Attachment 1:
EnergyAustralia Submission to ACCC Draft Determination – NSW Metering Derogations

1 Introduction

EnergyAustralia welcomes the opportunity to comment on the ACCC paper *Application for Authorisation Amendments to National Electricity Code - New South Wales Metering Derogations* (the Draft Determination), released on 1 December 2004.

EnergyAustralia supports the ACCC's decision to extend the derogation to 31 December 2006 for Type 5 installations with less than 100MWh pa. consumption. This is a critical first step to minimise disruption to the market until the recommendations from the Joint Jurisdictional Regulator' s Metrology Review are implemented.

However, EnergyAustralia strongly opposes the Draft Determination's preliminary decision to exclude remotely read Type 5 installations from the derogation. Although in theory workably competitive markets can provide the ideal breeding ground for innovation, actual experience to date shows that networks, metering businesses and some individual customers have championed the lion's share of new metering developments, with no clear evidence that this situation is likely to change in the future.

This outcome is not surprising considering metering costs represent an insignificant proportion of the energy value chain for a retailer, whose principal interest is in securing access to timely, reliable data. In stark contrast to this, a number of recent and planned innovations from DNSPs such as EnergyAustralia Network, which hinge on the introduction of remote metering technology, have the potential to defer significant capital expenditure through improved demand management and provide a host of other cost saving possibilities.

Moreover, the ACCC penchant for greater metering competition may to a certain extent come at the expense of Full Retail Contestability (FRC) and developments downstream of the meter.

Based on the evidence to date, EnergyAustralia also believes the derogation should be extended for network businesses to cover all metering provision and services under 160MWh per annum, as there are significant benefits from economies of scale, for competition, maintenance and expediency of connections. The current arrangement has delivered little benefit but with significant complexities and costs.

In the longer term, the National Electricity Code (NEC) should be amended to permanently reflect this position.

2 Executive Summary

Exclusion of Remotely Read Type 5 Meters

- Paradoxically, the likely outcomes of the ACCC's decision fly in the face of the ACCC's ultimate objectives under the *Trade Practices Act* – to encourage dynamic efficiency and lower prices for end use customers.
- The ACCC does not appear to have attempted any formal quantification of the costs of its draft decision – EnergyAustralia has attempted to quantify this.
- The ACCC should maintain the existing derogation until the Joint Jurisdiction Regulator's Review can hand down its recommendations.

Retail and Network Incentives to Innovate

- Retailers have not developed innovative metering solutions to date – only need access to reliable, timely data.
- Lack of retail incentive is partly due to materiality – existing metering costs represent only about 1.9% of a typical bill.
- Retailers face shorter investment time horizon as costs must be recovered within three-year contract term. A contract exit penalty would be required, were retailers to provide sophisticated metering.
- DNSPs face rising peak demand. This has spurred significant capital expenditure programs. Network costs are heavily loaded on a small period of time where the system is at or near full capacity.
- New WAPC form of regulation provides strong incentive to implement cost saving measures (such as AMR) and to align revenue with costs through cost reflective pricing.
- Cost reflective pricing encourages efficiency and economic use of assets.
- There is limited correlation between retail and network high cost events. Wholesale costs are driven by factors such as weather, generator faults and contract positions, whereas network costs are driven by weather and system capacity.
- Real time pricing will assist retailers in aligning costs with revenues, however networks are best placed to introduce the metering technology. Networks also require cost reflective pricing options (eg. Critical peak prices).

EnergyAustralia Network Innovations

- EnergyAustralia Network has been at the forefront of many new innovations based on advanced metering technology.
- EnergyAustralia Network was first business in Australia to rollout Type 5 interval meters.
- A range of ToU prices introduced using Type 5 meters.
- EnergyAustralia is conducting a pricing experiment using AMR technology to trial critical peak pricing and interruptible tariffs, in order to lower or shift peak consumption and therefore reduce capital augmentation.
- EnergyAustralia also plans to extend ToU tariffs to seasonal ToU pricing.
- AMR technology is being trialed to reduce costs associated with meter reading at chronic access sites.
- AMR technology also used to reduce meter reading costs at high density buildings.
- EnergyAustralia Network is examining the case to build an intelligent network solution based on AMR technology (similar to that introduced by ENEL in Italy). This will generate cost savings in addition to the peak demand shifting resulting from new tariffs facilitated by standard Type 5 meters. The network cost savings include reduced theft, better capital planning, fault detection and remote connection/disconnection. Attachment 2 quantifies these additional benefits under the Type 5 meter/AMR rollout scenario.
- EnergyAustralia and other network utilities in NSW are examining a joint meter reading proposal based on AMR technology.
- The potential stranded asset risks posed by the ACCC's preliminary decision to exclude remotely Type 5 meters from the derogation will prevent the planned new initiatives discussed from proceeding. This will result in significant additional costs across the energy value chain in increased capital augmentation costs, higher wholesale costs and higher running costs for the network. These costs will ultimately be borne by the consumer through higher tariffs, contrary to the ACCC's objectives.

Existing Assets and Economies of Scale

- The Network is best placed to leverage off its existing asset base (eg using Power Line Carrier) to introduce remote meter reading technology.
- Economies of scale can also be found in meter reading through utilising uniform technology.
- DNSPs have lower unit costs of developing new technologies as high fixed costs can be spread over a larger customer base than retailers.

Market Impact of ACCC Decision

- Complex metering systems administered via a piece-meal approach to multiple competitors in a network will reduce quality of data, introduce more complex billing and complaint management and exacerbate Code compliance issues.
- Problems caused by contestability for Type 1-4 meters would be increase significantly if competition extended to a substantially larger number of customers.
- Meter churn and exit charges on three-year retail contracts are likely to impede the development of retail competition, a problem acknowledged by the ACCC in its Draft determination.
- Continued network ownership would reduce meter neglect and other complexities introduced by non-standard meters.
- The market for Meter Providers is unlikely to improve as high entry costs will limit new entrants, innovation already exists at the manufacturing level due to the competitive tendering process and there will be greater complexity in the market.

Alternative Network Solutions

- If stranded asset risk introduced by the ACCC decision thwarts advanced metering solutions, the use of SMS technology alone will not be sufficient for new tariffs (work in California has demonstrated that SMS is not enough) such as critical peak pricing to be introduced as planned. This is because price responsiveness also requires customer education and a two-way flow of information, networks would be unable to offer real-time pricing products to retailers in the future, and the network could not capture the additional cost savings benefits resulting from AMR.
- Similarly, the use of load control devices alone would not capture all the potential benefits. This would also be unsuitable for widespread use on domestic customers – load control devices must be used in conjunction with cost reflective pricing options.
- The idea flagged by the ACCC at the Sydney Pre-determination conference to introduce a direct metering contractual arrangement between networks and customers as a potential means of offsetting the stranded asset risk resulting from its Draft Decision is not practical. This is because exit charges may still be required, it would be unpopular with customers, the additional complexity would hinder the development of retail competition and it would lead to additional legal and back-office network costs.

ASP Scheme

- There are alternative options that would be more effective than the proposed condition of authorisation in fostering manufacturing competition and encouraging new metering technology.
- The ACCC could introduce new market rules such as open access for Accredited Service Provider's (ASPs) to networks for meter installation and repair, networks to provide a full range of metering products to ASPs without artificial economic barriers, and make meter reading competitive.
- Mandating Type 5 meter rollouts has also been suggested by other stakeholders, although there could be problems implementing this approach.

Extension of the Threshold to 160MWh

- The threshold for the derogation should be raised to 160MWh in NSW to ensure consistency with other jurisdictions.

Comments on Submissions from Interested Parties

- Centurion Metering Technologies argued in their submission to the Draft Determination that there is little choice in meter service providers (MPs) beyond those that are subsidiaries of the distributors, however lifting the derogation is unlikely to change the situation.
- Energy Australia disagrees that Load Control is irrelevant to the continuation of the LNSP's monopoly over metering services, as there are approximately 100,000 single phase, two element meters with load control (E2 meters, a mixture of interval and non-interval) in service in the EnergyAustralia Network area. These meters integrate load control and metering for the entire premise.
- Competition is unlikely to lead to wiser decisions regarding the types of meters installed. Although there is a litany of high technology metering technologies available in the marketplace, there are only four or five manufacturers currently with product that can legally be installed on Australian networks.

