



**Commerce Queensland  
and  
The Energy Users Association of  
Australia**

**Submission to the Queensland  
Competition Authority:  
Demand Forecasts for Distribution  
Service Providers  
2005-2010**

18th August 2004

## **Acknowledgments**

This report has been prepared by Commerce Queensland and the Energy Users Association of Australia, with the assistance of the Bardak Group (Dr Robert Booth as principal), whose assistance is gratefully acknowledged.

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The views and opinions presented in the paper are those of Commerce Queensland and the Energy Users Association of Australia.

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Demand Forecasts for Distribution Service Providers**

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## **Submission to the Queensland Competition Authority: Demand Forecasts for Distribution Service Providers**

### **Executive Summary**

Commerce Queensland and the Energy Users' Association of Australia (EUAA) are pleased to make this submission to the Queensland Competition Authority (QCA) in response to QCA's invitation to comment on the report on Demand Forecasts for Distribution Services in Queensland by McLennan Magasanik Associates (MMA).

This report is one of a series of such reports covering specific aspects of the major 2005 Distribution Review presently being conducted by the QCA for implementation for the five year period commencing in July 2005.

This submission comments on the content of the MMA report and raises other issues relevant to the load forecasts, which QCA adopt for the purposes of the 2005 Distribution Review.

It is important that the best possible load forecasts, especially those relating to peak demands, are used in the assessment of the expenditure needs of Energex and Ergon. Load forecasts establish the basis for the estimates of future capital and operating expenditures and have a direct impact on reliability. In turn, these expenditures have a direct effect on the annual revenue requirements of the DNSP's and hence the tariffs paid by Commerce Queensland/EUAA members.

For these reasons, Commerce Queensland/EUAA place great importance in the need for QCA to ensure that the load forecasts used in the Distribution Review are the best available. We are not convinced that this situation has yet been reached.

The major conclusions arising from this submission are as follows:

- Commerce Queensland/EUAA accept the fact that the combination of high current rates of electricity load growth, the findings of the Independent Panel on the need to catch up on several years of neglect by the DNSP's, and the need for the DNSP's to meet defined reliability standards, has created the need for increased capital and operating expenditure over the 2005-2010 period;
- that being said, Commerce Queensland/EUAA are looking to the QCA to ensure that the requirements are met at the lowest practical cost and

with reasonable and justifiable effects on the tariffs paid by customers in Queensland;

- it is important that the best possible load forecasts, especially those relating to peak demands, are used in the assessment of the needs of Energex and Ergon (the DNSP's or distributors);
- while the MMA report represents a considerable advance on the estimates and techniques used by the distributors, their forecasts for Energex and Ergon appear to be inconsistent (and generally higher) than those contained in the recently released NEMMCo Statement of Opportunities (SOO), which Commerce Queensland/EUAA regard as representing the best estimates currently available for the total Queensland load; and
- further work is needed therefore, before the QCA will have access to the most reasonable load forecasts for use in the Distribution Review.

The recommendations arising from this submission are as follows:

- that the QCA and MMA need to revisit the DNSP's forecasts in the light of the publication of the SOO and ensure that the load growth estimates adopted for the Distribution Review are consistent with the forecasts contained in the SOO;
- that the QCA should endorse the actions recommended by MMA which are designed to improve the quality of the data collected by Energex and Ergon relevant to load forecasting activities;
- that the QCA reconcile the apparent differences in economic growth rates used by MMA and the Queensland DNSP's and those used in the NEMMCo SOO, and ensure that the latest and best estimates are being used;
- that the demand forecasts published by the QCA should include estimates of peak demands based on both 50% probability of exceedance (POE) and 10% POE weather conditions;
- that the QCA should ensure that the effects of price elasticity are included in the final set of demand forecasts used in the Distribution Review; and
- that MMA and the QCA reexamine their load forecasts in the light of the NEMMCo assumptions in the latest SOO and the Commerce Queensland/EUAA comments, to ensure that the full amount of demand side response to be expected in Queensland is reflected in the final set of load forecasts used in the Distribution Review.

