



**Australian Energy Regulator**

**Comments on the Proposed Demand Management  
Incentive Scheme, Alternative Control Services  
and Pass Through Events**

by

**Energy Markets Reform Forum**

**December 2007**

**Assistance in preparing this submission by the EMRF was provided by Headberry Partners Pty Ltd and Bob Lim & Co Pty Ltd.**

**EMRF (and its affiliate MEU Inc) acknowledges the financial support provided by the Advocacy Panel in preparing this submission.**

**The content and conclusions reached are entirely the work of the EMRF and its consultants.**

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## **Executive Summary**

The Energy Markets Reform Forum (and its affiliates) welcomes the opportunity to provide its views to the AER on three aspects of the NSW Distribution Pricing Review, viz:-

- demand management incentive scheme
- control mechanisms for alternative control services
- approach to determining materiality for possible pass through events.

The EMRF, which strongly supports demand management in general did not support IPART's D-factor scheme in 2004, as it felt that it was unlikely to encourage demand side management. The achievements, as predicted, have been very modest.

The EMRF recommends that the AER considers the scheme introduced by the Essential Services Commission of South Australia, which is a very targeted demand management scheme, and lends itself to sharing the benefits learned by the distribution businesses.

However, a key prerequisite to the implementation of any effective demand management scheme is to ensure that the pricing structures used by distribution businesses are cost reflective.

The EMRF is prepared to work with the AER to develop an effective demand management scheme similar to that used by the Essential Services Commission of South Australia.

As for the proposed control mechanisms for alternative control services, the EMRF considers that the AER must carry out a detailed assessment of the costs of these services and confirm that the prices charged for these services are reasonable in light of this assessment. An abbreviated review is not supported.

The EMRF considers that the materiality threshold for any pass through event should be related to the expected cost of the change event that will be incurred in the year the change is made to the amount of revenue targeted for the business in that year.

## 1. Introduction

### 1.1 The needs of EMRF members

The Energy Markets Reform Forum (EMRF) is an organisation which brings together the major users of energy in NSW. It is directly affiliated with Major Energy Users (MEU) which is an energy focused consumer organization. Through this relationship, the EMRF is also affiliated with Energy Consumers Coalition of South Australia and the Energy Users Coalition of Victoria) and the Pulp and Paper industry (A3P) and the Cement Industry Federation (CIF). Each affiliated organisation represents the larger energy consumers in each region. The MEU also has provided support to the Major Employers Group in Tasmania and to the Northern Territory Major Energy Users in the NT. Between them members and affiliates of MEU now represent over 50 major energy using companies in NSW, Victoria, SA, Tasmania, Queensland and NT.

Because its NSW members are impacted by regulatory decisions about electricity matters in NSW, the EMRF welcomes the opportunity to provide comments on the AER on its preliminary activities in preparation of the first AER review of an electricity distribution business.

Analysis of the electricity usage by the members and affiliates of MEU shows that between them they consume over 10% of the electricity generated in the NEM, and the EMRF members contribute a significant proportion of this total. Many of the members are located in regional parts of NSW, some distance from the major centres. They are highly dependent on the transmission network to deliver the electricity essential to their operations, as well as using the local distribution assets to deliver from the TransGrid nodes. Being regionally located, the members have an obligation to represent the views of their local suppliers and of the regionally based workforce on which the companies are dependent. With this in mind, the members require their views to not only represent the views of large energy users but also those of smaller power consumers located near to their regional operations.

The companies represented by the EMRF (and their suppliers) have identified that they have an interest in the **cost** of the energy network services as this comprise a large cost element in their electricity and gas bills.

The businesses all operate in the open competitive market for their products. In order for them to ensure that they will be profitable into the future they must have a high degree of certainty of their future costs. They are not interested in prices that fluctuate excessively as this creates uncertainty. The excessive volatility in the NEM has been of great concern, and as a result most businesses “lay off” the

risks inherent in the NEM to electricity retailers, but at a cost. This demonstrates that **stability** and certainty are much preferred over volatility. Businesses need to have stability in their input costs, as this is needed to ensure forecast costs for the products made are within the expected price range for sale.

