🔊 Ausgrid 🦸



Endeavour

16 October 2014

Mr John Pierce Chairman Australian Energy Market Commission Level 5, 201 Elizabeth Street Sydney NSW 2000

Dear Mr Pierce

The NSW DNSPs response to the Draft Rule Determination – National Electricity Amendment (Distribution Network Pricing Arrangements) Rule 2014

The NSW Distribution Network Service Providers, Ausgrid, Endeavour Energy and Essential Energy (the NSW DNSPs) welcome the opportunity to provide this joint submission in response to the *Draft Rule Determination – National Electricity Amendment (Distribution Network Pricing Arrangements) Rule 2014.*

The NSW DNSPs support tariff reform and endorse a number of the reform proposals in the draft determination. Accordingly, we support amendments that seek to result in greater consultation on network tariffs with stakeholders, increase the level of transparency, provide a reasonable level of certainty with respect to how network tariffs will change over time and facilitate timelier finalisation of network prices in the annual pricing process.

While supportive of the policy intent of the Rule change overall, we believe that there are a number of issues for further consideration. Our detailed submission is provided as Attachment A and summarised below:

Network Pricing Objective

 The NSW DNSPs support the inclusion of a network pricing objective in Chapter 6 of National Electricity Rules (Rules); however, we believe that the wording of section 6.18.5 of the draft Rules can be significantly improved by clearly stating the scope of this objective and articulating what is captured by the concept of "reflecting efficient costs".

Long Run Marginal Cost (LRMC) and Demand Based Pricing

- The concept of LRMC has a central place in the economic theory of pricing. It is only by setting prices according to marginal cost that consumers will take into account future costs of meeting demand when making consumption and investment decisions;
- Demand growth, however, is no longer expected to be the key driver of costs for the NSW DNSPs, contributing only a very small proportion (approximately 2.5%) of the total forecast revenue requirements and prices over the 2014-19 regulatory control period;
- The vast majority (approximately 84%) of all residential and small business customers in NSW have accumulation meters that provide limited access to more advanced tariff options. Demand based pricing is unlikely to occur in the short to medium term across NSW until more advanced metering is rolled out to customers on a significant scale;
- The NSW DNSPs are already required under the Rules to demonstrate that they have taken account of LRMC in their calculation of tariffs and have both submitted tariffs to the



Endeavour

essential

Ausgrid

 We consider that the AEMC has struck a reasonable balance between Rule-based prescription and DNSP discretion by providing the DNSP with the flexibility to implement LRMC based prices in the way that best suits their network, and operating environment and forward investment profile.

Tariff Strategy Statement (TSS)

- The NSW DNSPs support the introduction of a Tariff Structures Statement (TSS) because we recognise that consumers and other key stakeholders value transparency and a reasonable level of certainty with respect to how network tariffs will change over time;
- We are concerned, however, that the AEMC requires the TSS to be a binding document, with modifications only permitted during the regulatory control period in certain limited circumstances. While this approach may promote greater pricing certainty, it will do little to encourage DNSPs to pursue network tariff reforms in the long-term interests of electricity users;
- To assist the AEMC to develop a new pricing framework that meet the needs of stakeholders for greater price certainty without undermining the network tariff reform process, we have provided our view on what should be covered in the TSS and what aspects of the TSS should be binding (or semi-binding) on the DNSP during the regulatory control period. We believe that it is in the long term interests of our customers to retain flexibility, but with a transparent process to engage with customers on any changes; and
- We note that transitional arrangements have been proposed for most DNSPs, requiring submission of the initial TSS to the AER on 1 July 2015. There are compelling and pragmatic reasons why this date is problematic for the NSW DNSPs and we submit that there would be scope for more effective customer consultation if the first TSS was not required until at least December 2015.

Role of Retail Tariffs

- Retailers are not currently required to pass through network charges. The proposed new Rules require network tariffs will be designed to not only be cost reflective, but also to change customer behaviour (for example to encourage less consumption during peak times);
- The benefits of moving to more cost reflective tariffs based on LRMC principles will be muted if customers do not receive these price signals either on their electricity bills or through their retail tariffs. There is little benefit in regulating the construct of only half of a customer's electricity bill to see it over-ridden by a deregulated retail market. Customers cannot react to price signals if they can't see the prices – and these may be different to the signals the retailer wants to provide; and
- As a minimum, retailers should be required to list the network component of electricity charges on customers' bills.

The NSW DNSPs have worked closely with the Energy Networks Association (ENA) on the development of its submission. We note that the ENA has raised many of the same issues as our submission and, in doing so, has provided additional evidence from other DNSPs to support the need for further consideration and clarification on the Rule change.



In particular, the ENA has identified potential compliance risks for DNSPs in terms of the potential conflict between the pricing principles as well as a lack of guidance on how conflicts may be resolved. This raises uncertainty about the circumstances in which the AER could withhold approval or seek to amend the TSS, which could potentially undermine customer outcomes.

