffs include, EA310, EA302, EA305, EA225 and EA50/270.[313] Tariff EA310 (table E.13) represents many of the trends the AER has seen in these tariffs.

Tables E.13 and E.14 below show:

- Ausgrid simplified the tariff structure within the period, removing the shoulder and off peak capacity and demand charges in 2005-06 and the peak demand charge in 2008-09.
- There have been many large changes in the relative and overall magnitude of the charging parameters within the period. Of particular note is the 471.14 per cent increase in the fixed charge in 2012–13, 18 per cent decreases in energy charges in 2006–07 and over 200 per cent increases in energy charges in 2009–10.

The AER considers tariff EA310's current pricing is efficient. It highly staggers time of use energy charges combined with a peak capacity charge and a fixed charge. However, the AER notes the inconsistency and large variation in price changes within the period. We have considered price instability in Appendix G.

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Table E.13: Ausgrid tariff for low voltage business customers (EA310)

EA310	Fixed ($ per year)	Peak energy c/kWh	Shoulder energy (c/kWh)	Off-peak energy c/kWh	Peak capacity ($/kVA)	Shoulder capacity ($/kVA)	Off-peak capacity ($/kVA)	Peak demand ($/kVA)	Shoulder demand ($/kVA)	Off-peak demand ($/kVA)
2004-05	648.83	1.45	0.77	0.18	1.12	0.80	0.26	1.26	0.97	0.33
2005-06	587.05	1.47	0.78	0.18	2.12	-	-	2.53	-	-
2006-07	578.77	1.21	0.64	0.15	2.66	-	-	2.66	-	-
2007-08	597.16	1.31	0.70	0.16	4.11	-	-	1.46	-	-
2008-09	622.23	1.37	0.73	0.17	5.56	-	-	-	-	-
2009-10	830.89	4.82	3.75	0.66	3.29	-	-	-	-	-
2010-11	1170.98	5.65	4.00	0.61	4.82	-	-	-	-	-
2011-12	1277.50	6.00	4.50	1.50	5.92	-	-	-	-	-
2012-13	7296.35	10.20	5.00	2.00	9.73	-	-	-	-	-

Source: AER analysis

Table E.14: Ausgrid tariff for low voltage business customers (EA310) – percentage change from previous year

EA310	Fixed ($ per year)	Peak energy (c/kWh)	Shoulder energy (c/kWh)	Off-peak energy (c/kWh)	Peak capacity ($/kVA)	Peak demand ($/kVA)
2004-05	-	-	-	-	-	-
2005-06	-9.52%	1.29%	1.09%	0.38%	88.89%	100.93%
2006-07	-1.41%	-18.13%	-18.13%	-18.23%	25.61%	5.08%
2007-08	3.18%	9.00%	8.98%	8.94%	54.25%	-45.19%
2008-09	4.20%	4.49%	4.62%	4.40%	35.43%	-
2009-10	33.53%	250.81%	415.56%	291.28%	-40.78%	-
2010-11	40.93%	17.34%	6.62%	-7.21%	46.50%	-
2011-12	9.10%	6.19%	12.51%	144.90%	22.73%	-
2012-13	471.14%	70.00%	11.11%	33.33%	64.36%	-

Source: AER analysis

The AER considers Ausgrid's changes to its distribution tariffs within the period have both increased and decreased pricing efficiency. Of particular note are efficiency increases from transfers of customers to time of use tariffs and efficiency decreases from declining block tariffs.

Efficient pricing summary

We do not consider the NSW distributors' have materially increased pricing efficiency under the WAPC from 2004–05 through to 2012–13. We formed this conclusion following:

- analysis demonstrating that revenue recovered by the NSW distributors' under efficient charging parameters relative to inefficient charging parameters has not increased
- an assessment of the NSW distributors' submission that the WAPC had resulted in increases in pricing efficiency
- analysis demonstrating that the NSW distributors' most utilised tariffs have not increased in efficiency

Appendix F: Revenue recovery

This section examines forecast and actual revenue and consumption by distributors under WAPCs in the current and previous regulatory periods. The AER considers that the WAPC provides an opportunity for distributors to recover substantially above forecast when actual consumption exceeds forecast and slightly above forecast when actual volumes are below forecast.