Other Comments

- Miscellaneous comments on the Draft Determination are presented in this section

3 Exclusion of Remotely Read Type 5 Meters from the Derogation

The costs and risks associated with the exclusion of this category of Type 5 meters from the derogation are likely to drastically exceed any benefits to the public, thereby undermining the ACCC's objectives as outlined by Sub-Section 90(6) of the Trade Practices Act 1974 (the Act). The primary benefits stemming from greater exposure to competitive forces are manifested in lower prices to end use customers and improvements in dynamic efficiency.

Based on the information contained in the Draft Determination, the ACCC appears to have arrived at its preliminary decision in the absence of any quantitative analysis of the resulting costs and benefits. In contrast, EnergyAustralia Network has attempted to quantity some of the potential impacts of this decision in Attachment 2.

EnergyAustralia Network is currently in the process of implementing a range of innovative new initiatives incorporating advanced metering technologies, with the potential to generate substantial savings in operating and capital expenditure. These new developments will increase customer choice, regardless of the retailer selected. Other DNSPs in Australia are set to follow suit as they face similar cost pressures. The ACCC may not be cognisant of these network developments, as many are still in their infant stages. Therefore, EnergyAustralia believes it is pertinent to present this information to better inform the ACCC of the full extent of the potential adverse impacts arising from its preliminary decision.

Rather than attempt a cursory analysis of a complex and important issue with far-reaching consequences, the ACCC's prime consideration should be to provide regulatory certainty through the extension of the derogations as they currently stand until the Joint Jurisdictional Regulator's Review can release more considered recommendations. Any attempt to pre-empt the Jurisdictional Regulator's Review will simply increase regulatory risk to DNSPs, detrimentally affecting ongoing innovation in the industry and loading additional costs to end use consumers.

4 Retail and Network Incentives to Innovate

4.1 Retailers Incentives and Track Record

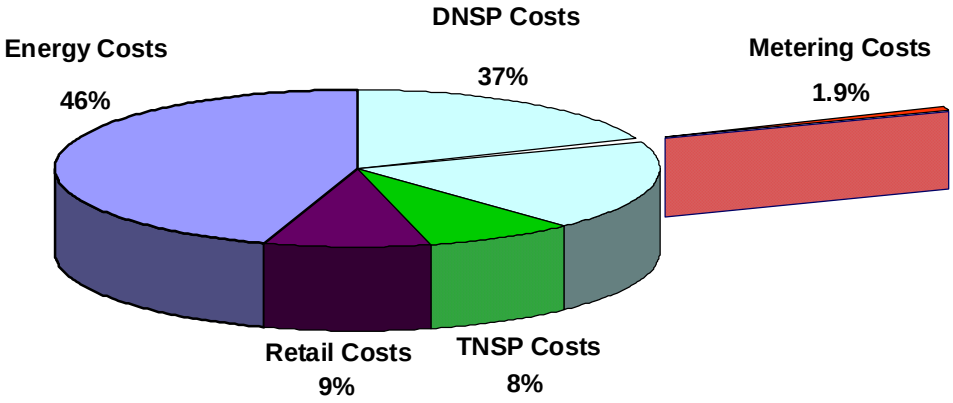
The ACCC assumes on page 18 of the Draft Determination that "...in the absence of the derogation, retailers would be better placed to utilise their knowledge of their customers and the market to achieve efficient metering outcomes for small retail customers". In a similar vein, page 23 of the Draft Determination states that "The ACCC considers that the key detriment arising from metering exclusivity is that it prevents responsibility for metering residing with the entity most likely to introduce innovative metering arrangements, the retailer".

These imprudent statements garner no support from history, which clearly shows that retailers have demonstrated very little interest in metering innovation to date. Since the inception of a competitive retail market in Australia, innovations in metering technology have been overwhelmingly pioneered by distribution businesses. The main metering innovation of note introduced by a retailer was AustPower Retail, which pushed for the installation of high-end meters and WebGraphs to provide a value-added service to their large customers, and AGL, which is planning a small scale critical peak pricing trial in Victoria.

That retailers are exposed to competitive forces is not of itself a sufficient ingredient to foster innovation, as history has clearly shown. To explore more fully the relative propensity of retail and distribution businesses to develop innovative metering solutions warrants a more detailed examination of their costs drivers and potential gains from metering innovation, as well as the economies of scale involved.

The ability of competition per se to promote innovation will depend in part on the extent to which material costs savings can eventuate. Examining the various components of the value chain as a percentage of a typical residential electricity bill shows this point in more detail.

Figure 1: Percentage of a Final Residential Bill



Based on EnergyAustralia Network's recently updated pricing model for the 2005-06 financial year, total metering costs (including operation expenditure, depreciation and return on assets) account for about 5 percent of the total cost pools used to allocate the regulated revenue stream. Given that DNSPs costs (excluding transmission costs) are only about 37 percent of a retail customer's final bill, this implies that metering costs account for only 5 percent of 37 percent or 1.9 percent of a typical customers' total bill. For illustrative purposes only, making the overly optimistic assumption that efficiencies of 50 percent could be generated through metering competition (it is more likely that costs will increase in practice), this implies a maximum possible saving of 0.95 percent. A number of technical and procedural issues would need to be overcome in order to achieve this level of savings, discounting the incentives to innovate even further. This greater complexity inevitably also generates higher costs.

Retailers tend to consider metering to be a non-core activity, representing only a minor proportion of their business, out-sourcing the function and risk to other parties wherever possible. In many instances, Retailers have divested themselves of any involvement in the metering market, preferring to let the meter provider establish direct relationship with the customer. The customer then retains the meter provider even as they move between different Retailers. The Retail business simply prices their energy contract according to the provisions of the metering and underlying network tariff. They have also shown relatively less enthusiasm for new metering for low-end customers (less than 20MWh pa), which represent the bulk of Type 5 installations. If retailers could elect to be the responsible person for Type 5 meters with communications, the commercial reality of recovering metering costs within the standard three-year contract term and the likelihood of excessive meter churn leading to higher overall charges would hamstring the developing of new metering solutions. Retailers to date have simply required access to accurate, timely and cheap data.

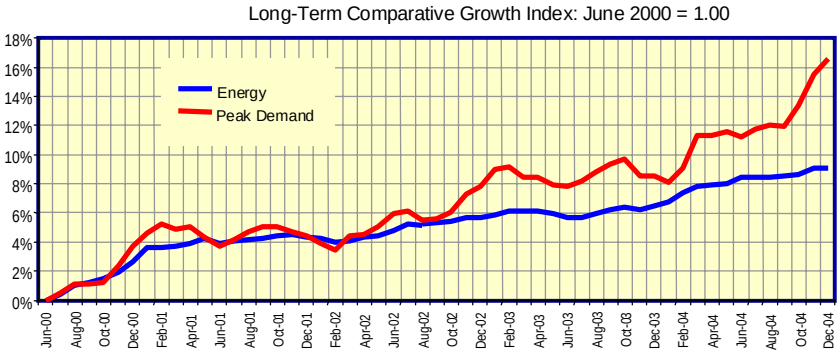
4.2 DNSPs Incentives

There are a number of reasons why the overwhelming majority of metering innovations and research and development has occurred in the DNSP business.

4.2.1 Demand Management Policy and Security of Supply

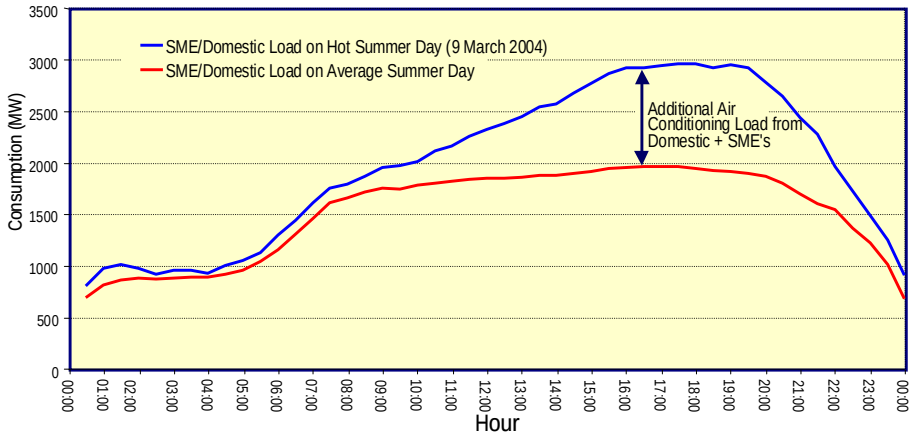
In recent years, peak demand in Australia has grown at a rapid rate, far outstripping the rate of consumption growth (see Figure 2).