To address this issue, the ENA sought independent legal advice from Gilbert and Tobin (G&T) and in its submission and has included some drafting changes that address these issues. For example, G&T identified principles which could be classified as "outcome oriented" and those that could be classified as "process oriented". By restructuring the drafting to reflect this distinction, it provides a principles based hierarchy that better reflects the policy intent of the Rule change and will assist both DNSPs and the AER to address compliance.

More importantly, and as submitted by the ENA, these drafting changes can ensure that networks retain the responsibility for setting network tariffs, in consultation with the customers.

If you would like to discuss our submission further or arrange a meeting with NSW DNSP representatives, please contact Mr Mike Martinson, Group Manager Regulation at Networks NSW on (02) 9249 3120 or via email at michael.martinson@endeavourenergy.com.au.

Yours sincerely

Vince Graham Chief Executive Officer Ausgrid, Endeavour Energy and Essential Energy

Attachment A – Responses to the issues raised in the draft determination



ATTACHMENT A

NETWORKS NSW SUBMISSION ON THE AEMC'S DRAFT RULE DETERMINATION (DISTRIBUTION NETWORK PRICING ARRANGMENTS) RULE 2014

NETWORK PRICING OBJECTIVE

We support the inclusion of a network pricing objective in Chapter 6 of National Electricity Rules on the grounds that it provides transparency over what the network pricing function is attempting to achieve.

However, we believe that the wording of section 6.18.5 of the draft Rules can be significantly improved by:

- Clearly stating the scope of this objective: As currently expressed the objective appears to apply to all components of DUOS such as designated pricing proposal changes as well as alternative control services i.e. to tariffs components of which the DNSP has not control. The objective should be further tested and reviewed to ensure that it can be applied meaningfully and amended to the extent that it does not.
- Clearly articulating what is captured by the concept of "reflecting efficient costs": The objective should clearly articulate two concepts. The first being the allocative efficiency criteria i.e. appropriately reflecting LRMC in tariffs and the second being recovering residual costs at least distortion to efficient usage patterns.

LRMC PRICING AND RESIDUAL COST RECOVERY

Long Run Marginal Cost

We recognise that the concept of Long Run Marginal Cost (LRMC) has a central place in the economic theory of pricing. It is only by setting prices according to marginal cost that consumers will take into account future costs of meeting demand when making consumption and investment decisions. Efficient price signals also provide incentives for optimal investment in the network and its alternatives – demand side responses and distributed generation.



However, the pricing of network services is a practical exercise that takes place in an environment of limited cost information, technical complexity, metrology constraints and declining consumption from the grid.

While focusing on the perturbation and average incremental cost approaches, NERA¹ recognises that there are numerous methodologies available for the calculation of LRMC. NERA notes that each methodology will have its pros and cons with respect to accuracy and administrative practicality under the prevailing network operating conditions.

To this end, we believe that prescribing a single "one size fits all" LRMC methodology would have a detrimental effect on the DNSP's ability to best achieve the proposed pricing objective through the pass through of efficient price signals in their tariffs.

We consider that the AEMC has struck a reasonable balance between Rule-based prescription and DNSP discretion by providing the DNSP with the flexibility to implement LRMC based prices in the way that best suits their network, operating environment and their forward investment profile. In the case of the NSW DNSPs, we believe that the most appropriate methodology for estimating/applying LRMC and meeting the requirements proposed by the AEMC in the draft rule is as set out in Appendix 1.

We believe that the requirements in the draft Rule to base network tariffs on LRMC should not apply to site-specific CRNP tariffs because it is difficult in practice for a DNSP to estimate the LRMC for an individual site given:

- The complexity of modelling economic cost at both a localised and more general system-wide level;
- The difficulty of developing a reliable forecast of future maximum demand for an individual site without access to commercially sensitive information about the economic viability of current and future operations and the scope to respond to changes in the level of network tariffs by rescheduling operations, by-passing the electricity distribution network and the take-up of alternative technologies and demand management initiatives.

Appendix 1 provides a worked example of Endeavour Energy's 2014/15 distribution price for residential customers calculated using an LRMC based methodology that we consider meets the LRMC requirements as proposed by the AEMC in the draft Rule.

¹ NERA, Economic Concepts for Pricing Electricity Network Services - A Report for the Australian Energy Market Commission, July 2014.



Residual Cost Recovery

The economies of scale or density applying to network utilities mean that supplying services at marginal cost may not be financially sustainable. This gives rise to a tension between economic efficiency and revenue adequacy.

A significant proportion of a DNSP's revenue requirement is made up of the fixed capital costs of previous investments in network assets. These residual costs are not affected by consumer's current and future consumption decisions.