Although electricity is an essential source of energy required by each member company in order to maintain operations, a failure in the supply of electricity or gas effectively will cause every business affected to cease production, and members' experiences are no different. Thus the **reliable supply** of electricity and gas is an essential element of each member's business operations.

With the introduction of highly sensitive and sophisticated equipment required to maintain operations at the highest level of productivity, the **quality** of energy supplies has become increasingly important with the focus on the performance of the distribution businesses because of the central role they play in terms of the control over the quality of electricity and gas delivered. Variation of electricity voltage (especially voltage sags, momentary interruptions, and transients) and gas pressure by even small amounts now has the ability to shut down critical elements of many production processes. Thus member companies have become increasingly more exposed to the quality of electricity and gas services supplied.

Each of the businesses represented here has invested considerable capital in establishing their operations and in order that they can recover the capital costs invested, long-term **sustainability** of energy supplies is required. If sustainable supplies of energy are not available into the future these investments will have little value.

Accordingly, MEU is keen to address the issues that impact on the **cost, reliability, quality** and the long term **sustainability** of their electricity (and gas) supplies.

## 1.2 The EMRF views of the Issues Paper topics

The Issues Paper brings together three basic aspects of the NSW Distribution Pricing Review, viz:-

- **Demand management incentive scheme**
- **Control mechanisms for alternative control services**
- **Approach to determining materiality for possible pass through events**

The following three sections of this submission address these individually.

## 2. Demand Management Incentive Scheme

### 2.1 Support for DSM

In principle, the EMRF is strongly supportive of an active approach to encourage implementation of demand side management (DSM) as part of the suite of activities in the NEM. The EMRF sees that DSM is a tool available to consumers of electricity to reduce exposure to the very high prices that occur in the NEM from time to time. In fact a number of MEU and EMRF members already take direct exposure to the NEM “pool” and in doing so reduce demand at times of excessively high prices.

Equally, the EMRF sees that DSM can be a useful tool for minimising the amount of capital sought by network service providers as DSM can lead to the reduction of the high demand periods that do occur in the NEM for short periods, most commonly as a result of air conditioning loads. These short term spikes cause the network service providers to build networks to manage these high (peak) demands, effectively allowing the network assets to be underutilized for extended periods of time – a clear case of economic inefficiency and avoidable over-investment.

Properly used demand side management can allow network owners to build networks that do not have excess capacity that is only used occasionally. The EMRF (and MEU in other jurisdictions) has identified that large users are often disadvantaged in this regard in having to pay more for the assets they use, due to the inequitable pricing structures used by distribution and transmission businesses, where many consumers do not pay appropriately for the assets used occasionally, and the unrecovered costs are “smeared” over all tariffs and customers.

**Because of the pricing approaches used by distribution businesses (DBs), the EMRF would point out that the first element of any DM incentive scheme must be to ensure that pricing structures used by DBs must be as close to cost reflectivity as possible. The EMRF considers that attempting to put in place a DM incentive scheme without having the basic controls in place (such as cost reflective pricing), will mean that the program will have insufficient grounding to achieve the goals implicit in encouraging the DBs through an incentive scheme.**

**Thus as a first step to a DSM incentive program the AER must ensure that cost reflective tariff pricing must be in place as a prerequisite of any incentive program developed. If this is not done then the incentive scheme**

**will provide a marginal benefit at best. At worst, the program may only add profits to the DB without gaining any effective benefit at all.**

In its response to IPART at the time of deciding to proceed with the D-factor scheme, the EMRF noted that it was inadequate and inappropriate to secure the outcomes being cited as being the benefits of its implementation.

In this regard, the EMRF and ICRC are in accord. As the AER points out (page 11)

“In its 2003 draft determination, the ICRC noted that price is the main tool for ActewAGL to manage demand and promote efficient network utilisation.”