Commerce Queensland/EUAA would be happy to discuss its submission and views with the QCA at any time.

# **Submission to the Queensland Competition Authority: Demand Forecasts for Distribution Service Providers**

## **1. Introduction**

Commerce Queensland and the Energy Users' Association of Australia (EUAA) are pleased to make this submission to the Queensland Competition Authority (QCA) in response to QCA's invitation to comment on the report on Demand Forecasts for Distribution Service in Queensland by McLennan Magasanik Associates (MMA).<sup>1</sup>

This report is one of a series of such reports covering specific aspects of the major 2005 Distribution Review presently being conducted by the QCA for implementation for the five year period commencing in July 2005.

Commerce Queensland, a non-Government organisation, is the State's leading business association, and delivers a broad range of services and represents business interests to government at all levels. The organisation is commercially-minded and expertly-qualified.

Commerce Queensland lodges well researched submissions and makes direct representations to ensure that issues which affect business are publicly discussed.

Commerce Queensland is a founding member and influential partner of the Australian Chamber of Commerce and Industry (ACCI) and part of the worldwide network of Chambers of Commerce and affiliated business service organisations.

The EUAA is a non-profit organisation focused entirely on energy issues. Members determine EUAA policy and direction. The EUAA represents a wide spectrum of end-users in all Australian States and most of its Queensland members are also members of Commerce Queensland. It currently has around 80 members, predominantly business users with activities across all states and many sectors of the economy. EUAA activities cover both national and state issues.

Commerce Queensland/EUAA accept the fact that the combination of high current rates of electricity load growth, the findings of the Independent Panel on the need to catch up on several years of neglect by the Distribution

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<sup>1</sup> McLennan Magasanik Associates, "Demand Forecasts for Distribution Services in Queensland", a report to the Queensland Competition Authority dated July 2004.

Network Service Providers (DNSP's or simply "distributors"), and the need for the DNSP's to meet defined reliability standards, has created the need for increased capital and operating expenditure over the 2005-2010 period.

That being said, Commerce Queensland/EUAA are looking to the QCA to ensure that the requirements are met at the lowest practical cost and do not result in large tariff shocks for customers in Queensland.

It is important that the best possible load forecasts, especially those relating to peak demands, are used in the assessment of the expenditure needs of Energex and Ergon. Load forecasts establish the basis for the estimates of future capital and operating expenditures and have a direct impact on reliability. In turn, these expenditures have a direct effect on the annual revenue requirements of the DNSP's and hence the tariffs paid by Commerce Queensland/EUAA members.

For these reasons, Commerce Queensland/EUAA place great importance in the need for QCA to ensure that the load forecasts used in the Distribution Review are the best available. We are not convinced that this situation has yet been reached.

This submission comments on the content of the MMA report and raises other issues relevant to the load forecasts, which QCA adopt for the purposes of the 2005 Distribution Review.

## **2. Reconciliation with the NEMMCo Statement of Opportunities**

Since the MMA report was written (dated July 2004), NEMMCo has published its annual Statement of Opportunities (SOO) for the National Electricity Market (published on July 30th 2004). This contains forecasts of the total Queensland load at the generator terminal level.

The SOO states that Powerlink Queensland, in conjunction with Energex, Ergon and the National Institute of Economic and Industry Research (NIEIR), developed the current maximum demand projections in late 2003. These have been independently analysed by NEMMCo and the final forecasts represent the combined views of all of these organisations.

Given the amount of time and effort, and the independent checking of the reasonableness of the estimates, Commerce Queensland/EUAA are of the view that the forecasts made in the SOO are the most authoritative available, and that it is important that the QCA adopt forecasts for Energex and Ergon which are consistent with them.