Table F.1 compares the NSW and Victorian distributors' actual and forecast revenue in the current and previous regulatory periods. Upwards arrows represent recoveries above forecast and downwards below forecast. In two of forty-six cases, a distributor recovered less than forecast over the past seven years under the WAPC. We consider this indicates that a WAPC may enable distributors to systematically recover revenue greater than forecast under a WAPC.

Table F.1: NSW and Vic distributors' actual revenue compared to (adjusted) forecast[314][315]

Distributor	2005	2006	2007	2008	2009	2010	2011
Ausgrid	↑	↑	↑	↑	↑	↑	↑
Endeavour Energy	↑	↑	↑	↑	↑	↑	↑
Essential Energy	↑	↑	↑	↑	↑	↑	↓
CitiPower		↑	↑	↑	↑	↑	
Powercor		↑	↑	↑	↑	↑	
SP Ausnet		↓	↑	↑	↑	↑	
Jemena		↑	↑	↑	↑	↑	
UED		↑	↑	↑	↑	↑	

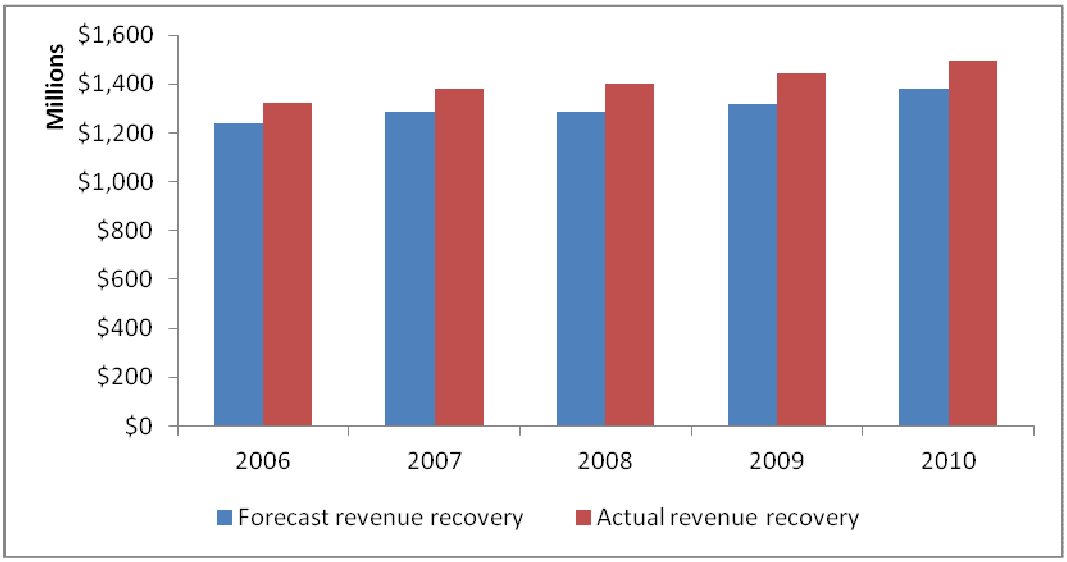
Source: AER analysis

[314] Actual revenue information is available on a two year lag. Forecasts of the variance from forecasts submitted by the NSW DNSPs for 2011-12 not included.

[315] Forecast revenue is adjusted for actual CPI, D,S and F factors.

Victoria

Chart F.1: comparison of total Victorian distributor forecast and actual revenue recovery[316]



Source: AER analysis

Table F.2: Victorian distributors' revenue [317]

	2006	2007	2008	2009	2010
Forecast revenue recovery ($ million)	$1,238	$1,285	$1,285	$1,315	$1,380
Actual revenue recovery ($ million)	$1,321	$1,382	$1,404	$1,441	$1,497
Revenue recovery above forecast (percentage)	6.69	7.54	9.22	9.55	8.49

Source: AER analysis

In each year, the Victorian distributors recovered revenue above forecast. This resulted in a total revenue recovery of $541m (real 2010$) above forecast (over five years), an average annual over recovery of 8.32 per cent.

We consider that Victoria's revenue recovery above forecast is due to a combination of higher than forecast consumption and tariff rebalancing towards services with increasing consumption. Table F.3 provides an example of higher than forecast recovery from both of these sources.