Despite its overall support for DSM, the EMRF had reservations with the IPART decision in 2004 to introduce the “D-Factor” approach to encourage DSM, and the EMRF concerns were that it was unlikely to achieve significant DM responses but had the likely potential to increase costs to major users and/or raise revenues for the distribution businesses. As the AER notes (page 12), this program has had minimal impact to date in achieving the outcomes targeted.

“The [IPART review] paper<sup>1</sup> shows that the D-factor has had a small impact on network decisions and prices since its implementation. Between 2004–05 and 2005–06 the NSW DNSPs spent around \$8.26 million on demand management programs as a result of the D-factor scheme.

The total avoided capital and operational costs through approved demand management activities between 2004–05 and 2005–06 was approximately \$24.4 million. The deferral times varied for DNSPs depending on the type of project to be implemented.”

It would appear that consumers are getting very little in proportion for the effort, and that the D-factor scheme is so low powered as to be ineffectual against disincentives to use DM approaches.

**The EMRF notes that ESCoSA introduced its very targeted scheme after reviewing the detail and performance of the D-factor scheme. The EMRF sees that a targeted scheme (like that used by ESCoSA) can be much more clearly benchmarked than the more indirect scheme like the D-factor scheme.**

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<sup>1</sup> NSW Electricity Information Paper No 2/2007 - Demand Management in the 2004 distribution review: progress to date.

The results of the ESCoSA scheme are available to all whereas the D-factor scheme does not lend itself to sharing the benefits learned by one DB with others. As the NSW/ACT region has four DBs, sharing of experiences in a formal manner as the ESCoSA scheme does, has much to recommend.

## 2.2 The current approach

Despite its limited success, the NSW DBs have considered that the scheme should be retained and a number of observations were made supporting this view (pages 15 and 16). The EMRF makes comment on each of these observations in the following table:-

DB observations	EMRF comment
The D-factor has had a limited implementation time, particularly since it has to be incorporated into planning processes. A longer implementation time would be useful.	DM has been an issue for a long time, and the fact that IPART had to provide an incentive to get DBs active on DM indicates that there is a residual issue in play. In this regard, it should be noted that the building block approach to setting revenue (the basis for the price cap) actively incentivises a regulated business to prefer capital investment as this is where its profits are derived <sup>2</sup> . Thus a DB is actively incentivised towards network solutions. This has to be changed.
The D-factor has encouraged demand management activity by NSW DNSPs beyond that which would have occurred without the D-factor.	This is probably true, but the amount is insignificant when seen in context of the total capex allowed by IPART of \$2Bn for the same two years that DM saved \$24m.
The capacity of NSW DNSPs to implement demand management depends on the nature of their customer base and networks.	This is true, but is immaterial to the issue. The concept of DM incentive is to find the opportunities where DM could result in savings to consumers.
Experience in demand management has reduced the risks and uncertainties surrounding the costs and impact of demand management compared to network augmentation.	DM has always been a tool for avoiding network augmentation. It has been explicitly included in the Regulatory Test and has always been considered within the NER. The fact that DBs are incentivised to build is a strong disincentive to alternatives to augment.
The D-factor is necessary due to disincentives caused by a WAPC form of regulation (whereby a	The D factor should not be the route to counter an actual incentive to augment. The WAPC should be modified to eliminate the incentive to augment, just as there should be a way to eliminate the incentive

<sup>2</sup> There is no profit in opex and depreciation allowances as these are at cost, and the incentive schemes have a risk component, therefore the return on assets is the only source of profit