Commerce Queensland/EUAA would have expected that these same forecasts would have been the ones made available to MMA for their analysis, but an examination of the figures contained in the MMA report raised queries about the consistency between the DNSP forecasts and the values contained in the SOO.

To reconcile the figures, the demand of the loads supplied directly from the transmission system need to be added to the Energex and Ergon demands to determine the demand measured *ex* the transmission system (a figure quoted for past years by PowerLink Queensland and readily able to be obtained) and then the allowance for losses and used-in-station demand added to produce the demand *ex* the generator terminals. The procedure used by NEMMCo to make such an adjustment is detailed in the SOO.

In order to check the reasonableness of the Energex/Ergon estimates in relation to the SOO forecasts, Commerce Queensland/EUAA and its consultant compiled a set of estimates as follows:

- actual demand estimates for the period from 2000/01 to the present year were assembled and used to derive the magnitude of the demand supplied from the transmission system and also to check the allowance for losses and used-in-station demands;
- the record shows that, over the five year period to 2003/04, Energex maximum demands increased by an average of 4.7% per year and those of Ergon by 3% per year. The State *ex*-generator demand increased by an average of 5.9% per year due to the growth in loads supplied *ex* the transmission system;
- the Energex/Ergon forecast demands as quoted in the MMA report, and the SOO as-generated demands were assumed to apply in future years and the demand supplied from the transmission system derived by the difference between the sum of the partial demands and the SOO forecast demands after adjustment for losses. Any inconsistencies in the Energex/Ergon forecasts would then show as unusual values for the demand supplied *ex* the transmission system.

The result is shown graphically below, for reference. Specific results are recorded in the following tables.

In order to make the figures reconcile, it was necessary to assume that the loads supplied directly from the transmission system declined from the present level of around 1,250MW to a figure of 839MW by 2009/2010. This is not reasonable and indicates that either:

- the DNSP forecasts are realistic and the SOO forecast is too low, or
- the SOO forecasts are realistic and the DNSP forecast loads are too high.

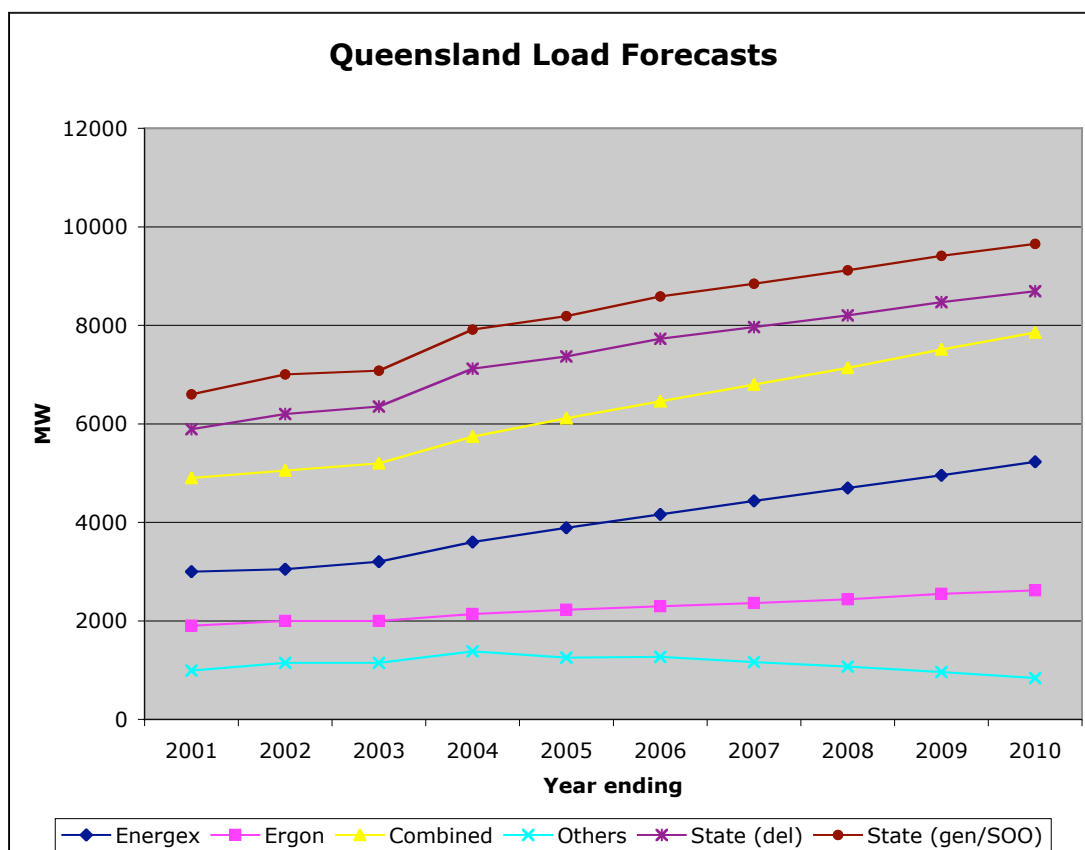
To test these alternative hypotheses and to estimate the magnitude of the discrepancies, two more cases were compiled deriving either a revised SOO forecast or revised DNSP forecasts as the case may be.<sup>2</sup> The demand supplied

