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Dear Mr Smith

### **Strategic Priorities for Energy Market Development – Discussion Paper 2011**

AEMO welcomes the opportunity to provide input into the AEMC's Strategic Priority Discussion Paper 2011.

This paper comes at a challenging time for the energy sector, with high profile policy challenges for government and industry alike as the form and scope of future carbon pricing arrangements is determined, significant growth for the gas industry emerges, and interactions between and across the energy markets grow on the back of both of these developments. Market interactions are highlighted all the more given the challenges associated with changes in the location and nature of generation and growth across the interconnected electricity transmission framework. As such, we welcome the AEMC's continued commitment to prioritise its focus on ensuring the transmission framework can deliver efficient and timely investment across the energy markets.

We note the three strategic themes as set out by AEMC in its discussion paper. Overall, we welcome the direction of the themes set out by the AEMC and agree that these capture a number of the challenges for the current and forward looking electricity markets here in Australia. We do however also see potential for these themes to be considered in the context of an 'energy' focus rather than the proposed primary focus on electricity. That is, with focus on both the gas and electricity market contexts within each theme, considering the issues and interactions increasingly emerging between and across the energy markets. This is particularly the case given, as the AEMC discusses, recent developments have seen the emergence of new gas markets; which, given their very nature, are immature and will therefore require resources focussed on helping to shape their future direction at a time of considerable growth across the energy sector.

As such, we have considered each of the strategic themes and have set out our thinking in response to each below, highlighting also where we see potential opportunities to further expand the scope of issues to be considered as part of each theme.

Strategic Theme One:

***A predictable regulatory and market environment for rewarding economically efficient investment.***

AEMO agrees that regulatory certainty is an important factor influencing new investment in the energy markets. We also agree that the scale of the policy challenges surrounding climate change are therefore considerable, particularly given the forward looking investment requirements to support forecast demand growth across the gas and electricity markets. Uncertainty over the application of a carbon tax or emissions scheme for example, is currently negatively affecting investment in electricity generation. The federal government has committed to put a price on carbon by mid 2012 which will be informed by the second Garnaut review and the Productivity Commission review. A price on carbon will provide greater incentives to develop gas fired generation, in turn affecting the pace of gas field commercialisation and investment in gas transmission pipelines.

A related, but equally relevant, concern affecting investment decisions in new generation or in new gas production developments, is the impact of current limitations on the ability to access cost-effective finance, even in global markets, following the global financial crisis (GFC). This challenge was also highlighted in AEMO's National Transmission Network Development Plan (NTNDP):

*'Based on AEMO's scenario modelling, between \$4 to \$9 billion in investment (which includes the TNSPs' committed expenditure) is required for augmentation of the shared transmission network across the NEM. This transmission...is required to support investment of between \$35 and \$120 billion in development of new generation assets to meet demand over the next twenty years.'*<sup>1</sup>

Although clearly an issue affecting investment decisions wider than the energy markets here in Australia, the implications for the national electricity market (NEM) and for new gas production developments could have real and detrimental impacts from an overall market efficiency perspective, particularly in meeting forward looking security of supply needs.

These issues were also noted by the Ministerial Council for Energy (MCE), as part of a growing number of drivers affecting the manageability of energy market prudential requirements, in their request to AEMO to carry out a review of the settlement and prudential arrangements used in the NEM and the administered gas markets. We note that AEMO has recently published its final report to the MCE following its review of the settlement and prudential arrangements and has, as part of this, highlighted a number of areas where these arrangements (within the NEM) could be enhanced.<sup>2</sup> AEMO intends to progress a number of market rule changes to deliver these improvements to the NEM, and in so doing assist in improving the use of market capital across the electricity sector, over the coming months.