316 Forecast revenue is adjusted for actual CPI, S and F factors.
317 Forecast revenue is adjusted for actual CPI, S and F factors.

Table F.3: United Energy standard residential customer tariffs 2006—2010[318]

	2006	2007	2008	2009	2010
Forecast fixed charge ($ per year)	23.12	23.39	23.22	23.03	23.01
Actual fixed charge ($ per year)	23.89	18.14	18.01	17.86	17.84
Fixed charge forecast volume (no. of customers)	548 736	554 842	562 719	566 858	572 196
Fixed charge actual volume (no. of customers)	542 384	546 269	551 986	555 647	561 538
Forecast usage charge-block one (c/kWh)	4.61	4.67	4.64	4.60	4.59
Actual usage charge-block one(c/kWh)	4.77	5.55	5.77	5.98	5.98
Forecast usage-block one (MWh)	918,899	941,061	960,305	975,338	991,996
Actual usage-block one (MWh)	992,556	1 015,170	1,041,835	1,051,027	1,039,423
Forecast usage charge-block two (c/kWh)	3.54	3.58	3.56	3.53	3.53
Actual usage charge-block two (c/kWh)	3.66	3.81	3.88	3.85	3.85
Forecast usage-block two (MWh)	1,568,901	1,606,739	1,639,595	1,665,262	1,693,704
Actual usage-block two (MWh)	1,621,455	1,591,088	1,661,709	1,685,262	1,701,918
Total forecast revenue ($000)	55,092	56,933	57,596	57,900	58,728
Total forecast revenue actual demand ($000)	58,345	60,193	61,127	61,122	60,662
Total actual revenue ($000)	60,302	66,270	70,011	72,804	72,143

Source: AER analysis.

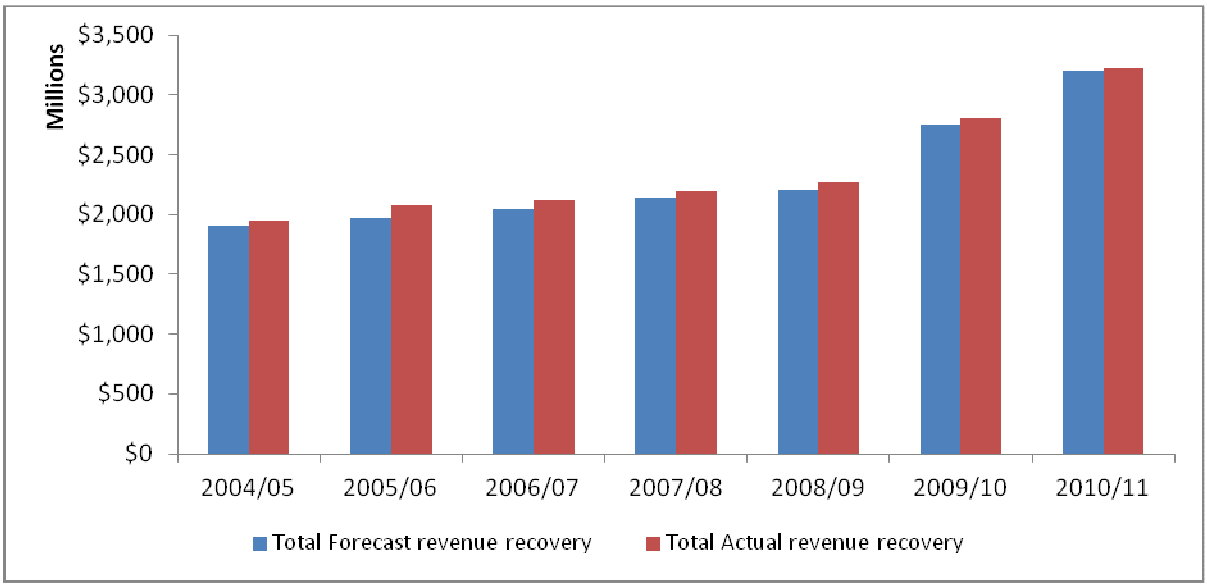
Table F.3 demonstrates how United Energy increased the volumetric usage prices throughout the period (above forecast). Simultaneously it decreased fixed charges to fall within the WAPC constraint. As volumetric usage was higher than forecast, it resulted in a large increase in revenue. However, the decrease in revenue from the drop in fixed charges was small because actual customer numbers were below forecast.

