

Mr Eamonn Corrigan  
Director  
Australian Energy Market Commission  
Level 5  
201 Elizabeth Street  
Sydney NSW 2000

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Dear Eamonn

Alstom and UISOL are pleased to provide brief comments with regard to the directions paper "Power of Choice". The issues addressed by the paper are relevant not just within Australia but worldwide, as demand for electricity increases. Alstom and UISOL are uniquely qualified to comment, as Alstom has from the outset been instrumental in the technical design and support of the NEM, and UISOL has the legacy of deploying the largest production Demand Response Management Systems in the world. Together, Alstom and UISOL provide superior industry expertise related to lessons learned and best practices in functional operation & business design of evolving Demand Response Energy Markets.

Integrating and facilitating Demand Response Participation in an established electricity market is complex, as the Directions Paper amply illustrates. In general, we find the paper to be high quality and very comprehensive, and we do not intend to comment in detail at this point. We would like to make a few observations on matters of emphasis and direction.

The Directions Paper correctly discusses the issue of DSP from an economic point of view, underlining the economic drivers that dictate the attractiveness of DSP to market participants. However, it does not seem to put clear value on two factors other than price/return which are also of relevance. These are system reliability and reduction of negative environmental impacts.

The National Electricity Objective places considerable emphasis on reliability and security of supply within the context of efficient investment in and operation of the electricity system. There is no question that effective DSP can increase the reliability of the system and improve investment decisions, with consequent positive effects on pricing. But reliability has a value in itself that should not be overlooked, particularly in the context of the debate about contracted DSP versus non-contracted (price driven) DSP. Our experience in the US is that energy prices

alone are insufficient to attract reduction in demand, and many US programs are designed to improve reliability. Without this consideration, participation would be significantly less.

Secondly, demand reduction is important for minimising negative environmental impacts in the context of increasing energy demand and corresponding carbon emissions. This is a very topical issue in Australia, and the paper does not appear to value this potential outcome in the discussion about balancing supply and demand. Obviously, reducing demand has much more benign environmental outcomes than increasing supply of power generation, particularly from fossil fuels.

In terms of potential returns from DSP, it is clear that although household energy efficiency (and price reduction) generally garners the most attention, greater and more immediate returns are available from large industrial users and, potentially, from commercial users. These sources also lend themselves to contracted DSP, which as your paper notes provides a more certain source of demand reduction than does DSP driven by price. For example, one aluminium smelter participating in the Midwest can by itself provide 300 MW of demand response. Relatively sized gains must be available in Australia but it seems that few large users are currently participating. This points to the existence of market failures, which you discuss and characterise as either within or outside the scope of the review.

We note the preference for market based instruments, and the complexity of federal/state responsibilities in Australia. The experience in the US would suggest that incentivising demand response might require more than adjustment of current market rules and increasing purely economic incentives. Measures such as demand response targets and uplift or capacity payments should be considered. National policy makers have the ability to influence demand response beyond pure pricing approaches and we would argue that, if appropriate value is assigned to reliability and environmental issues, regulatory interventions can be justified. UISOL is well versed in FERC endeavours across the US to increase DSP, homogenise rules, and subsequent market reactions to such legislation. We would be pleased to discuss these with AEMC.

We believe that policy relating to demand side participation should be based on comprehensive review of all relevant issues, and that the experience of existing programs should be carefully studied. Market-based demand response programs are currently operating in all ten organized wholesale markets in North America. UISOL has investigated the revenue potential at various ISO/RTOs based on historical energy, capacity and ancillary services data, which can give an indication of the benefits to customers and/or third party aggregators. A comparison with US programs, both wholesale and retail, could minimise the possibility of implementing flawed



programs in Australia. We have recently provided consultancy services to Transpower in New Zealand in this vein.

Finally, but of no less importance, we believe that demand response standards, both at the program/policy level across markets and regions, and at the technology level to minimise costs and reduce barriers, should be addressed. UISOL has worked very actively in North America on relevant standards including those for uniform measurement & verification practices, signalling for demand response, product/price information models, and access to end-user consumption data. Through our work with the ISO/RTO Council, an organization which represents all of the market operators in North America, we have and continue to provide domain thought leadership in Demand Response markets. Our dedication to standards is exemplified by our staff's positions in the industry, including a board seat at the NAESB and US chair of IEC Technical Committee 57. We feel strongly that continued growth of demand response is linked to simplifying participation through the adoption of standard procedures and technologies.

Yours sincerely

Gwen Andrews  
Vice President, Environmental Policies and Global Advocacy  
Asia and Oceania