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<sup>2</sup> In the case where we assume that the SOO estimates are correct, the combined DNSP load is calculated and then apportioned using the factors derived from the DNSP forecasts or the MMA forecasts, as appropriate.



from the transmission system was held constant at 1,250MW in each case. Commerce Queensland/EUAA can make the actual calculations available to the QCA if needed.



The results are compared firstly by listing the compound annual growth rate (CAGR) for the five year period starting in 2005/06, matching the practice adopted by MMA in their report.

Firstly, we assume that the SOO ex-generator forecast is correct. See Table 1 below.

**Table 1 Comparison of 5 year CAGR's**

	Historical	DNBP's correct	SOO Correct
Energex	4.7%	5.9%	4.2%
Ergon	3.0%	3.3%	2.5%
State (ex-gen)	5.9%	4.0%	3.0%

On this assumption, there are significant differences in the average growth rates which need to be assumed for the DNBP's. The growth rate for Energex over the 5 year period is 1.7% less and that for Ergon 0.8% less than the

estimates supplied by the DNSP's and listed in the MMA report.

The results can also be compared by way of the maximum demand forecast for the 2009/2010 year, identifying the magnitude of the differences in MW and in percent of the estimates based on the SOO being correct. These are shown in Table 2 below.

**Table 2 Comparison of 2010 Maximum Demands**

	DNSP's correct	SOO correct	Difference MW	Difference %
Energex	5,230	4,956	274	5.5%
Ergon	2,621	2,484	137	5.5%
State (ex-gen)	10,112	9,656	456	4.7%

The magnitude of the differences in maximum demand in the 2009/2010 year is significant in all cases, both in terms of MW of forecast peak demand and also as a percentage of the values derived from the SOO forecast.

A similar set of comparisons can be made using the MMA forecasts for Energex and Ergon. This comparison is shown in Tables 3 and 4 below.

**Table 3 Comparison of 5 year CAGR's**

	Historical	MMA correct	SOO Correct
Energex	4.7%	5.3%	4.2%
Ergon	3.0%	3.6%	2.5%
State (ex-gen)	5.9%	4.0%	3.0%

The MMA forecasts are much closer to the forecasts derived from the SOO, but still err on the high side.

The growth rate for Energex over the 5 year period is 1.1% less and that for Ergon 1.1% less than assumed by MMA.

The maximum demand forecast for the 2009/2010 year, identifying the magnitude of the difference in MW and in percent of the SOO estimate for the MMA estimates is shown in Table 4 below.

