

Energetics Pty Ltd Level 7 132 Arthur St North Sydney NSW 2060 PO Box 294 North Sydney NSW 2059 Australia

Phone: 61 2 9929 3911 Fax: 61 2 9929 3922 Web: <u>www.energetics.com.au</u> ABN 67 001 204 039 ACN 001 204 039

Dr John Tamblyn Chairman Australian Energy Market Commission PO Box A2449 Sydney South NSW 1235

February 08, 2008

Dear Dr Tamblyn,

#### **Re: Rule Proposal on Demand Management**

We would like to submit the following document to support the Total Environment Centre's Rule Change proposal on demand management.

Energetics has nearly 25 years experience in demand management, and we have worked with numerous large and medium sized energy users, networks, retailers and governments in this time. Our DM experience covers the full breadth of activities included in the TEC proposal, from energy efficiency to peak load management. We have also had direct experience with DM overseas through our consulting business and alliances, including highly successful programs in California, South-East Asia and New Zealand.

In our opinion, based on our experience, a great deal more can and should be implemented in Australia to further improve the contribution of DM to the electricity market, beyond existing welcome, but small, initiatives such as for example the NSW "D-factor", reserve capacity projects and programs by a number of transmission and distribution networks.

In particular, we draw the Commission's attention to the experience in California, which is perhaps one of the most successful DM programs in operation. As the Commission may be aware, legislation in California requires generators and distributors to demonstrate that they have exhausted cost effective DM as a pre-requisite for approval to spend monies on new supply side investment.

In fact, since the enactment of California's Energy Action Plan in 2003, a Loading Order integrated into the major CPUC decisions governing energy policy and procurement exists, and prioritises energy resources thus:

- o Energy Efficiency/Demand Response
- o Renewable Generation, including renewable DG
- o Increased development of affordable & reliable conventional generation
- o Transmission expansion to support all of California's energy goals

The achievements by California's DM programs are significant, both in terms of the peak demand reductions achieved, and particularly in the cost-effectiveness of DM solutions compared with alternative supply-side options. This is illustrated in the two figures below.





# Summary of Demand Management Performance in California<sup>1</sup>



Annual Peak Savings from Efficiency Programs and Standards



Arthur Rosenfeld, 21

In our opinion, much more can be done to promote and advance DM solutions in Australia that will lead to improved economic and environmental outcomes.

<sup>&</sup>lt;sup>1</sup> 2006, "Energy Efficiency in California – Some Possible Lessons for Ontario", Arthur H. Rosenfeld: Commissioner, California Energy Commission, presentation on 20 March 2006





Accordingly, Energetics strongly support the proposal by TEC. Australian businesses are increasingly under pressure from the rising costs of electricity and greenhouse emissions. There is an urgent need to transform the national electricity market's wasteful, supply heavy system into one that prioritises efficiency. It therefore makes sense for electricity industry regulations and incentives to ensure that all efficiency gains have been exhausted before the building of expensive and polluting new infrastructure.

The major bias against demand management in the national electricity market must be reversed. Not only can demand management reduce costs and greenhouse emissions, it can also provide both short and long-term supply and system efficiencies and hence assist system reliability. Reducing pressure on generation and relieving short-term congestion improves reliability and reduces the frequency of black-outs.

Ideally, a demand management objective should be inserted into the National Electricity Law. Without such an objective, extensive Rule changes are necessary, including those proposed by Total Environment Centre. While the proposals relate to transmission networks only, we give in principle support to their tailored application to distribution networks as well.

We support the specific Rule proposals below:

# 1. Transmission network planning

Regulators must ensure that demand management solutions are prioritised and properly investigated in the planning stages of network development.

# 2. Annual Planning Reports

Transmission networks must be required to publish robust data on upcoming constraints that are relevant and useful to demand management service providers. This would inform the demand management market of upcoming opportunities and enable it to respond to these in an effective and timely manner.

#### 3. DM Incentive

There should be an explicit provision for the Australian Energy Regulator to develop and implement a demand side incentive scheme. This should address the chronic failure of networks to invest in cost-effective demand management.

#### 4. Financial cover for DM investments

The energy regulator must clarify the circumstances in which transmission networks can recover spending on demand management. This would create more certainty for networks regarding their ability to investigate, implement and recover demand management expenditure.

#### 5. Revenue determinations

Revenue determinations for networks must ensure that demand management is prioritised ahead of the construction of more network infrastructure. Revenue determinations are an ideal process to facilitate demand management as this process allows regulators to closely scrutinise and modify future spending by networks.

# 6. Acknowledgment of modest DM expenditure

Small scale demand side activities should be enabled even when unrelated to particular network constraints or when covering relatively modest amounts of load. Modest but widespread demand reductions can provide long term benefits by reducing the need for a range of possible future network as well as generation augmentations.





# 7. Effective prudency reviews

Prudency reviews by the regulator must assess past capital expenditure. These should specifically and thoroughly assess the extent to which transmission networks have implemented, and not ignored, an adequate level of demand management. Such reviews are critical to ensure that transmission networks do not ignore demand management solutions at the expense of electricity consumers.

# 8. Regulatory Test

The Rules should specify that the Regulatory Test require demand management options to be investigated *before* augmentation options. This is likely to ensure that a more appropriate level of transmission networks' resources and attention are directed to DM before augmentation planning is underway.

#### 9. Short-term and long-term price for DM

A price should be set for demand management within the market pool. Setting a price for demand management will encourage greater investment in and facilitate growth of demand management aggregation as a market commodity. A market mechanism that provides the opportunity for proponents to bid into the market would encourage new demand management entrants and promote competition for existing demand management businesses.

We look forward to significant progress on demand management as a result of these important Rule change proposals.

Yours sincerely,

Patrick Denvir Principal Consultant

**Energetics Pty Ltd** 

t: +61 2 9492 9535 m: +61 4 0841 3597 f: +61 2 9929 3922 e: <u>denvirp@energetics.com.au</u> w: www.energetics.com.au