Figure 2: Peak Demand Growth, EnergyAustralia



Burgeoning air conditioning penetration rates have exacerbated peak demand growth, especially for residential customers.

Figure 3: Impact of Air Conditioners – Domestic & SMEs



The effect of air conditioning on the aggregate summer demand from domestic and small and medium size enterprises (SMEs) is close to a 50 percent rise (see Figure 3). This phenomenon occurs because the average demand of air-conditioned domestic premises more than doubles on hot days, while total network capacity is reduced. Air conditioners also suffer from a poor load factor in the order of 10 percent.

In NSW, the DNSPs responded to this rapid growth with a substantial capital augmentation program totalling $4.8 billion over the 2004-2009 regulatory period, which was sanctioned by IPART in its 2004 Final Determination.

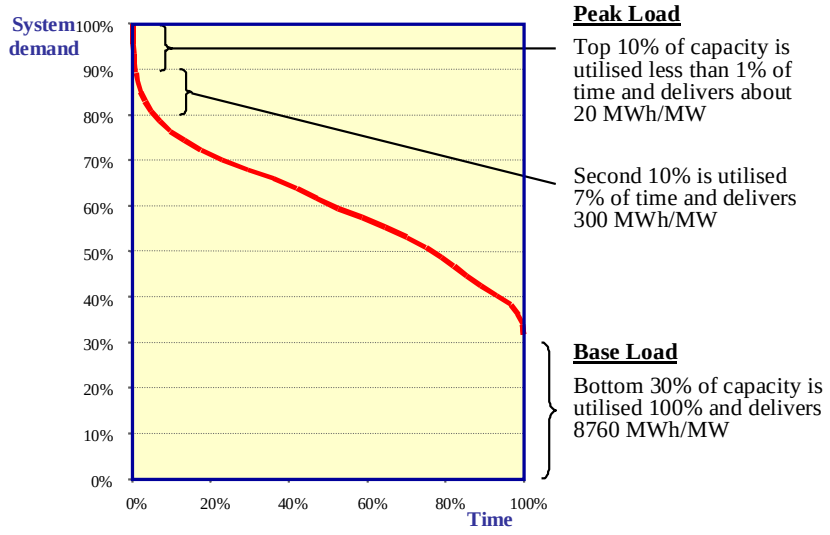
Regulators and governments alike have acknowledged this looming peak demand crisis, addressing it in part through promotion of various demand management initiatives aimed at alleviating the necessary supply-side response from DNSPs.

Price-based demand management initiatives work on the premise that if price signals reflect the true time based costs of network infrastructure, the demand side is able to respond by either reducing or shifting load. Customers therefore benefit from reduced charges and networks benefit over time from reduced maintenance and capital

expenditure associated with lower system peak demand. With the right price signals the market then has incentive to be innovative in the products it offers to help customers save on electricity in peak periods. Thus allocative efficiency is achieved from a network cost point of view and dynamic efficiency is achieved from a demand-side point of view. If the demand side does not change behaviour, customers pay their "fair" share.

To demonstrate the role of peak demand on network costs, and therefore highlight the importance of Demand Management initiatives, it is useful to examine the load duration curve. The load duration curve depicts the proportion of hours that a given percentage of the total system capacity is being utilised.

Figure 4: Load Duration Curve



As Figure 4 shows, the top 10 percent of total system capacity is utilised for less than 1 percent of the time and delivers about 20MWh. The second 10 percent is utilised for about 7 percent of time and delivers 300MWh. Finally, the base load, utilised for 100 percent of the time, is only 30 percent of capacity and delivers 8,760MWh. This highlights that a small portion of actual energy consumption is taken up by peak demand, which applies for a very small percentage of the total time. However, this small time period of peak demand has a massive, disproportionate impact on network cost, as shown in Figure 5 below. The left hand box in Figure 5 juxtaposes the load duration curve with network costs allocated using the traditional method of intercepts approach to allocating business costs according to time of day. The colour code system (ranging from blue at the low end of the spectrum to red at the high end) shows the proportion of costs allocated and the number of hours they are allocated to.

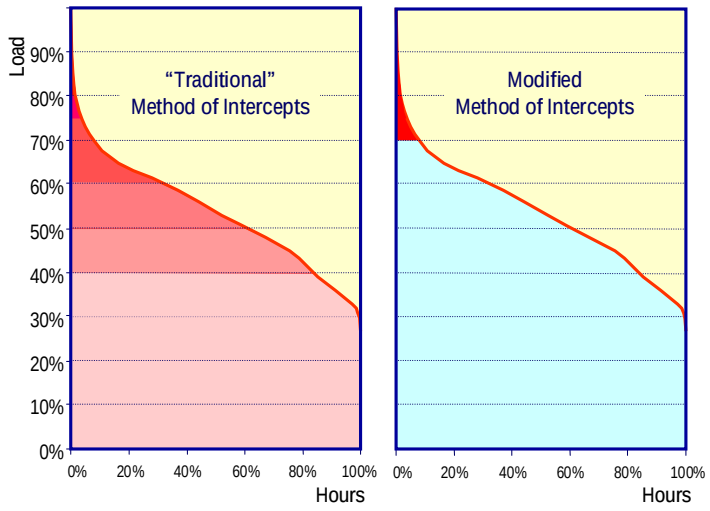
The right hand box shows the method used by EnergyAustralia to determine its Distribution Use of System (DUoS) charges. EnergyAustralia modifies the traditional method of intercepts by weighting the peak to reflect the expansion of the network. The bright red section shows that the vast majority of network costs are allocated to less than 5 percent of the time. Therefore, the network is sensitive to the time of energy usage. Obtaining a flatter, less peaky load is more valuable to a network business than simply reducing aggregate consumption per se. Retailers in contrast are typically interested in just removing price spikes.

Cast in light of EnergyAustralia Network's $2.1 billion capital program over the 2004-2009 regulatory period, Figure 5 paints a vivid picture of the potential gains from measures that can reduce consumption at peak times and/or shift it to lower cost, off-peak periods. Alternatively, this information indicates the potential magnitude of

the opportunity cost (or foregone benefit) of such measures if they are unable to be introduced due to the perceived regulatory risk.

EnergyAustralia Network adopts a long run marginal cost estimate in the order of $190 per kW when developing pricing models, new tariffs and business cases. This estimate, based on future network augmentation, additional operational expenditure and incremental load growth, further quantifies the benefits at stake. Marginal cost estimates for US-based network businesses also align with EnergyAustralia's estimate in absolute US-dollar terms.

Figure 5: Network Cost Function



4.3 Form of Regulation

Although DNSPs are classified as monopoly businesses, the regulatory environment designed to replicate a (workable) competitive environment provides a strong incentive to pursue innovative new service offerings and cost savings initiatives. Specifically, the Weighted Average Price Cap (WAPC) form of regulation introduced in IPART's 2004 Final Determination arguably introduces a greater incentive than the previous Revenue Cap form of regulation. This is because the price path is fixed, leaving cost savings as the only viable channel to either generate higher profits or, in the event that demand falls short of forecast levels, achieve the regulated return.

The introduction of advanced metering infrastructure technology can generate savings in a number of areas of a network business. These potential cost savings far outweigh those that may accrue to the retail business, in addition to providing for greater retail competition. As well as reducing the magnitude of the overall capital augmentation task, the introduction of an AMR solution will also bolster the efficiency of the remaining capital expenditure program. EnergyAustralia can more readily isolate areas in need of upgrading, which will also improve the chances of the regulator assessing the investment as being prudent.

4.4 Cost Reflective Prices

Part of the rationale behind the introduction of interval meters is the ability to develop more cost reflective pricing to ensure that, among other things, those customers that do not use air conditioners and contribute to peak energy demand do not cross subsidise other customers.