**Table 4 Comparison of 2010 Maximum Demands**

	MMA correct	SOO correct	Difference MW	Difference %
Energex	4,887	4,810	77	1.6%
Ergon	2,672	2,630	42	1.6%
State (ex-gen)	9,788	9,656	132	1.4%

Consistent with the MMA assumed growth rates being closer to those derived from the SOO forecasts, the differences in 2009/2010 maximum demand forecasts is not as great as that obtained by using the DNSP forecasts, but differences still exist.

It is not the intention of this submission to put forward actual forecasts nor precise numbers — we have neither the time for this, nor do we have access to the detailed data held by the DNSP's and made available to MMA, and necessary to undertake such estimates. We simply wish to point out inconsistencies.

On the basis of this preliminary examination, the load estimates put forward by the DNSP's appear to be too high to be acceptable while those put forward by MMA look more reasonable and are closer to, but not the same as those which reconcile with the SOO forecasts.

*We recommend that the QCA and MMA need to revisit the DNSP's forecasts in the light of the publication of the SOO and ensure that the load growth estimates adopted for the Distribution Review are consistent with the forecasts contained in the SOO.*

### **3. The Quality of Data available to the QCA**

Commerce Queensland/EUAA were surprised at the comments made by MMA in relation to the lack of suitable data being available from both Queensland distributors.

Forecasting of future loads, and especially maximum demands, is a “bread and butter” task for any electricity utility, and both Energex and Ergon have a long history of operation in one form or another, and would be expected to have honed their skills in this area in particular.

Not only do such forecasts form the basis of estimating future capital and operating expenditures, but they also flow down through to other aspects of the utility's operations, such as the analysis of feeder and transformer loadings.

The recently published report of the Independent Panel on *Electricity Distribution and Service Delivery*, highlights the lack of attention paid by the DNSP's to monitoring the performance of their network, and the resulting

over-utilisation of assets.<sup>3</sup>

For example, on page 12 of the Executive Summary, the Independent Panel states that:

“The ENERGEX network has utilisation of around 76%. The Australian average is around 56% and the professional advice that the Panel obtained was that prudent practice dictates that utilisation should be around 60% to 65%. It is clear that, as mentioned above, some of this over utilisation came about as a result of ENERGEX not accurately predicting growth in peak demand levels in 2002/03 and 2003/04.”

The need for accurate load forecasts is obvious from the above statement.

Commerce Queensland/EUAA have been advised of very sophisticated models in use by other distributors in Australia and overseas, especially ones which correlate appliance penetration rates and appliance usage data and load curve shapes with load curves measured at distribution transformer level and then at zone substation level. Such an approach, when used in conjunction with the normal trend analyses used by the DNSP's and those detailed in the MMA report, allow more accurate forecasts to be made and ones which can predict emerging patterns of behavior before they appear in current load curves.

Load forecast models based on these techniques would have anticipated, for example, the rapid impact of air-conditioning on the Queensland distributors — had the correct data been collected and analysed.

The MMA report details the use of a model of this general nature, but it would need much more detail and much more data to be really useful.

MMA make certain recommendations aimed at improving the amount and quality of data collected by the DNSP's, in order to move in this direction. *Commerce Queensland/EUAA fully support the thrust of the MMA recommendations and believe that the QCA should endorse them for action by Energex and Ergon.*

#### **4. Economic Forecasts**

Commerce Queensland/EUAA note in passing that the underlying economic forecasts being used by the DNSP's, and MMA, differ from those used by NEMMCo and PowerLink in compiling the SOO estimates — despite NIEIR predictions being employed by all these organisations.

It seems that, based on the MMA report, a NIEIR prediction of a 3.6% rate of growth of Queensland GDP for the period up to 2010, underlies their

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<sup>3</sup> Independent Panel, “Electricity Distribution and Service Delivery for the 21st Century”, July 2004

estimates of non-residential demands. On the other hand, the NEMMCo SOO appears to be based upon a NIEIR estimate of a 3.8% rate of growth of Queensland GDP for the period from 2003 to 2010.