From an economic perspective, the DNSP should recover residual costs in a manner that has the least impact on the current and future level of network use. Thus, residual costs should not be recovered in a manner that would drive in inefficient consumption decisions.²

The Brattle Report³ sets out three principles that should guide the recovery of residual costs:

- Efficiency: residual costs should be recovered in a way that does not distort efficient LRMC based network prices. To minimise inefficiencies, movement in prices away from LRMC is concentrated on those tariffs or parts of the tariff which have the smallest elasticities;
- Fairness: prices should not be changed so drastically that certain consumers experience large bill increases in a short period of time, prices should recover revenues from classes of consumers in proportion to the costs of serving those consumers, and all consumers in a class should be on the same average tariff; and
- 3. Gradualism: Prices should change gradually to avoid shocking and inconveniencing consumers

The Brattle Report notes that:

"There are trade-offs between the three principles and policy makers have to recognise that it is not possible to devise a single "best" tariff structure for recovering residual costs that will score highly on all three principles"⁴

² The NSW DNSPs note that under the revenue cap framework, declining energy volumes will lead to increased unit prices where a volumetric charging parameter is being used to recover residual costs.

³ The Brattle Group, *Structure of Electricity Distribution Network Tariff: Recovery of Residual Costs – prepared for the AEMC*, August 2014.



We believe that, as with LRMC, prescribing a single "one size fits all" method to recover residual costs would have a detrimental effect on a DNSP's ability to best achieve the proposed pricing objective through efficient price signals in its tariffs.

We support the AEMC's decision to give the DNSP discretion to choose an approach to recovering residual costs that best balances their network and operating environment with the needs of consumers. DNSP's should have a reasonable degree of flexibility to vary their approach during the regulatory control period. Our proposed approach is set out in the section on the tariff structures statement (TSS).

It is clear in NSW that with declining consumption and flat peak demand, the forecast LRMC is low compared to assumptions made five years ago.

We note that the AEMC's draft determination appears to be of the view that measures to increase the cost-reflectivity and efficiency of tariffs, such as increasing fixed charges and introducing declining block tariffs, are undesirable forms of tariff reform. We strongly disagree with this view and believe this is at odds with the findings of the Brattle Report:

"If efficient pricing where the only relevant principle, <u>residual costs would be</u> <u>recovered in the fixed charge</u> because this would allow the variable charge (or demand charge) to be set at LRMC."⁵ [emphasis added]

Furthermore and where there is a desire to mitigate fixed charge increases:

"The declining block tariff is appropriate if LRMC is less than average cost"⁶

Finally, we note that the Brattle Report includes fixed charge increases, fixed charges with hardship exclusions, declining block tariffs and demand based charging (requiring a smart meter) as four of their five tariff alternatives for the efficient recovery of residual charges under LRMC based pricing.

We disagree, therefore, with the AEMC inference that fixed charge increases and declining block tariffs are undesirable forms of efficient tariff reform, but recognise that fixed charge increases may be unpopular with consumers and appreciate the need to consult with customers on fixed charge increases and to implement tariff reform over an appropriate timeframe to avoid unacceptable bill outcomes.

⁴ Ibid, pg iv

⁵ Ibid, pg iv

⁶ Ibid, pg 31



ECONOMIC SUBSIDY TEST

The NSW DNSPs note that the draft Rule has made it mandatory for expected revenue for each tariff class to lie between an upper bound based on standalone cost of serving the retail customers assigned to that tariff class and a lower bound based on avoidable cost of not serving those retail customers.

While we have no concerns with making this aspect to the pricing arrangements a mandatory requirement, we are concerned that there is lack of clarity over how this principle relates to the mandatory requirement set out in section 6.18.5 (g) (1) of the draft Rule to reflect the DNSP's total efficient costs of serving the retail customers that are assigned to that tariff.

There is no reason to believe from a theoretical or practical perspective that the method of allocating costs to individual network tariffs will result in an expected revenue outcome at the tariff class level that lies between the efficiency bounds of standalone cost and avoidable cost. Given the potential for conflict the NSW DNSPs believe that the draft Rules need to be amended to make it clear that a method for allocating costs to tariffs does not comply with the network pricing objective if results in the expected revenue outcome failing the efficiency test.

SIDE CONSTRAINTS

The NSW DNSPs question the ongoing need for side constraints. As the AEMC noted in its draft determination the introduction of the consumer impact principle instead of stricter numerical price limits, should enable DNSPs to retain flexibility to move towards efficient network tariffs while minimising the impacts on consumers of significant tariff changes.

The continued application of side constraints will undermine the AEMC's purpose in this regard and the NSW DNSP's submit that these provisions should be removed.



DEMAND BASED PRICING

The scope for demand based pricing in NSW

The AEMC's draft Rule determination places significant focus on the use of demand based pricing to signal long run marginal cost to all customers.7 We note that demand based tariffs are in place for many commercial/industrial customers across NSW. Most of these customers are already on customised cost reflective tariffs and have advanced metering in place.

The NSW DNSPs also note that the form of demand pricing currently observed in the NEM is used to efficiently recover residual costs, rather than signal LRMC. For example the demand charge is applied to the highest maximum demand half hourly during the peak period. Given the broad peak period definition, there is a low likelihood that the maximum demand recorded in a half-hour interval will coincide with a period of network congestion, particularly in the current period where demand growth is no longer a key driver of network costs.