NSW DNSP has an incentive towards higher (rather than lower) demand volumes).	to augment caused by the building block approach. The WAPC should be modified to eliminate the incentive to increase demand as this runs counter to the espoused goals of the NSW and C'wealth governments to reduce the use of electricity through energy efficiency.
There is an increasing willingness from management of some DNSPs to undertake demand management; leading to its better integration into planning processes than before the D-factor was introduced.	This shows that failure of the previous regulatory approaches as the NER was explicit in requiring the lowest cost option for consumers to be used to manage increased demand. If DB management need to be incentivised to use DM rather than augment it shows that the regulatory controls are not ensuring the lowest cost option for augmentation is being implemented.
The D-factor complements the NSW DM Code, by providing incentives to implement strategies the code requires NSW DNSPs to investigate.	The Code requires a DB to effectively seek the lowest cost option for consumers of an augmentation. Therefore an incentive should not be necessary.
A scheme that provides incentives for broad based demand management would be viewed favourably by NSW DNSPs.	This is accepted. Providing additional funds to do what they should be doing under the NER and the NSW DM Code would always be seen as a positive by DBs.

**The AER notes that its consultation with consumers (page 16) supports continuation of the D-factor scheme, although EMRF notes that it was not asked for its views.**

“Overall, those consumer advocacy groups initially consulted see net benefit for consumers in the long term of continuing the D-factor scheme. The consumer groups stated that it acts as an efficient mechanism, leading to long-term price reductions for consumers and is a positive way of providing incentives to DNSPs to undertake demand management.”

The EMRF also supports a strong DM approach, but based on the relative lack of success of the scheme, the EMRF finds is very difficult to reconcile this clear statement of support with the extremely modest results identified so far.

In stating that “...it acts as an efficient mechanism...” is misleading as the results to dates do not support the contention. The EMRF considers that D-factor scheme may in time provide the outcomes sought but there is no clear evidence that it will provide the outcomes sought.

To state that it "...is a positive way of providing incentives..." is not denied, but the issue is whether consumers should have to pay more to DBs to get them to do what they are explicitly required in the NER and NSW DM Code, is contested.

### 2.3 The AER position

The AER has advised that it considers that the D-factor scheme should continue in NSW. It gives its reasons as

	<b>AER comments</b>	<b>EMRF comments</b>
<i>Form of regulation</i>	In accordance with the transitional Rules, the AER will apply a weighted average price cap form of control for standard control services. Some stakeholders consider a price cap to be a disincentive to undertake demand management. The AER sees a benefit in addressing these regulatory barriers to demand management incentives.	As noted above the EMRF considers there are more than the WAPC to act as a disincentive to DM. The EMRF considers that the disincentive is high powered and the D-Factor is a very low powered incentive. The AER has not proposed a mechanism to provide any way of addressing this asymmetry.
<i>Capacity building and future opportunities</i>	In spite of its short period of implementation, the results of the D-factor to date have demonstrated the ability of NSW DNSPs to build capacity and experience in their planning processes and the emergent demand management market. The AER considers that there are further opportunities for efficiency gains through planning processes and informed project assessments resulting from the D-factor.	The EMRF considers that the learning has been at a significant cost to consumers and that there has been no attempt to identify other solutions to providing this capacity building. The EMRF considers that the ESCoSA approach provides a direct relationship between cost and capacity building, and this approach is preferred as costs and outcomes can be directly related
<i>Information and data collection effects</i>	Given the short period in which the NSW DNSPs have had to implement demand management under the D-factor incentive scheme, the AER is of the view that its continuation would	This data that the AER seeks through continuation of the D-factor scheme could just as well be gathered by a more targeted scheme like the ESCoSA scheme. To continue with an approach which has delivered little and the learning processes have not been