Based on this difference, one would have expected the SOO load forecasts to be higher than those derived by MMA, but the reverse appears to be the case.

*Commerce Queensland/EUAA recommends that the QCA reconcile the apparent differences in economic growth rates used by MMA and the Queensland DNSP's and those used in the NEMMCo SOO, and ensure that the latest and best estimates are being used.*

## **5. The use of 50% POE Peak Demands**

The MMA report makes it clear that they are deriving forecasts of peak loading which related to a 50% probability of exceedance (50% POE) — essentially the demand which will be exceeded on average in one year in every two. By implication (since MMA make a direct comparison), the DNSP estimates are stated on the same basis, and this assumption is also confirmed by the information documented in the Independent Panel report referred to earlier in this submission.

The Independent Panel made two recommendations relating to future planning practice of the distributors:

- that both Energex and Ergon Energy's network planning in high growth urban areas should be based on a 10% POE weather assumption, which attributes a relatively high probability to an extreme weather event occurring and therefore builds in greater contingent capacity into the system; and
- that Government include in Energex and Ergon Energy's Distribution Authorities a requirement that they meet a standard equivalent to "N-1" for bulk and major zone substations and for their sub-transmission system.

Both of these recommendations, if implemented, will have a major effect on the requirement for capital and operating expenditures for Energex and Ergon in future years, and it is important that the QCA are aware of the status of these particular recommendations and make clear their impact on expenditures in the conduct of the 2005 Distribution Review.

*Commerce Queensland/EUAA recommends that, if 10% POE peak demand predictions are to be used, then the Demand Forecasts published by the QCA should include estimates of peak demands based on both 50% POE and 10% POE weather conditions.*

## **6. Effects of Elasticity of Demand**

MMA include some comments on the effect of elasticity of demand on future load forecasts in Queensland in their report. They note, for example, that the

long run own price elasticity of demand is estimated to be -0.29, a figure commonly used in the electricity industry in Australia.<sup>4</sup>

But we note that MMA do not allow for any elasticity effect on their load forecasts and that their information on future price trends is limited to documenting their current estimate of future Queensland pool prices.

This approach is not satisfactory, or accurate, for two major reasons:

- The elasticity factor needs to be applied to the final price paid by customers, which is the sum of the effective wholesale price, the applicable network tariffs and retail margins. In particular, network charges make up 40% or more of final prices for many customers.

The effect of the Independent Inquiry's recommendations and the high rates of growth being experienced in Queensland, point in the direction of increased network charges and thus increased prices for consumers in Queensland. Elasticity effects need to be estimated.

- Effective wholesale prices are determined not by pool prices, but in the main by hedging contract prices and the costs of risk management. The Annual Reports of Queensland generators disclose that they receive average prices, which are always higher than pool prices, sometimes by large margins.

Effective wholesale prices need to be estimated, not just pool prices.

The QCA will soon need to estimate the likely future level of network tariffs to apply for the 2005-2010 period (they must be included in the Draft Determination, due in November, for example). Thus the components necessary to estimate the level of future end customer tariffs will soon be available, allowing elasticity effects to be estimated.

*Commerce Queensland/EUAA believe that the QCA should ensure that the effects of price elasticity are included in the final set of demand forecasts used in the Distribution Review.*

## **7. Demand Side Management**

Commerce Queensland/EUAA are concerned that MMA have not paid sufficient attention to the likely effects of demand side management in their forecasts of future demand in Queensland.

For example, we note that MMA do not allow for any contribution from the demand side in their forecasts. By contrast, NEMMCo identified 157MW of demand side response in Queensland in the latest SOO. This is 2.6% of the expected sum of the Energex and Ergon maximum demand for 2005 and is a

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<sup>4</sup> See page 26 of the MMA report.

significant amount.