However, we do not consider demand based pricing should be the focus of pricing for residential and small business for the following reasons:

- The majority of meters for the residential and small business consumer base across NSW are accumulation meters, which do not cater for demand based pricing. The costs of installing advanced meters and the costs of managing interval data are high and there is no indication of a mandatory rollout of advanced meters;
- The costs of developing advanced metering capabilities and the complexities of demand based pricing for smaller customers is likely to outweigh the foreseeable benefits in a declining consumptions and low demand growth environment; and
- The majority of network costs for the NSW DNSPs relate to residual cost recovery for existing network capacity (this is in part due to the current approach to regulatory depreciation, which significantly defers recovery of capital costs and effectively burdens future consumers with the costs of network capacity today).

⁷ AEMC draft rule determination, August 2014, pp. 87-107.



Demand growth is no longer expected to be the key driver of costs for network businesses in NSW. Growth related capital expenditure is forecast to represent about 25 to 30% of forecast capital expenditure requirements for Ausgrid, Endeavour and Essential Energy over the 2014-19 regulatory period. A substantial component of this growth program is to provide capacity for new connections and is not driven by demand growth of existing connections.

As illustrated in the graph below, growth related costs are only contributing a very small proportion of the total revenue requirements and prices forecast over the 2014-19 regulatory control period.



Figure 1: Ausgrid Growth related revenue requirements 2014-1

Note: Based on the growth component of capital expenditure contained in Ausgrid's 2014-19 Regulatory Proposal.

The relatively small proportion of total costs relating to growth expenditure suggests that demand based pricing should not be the primary focus when implementing cost reflective pricing in the short to medium term across the NSW electricity consumer base and that the application of residual costs is of greater concern.

The demand charge may contribute to economic welfare by enabling the DNSP to recover residual network costs from customers in a manner that causes the least distortion to efficient network usage patterns. However, it is important to note that there considerable uncertainty over the extent to demand charges can be relied upon to efficiently recover residual costs given that lack of DNSP experience with this form of charging parameter in the residual and small business customer segment in Australia and overseas.



Customer response

It is uncertain the extent to which Australian consumers (particularly residential and small business customers) would be able to understand and appropriately respond to demand based pricing. The Brattle Group highlights only two locations in the world where demand based pricing for residential customers is implemented, Italy and France. In both jurisdictions, demand based pricing appears to have been built into pricing over many years. In Italy, smart meters have been rolled out to the entire consumer base (which is clearly not the case across NSW) and in France the demand based price appears to be linked to the capacity of the residential consumer's connection rather than relying on more sophisticated demand tariff structures.

Moving to demand based pricing would require significant restructuring of fixed charges across the residential consumer base, which could result in adverse consumer impacts. Moreover, a significant education campaign would be required to inform consumers of the costs to implement demand based pricing and any potential benefits that could be expected to arise.

Furthermore, the structure of any demand tariff would need to be thoroughly tested to ensure its design would achieve the desired policy outcomes. For example:

- An "anytime" demand tariff is a blunt instrument and may not truly signal capacity constraints if individual customer demand is not coincident with system peaks; and
- Time of Use (TOU) demand charges require interval/smart metering plus communications capability, which would come at a considerable cost for NSW customers.

We caution against using a small sample of only two countries in the world that use demand pricing for residential customers as evidence of an accepted or appropriate form of pricing for residential and small business customers in Australia.



essentia

METERING

The majority of residential and small business customers across NSW have accumulation meters. Networks NSW is, amongst other things, responsible for the 2014-19 metering strategy and policymaking, and has issued a metering strategy that specifies the type of meters to be installed on a new and replacement basis.

The metering strategy was informed through customer consultation that demonstrated that while our customers indicated interest in the overall attractiveness of new technology, such as smart meters and the opportunity to obtain further information on how they might better manage their electricity usage, few were interested in paying more for the incremental technology. As such, all proactive meter replacement installations in NSW will be replaced on a like-for-like basis, meaning the majority of meters will be low cost accumulation meters during the 2014-19 regulatory period. Customers requiring new or upgraded connections will be given the choice of meter technology on a cost reflective basis. This means that while new customers may have increased choice, the majority of residential and small business customers across NSW will remain with accumulation meters.

We note that the AEMC has indicated that this Rule change supports technological neutrality. As such, the NSW DSNPs will need to take into account the limited signals that can be sent to customers with accumulation metering when assessing the benefits of undertaking granular LRMC estimates to demonstrate compliance against the pricing principles. It is for this reason we caution against giving LRMC a greater role in tariff setting given the current metering arrangements and declining energy consumption environment.

We submit that even if distributors were facing an environment of increasing energy consumption, to achieve a noticeable customer response to demand based pricing, interval or smart metering would need to be rolled out on a significant scale across NSW. However, rather than asking our customers to pay more for metering they may not value, we support the principles of customer choice and customer enablement including smart metering services offered on a competitive and market led basis.

At present, the NSW DNSPs are not anticipating a mass market led roll out of smart meters during the current regulatory period; however, with the impending AEMC final decision of the expanding competition in metering and related services Rule change, there may be a change in the metering environment if new metering coordinators can offer a value proposition to retailers and/or customers. This in turn may result in an increased number of smart meters in place in NSW and therefore may enable further tariff reform.