In general terms, cost reflective pricing is necessary to:

- align network revenue with costs;

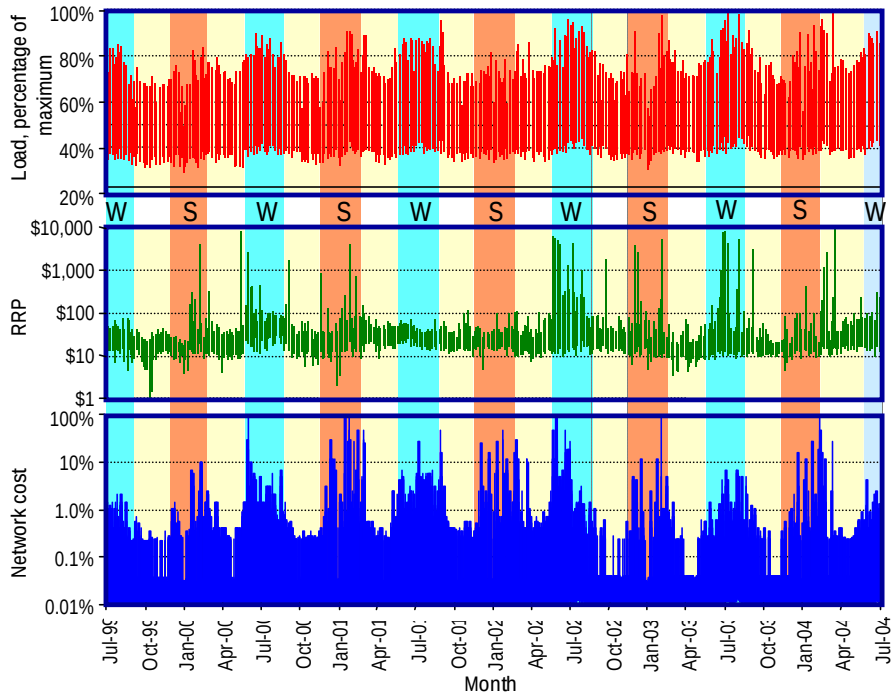
- increase allocative efficiency (through a combination of long run marginal cost pricing and fixed charges, the latter being necessary to ensure revenue sufficiency);
- promote competition through more accurate cost signalling for potential new entrants;
- improve equity through removing cross subsidies between customer segments; and
- encourage rational economic behaviour – allocate consumption by sending signals to customers reflecting the real cost of "peakier" use of the network to reduce the need for future investment .

4.4.1 Low Correlation between Retail and Network High Cost Events

Discussion of the merits of cost reflective pricing in various fora often centres on the retailer's aspirations for such pricing, overlooking the pressing need for DNSPs to also ensure cost reflectivity and the significant benefits that arise from doing so. For a retailer, cross subsidies between customers and wholesale price (ie. pool price) risks are both minimised if end-user prices move in line with the pool price, thereby easing the reliance on hedging arrangements. Networks need to ensure prices reflect the high stress on available network capacity during peak periods when the network is constrained.

The differences between retail and network cost drivers are not always fully understood. For instance, it can be demonstrated that high cost network events (related to growth related capital expenditure) are actually poorly correlated with high pool price spikes. This is shown visually in Figure 5 using cost information, interval data and NEMMCO data from 1999 to 2004. Figure 5 also shows the a priori expectation of a strong correlation between network costs and load peaks, in addition to a seasonal pattern. Note the use of a logarithmic scale to feasibly display the large disparity in peak/off-peak costs and prices.

Figure 5: Correlation between High Network Costs and Pool Price



High pool prices are triggered by:

- temperature (ie. extreme hot or cold days);
- transmission maintenance, constraints and faults (which may not occur on extreme hot or cold days);

- generator plant maintenance, availability and breakdowns;
- generator bidding strategy and the contract positions of market participants; and
- customer load patterns and day-types.

Network cost spikes are driven by:

- temperature and weather conditions (high and low average temperature, humidity, etc.);
- network faults (eg. substation and feeder faults); and
- customer load patterns and day-types.

For both networks and retailers, blunt instruments such as flat rate or inclining block pricing structures, which only convey average usage information to decision-makers up to three months in arrears, are of limited use in signalling high cost events on any given day.

4.4.2 Incentives for Real Time Pricing

One avenue available for retailers is the use of real time pricing, which has now been introduced in the US on a limited basis. Real time pricing is a dynamic pricing option where the price changes every half hour, which involves some level of passthrough of wholesale costs to end-use customers. The high price signals occur on days when the pool price is high, not necessarily on days when the network is at full capacity.

However, the "carrot" that is the remote possibility of introducing real time pricing should never be viewed as a sufficient motive for a retailer to introduce innovate metering strategies merely to support this new measure. Rather, efficiency in the market will be maximised if networks retain responsibility for all advanced type 5 metering and then offer new products such as real time pricing to retailers. There are many valid reasons supporting this statement.

- *Real time pricing and customer size* – Overseas applications of real time pricing have usually only been to larger customers, certainly above the current 100MWh cut off for the derogation. EnergyAustralia is not aware of examples of real time half-hour pricing to SME and domestic customers anywhere in the world.
  - Even though small residential customers contribute to price spikes and wholesale market volatility, principally through the air-conditioning load, it is more practical for a real time pricing arrangement to apply to larger customers. This is because larger customers have the necessary resources and financial incentives to regularly monitor prices and adjust behaviour. These customers can even directly enter into risk management hedging arrangements.
  - Real time pricing is likely to be less attractive to smaller customers than critical peak pricing as the critical peak price is usually in the order of 5-7 times the ToU peak price, whereas the current level of VoLL ($10,000) is about 167 times the NSW ETEF peak pool price of $60 MWh.
  - From a political and regulatory viewpoint, it may also be more difficult to allow the pass-through of a VoLL event in relative terms to smaller customers.
- *History* - There has been no historical evidence to date of retailers developing innovative metering approaches. Type 1-4 meters are fully contestable, yet new metering technologies and/or the introduction of real time pricing have not occurred, despite the fact that this group of customers are large and far better suited to real time pricing measures. There is nothing preventing retailers from introducing real time pricing to this group of customers right now.

- *Planning cycles* - Networks need to take a long-term view of investments as they posses a relatively stable customer base and are creating network assets with lives of the order of 40 years. In contrast, retailers offer three-year contracts, after which time the customer could choose an alternative supplier.
- *Economies of scale* – (discussed in more detail later on) Networks can leverage off their existing assets to assist in the introduction of advanced metering solutions (eg Power Line Carrier (PLC) technology).

5 EnergyAustralia Network Innovations

On page 18 of the Draft Determination, the ACCC states that LNSPs do not face the same commercial incentives to pursue innovation to provide more innovative price/service offerings. This statement is not supported by facts, as EnergyAustralia Network's development of interruptible, capacity-based and Time of Use tariffs has generally led Retailer offerings. EnergyAustralia Network has also been at the forefront of a number of metering innovations in Australia, with a number of additional developments scheduled for implementation over the next two years.

An overview of some of EnergyAustralia Network's previous and current initiatives is provided below. In general, these initiatives aim to:

- provider greater customer choice by offering retailers a wider range of potential products to market to consumers;
- leverage off existing network infrastructure and technology, as well as integrate with the new range of "intelligent" end-use equipment;
- increase efficiency at both the retail and network levels, with the bulk of the cost savings accruing to the network level;
- enable valuable load research to be undertaken, which in turn can lead to new product offerings and allow existing tariff products to be optimised, as well as enhancing network management;
- enable new price structures aimed at increasing allocative efficiency, with the ability to influence end-user behaviour and shift consumption away from costly peak periods, thereby lessening the burden of additional infrastructure needs; and
- provide valuable information for asset management and cost reduction to the electricity network.

It is important to note that although IPART has given in principle support for many of the initiatives discussed below, EnergyAustralia has proceeded in spite of the exclusion of the implementation costs from the 2004 Final Determination.

5.1 Type 5 Meter Roll-out

EnergyAustralia was the first business in Australia to commence a rollout of Type 5 interval meters. Under EnergyAustralia's rollout program, it has been a requirement since July 2004 that all new, upgraded and replacement meters purchased must be Type 5. Sites with annual usage down to 15MWh pa will be progressively replaced over an approximately five-year program.