We also note that one of the recommendations from the recent Independent Panel report was that:

“Demand side management initiatives can be taken by distributors, retailer and customers to modify customer electricity demand and usage patterns. Such initiatives can encourage customers to use energy more efficiently in order to reduce the overall consumption of electricity and to assist in managing maximum demand. The use of capacity based kVA tariffs is a common demand management policy used elsewhere in Australia to encourage major industrial and commercial customers to install power factor correction equipment to reduce any inefficiency caused by low power factors at their premises.

The Panel recommends that Government work with the distributors to develop structures of this kind to manage peak maximum demand in the system.”<sup>5</sup>

We also draw the attention of the QCA to the recent Determination of IPART on the distributors in New South Wales, especially the incentives provided for the distributors to engage in expanded demand management activities. While Commerce Queensland/EUAA would like to see an even stronger emphasis placed on demand management than those endorsed by IPART, their actions represent a start in the right direction, upon which the QCA can build.

There is no doubt that the operation of the National Electricity Market and the economics of the distribution function would be greatly improved if the demand-side of the industry could be encouraged to respond when supply is placed under stress and/or when pool prices threaten to be driven to very high values. Peak demands on the generation, transmission and distribution systems would be reduced, with consequential reduction in expenditure requirements and an increase in system utilisation.

In theory, if there is perfectly price elastic demand (i.e. a vertical price/demand line on the supply/demand graph), the pool price can be driven to infinity. Conversely, the higher the price elasticity (the greater the demand-side response) the more the demand side can play a role in keeping system peaks or pool prices to more reasonable levels.

Commerce Queensland/EUAA believe that, although there are significant difficulties in marshaling an effective level of demand side response, only a relatively small proportion of load (say 3-4%) is needed to have a significant effect.

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<sup>5</sup> Independent Panel, “Summary Report of the Independent Panel – Electricity Distribution and Service Delivery for the 21st Century”, page 31. We note that it would be useful if such work also included actual customers, who are the only ones who can ultimately provide demand management and bodies such as the EUAA who are experienced in demand management and are in direct contact with users able to provide it.

The EUAA has recently completed and documented a trial of a Demand Side Response Facility, aimed at aggregating available demand-side controllable or sheddable capacity in response to both distribution system peaks and high energy prices.<sup>6</sup>

The Trial was based on the proposition that a commercial facility could provide a means for encouraging and stimulating end-user response to price volatility and extreme network loading. This would help overcome what is widely recognised to be one of the fundamental weaknesses of the National Electricity Market – the effective absence of demand side response to extreme prices and network constraints. Participating end-users would earn revenue for providing Demand Side Response (DSR) that could reduce the overall cost of delivered energy and network services. If such a facility stimulated sufficient DSR, it would also benefit the great majority of end-users not providing DSR.

End-users participating in the Trial offered 93 items of plant with a total dispatch capacity of 119.4MW, substantially more than anticipated during planning for the Trial. The plant was located in three NEM Regions (NSW, SA and Victoria)<sup>7</sup> and each plant item was offered for scheduling and dispatch on the basis of individual bids with different prices and dispatch conditions. The end-users were providers and sellers of DSR and electricity retailers and distributors were buyers of aggregated DSR.

Despite the wide range in type and capacity of individual plant items, and the wide range of differing bid prices, the capacity-weighted bid price in the three NEM regions with registered sellers during the test varied from just \$1,000/MWh to \$1,129/MWh, with the overall capacity-weighted sellers' bid price being \$1,046/MWh, or just over 10% of the value of the NEM price cap (VoLL).

This outcome suggests that effective DSR could help create a 'voluntary' price cap in the energy market at a value well below VoLL – providing sufficient DSR capacity was available for dispatch to impact on the spot price. Material made available to participants in the Trial suggested that up to 500MW of DSR capacity in any single NEM region and 1,000MW across the NEM may be required to ensure DSR will reliably affect extreme energy market spot prices. This is about 3.5% of the maximum demand in the NEM.