However, in the situation where practical constraints exist (such as insufficient metering functionality) and where it is not possible to signal LRMC in a meaningful manner, the economic challenge in relation to setting network prices relates to how best to recover residual network costs from customers in a declining consumption environment.

Given the above, rather than transitioning all customers to demand based tariffs, the NSW DNSPs propose to provide an opt-in for customers with current interval meters and for customers with smart meters (if and when they are deployed). As noted by the AEMC, if advanced metering becomes more common, retailers will be able to offer residential consumers more tailored pricing options. However, the ability to do this within a regulatory period would be difficult if the AEMC's Tariff Structures Statement (TSS) is fully binding (This is discussed in greater detail below.

In this respect, we note that in Victoria, where smart meters are widely deployed, retailers have the flexibility to change the amount and structure of a retail tariff that affects a consumer.

The rationale behind this flexibility would appear to be that the near real time data available from smart meters, combined with customer behavioural responses, suggests that any limitation to changing structures during a regulatory period will both stifle tariff innovation and reform, and would therefore represent a sub-optimal outcome for customers.

Given the current uncertainty in the regulatory environment with respect to metering and demand based pricing, as well as the potential for disruptive technologies such as battery storage and electric vehicles to develop during the coming years, it seems counter-productive for pricing reform to lock in a particular pricing structure for the entire regulatory period when flexibility may be required to meet emerging customer expectations and pricing stability due to competitive and alternative supply arrangements.

It is important to allow for flexible pricing approaches to accommodate this continuing market development.

Current Meter Assets

There are approximately 5.5 million meter assets installed on customer premises within the Networks NSW business areas. These meter assets are diverse with types related to several technological generations over the 80 years of installation of meters currently inservice. Technology has developed rapidly over the past decade introducing many new



meter options at similar initial costs. The majority of the meter assets exist in residential installations where customers are unaware of type and functionality differences.

Currently, each NSW DNSP has a mix of accumulation, electronic time of use (multiple register accumulation meter) and interval data meters. These varying meter types enable only a limited range of network pricing options and require significant investment to provide a ubiquitous range of range options. The approximate meter populations by type for each company are listed in the table below.

	Туре 6		Туре 5	
	Accumulation	Electronic	Interval	Communicating
	meters	TOU meter	meters	interval meters
Ausgrid	1,800,000	-	650,000	4,000
Endeavour	1,600,000	11,000	-	890
Essential	1,200,000	230,000	-	550
Total Meters	4,600,000	241,000	650,000	5,440

Table 1: Meter populations across the NSW DNSPs

The vast majority (approximately 84%) of residential and small business customers across NSW have accumulation meters giving limited access to advanced tariff options.

Meter Support Costs & Capabilities

The ability to support differing meter installation types depends on the support capability in place within each organisation. Each technology change in meter type achieves greater benefits from additional functionality. However, an increase in support costs is required to achieve that functionality increment. For example interval meters require an investment in support infrastructure such as probe based interval meter reading capability and interval data capable IT systems for exception handling, data storage and billing. This capability requires a step change in investment and requires a significant number of meters of this type to justify the additional investment.

Currently Ausgrid has probe reading capability and IT systems to support interval meters. Endeavour Energy and Essential Energy have limited capacity in this area and require significant investment to support a sizable interval meter population.



Advanced Meter Benefits

To achieve noticeable energy consumption response to demand based pricing, interval/smart metering would need to be rolled out at a significant scale.

The costs of implementing demand based tariffs in NSW, including roll-out and other costs are likely to out-weigh the potential benefits of this change alone. As discussed in previous sections, the demand growth component of network costs is insignificant when compared to residual costs for NSW. The draft Rule determination places too much focus on demand based pricing, when the key challenge in NSW is residual cost recovery in a declining consumption environment.

Rather than forcing a transition for all customers to demand based tariffs, NSW DNSPs propose to provide an opt-in approach for customers with interval/smart meters. In addition the proposed Rule changes related to the expansion in metering competition are seeking to enable customers to choice more advanced metering to support pricing products of their choice.



TARIFF STRUCTURES STATEMENT

The NSW DNSPs note that the draft Rule requires DNSPs to develop (in consultation with retailers and consumers) a Tariff Structures Statement (TSS). We understand that the TSS is required to include the following information:

- The tariff classes to apply during the regulatory control period;
- The policies and procedures the DNSP will apply for assigning and re-assigning customers to network tariffs during the regulatory control period;
- The structures and charging parameter for each network tariff to apply during the regulatory control period;
- The methodology that will be used to set each network tariff during the regulatory control period;
- A schedule of indicative price levels for each network tariff during the regulatory control period.

The NSW DNSPs support the principle of a TSS as we recognise that consumers and other key stakeholders value transparency and a reasonable level of certainty with respect to how network tariffs will change over time. However, we are concerned that the AEMC has decided to require the TSS to be a binding document, with modifications only permitted during the regulatory control period in certain limited circumstances. While this approach may promote greater pricing certainty, it will do little to encourage DNSPs from pursuing and is likely to inhibit network tariff reforms in the long-term interests of electricity users.