	provide additional data on the impact of the incentive. Further, it is likely to provide a robust data set to help forecast potential capex efficiencies from demand management programs	shared, would seem to be counter productive.
<i>Limitations on price signals</i>	The AER's initial consultation with stakeholders indicates that there are limitations for the distributors to send signals to the market about constraints on the network through price. An alternative mechanism to effectively reduce constraints on the network is therefore required. The D-factor appears to be the preferred alternative mechanism at this time.	The EMRF does not agree that there are limitations on price signals which are needed to allow DM responses to occur. No regulator to date has attempted to address this issue of pricing in a DB. Under the new NER, pricing is to be addressed by regulators of DBs. Thus this argument loses credibility in light of the new Rules. The EMRF considers that the AER has a responsibility to examine pricing in more detail than just rely on the observations of DBs and to demonstrate that this approach cannot be applied.
<i>Customer willingness to pay</i>	Preliminary indications from stakeholders is that the scheme has resulted in modest net benefits	The results to date are very damning of the D-factor scheme. It appears that the D-factor approach has delivered some results but there has been no attempt to identify if a more targeted approach would deliver better outcomes. Investigations of the actual programs identified by the DBs would show that a number of the projects had been identified before the introduction of the D-factor scheme and they have been included in the overall benefits identified.

The AER has decided that due to the revenue cap approach used in ACT, a D-factor scheme is neither appropriate nor warranted. The EMRF would agree with this assessment.

## 2.4 Conclusions

The EMRF considers that there are a number of issues of greater import, that need to be addressed before consumers should be required to pay an incentive to get what is required under the Rules. The EMRF considers that the DM incentive scheme is a tool for providing the fine tuning to ensure that DM is

appropriately addressed. Unfortunately, the EMRF considers that there are much greater impediments to gaining the full benefits of DM than could ever be addressed by the D-factor scheme.

The EMRF concedes that the WAPC approach under the transition Rules cannot be changed, even though it provides a disincentive to DM approaches. However, this does not mean that the AER has to implement the D-factor scheme.

Before it attempts to develop an incentive scheme for DM, the AER needs to consider how it will:-

1. Address the strong incentive implicit in the building block approach to revenue development for a regulated business to use network solutions in preference to DM solutions for augmentations
2. Establish controls so that a DB is expected to, and can demonstrate that it has, properly addressed each augmentation proposal and compared it with accurate costs from a sensibly sourced DM approach
3. Ensure that the pricing approaches used by DBs will closely match the costs reflective of the use of the assets needed to provide the distribution service. It must be recognised that pricing is the primary tool for getting appropriate demand side responses.
4. Overcome the incentives implicit in the WAPC which encourages DBs to increase demand regardless as to whether this increase in demand will require augmentation. In the view of EMRF, the DB should only be incentivised to increase demand where this leads to greater utilisation of the network, and not to augment it.

As it stands The EMRF does not support the implementation of the D-factor scheme as proposed as it:

- Would have to operate in an environment where the outcomes it is supposed to provide have too much opposition from other sources
- Is unproven to provide sufficient benefit to consumers for the costs it imposes on them

**The EMRF is prepared to work with the AER to develop a DM scheme along the lines of the ESCoSA scheme in South Australia, where funds are provided under supervision to finance the staff costs for examining and trialing potential solutions for DM. Where an option is demonstrated as workable, then the DB would be required to test that option in every case where a DM approach might result in lower costs to consumers.**

Against the expected capex proposals of some \$8bn to \$10bn from the NSW distribution businesses for the next regulatory period, it is incumbent upon the AER to implement an effective demand management scheme. Anything less will adversely affect consumer interests.

For the ACT, the EMRF notes that the AER is seeking advice on how to capacity build for future DM implementation. The EMRF suggests that the targeted ESCoSA approach would provide this learning for ActewAGL. If the same approach was implemented for the NSW DBs, then the capacity built could be readily shared.

### 3. Control mechanisms for alternative control services

The AER has to provide the four DBs with direction as to how they are to develop costs for certain services which are not included in the listing of “standard control services”. Standard control service costs are to be developed using the building block approach, but the other services can be developed using less intrusive approaches.

Specifically, the AER has listed the following services which might be costed in a less intrusive manner.

- ACT - the provision of and servicing of meters for customers consuming fewer than 160 megawatt hours per annum (types 5-7 meters), including:
  - meter testing
  - meter reading
  - meter checking
  - the processing of metering data
  - the provision of non-standard meters
- NSW - construction and maintenance of public lighting infrastructure by DNSPs in NSW.