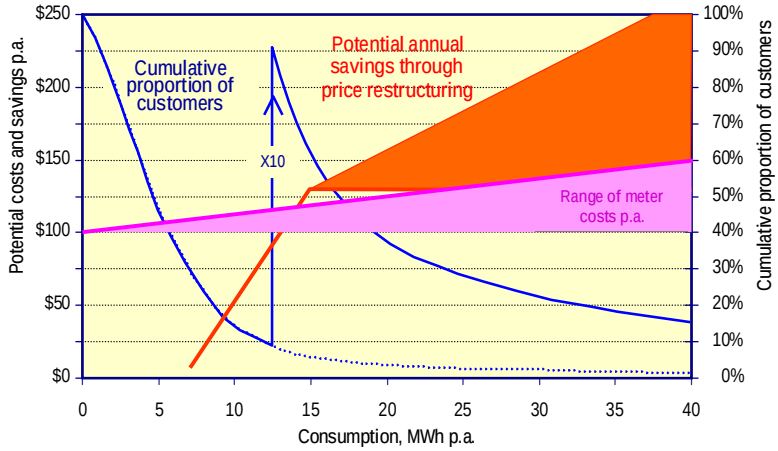
Appropriately read Type 5 meters:

- enable more cost reflective pricing for both Network and Retail businesses;
- assist in wholesale purchasing by providing more accurate load profiles and identifying Demand Management issues with greater expediency for load risk areas in the network (this includes the potential for real time load management and planning);

- can be used to underpin load research programs for both Retailers and Networks; and
- simplify the aggregation of accounts and alignment of readings for multiple meters for billing purposes.

The ToU project was able to proceed on the basis of modelling that clearly demonstrated that time of use pricing will generate sufficient capital deferral (and other savings) to justify the investment cost of Type 5 meters. Figure 6, displaying estimated ranges of costs and benefits for a Type 5 meter roll-out, suggests total benefits exceed costs for those customers with an annual consumption greater than 15MWh[1].

Figure 6: Costs and benefits of Type 5 Meters, by Consumption



While the retailer benefits of providing more accurate load profiles and settlement improvements are not immaterial, they are overshadowed by the network benefits. It is improbable that a retailer would have introduced a roll out program of this magnitude in a competitive environment.

In Victoria, growing use of air conditioning prompted regulators to mandate the rollout of ToU metering to all customers. The ESC determined that curtailing demand through efficient pricing was a more economical route than expanding the power system.

5.2 Time of Use Pricing

Building on the Type 5 interval meter rollout, EnergyAustralia is also rolling out three-rate ToU prices to all new customers and upgraded connections from 1 January 2005. A progressive roll out of three-rate ToU structures and kW capacity charges for 40-160MWh customers with annual usage down to 15MWh will also commerce very shortly.

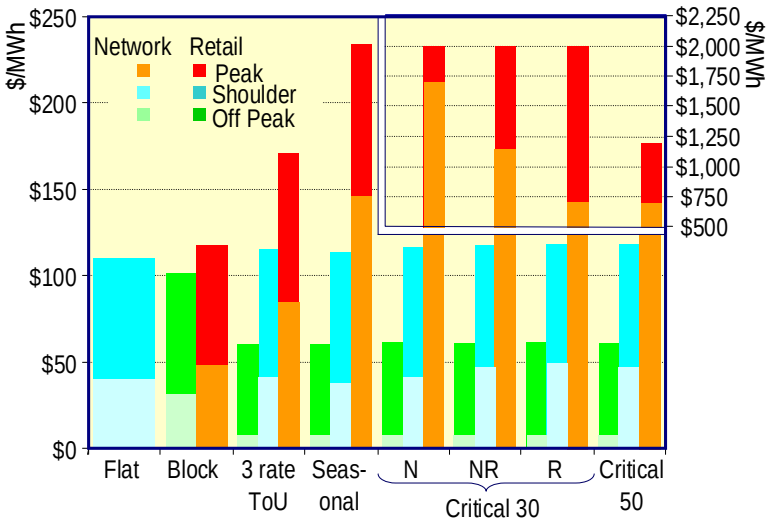
5.3 Pricing Experiment (Critical Peak Pricing)

A pricing experiment is currently being designed to measure demand elasticities for various new ToU-based tariffs, trial new Critical Peak Pricing tariffs and investigate other consumer behavioural characteristics. This experiment is seen as a necessary first step to implement and refine some of the price-based elements of EnergyAustralia's demand management program. Critical Peak Prices can be substantially higher than ToU peak prices, as they apply for a much shorter duration and reflect the substantial proportion of costs imposed on a small number of peak days.

[1] There are around 400,000 customers with annual usage above 15MWh in the NEM jurisdictions.

Figure 7 presents a comparison of possible critical peak pricing structures with existing tariffs. The new critical peak prices incorporate a significantly amplified peak/off peak differential. The number reference on the critical peak pricing options listed below denotes the amount of annual critical peak days.

Figure 7: Critical Peak Pricing Structures



EnergyAustralia has been able to develop a viable case for its pricing experiment on the back of previous successful critical peak pricing trials implemented overseas, such as the Statewide Pricing Pilot (SPP) undertaken by the California Energy Commission (CEC).

Energy Australia will build its pricing experiment on a statistically robust, stratified sample of around 1,000 customers randomly selected across all customer segments and geographical localities within its distribution region. [2]

The overall effectiveness of the critical peak structures trialed will depend on the customer's response to the pricing signal (ie. the peak elasticity). Overseas research suggests that these elasticities can be quite high, in the range of -0.3 to -0.7, which is not surprising considering the point elasticity increases at higher price levels on the demand curve. EnergyAustralia has based some of its internal modelling on a conservative elasticity estimate of -0.37 provided by NIEIR.

When this peak elasticity is considered in conjunction with the impact of peak demand on network costs shown in Figure 3, the Network business and the wider community stand to gain significantly from the introduction of critical peak prices. However, while retailers and customers stand to gain from critical peak pricing through lower wholesale costs and potentially lower bills respectively, detailed analysis undertaken by EnergyAustralia confirms that the lion's share of the benefits accrue to the network.

To determine the optimal method of capturing the relevant customer information, various metering technologies and communication devices need to be trialed. This technology will need to interface with the meters of the sample customers, which will be predominantly Type 5 meters.

[2] It is understood that the critical peak pricing experiment AGL is planning to introduce in Victoria will be on a much smaller scale.

5.4 Additional New Tariffs

In addition to Critical Peak Pricing tariffs, EnergyAustralia Network plans to introduce a number of other innovative new tariffs that leverage off the introduction of advanced metering technology. This includes seasonal tariffs and interruptible tariffs.

5.5 Chronic access sites

DNSPs are charged with the responsibility to ensure the meters of small customers are read for market settlement. There are a small but increasing number of sites where access to the meter is not readily available (termed chronic access sites). This problem is exacerbated with the increasing proportion of interval metered customers, as the profile data storage is limited to around 200 days. If access to the meter is not achieved within this period, data is lost.

The current 'no read' rate for EnergyAustralia exceeds 3 percent, with approximately 75 percent of 'no read' situations occurring due to access issues at the customers premises. This amounts to 35,000 customer premises where the meter reader fails to gain access to the meter. Addressing the access issue will significantly diminish the occurrence of 'no reads', in addition to providing down-stream revenue and cost benefits to EnergyAustralia. A reduction of 'no reads' from 3 percent to 2.5 percent equates to approximately 7,000 customers per quarter, with an improved cash flow benefit to the value of $10 million per annum.

Initiatives to improve access and therefore reduce the occurrence of 'no reads' include:

- EnergyAustralia's approved locking system; and
- Automatic Meter Reading (AMR) solution.

Thus, the potential use of an AMR solution to eliminate 'no reads' from small customer chronic access sites represents a further source of network benefits in jeopardy by a decision to extend contestability to remotely read Type 5 meters.

5.6 High-density buildings

The growing issue of gaining access to high-density buildings prompted EnergyAustralia to undertake AMR proof of concept trails to provide alternate metering arrangements. The technologies being reviewed are:

- Bluetooth;
- Low Power Radio Frequency (RF);
- Power Line Carrier (PLC); and
- General Packet Radio Services (GPRS).