Providing long-term price certainty to customers, particularly in an uncertain volume environment, can only be achieved through effective network tariff reform. Therefore we believe that it is important that the new pricing arrangements achieve an appropriate balance between providing customers with price certainty and providing DNSPs with sufficient flexibility to adjust its tariff strategy during the regulatory control period in response to unanticipated internal and external developments without having to incur the delays and transaction costs of going through a formal process of amending the TSS.

To assist the AEMC to develop a new pricing framework that meet the needs of stakeholders for greater price certainty without undermining the network tariff reform process, we have provided our view on what should be covered in the TSS and what aspects of the TSS should be binding on the DNSP during the regulatory control period, as reflected in Figure 2 below.







LEGEND: Red shaded box denotes an item that should be excluded from TSS

Green shaded box denotes an item that should be set out in the TSS and binding on the DNSP during the regulatory control period Orange shaded box denotes an item that should be set out in TSS, but not be binding on the DNSP during the regulatory control period. Orange/Green shaded denotes that this item should be set out in TSS, but only some aspects should be binding on the DNSP during the regulatory control period.

period

Note: * The AER would assess the compliance of any deviation from the TSS as part of the annual pricing process.



Scope of the TSS

The NSW DNSPs believe that the confidential site-specific Cost Reflective Network Price (CRNP) network tariffs should be excluded from the TSS (denoted by red shaded cells in Figure 2) and the DNSPs should be allowed to continue to have the flexibility under the Rules to adjust the site-specific network tariffs in a timely manner during the regulatory control period to ensure that:

- Changes to the level and structure of transmission charges are appropriately passed through to these site-specific CRNP customers;
- Changes to the configuration of the network used by these customers are appropriately reflected in the level and structure of the site-specific CRNP network tariffs;
- The potential risk of inefficient by-pass of the electricity network is appropriately mitigated through the design of the site-specific CRNP network tariffs;
- Unanticipated changes in the extent of usage of the shared network are appropriately reflected in the level and structure of the site-specific network tariffs;
- Contributions towards the cost of asset replacement are appropriately reflected in the level and structure of the site-specific network tariffs.

There is also a strong argument to exclude the site-specific network tariffs from the TSS given that the DNSPs intention to change the structure and levels of these tariffs is commercially sensitive. In light of this issue, we believe there is merit in allowing DNSPs to continue to engage on site-specific network pricing issues indirectly via the relevant Retailer or directly with the CRNP customer (or their representative) if requested to do so.

The NSW DNSPs also accept that there are transparency benefits from requiring DNSPs to set out in the TSS their proposed network tariff classes, network tariff assignment and reassignment procedures, network pricing methodologies, network tariff structures and charging parameters,. However, we believe that it is not in the long-term interests of our customers that the DNSP should be bound to all of the proposals set out in the TSS for the entire regulatory control period, as discussed below.

Binding elements of TSS

We believe that it is reasonable for DNSPs to be required under the new pricing arrangements to go through a formal process of amending the TSS if they decide to deviate



from the AER approved TSS in relation to the following aspects of the TSS, as denoted by green shaded cells in Figure 2, as summarised below:

- Network Tariff Classes;
- Long Run Marginal Cost Methodology and application
- Standalone and Avoidable Cost Methodology and application.

Semi-binding elements of TSS

The NSW DNSPs also accept that there are transparency benefits from requiring DNSPs to set out in the TSS their proposed network tariff classes, network tariff assignment and reassignment procedures, network pricing methodologies, network tariff structures and charging parameters. However, we believe that it is not in the long-term interests of our customers that the DNSP should be bound to all of the proposals set out in the TSS for the entire regulatory control period.

Importantly, we believe that it is in the long-term interests of our customers for DNSPs to have a reasonable degree of flexibility to deviate from the AER approved TSS during the regulatory control period without having to incur the delays and transaction costs associated with a full change process in respect to the following aspects to the network pricing function, as denoted by partially green/orange shaded cells in Figure 2:

- Tariff structures.
- Basis of charging parameters.
- Tariff assignment and re-assignment procedure.

To ensure that where the network tariff reforms proposed by the DNSP in the annual pricing proposal satisfy the following criteria:

- The changes proposed by the DNSP are not expected to result in network pricing outcomes that materially deviate from the indicative prices set out in the AER approved TSS.
- The changes proposed by the DNSP are expected to result in superior customer outcomes in terms of addressing inherent cross subsidies and encouraging more efficient consumption and investment decisions.
- The changes proposed by the DNSP are expected to contribute to more stable network pricing outcomes in the longer term, such as by achieving a better alignment of revenue and cost functions.



We believe that the following examples highlight the merit of our position:

- The DNSP decides to introduce a suite of new network tariffs that were not envisaged in the AER-approved TSS. All of these network tariffs are offered to customers on voluntary opt-in basis.
- The DNSP decides to change the structure of an existing network tariff in a manner not set out in the AER-approved TSS. This reform is undertaken on a transitional basis.