Further, we also note the discussion regarding the potential to improve the usefulness of the Electricity Statement of Opportunities (ESOO) and Gas Statement of Opportunities (GSOO) publications for market participants. AEMO strives to ensure its publications are balanced to be user friendly and to also meet industry needs. As such, we welcome and encourage all feedback from market participants and industry observers alike on this issue. We also see benefit in providing more detailed analysis and commentary in our planning related publications (including the NTNDP) on issues relating to gas and electricity market interactions and intend to engage with stakeholders on ways to improve our documents in this direction.

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<sup>1</sup> AEMO National Transmission Network Development Plan, Executive Briefing 2010, p21.

<sup>2</sup> See the AEMO website: [http://www.aemo.com.au/electricityops/prudential\\_review.html](http://www.aemo.com.au/electricityops/prudential_review.html)

## Strategic Theme Two:

### ***Building the capability and capturing the value of flexible demand.***

AEMO agrees that there is potential to build on the existing capability to capture the value of flexible demand, and to also further develop the scope for embedded generation, within the Australian energy markets. Pursuing more effective market engagement from flexible demand will facilitate efficiency benefits over the medium to long term, particularly if it can be harnessed to improve congestion management and reduce the need for increased supply side and network investment. We see linkages here across all three key themes and welcome the focus on improving the existing frameworks to facilitate efficient network, supply and demand side investment.

We see potential for opportunities here within the NEM as well as in the wholesale gas markets; although we agree that the nature of linepack and the potential for gas storage in the gas context do affect the relative economic benefits of pursuing demand side options to the same extent.

Having considered the parameters for effective demand side participation as highlighted in the AEMC Discussion Paper; that is, that demand side response needs to be technically feasible, contractually feasible and competitive, these factors can be seen as relevant to effective response across both the gas and electricity market contexts.

On the electricity side, we recognise that the capability to measure and verify demand response currently tends to be limited to larger customers, however with the introduction of smart metering technologies, smaller customers may become increasingly responsive over time, particularly if 'smarter technologies' are accompanied by 'smarter tariff' offerings by retailers, distributors and other parties, designed to incentivise customers to provide greater flexibility in their energy consumption.

Further, and consistent with the need for demand side opportunities to be competitive for the benefits to be realised, given the potential for future electricity prices to increase on the back of carbon policy initiatives and also guaranteed network price rises, the incentives on customers at all sizes to seek out ways to reduce their energy demand, and in so doing reduce their energy bills, will become even greater. In this context, we agree with the AEMC that there are potential opportunities for customer benefits associated with smart metering technologies to be better communicated to end customers.

We agree with the AEMC that there are a number of challenges, but also potential opportunities, associated with the wider uptake of 'smart grid' related initiatives. These challenges are clearly part of a bigger issue of how such initiatives can be efficiently introduced as part of the wider energy market framework. The framework needs to be sufficiently flexible in order to support innovation to deliver smart technology initiatives and solutions, but at the same time ensure the costs and long term interests of customers are being efficiently managed. We see parallels between these initiatives and the issues and barriers to be considered as part of the AEMC's demand side participation (DSP3) review. We welcome the opportunity to continue to engage on these issues with the AEMC and interested stakeholders as part of this review.

On the gas side, issues associated with measuring and verifying consumption are similar. Currently demand side response in the gas market context relates mostly to large gas customers such as the more flexible gas fired generation, where they not only have the technical capability to switch to alternative fuel sources (e.g. distillate) in order to reduce their gas consumption, but as larger participants in the market it is also feasible for them to access more flexible and short term contractual markets. The scale of competitive benefits associated with larger and peaking customers switching to alternative supply sources at times of peak gas prices is also much greater, as is the importance of their having access to a finer granularity of pricing data; meaning that the forward looking benefits for large gas

users to offer flexibility is likely to also be much greater given the future impact of carbon policies on wholesale electricity prices and increasing interactions between and across the markets as we see growth in projected gas fired generation.