5.7 Introduction of ENEL-Style technology – "Intelligent Network"

Traditionally, a network business tackles peak demand pressure and system capacity issues by simply building more infrastructure. However, recent advances in technology have paved the way for the development of "intelligent network" solutions, which give rise to a range of additional cost savings to the network business above and beyond the capex deferral benefits flowing from demand management measures. Such an integrated solution is now financially tenable due to progressive price reductions for essential components and services.

ENEL is one of the world's largest electricity companies and the main operator in Italy. In 2001, ENEL launched a project to create a new, intelligent network through the replacement of electromechanical meters with 30 million remotely read and managed digital meters. The project encompasses 30 million meters, 18 million of which have

already been replaced (15 million of these meters are remotely managed and read). The system is primarily based on power line communication using the existing low voltage electricity network.

The new infrastructure gives ENEL complete monitoring of its low voltage network, including information on the location and nature of faults. In the event of power rationing, the system allows power curtailment, reducing the maximum power available for the customer.

Beyond this additional functionality, the principal benefit to ENEL is the substantial operational cost savings that stem from the new infrastructure. The cost of customer management alone is expected to fall by more than 40 percent, while increasing customer retention. Further savings spring from reduced energy losses and customer disputes, in addition to providing ENEL with a ready platform for offering new services directly to the home based on customer segmentation. ENEL expects to save over 400 million Euros per year from 2005 from the full implementation of its AMR metering solution.

EnergyAustralia is currently investigating the potential cost saving impacts of an ENEL-style grid transformation (using technology from the company Echelon) to create an intelligent services delivery network. The key benefits of this technology in qualitative terms include:

- active and reactive energy measurement;
- AMR functions;
- time of use, time of the year contract management functions;
- remote connect/disconnect for load control;
- ability to accurately target investment at components approaching failure or nearing full capacity (avoiding network down-time)
- enable real-time reconfiguration in the event of a blackout (reducing revenue loss and improving customer reliability);
- optimised configuration of the network (keeping components within operating tolerances);
- improved ability to satisfy regulator that investment decisions are prudent;
- fraud detection/anti-tampering functions;
- customer information;
- prepayment (without card) enabling;
- demand power management;
- low voltage grid energy management;
- individual customer service quality level monitoring; and
- potential development of value added services for energy market.

In addition, there is the potential to provide improved services to consumers, such as the ability to:

- check their total consumption for the last week/month/day (kWh);
- check the instant absorbed power (kW) and whether it is increasing/decreasing;
- check their bill and dollar rate of consumption;
- understand the consumption of individual appliances;
- have information about the type of electricity used;
- receive guidance on how to save energy, power and maximise the use of renewable energies;

- participate in real time demand side bidding; and
- take advantage of time of use or real time tariffs (to benefit network and Retail).

Such a solution relies on standardised, IP addressable, deployed technology with centralised control. It would be technically impossible to achieve with multiple meter vendors with proprietary protocols and unique fittings deployed throughout the network.

Traditional telemetry networks rely on point-to-point communications systems to link the central control room to failure indicators and switches on the grid. However, many devices are simply not connected - the vast majority of meters, for example, must be read manually by field workers. As a consequence, the network must be managed based on limited, time-delayed information. Asset investment is based on age assumptions and manual equipment inspection, with customer complaints being a primary source of fault detection.

An intelligent network offers a real-time view of its status. Point-to-point communications are replaced by standardised, packet-based networking such as the Internet. Simple failure indicators are replaced with more sophisticated condition sensors that provide detailed information on the status of assets. Intelligent networks not only provide data that predict and help prevent faults, but also provide a real-time picture of what is happening when a fault does occur, allowing network operators to dispatch engineers to the right location with the right equipment.

Remotely read type 5 meters form the linchpin of EnergyAustralia's planned intelligent network solution. An intelligent network generates cost savings and operational efficiencies across the full network design, asset management and network operation spectrum.

The introduction of competition for remotely read Type 5 meters in the 0-100MWh tranche would scuttle EnergyAustralia's proposed new system, since such a roll out relies on full meter ownership of the customer base to achieve low unit costs through scale economies.

5.8 Joint Meter Reading

EnergyAustralia approached the Energy Networks Association (ENA) seeking interest in a possible joint meter reading project. Although cost savings for manually read Type 6 meters alone are unlikely to be sufficient to make a joint venture financially viable, the introduction of AMR technology for Type 5 meters is likely to change the equation. Other distribution businesses in NSW have expressed interest in pursuing this idea.

5.9 Other

EnergyAustralia Network is also exploring in-house usage displays and PowerPoint metering to identify appliance level consumption.

5.10 Stranded Asset Risk

EnergyAustralia takes a long-term view of the market to ensure a secure and reliable electricity supply and related services at a reasonable price. It is important to keep the end goal in mind as the paybacks, including those from Demand Management are valuable, but of a long term nature. To this end, issues such as governance, practicality (particularly), certainty of cost recovery and long-term benefit analysis are useful drivers and criteria to ensure that a given project can proceed.

The network measures described in the list above call for advanced metering solutions to marry new communications technology with the Type 5 meters issued as part of meter roll-out initiatives. However, if cost recovery of these potential new projects is threatened by the ACCC's preliminary decision to remove remotely

read Type 5 meters from the derogation, DNSPs will be reluctant to invest and pursue new solutions, due to the risk of stranded assets.

The threat of stranded asset risk will be sufficient to impede investment decisions at the margin, irrespective of the degree to which this risk is actually realised in the market place. Given the lack of up-front funding for these new initiatives under the current regulatory determination, the additional stranded asset risk is set to be the straw that breaks the camel's back in terms of obtaining approval from EnergyAustralia's board in a cost constrained WAPC environment.

In the absence of the planned Demand Management initiatives, the capital augmentation task will escalate, which consumers will ultimately fund through higher bills. The ACCC's decision would also detrimentally impact on the potential of network businesses to improve business processes and generate cost savings through developing AMR solutions, in addition to reducing the range of potential new service offerings for end use customers.

Therefore, the outcomes of excluding type 5 meters with communications devices from the derogation would be at odds with the ACCC's ultimate objectives of increasing allocative efficiency, lowering prices for end-use consumers and promoting dynamic efficiency across the value chain.

As a further consideration, the industry could be in the perverse situation where one industry regulator's decision could undermine the objectives of another regulatory regime, as IPART has encouraged demand management activity in principle through the introduction of a "D-factor" in its 2004 Final Determination.

Although the derogation only applies to second tier retailers, this group of 14 organisations sell to a material proportion of EnergyAustralia's customer base. This proportion is set to continue to grow in the future as retail competition develops and new players enter the market. EnergyAustralia wishes to highlight to the ACCC that the additional regulatory risk introduced by its preliminary decision on remotely read Type 5 meters may be sufficient at the margin for an otherwise viable project to be shelved or abandoned altogether, with sizeable consequences. The ACCC must reconcile this significant potential down-side risk with the maximum benefits possible from extending competition to this portion of the market which, even taking the most sanguine view and turning a blind eye to the additional technical and complexity issues, are likely to be trivial at best.

6 Existing Assets and Economies of Scale

Due to the inherent network configuration and components, Networks businesses are best placed to leverage off existing assets and therefore realise greater economies of scale in introducing remote metering technology. The cost of a GSM modem and annual communications currently favours concentrator-based communication architectures that are best executed by Networks. Even leaving the issue of asset structure aside, current levels of technology, customer acceptance and access and the high cost of gaining NEMMCO accreditation all provide natural economic advantages to networks in the provision of metering services.

Whether the communications system uses direct meter coupling (where multiple meters are chained together in the building) or LV Power Line Carrier (PLC) to a substation concentrator (for freestanding residences), retailer stand-alone modem and communication costs will need to be at least 5 (and as much as 10) times cheaper to compete. This economic reality is similar to that of manual meter reading, where making the service competitive only adds risk without a real hope that a meter reader could compete with the existing player. The only other option available to retailers to compete with the network's PLC technology is the development of wireless technology, which is considered to be several years away from being commercially feasible.

Communication is one of the critical elements of an advanced metering infrastructure or architecture, which also includes measurement and control. With these three functions, the distribution network becomes poised to offer a range of value added services such as those which burst onto the Telecom scene with the introduction of new technology: Call Waiting, Call Forwarding, Three-Way Calling, etc.