The last three rows in table F.3 demonstrate that the largest increase in United Energy's revenue was caused by the combination of higher tariffs and higher usage. If tariffs had increased as forecast (see 'Total forecast revenue actual demand' row), the increase in revenue over the regulatory control period from higher than forecast sales would have been relatively small ($19.5 million). When the adjustments to tariffs are taken into account, that is, the higher than forecast demand is combined with higher tariffs, the increase in revenue is much larger ($83.8 million).

[318] Forecast revenue is adjusted for actual CPI, S and F factors.

NSW

Chart F.2: Comparison of total NSW distributor forecast and actual revenue recovery[319]

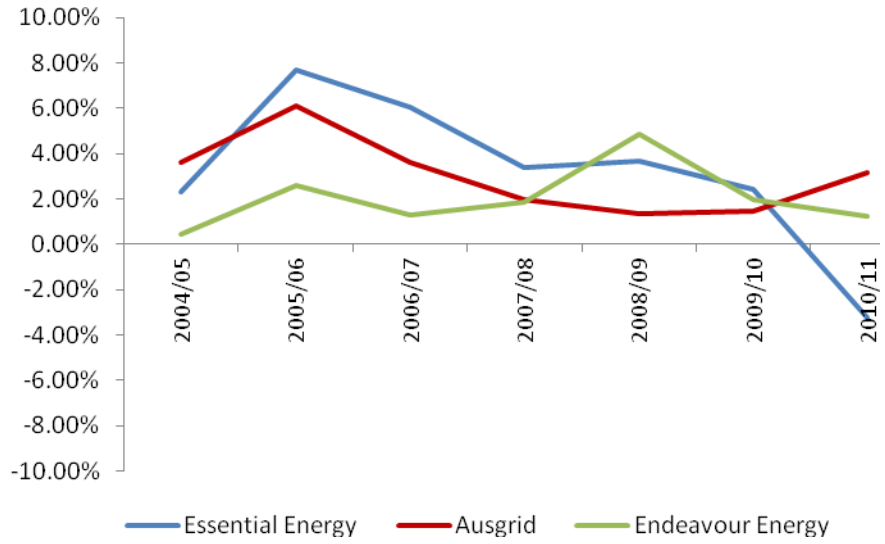


Source: AER analysis

Charts F.3 and F.4 present actual revenue and energy compared to forecast for each NSW distributor from 2005-05 to 2010-11.

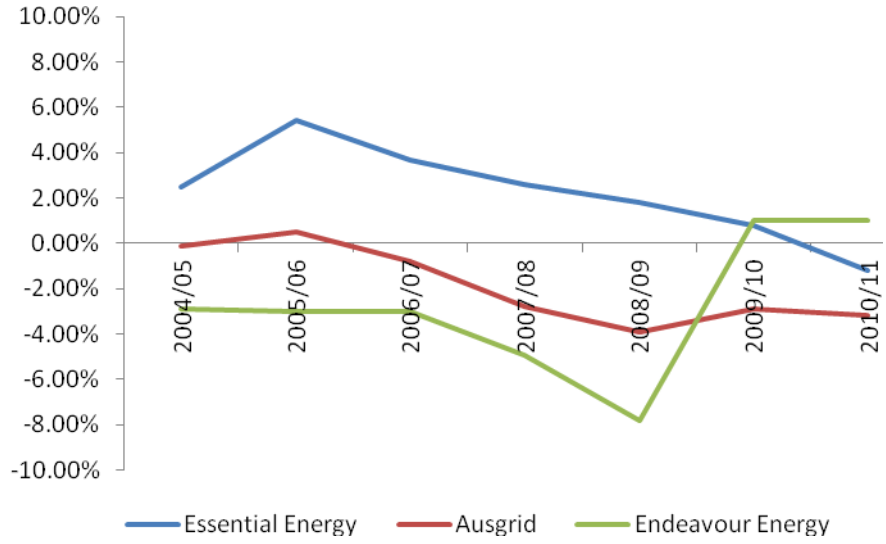
[319] Forecast revenue is adjusted for actual CPI, S and F factors.