A real and present barrier to the uptake of greater levels of demand side participation on the gas market side is seen to be the level of operational information available to support gas market participants in the short term. Where timely information is not available to support decision making by market participants, this can limit efficient decision making and the allocation of gas, and can also have a detrimental impact on management of cross market emergency situations. We agree with the views put forward by the AEMC that financial and contractual inter-dependencies across the markets may not be as well understood as the physical inter-dependencies, and agree that greater information transparency may improve this understanding. For example, in order to achieve a wider engagement from the demand side, where customers can make informed commercial decisions to reduce gas demand in response to price signals on a more dynamic and short term basis, would require improved and regular reporting of system data (e.g. including within day gas flow and line pack data).

Consistent with the findings of the recent IPART review (highlighted by the AEMC), experience in other international energy markets suggests that the demand side can show considerably more elasticity when under price and supply side pressure. Over challenging winter conditions experienced in recent years in the UK for example, the release of greater levels of market information regarding gas flow data helped to enable market participants to make more informed contracting and operational decisions on a more dynamic and short term basis. Reductions in gas demand over peak days across this winter were seen not only across the more flexible gas fired generation plant switching to alternative fuel sources but also by large industrial and commercial customers scaling back their operations to avoid peak prices. This not only reduced those customers individual exposure to extreme prices, but also reduced peak system demand across a number of difficult days.

In this context, we see potential opportunities to support the wider uptake of effective demand side participation, and also support greater efficiency in operations across the energy markets, starting with the promotion of greater levels of market information transparency, particularly in relation to gas market operation. Enhancements in market information may also introduce opportunities to review regulatory controls on monopoly and network businesses. This would help to ensure customer interests continue to be safeguarded and such businesses are incentivised to develop new and innovative products where information becomes available.

### Strategic Theme Three:

#### ***Ensuring the transmission framework delivers efficient and timely investment.***

AEMO welcomes the AEMC's continued commitment to reviewing the existing transmission framework to ensure that it facilitates the delivery of efficient and timely investment. Given the scale of demand growth projected over the coming years, with rapid growth in gas consumption also forecast driven predominantly on the back of new gas fired generation capacity, it is clear that a focus on getting the market and regulatory framework right in order to deliver the necessary generation and network investment to support this growth is key.

As you know, we have sought to actively engage in the review process for the Transmission Frameworks Review to date, so I don't wish to repeat the points made in AEMO's earlier submissions here. However, instead we ask that the issues that we have raised in the context of that review are also reflected upon in the AEMC's consideration of setting the scope for this strategic theme.

We continue to see changes to this area of the arrangements as critical to support the efficient operation and future development of not only the NEM but also to support efficient and timely growth for the interconnected gas markets – growth which is driving a considerable portion of the future network related investment. In the context of current cost pressures, this illustrates the importance of ensuring the framework is fit for purpose to drive efficient network expansion, connections and utilisation – that is, ‘no change’ cannot be a feasible outcome. As such, we consider that maintaining an holistic approach to the frameworks review process as far as possible will help to ensure that all aspects of the current arrangements are considered in the round and tested against how well they work together in meeting the challenges of the future. We therefore encourage the AEMC to maintain all issues for consideration within the existing transmission frameworks review in order to limit the risks associated with fragmenting the costs and benefits of various policy options as part of the assessment process.

We also note the review process that the AER intends to undertake, reflecting on the appropriate framework for the distribution level networks. We agree that there is value in the findings of this review being considered together with those emerging from the wider transmission frameworks review.

I trust this is helpful in assisting with your consultation and planning process. We are keen to continue to work together with the AEMC, and as independent market operator we welcome the opportunity to help shape the future strategic direction and priorities for the Australian energy markets.

If you would like to discuss any aspect of this response further please feel free to contact me directly on (08) 8201 7371 or by email at [david.swift@aemo.com.au](mailto:david.swift@aemo.com.au).

Yours sincerely

A handwritten signature in black ink, appearing to read 'D Swift', written in a cursive style.

David Swift  
**Executive General Manager – Corporate Development**