If the ACCC accepts that metering should be derogated in the interests of retail contestability, then metering with communication devices (outside of types 1-4) should be derogated in the interests of establishing an advanced metering infrastructure platform for value-added products and services. Impacting the less that 1% costs associated with remote meter reading at the expense of products and services that can reduce the bill by ten times seems imprudent at best.

There are also considerable economies of scale in meter reading to be found in using uniform metering technologies such as remote meter reading systems or other forms of electronic data collection. This is one of the primary reasons that it is essential for DNSPs to be the exclusive providers of meters in distribution franchise areas. Consistency in the type, as well as a managed and staged installation program, can mean that meters in a region can be compatible and one form of meter reading can be used across the franchise area, leading to efficiencies of scale. Where meters are inconsistent or patchy in distribution, meter reading can involve significant "double handling" of reading with separate practices needed to read different types of meters, thereby increasing costs.

If retailers are permitted to elect to become the responsible person for remotely read Type 5 meters, they will face higher unit costs than DNSPs for new metering developments. This is because DNSPs are able to spread the high fixed costs over a much larger customer base and over the technical life of the equipment.

7 Market Impacts of ACCC Decision

7.1 Technical Problems and Previous Experience with Type 1-4 Contestability

The ACCC's apparent desire to expose additional segments of the metering market currently captured by the derogation to competition implies that economic efficiency in metering will only be achieved for customers if the market is structured in the same way as for Type 1-4 metering customers. EnergyAustralia is not convinced that this holds true for the below 160MWh pa. market. This is due to the number of customers, the number of market participants and the volume of data.

A number of technical problems associated with the early tranches of contestability, such as market transfers, data integrity, etc., are likely to further impede the ACCC's desired outcomes. Combined with the lower propensity of retailers to introduce innovation and the likelihood of higher prices for end use customers, the greater market complexity further dilutes any rationale for extending competition in the provision of meters.

With the potential of complex metering systems for revenue measurement for large customer volumes administrated piece-meal to multiple competitors in a single network area may result in:

- reduced quality of data;
- degraded meter asset management and reading consistency reduced;
- customer complaint management more complex with a reduction in customer satisfaction;
- meter configuration inconsistency reduces the efficiency of the Meter Data Agency;
- more complex arrangements for the Network business to access meter data for DUoS billing.
- exacerbate current issues with Retailers acting as Responsible Person and not fully compliant with Code requirements.

The competitive Type 1-4 meter customer segment has suffered to an extent from these problems associated with the proliferation of different metering technologies. Extending competition to the below 100MWh market will exacerbate these problems by orders of magnitude, due to the far greater number of affected customers.

The type of communications device installed by the second tier retailer's MDP (if type 5 with communications excluded from derogation) may not be 'known' to the local Network (eg: some proprietary PLC system). As Networks can reasonably ask for access to the meter via the installed communications device, this may be an issue to the network.

7.2 Meter Churn and Barriers to Switching

On page 17 of the Draft Determination, the ACCC states that it believes that claims meters will be removed in circumstances where it is inefficient to do so may be overstated. EnergyAustralia agrees that retailers are unlikely to replace meters where it is inefficient to do so. However, the previous discussion on regulatory risk for new network initiatives should hopefully highlight the detrimental impact of excluding remotely read Type 5 meters from the derogation on network businesses' cost structures.

EnergyAustralia also firmly believes that meter churn (whether it is economically efficient or not) will create a barrier to switching – a point which the ACCC also acknowledge as a legitimate issue (pages 17-18 of the Draft Determination). This is likely to undermine the potential success of retail competition, particularly during its infant stages of development. Concerns that retail contracts may provide for meter costs and exit charges are well founded. With very low margins and very low volume customers, retailers are likely to require long lock in times for contracts. Small and medium-size enterprise (SME) customers in many jurisdictions are already required to lock in for 3 year contracts - adding in metering costs will only extend that lock in time. As a result, if metering competition is extended as planned, it is unlikely that any metering innovation will actually take place, except for a small number of "ripe" customers, such as those with high wealth. These customers cherish their privacy and security and can afford high end metering solutions.

It is also likely that the very act of introducing additional competition for remotely read Type 5 meters is likely to create additional complexity and confusion for customers. The NSW Government and energy companies devoted a significant amount of time and resources to promoting FRC when it was introduced in NSW on 1 January 2002. The campaign was based on simple concepts - introducing an additional layer of complexity at this time may detract from the key message and discourage consumers from entering the contestable market.

A further consideration relates to the issue of meter neglect. If the existing derogations were to continue, this would allow long term cost effective meter replacement and maintenance to be addressed by Network businesses and ensures that meters are not neglected as sometimes occurs as a result of customer churn. Continued network ownership will overcome difficulties in reading non-standard meters and the risk of stranding meters. Such defined ownership assists the allocation and tracking of NMIs, especially in Greenfield sites where uncertainty over meter provision has affected the provision of power.

Meter ownership by the network provider means new network tariffs will not have to be created (with meter costs excluded) with supporting expensive validation processes. In short, many customers who have paid for their meter could otherwise contribute for the cost of a meter again through tariffs. This issue is exacerbated in areas with high customer movements. Identifying and tracking those customers that have a non-network owned meter will be onerous, requiring additional IT support for correct tariff application, meter reading cost allocation and a host of other process changes.

As a simple example, if a domestic customer chose another meter provider for their metering services, the Responsible Person (RP) for the metering provision would need to have a process to inform the default RP that they no longer had ownership of that site. This would trigger a tariff change to exclude meter costs and likely removal from the reading route as well. Therefore, it can be seen that the process changes with the introduction of competition are very likely to be complex and costly.

7.3 Market for MPs Unlikely to Change

The market for Meter Providers is unlikely to improved by excluding remotely read Type 5 meters from the derogation because:

- high entry costs in the Meter Provider market will limit new entrants;
- maintaining a highly skilled workforce for smaller market share will increase costs;
- ToU meter roll-out programs are increasing the volume of Type 5 installations and thus bring complexity for ever smaller market share and reduction in profitability;
- the increasing volume and complexity of meters requiring maintenance;
- there is already innovation at the manufacturing level, due to the current tendering process; and
- shifting ownership to retailers will not make a substantive difference;
- due to the economies of scale, there will likely be a re-aggregation of the market with the MPs affiliated with DNSPs securing most of the market share, essentially maintaining the status quo.

8 Alternative Network Solutions

EnergyAustralia is concerned that the ACCC, in deliberating over its draft decision to exclude remotely read Type 5 meters from the derogation, may give undue credence to some of the alternative "solutions" floated in the public domain for DNSPs to militate against their concerns. The ACCC must be circumspect when considering the efficacy of these proposed measures, as they cannot fully replace the range of benefits from the existing and planned initiatives that rely on Type 5 meters and communications technology.

8.1 Alternative Communication Measures

There have been some assertions made that alternative communications devices could be used as a substitute for remote devices associated with meters. For instance, it has been suggested that critical peak pricing could proceed using SMS technology.

Although a watered-down version of critical peak pricing could be technically feasible using SMS, it would fail to deliver the full gamut of benefits available under a remote technology solution, with a large opportunity cost to the network. This is because:

- Price responsiveness also requires customer education and a flow of information - overseas critical peak pricing experiments have incorporated an "information-only" test group, which showed a statistically significant change in behaviour.
- Price signals can be provided in real time, rather than blunting the peak signal in the three-month wait until the next bill.
- Networks would be unable to offer real-time pricing products to retailers in the future, as this pricing structure requires signals to be conveyed every half-hour, which would not be feasible using SMS.

- One of the secondary objectives of EnergyAustralia's critical peak pricing experiment was to trial various forms of enabling technology – if SMS was the only option, this would preclude the investigation of potentially more efficient technologies.
- If stranded asset risk precluded an AMR solution, the network would lose the ability for remote meter reading. This would greatly affect the data collection costs associated with the critical peak pricing experiment, potentially damaging the outcomes.
- AMR technology confers a range of additional network benefits beyond the primary benefit of capital expenditure deferral (better fault detection, improved capital planning and asset management, greater reliability, etc.). The benefits of developing an integrated approach would evaporate if the key individual components were denied.