The final report on the trial comments that:

“Current National Electricity Code rules create some perverse incentives for DSR. The spot price mechanism provides incentives for generators to offer capacity by paying all generators at the (higher) bid price of the last

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<sup>6</sup> Pareto Associates, “A Demand Side Response Facility for the National Electricity Market”, November 2003, available from the EUAA web site (see [www.euaa.com.au](http://www.euaa.com.au) under “What’s New”)

<sup>7</sup> Although Queensland users did not participate in the trial the impacts on Queensland would not be very different from elsewhere in the NEM. It would also be fair to say that, since the trial, the climate for demand management in Queensland has improved significantly.



increment of capacity required to satisfy demand. But DSR capacity delivering the same outcome (through reducing demand) reduces spot price and 'destroys' value for actual or potential DSR providers. This acts as a powerful disincentive for end-users to provide DSR and prevents 'capture' of a 'fair' share of the value that could be released by global DSR.

A mechanism to optimise incentives for DSR should be considered. For example:

- imposing a (relatively) small surcharge on energy market transactions and using this to compensate DSR providers whenever global DSR is achieved; or
- investigating how a DSR capacity payment scheme could be used to 'compensate' DSR providers for the value they could create.

It is recommended that the EUAA ensure this issue is considered during examination of the feasibility of a commercial DSR facility"<sup>8</sup>

A factor in the decision of the ACCC to increase VoLL to \$10,000/MWh was that it thought that a high level of VoLL (as a price cap) would provide greater incentives for demand side response. The EUAA queried this at the time.

The limited amount of demand side response able to be identified by NEMMCo – just 334MW in the latest SOO — falls well short of the potential seen by the EUAA study. This is just over 1.1% of the expected NEM maximum demand.

Note that Commerce Queensland/EUAA intend to make a specific submission to the QCA on the potential for Demand Side Response in Queensland later this year, as part of the QCA review process. This will assess options for Demand Side Response to be included in the distribution pricing regime for the next regulatory period and will draw on the EUAA trail and developments since then.

***Commerce Queensland/EUAA recommend that MMA and the QCA reexamine their load forecasts in the light of the NEMMCo assumptions in the latest SOO and the above comments, and ensure that the full amount of demand side response to be expected in Queensland is reflected in the final set of load forecast used in the Distribution Review.***

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<sup>8</sup> See page Xiii of the previous reference.

## 8. Conclusions and Recommendations

The major conclusions arising from this submission are as follows:

- Commerce Queensland/EUAA accept the fact that the combination of high current rates of electricity load growth and the findings of the Independent Panel on the need to catch up on several years of neglect by the DNSP's, together with the need for the DNSP's to meet defined reliability standards, has created a need to deal with this situation over the 2005-2010 period;
- that being said, Commerce Queensland/EUAA are looking to the QCA to ensure that the requirements are met at the lowest practical cost and with reasonable and justifiable effects on the tariffs paid by customers in Queensland (this need not – perhaps should not – always be provided by network solutions alone);
- it is important that the best possible load forecasts, especially those relating to peak demands, are used in the assessment of the needs of Energex and Ergon;
- while the MMA report represents a considerable advance on the estimates and techniques used by the distributors, their forecasts for Energex and Ergon appear to be inconsistent (and generally higher) with those contained in the recently released NEMMCo Statement of Opportunities, which Commerce Queensland/EUAA regard as representing the best estimates currently available for the total Queensland load;
- further work is needed therefore, before the QCA will have access to the best possible load forecasts for use in the Distribution Review.

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- that the QCA should ensure that the effects of price elasticity are included in the final set of demand forecasts used in the Distribution Review;
- that MMA and the QCA reexamine their load forecasts in the light of the NEMMCo assumptions in the latest SOO and the Commerce Queensland/EUAA comments, to ensure that the full amount of demand side response to be expected in Queensland is reflected in the final set of load forecasts used in the Distribution Review..

Commerce Queensland/EUAA would be happy to discuss its submission and views with the QCA at any time.