Chart F.3: Revenue recovered compared to forecast by NSW distributor for 2004-05 to 2010-11



Source: AER analysis

Chart F.4: Actual energy compared to forecast by NSW distributor for 2004-05 to 2010-11



Source: AER analysis

Chart F.3 demonstrates that in almost all cases[320] the NSW distributors have recovered revenue greater than forecast in every year. Chart F.4 demonstrates that actual consumption has fluctuated above and below forecast throughout the period for each distributor. The AER considers charts F.3 and F.4 together demonstrate that the NSW distributors have recovered substantially above forecast when consumption has been above forecast and close to forecast when consumption is below forecast.

[320] Essential Energy 2010-11 is the one exception.

Appendix G: Price stability

The AER has observed significant price instability within the current regulatory control period under the WAPC. Tables G.1 to G.5 compare price rises of Ausgrid's highest revenue earning residential, small, medium and large business tariffs to the average price increase allowed under the WAPC.

Table G.1: Percentage price movements in tariff EA010 compared to WAPC average

Year	Changes in fixed charge from previous year (%)	Changes in Block 1 charge from previous year (%)	Changes in Block 2 charge from previous year (%)	Changes in Block 3 charge from previous year	Average WAPC increase (%)
2010-11	17.27	47.30	-42.86	n/a	20.45
2011-12	21.10	21.36	0.00	n/a	21.43
2012-13	34.59	20.21	-38.74	n/a	21.94

Source: AER analysis

Table G.2: Percentage price movements in tariff EA302 compared to WAPC average

Year	Changes in fixed charge from previous year (%)	Changes in Peak energy charge from previous year (%)	Changes in Shoulder energy charge from previous year (%)	Changes in Off-peak energy charge from previous year (%)	Changes in Peak capacity charge from previous year (%)	Average WAPC increase (%)
2010-11	40.33	12.22	10.46	-48.72	43.37	20.45
2011-12	98.39	8.99	27.81	44.70	94.06	21.43
2012-13	175.00	116.67	8.66	37.02	18.52	21.94

Source: AER analysis

Table G.3: Percentage price movements in tariff EA305 compared to WAPC average

Year	Changes in fixed charge from previous year (%)	Changes in Peak energy charge from previous year (%)	Changes in Shoulder energy charge from previous year (%)	Changes in Off-peak energy charge from previous year (%)	Changes in Peak capacity charge from previous year (%)	Average WAPC increase (%)
2010-11	40.93	18.70	5.27	5.27	42.28	20.45
2011-12	86.28	-14.37	-3.39	59.74	86.14	21.43
2012-13	357.14	66.67	11.11	33.33	18.52	21.94

Source: AER analysis

Table G.4: Percentage price movements in tariff EA025 compared to WAPC average

Year	Changes in fixed charge from previous year (%)	Changes in Peak energy charge from previous year (%)	Changes in Shoulder energy charge from previous year (%)	Changes in Off-peak energy charge from previous year (%)	Average WAPC increase (%)
2010-11	20.01	25.36	42.29	430.44	20.45
2011-12	21.10	0.00	6.85	14.84	21.43
2012-13	27.20	-10.80	12.50	20.00	21.94

Source: AER analysis

Table G.5: Percentage price movements in tariff EA310 compared to WAPC average

Year	Changes in fixed charge from previous year (%)	Changes in Peak energy charge from previous year (%)	Changes in Shoulder energy charge from previous year (%)	Changes in Off-peak energy charge from previous year (%)	Changes in Peak capacity charge from previous year (%)	Average WAPC increase (%)
2010-11	40.93	17.34	6.62	-7.21	46.50	20.45
2011-12	9.10	6.19	12.51	144.90	22.73	21.43
2012-13	471.14	70.00	11.11	33.33	64.36	21.94

Source: AER analysis

The AER notes the substantial price movements in high revenue earning tariffs in the current period under the WAPC. The AER considers that while the WAPC provides a higher level of overall price stability (average price movement) it does not guarantee a higher level of price stability for individual tariffs or customers.