It is clear that the two illustrative examples above comply with all of the principles set out in the draft Rules, including the customer impact principle. Therefore, the NSW DNSPs see merit in the AEMC amending the pricing framework to give DNSPs more flexibility to pursue tariff reforms during the regulatory control period where it is reasonable to expect that these reforms will not undermine the need to provide customers with price certainty and the DNSP can demonstrate to the AER in their annual pricing proposal that the proposed network tariffs comply with the principles and will promote the achievement of the network pricing objective.

Treatment of Designated pricing proposal charges and jurisdictional scheme amounts

The draft Rule makes no changes to the current provision under clauses 6.18.7 and 6.18.7A of the Rules which provide for tariffs to pass through designated pricing proposal charges and jurisdictional scheme amounts. At the AEMC workshop on 22 September 2014, it was suggested that these costs should be subject to the TSS process.

The NSW DNSPs believe that the allocation of designated pricing proposal charges and the allocation of jurisdictional scheme amounts to tariffs should not be subject to the tariff structure requirements and proposed pricing principles. The DNSP proposed method for allocating these costs could disclosed in a TSS but proposed approach should not be subject to the proposed pricing principles under clause 6.18.5 and the allocation method set out in the TSS should not be binding in the TSS.

This is because these costs are not part of the efficient costs incurred by DNSPs in providing either direct or standard control services. Clauses 6.18.7 and 6.18.7A currently recognise that these are costs which should be passed through to customers in tariffs as they are costs over which the DNSP has little or no control. For example, a structural change to the transmission pricing by a TNSP is largely beyond the ability of the NSW DNSPs to forecast or influence. By way of example, in FY 2011, TransGrid changed its pricing structure to eliminate kWh charging for Transmission Node Identifier (TNI) exit charges. This had the



effect of NSW DNSPs having to review their approach to setting transmission charges during the regulatory control period to ensure the appropriate pass through of these charges, particularly for site-specific CRNP customers. During the current regulatory control period, we are likely to be subject to further structural change as TransGrid is currently reviewing its transmission pricing methodology and structure but have yet to conclude the process.

In regard to the jurisdictional scheme amounts, the NSW DNSPs are currently required to make payments to the NSW Climate Change Fund. These charges can be varied by the NSW Government on an annual basis and are likely to be amended during the current regulatory control period.

Given the above, we submit that if the DNSP is required to reflect these costs in network tariffs in accordance with the TSS there is a considerable risk that the resulting distortion to network tariffs will flow through to an over or under recovery of revenue, which may give rise to unacceptable network price shocks in the future.

We therefore submit that the appropriate treatment of these costs within the TSS is to require that the DNSP disclose how it intends to reflect these costs in network tariffs during the regulatory control period, noting that the DNSP cannot be bound to this approach given the nature and level of these costs may change at any time. This provides an appropriate balance of transparency and cost recovery for changes in circumstances which are outside of the DNSP's control.

Tariff Research and Innovation

The NSW DNSPs also wish to make the point that it is important that the new pricing framework does not unnecessary impede or discourage DNSPs from researching innovative tariff structures, such as dynamic and seasonal peak pricing. It is clearly in the long-term interests of all stakeholders that DNSPs based their decisions on tariff reform on high quality customer research, which will require that DNSPs have the flexibility to introduce new network tariffs for the purpose of customer trials. The insights and learnings obtained from this research is also beneficial to retailers and other key stakeholders. Given the broader benefits to be realised from this type of research as well as the voluntary nature of these tariff trials, the NSW DNSPs believe there is merit in not placing any restrictions on the introduction of trial network tariffs.

Transitional Arrangements for NSW DNSPs

We support the AEMC's position that DNSPs should maintain ownership and control of their network tariffs. Accordingly we note that the AEMC has decided that the AER must approve



a DNSP's proposed TSS unless the AER is reasonably satisfied that the proposed TSS does not comply with the pricing principles or other requirements of the NER. This restricts the AER's ability to substitute its own TSS for that proposed by a DNSP and thereby limits the risk that DNSPs lose responsibility for their network tariffs. It is for this reason we question why the AER is accorded so much time for it to assess NSW DNSPs' initial TSS as part of the proposed transitional arrangements.

As currently drafted. the NSW DNSPs are to submit a compliant proposed TSS to the AER on 1 July 2015. In the lead up to this submission, DNSPs are given seven months to understand and interpret the new Rule requirements, educate and consult with customers and retailers regarding the implementation of these new Rules and to develop the TSS and submit it on time. Moreover at the same time NSW DNSPs will be preparing their revised proposals over the December and January period and will not receive their final determinations until the end of April 2015. This will leave the NSW DNSPs with only two months from the AER's final 2014-19 determination to prepare their TSS and all of the underlying models to reflect the AER's view of efficient costs. We submit that the first TSS should not be required until December 2015.