8.2 Load Control Devices

On page 20 of the Draft Determination, the ACCC discusses the use of load control devices, acknowledging the beneficial role in network operations through reducing the maximum peak demands through centralised switching of appliances. The ACCC also notes that if significant numbers of second-tier retailers elected to be Responsible Person and did not offer load control as part of their metering services, it may result in a need for augmentation, which would result in higher DuoS charges and thus increased tariffs for end-users.

EnergyAustralia also agrees with the ACCC's suggestion that load control devices could be potentially unbundled from meter services and supporting regulation introduced. However, the regulatory web would become even more tangled and complex, with no apparent gains over the existing system.

When combined with the necessary communications technology, load control devices can be an effective measure to reduce peak demand consumption. If network businesses were denied the ability to introduce AMR solutions due to stranded asset risks, they would forego an important source of capex deferral benefits flowing from the use of load control devices in conjunction with communication technology based on existing network infrastructure.

Load control devices, communications technology and interruptible tariffs represent essential elements of the network's overall response to the rising peak demand problem. These measures are compliments to cost reflective ToU pricing measures, but could never supplant them altogether. The increasing prevalence of multiple air-conditioners on separate circuits makes load control of air-conditioners more challenging. Furthermore, customers and consumer groups may view central network control of appliances such as air-conditioners on a mass scale as being an overly draconian approach to demand management. Cost reflective pricing options allow greater consumer choice – customers either shift usage to lower cost periods or else they pay a fair share of the additional costs imposed on the system.

8.3 ACCC Suggestion – Separate Metering Contract with Network

At the ACCC Pre-determination conference held in Sydney on 14 January 2005, the ACCC flagged the idea of a direct metering contractual arrangement between networks and customers as a potential means of offsetting the stranded asset risk resulting from its Draft Decision. While this idea was only raised as a remote possibility, EnergyAustralia is keen to ensure it is not developed any further.

If implemented, the ACCC's idea would, based on EnergyAustralia's understanding of the idea, lead to the following outcomes.

- Network contracts would still require exit charges, as a customer could move into a different network franchise area before completion of the contract, assuming the contract was with an individual customer.
- There would be additional legal complexities if the contract covered the actual household itself.
- The idea would be immensely unpopular with consumers and consumer groups, which would hold the state Government and/or the network utility accountable.
- The development of retail competition would be hindered, as the new arrangement would result in additional complexity for consumers. It would also be difficult for inexperienced door-to-door sales staff to both understand themselves and convey to potential new retail customers. This would discourage customer's propensity to switch.
- State Government and energy companies have devoted resources to marketing FRC, highlighting its relative simplicity. The new change would require an additional promotional campaign to attempt to explain the new arrangements, resulting in additional costs to taxpayers and utilities.
- This approach would lack the economies of scale flowing from a large-scale rollout of type 5 meters or AMR technology.
- The approach would involve additional legal and back-office costs to DNSPs.
- Most importantly, there will be no discernible benefits from this arrangement, with substantial additional costs.

9 ASP Scheme and Market Rules for Competition

EnergyAustralia appreciates that if a business is granted a monopoly on public interest grounds, the ACCC will need to ensure that innovation and efficiency continue to improve and that competitive elements can be introduced to the value chain where possible.

EnergyAustralia understands the ACCC's interest in introducing appropriate conditions of authorisation as a quid pro quo for DNSPs to remain the Responsible Person for all below 100MWh Type 5 meters. However, EnergyAustralia believes there is overwhelming evidence that the current condition (ie excluding remotely read type 5 meters) is entirely unsatisfactory.

There are a number of alternative options that would be more effective in fostering competition at the production end and encouraging a greater take-up of innovative new metering technology. For example, the ACCC could potentially improve competition in the industry, without the detrimental impact on network costs and dynamic efficiency, through the introduction of additional market rules. The EnergyAustralia model provides a useful example of how innovation and competition can still prosper within a fixed ownership environment.

Possible additional market rules could include:

- Open access for Accredited Service Providers (ASPs) to networks for meter installation and repair (current situation for EnergyAustralia).
- Networks to provide a full range of metering products to ASPs without artificial economic barriers (current situation for EnergyAustralia).
- Meter Reading activities to be open to market competition under the coordination of the local network (current situation for EnergyAustralia). This would preserve the economy of scale associated with manual meter reading.

EnergyAustralia believes that the Accredited Service Provider (ASP) model provides significant customer choice and competition but maintains appropriate technical and data control with the local network business. The ASP model involves:

- Accredited Service Providers (ASPs) permitted to have access to the network;
- competition between ASPs; and
- satisfactory instruments in place to ensure ring fencing.

The ASP model contains another advantage over the derogations for promoting competition in that the ASP model applies to both first tier and second tier customers, not just second tier customers.

During the consultation process on the Draft Determination, other stakeholders proposed mandating a rollout of Type 5 meters above a given threshold as another possible condition of authorisation. Such a condition would serve to reinforce EnergyAustralia's existing internal policy stance. It would also assist in the cost recovery of its current rollout project through the regulatory channel. However, EnergyAustralia acknowledges the ACCC has limited ability to force the hand of a jurisdictional regulator.

10 Extension of the Threshold to 160MWh

The NSW threshold for existing derogation is currently 100MWh pa - the lowest threshold in Australia. Other jurisdictions have a 160MWh pa. threshold, with the exception of Queensland, which has a 200MWh pa. threshold. The experience of EnergyAustralia's metering business is that there is very little contestable metering activity below the 160MWh pa level (and then the churn is usually associated with aggregation). This is because the cost of metering is too high relative to the customer benefits. It would be sensible for NSW to adopt a threshold level consistent with the rest of the country.

11 Comments on Submissions from Interested Parties

11.1 Centurion Metering Technologies Pty Ltd

Centurion Metering Technologies argued in their submission to the Draft Determination that there is little choice in meter service providers (MPs) beyond those that are subsidiaries of the distributors. This may be reality at present, but lifting the derogation is unlikely to change the situation. There are a couple of reasons for the relatively few MPs in the market at present.

Firstly, the requirements to become an MP (either category A or B) are quite onerous and MPs are subject to strict NEMMCO accreditation and audit requirements.

Secondly, as EnergyAustralia's affiliated MP Testing and Certification Australia (TCA) can attest, there are difficulties in obtaining suitable staff in the market place that are able to perform their duties, work closely with customers, organise the work and meet the deadlines required.

Centurion also suggests that Load Control is irrelevant to the continuation of the LNSP's monopoly over metering services. EnergyAustralia strongly disagrees with this view. There are approximately 100,000 single phase, two element meters with load control (E2 meters, a mixture of interval and non-interval) in service in the EnergyAustralia Network area. There is a huge stranded asset and write-off issue if we allow these meters to be churned in an uncontrolled fashion.

The fourth point Centurion make is that competition will lead to "wiser decisions regarding the types of meters installed'. New suppliers and/or competitors often advance this argument. There is a litany of high technology metering technologies available in the marketplace, but it is very costly to manufacture a meter to the point where

it can be installed in an Australian network. The reality is that Australia still has idiosyncratic meter design standards (the Australian Standard is the IEC standard plus local additions) and 'pattern approval' requirements as specified by the NSC. There are only four or five manufacturers currently with product that can legally be installed on Australian networks.

12 Other Comments

Some other miscellaneous/non-substantive comments on the Draft Determination are presented below.

- EnergyAustralia has no issue with the ACCC adjudication for Type 7 installations.
- In the 'Background' section of the Draft Determination, the ACCC make the comment that type 6 meters "do not provide ToU information". This comment is generally true, however EnergyAustralia has approximately 50,000 electronic Type 6 meters in service which are capable of providing ToU information, but not 30 minute interval data (specifically, these are the Email and Nilsen E2 meters, pre 2001 models).
- In the "Load Control" section on page 11 there is a statement that reads "The ACCC understands that in most cases, customers who agree to load control arrangements are those who have had new connections (for example for a new house), and who have installed off-peak hot water systems". This statement appears to be an inaccurate representation of load control arrangements, as EnergyAustralia has been installing load control devices into residential premises for well over 40 years. The ACCC makes a further misleading statement on Load Control on page 20 of the Draft Determination where the suggestion is made that retailers will highlight the benefits of Load Control during negotiations with customers possessing air-conditioners. In EnergyAustralia's experience, there has been little evidence of such behaviour to date.