As a matter of principle, the EMRF considers that for a regulated service there must be a high level of certainty that the prices being charged are demonstrably reasonable. It is not sufficient that they are reasonable, but they must be seen to be reasonable as well. If this is not done then there is little confidence in the regulatory system.

That being the case, and because the AER cannot convince itself that the proposed prices are indeed reasonable, then the AER must, in the first instance, carry out a proper assessment of the costs that lead to the price that it will require consumers to pay. Once that price has been demonstrated as being reasonable to the satisfaction of the AER, then future movements of the price might be assessed on a less stringent basis.

**Thus as this is the first assessment of the distribution businesses, the EMRF considers that the AER must carry out for this review a detailed assessment of the costs to provide the alternative control services and confirm that the prices charged by the DB are reasonable in light of these costs. Thus an abbreviated review is not supported.**

At subsequent reviews, the AER might decide that less intrusive approaches to setting prices for these services might be more appropriate, including using abbreviated building block approaches.

#### **4. Approach to determining materiality for possible pass through events**

The EMRF considers that materiality of a pass through must be assessed in relation to the impact the issue has on the revenue of the DB. Equally, there should not be regular and consistent applications for pass through as this only serves to increase the costs of compliance.

The AER makes reference to the revenue of a DB as being used for the purposes of materiality. The EMRF points out that the revenue achieved by a business under a price cap arrangement, can be greater or less than the amount of revenue targeted by the regulated for each year in its reset. In order to prevent any gaming, the EMRF considers that for the purposes of materiality, the revenue as assessed by the AER at the reset should be used as the assessment of materiality, and not the revenue actually achieved or expected. Under a revenue cap approach there is no difference between the two amounts.

Consumers of energy operating in a competitive market do not have the automatic right of being able to increase their prices because one of their input costs has risen significantly. As regulation is intended to be a surrogate for competition, then the DBs should not be able to increase their prices just because of a relative increase in input costs.

The ability to pass through costs is limited to a few specific instances A pass through event is limited to:

- (a) a *regulatory change event*; or
- (b) a *service standard event*; or
- (c) a *tax change event*; or
- (d) a *terrorism event*; or
- (e) an event nominated in a *distribution determination* as a pass through event for the purposes of the determination;

Whilst the EMRF might not agree with all of these as being a permitted reason to change prices, it accepts that this is the basis for the new Rules.

Currently the AER has determined that a transmission network service provider should have at risk no more than 1% of its annual MAR. The AER determined that this was sufficient risk for a TNSP to have to face in any one year, even though the risk is related to its own performance and therefore is to a large degree well within its control. The EMRF through its affiliate MEU argued that a TNSP should have greater exposure to risk for its own performance than 1% but

the AER determined that 1% of MAR at risk was adequate for the purposes and provides an amount that will not expose the business to unnecessary risk of having insufficient revenue to manage its affairs.

This approach sets a good basis for setting the amount of risk a DB should face in any one year, and provides a sound approach to the risk a DB might face due to unforeseen changes in the events listed above. From a consumer viewpoint, it must be noted that although the NER provides protection for a regulated business for changes in these events, consumers are not protected from these increases and are required to pay for the changes, even if they do not agree that the changes are required. Thus the approach by the AER must recognise the essential need to balance between the costs to consumers who do not have the proposed protection to the needs of the regulated business to maintain its revenue despite the changes.

**The EMRF considers that for materiality the threshold for a single change event should be at least 1% of revenue. There should be no ability to sum the effects of multiple change events in order to reach the threshold.**

**The EMRF considers that the materiality threshold for any pass through event should be related to the expected cost of the change event that will be incurred in the year the change is made to the amount of revenue targeted for the business in that year. That is, if the cost of the event for that year is less than 1% of the expected revenue (as assessed at the reset) for that year, then the change is immaterial. If, as a result of the change the cost to be incurred in a subsequent year is less than 1% of the targeted revenue for that year, then the change is immaterial.**