We also note that the requirements for a TSS and the new Rules regarding tariff setting apply to direct control services, which means it applies to both standard control and alternative control. However, we are unsure how these requirements can be meaningfully applied to alternative control services where, as part of its determination, the AER has set a list of prices. As such, the Rules should provide for these requirements to be waived for alternative control services where the AER has set fixed prices for a service as the form of control.

Other issues

The binding nature of the TSS also makes it unclear how it will interact with the cost pass through mechanism. Pass through events provide DNSPs with a mechanism for seeking approval from the AER to pass through the costs (savings) from events beyond their control to customers, provided that the event results in a material increase (decrease) in the costs of providing direct control services. In order to substantiate, and for the AER to approve a pass through application, the DNSP has to go through the pass through application process in accordance with Clause 6.6.1 of the Rules. The AER then formally consults with stakeholders and approves the application if it meets the Rule requirements.



THE ROLE OF RETAIL TARIFFS

Retailers are not currently required to pass through network charges. The proposed new rules require network tariffs will be designed to not only be cost reflective but also to change customer behaviour (for example to encourage less consumption during peak times). The benefits of moving to more cost reflective tariffs based on LRMC principles will be muted if customers do not receive these price signals either on their electricity bills or through their retail tariffs. There is little benefit in regulating the contruct of only half of the customers' electricity bill to see it over-ridden by a deregulated retail market.

It is important to note that retail customers cannot respond to network price signals if they cannot observe the network prices – and these may be different to the price signals the retailer wants to provide.

Retailers manage highly variable generation costs and retail margin risks. Network costs are not the most variable/dynamic component when retailers develop retail offerings for electricity supply. Therefore there is a risk that retailers do not pass through network pricing signals.

The AEMC has not indicated that it will mandate that retailers directly pass through network pricing signals and that is a fatal flaw if network tariffs are intended to drive consumer behaviour.

We urge the AEMC to give careful consideration to the framework in terms of the ability of customers to see and respond to network price signals.

Furthermore, the expanding competition in metering and related services Rule change is currently considering the ability of networks to retain network services at the metering site. We are concerned that a Metering Coordinator's proposed metering configuration may not support the customer's network tariffs and feed-in tariffs or other network/customer arrangements which may be in place; this may further undermine the network cost reflective price signal objective.

As discussed above, the highly restrictive nature of a fully binding TSS is likely to be a barrier to pursuing tariff reform rather than a driver of reform, which may be further distorted when retailers package network costs into final retail tariffs. The potential for cross-subsidies would remain when total electricity costs are packaged into retail tariffs.



APPENDIX 1: ENDEAVOUR'S LONG RUN MARGINAL COST – METHODOLOGY

& APPLICATION

By way of example, Endeavour Energy's 2014/15 distribution price for residential customers⁸ has been calculated using the following LRMC based methodology:

- 1. Identify forecast average annual growth in kVA demand by voltage level;
- 2. Forecast average annual growth in network augmentation capital expenditure by voltage level to meet this increased demand;
- 3. Estimate incremental and recurrent operating expenditure as a result of network augmentation identified at 2;
- 4. Annualise capital expenditure costs identified at 2;
- 5. Calculate LRMC on an average incremental cost per kVA per annum (3+4)/1

For a tariff with energy based variable charging parameters, the annual \$/kW LRMC is converted into an energy based charging parameter using the following formula:

LRMC for a c/kWh based charging parameter =

 $\frac{LRMC(\$/kW/pa) \cdot (\Pr_{Ch \text{ arg ing parameter}}^{Critical Peak})}{Ch \arg ing \ Parameter hours \ pa} * 100$

Where:

 $(\Pr_{Charging parameter}^{Critical Peak})$ = the proportion of all critical peak demand events occurring in the relevant time period in which the charging parameter is applied.

Substituting Endeavour Energy's low voltage LRMC estimate of \$177.21/kW per annum⁹ into the formula above gives:

 $\frac{\$177.21 * 100\%}{8760} * 100 = 2.02 \text{ c/kWh}$

Consistent with the principles of efficient residual cost recovery discussed below, Endeavour Energy recovers the shortfall between marginal cost and average cost from those charging parameters with the lowest price elasticity of demand, namely the fixed charging parameter where possible, thus minimising the distortion the long run marginal cost signal inherent in

⁸ Tariff N70

⁹ Endeavour Energy, *Initial Pricing Proposal 2014-15*, May 2014 (p 59). LRMC of \$159.49/kVA per annum is divided by a power factor of 0.9 to convert to a \$/kW per annum figure.



Endeavour Energy's variable charging parameters and maximising the probability of efficiency gains realised through customer behaviour response to efficient price signals.

The LRMC and residual cost recovery components of Endeavour Energy's residential tariff are illustrated in the figure below:



Recovery of Residual Costs (Fixed Component)

Endeavour Energy notes that for customers with accumulation meters, each energy block has been calculated based on LRMC, thereby signalling long run marginal costs to customers through the block pricing arrangements. We therefore consider that Endeavour Energy's current tariffs would meet the LRMC requirements as proposed by the AEMC in the draft Rule.