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Australian Energy Market Commission
Level 5, 201 Elizabeth St
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Lodged (by email): submissions@aemc.gov.au

AEMC's Priorities Discussion Paper

The Energy Supply Association of Australia (esaa) welcomes the opportunity to make a submission to the Australian Energy Market Commission's (AEMC) Priorities Discussion Paper.

esaa is the peak industry body for the stationary energy sector in Australia and represents the policy positions of the Chief Executives of over 40 electricity and downstream natural gas businesses. These businesses own and operate some $120 billion in assets, employ over 52,000 people and contribute $16 billion directly to the nation's Gross Domestic Product.

esaa welcomes the AEMC's intention to signal the priorities that will determine its work program and its interaction with other parties in energy market matters over the next few years. Like any organisation, the AEMC has limited resources, and it is therefore useful for it to have a few areas of particular focus that will govern how it utilises its resources over the near term. It is also important that the AEMC has given its stakeholders the opportunity to shape those priorities through this consultation process.

However, the link between the priorities and how they translate into a work program is only made obliquely, and esaa has to some extent inferred the work that will arise from these priorities. It would be helpful to stakeholders for the AEMC to set out its proposed work program more clearly in its final priorities document.

It's also important that the priorities are consistent with the AEMC's remit, as well as showing a clear consistency with the National Electricity and Gas Objectives. The AEMC's role is in energy market development, guided by these Objectives through appropriate changes to and reviews of the National Gas and Electricity Rules rather than the full spectrum of strategic, transformative energy *policy.* National energy policy should be determined by Governments, either individually where appropriate or through the Ministerial Council on Energy (MCE), with a view to co-ordination and harmonisation of Commonwealth and State and Territory energy frameworks where possible.

esaa notes that the MCE may direct the AEMC to undertake reviews into any issue affecting the electricity or gas markets to provide appropriate independent technical

advice to inform its policy making activities. The Association is supportive of this role. However, in doing so and in initiating its own reviews of the National Electricity and Gas Rules the AEMC must tread a fine line between keeping within the bounds of its own remit and attributing to itself a wider policy role that may properly lie elsewhere.

esaa also encourages the AEMC to be mindful of the high cost for the industry in responding to the various reviews. These costs include not only the direct cost of staff time and the employment of consultants but there may also be indirect costs from the investment uncertainty which reviews can engender.

Some stakeholders may look to the AEMC to provide direction where direction from the MCE may appear absent, in the hope that this may catalyse the MCE to commit to reinvigoration of its reform program. However, esaa trusts that the restart of the Energy White Paper process will be the appropriate trigger for such a reinvigoration.

Priority 1 A predictable regulatory and market environment for rewarding economically efficient investment

esaa welcomes the recognition that a predictable regulatory and market environment is critical to the efficient development of the sector. There are many factors that undermine the attractiveness of the Australian stationary energy sector. Two of the most significant from a generation and retail perspective are the continuing uncertainty over a carbon price mechanism and the continuing regulation of retail prices by most state and territory governments. The AEMC can directly influence the latter via its review of retail competition and esaa strongly supports continuation of this program with a focus on effective competition in the wholesale and retail sectors. However, the AEMC will be well aware that responsibility for addressing these issues ultimately lies with Commonwealth and state governments respectively.

A stable and predictable regulatory environment is also critical for continued investment in Australia's electricity and gas networks. Recent public musings by Professor Ross Garnaut and Rod Sims (in his capacity as Chair of the NSW Independent Pricing and Regulatory Tribunal) have served to further inflame the public debate on network revenues and rising electricity prices. As noted by the Australian Energy Regulator, there are sound reasons for increases in network costs including new connections; changes to reliability standards; the need to replace aging infrastructure; increases in peak demand; and the increased cost of debt after the Global Financial Crisis. The AEMC's commitment to a predictable regulatory framework is encouraging as it should prevent any desire to perform knee jerk reviews of the current regulatory environment.

As a repository of industry expertise it makes sense for the AEMC to provide input when requested by governments to help resolve issues that affect the sector's investment climate.

Identification of investment issues as a key priority may appear to provide a rationale for the AEMC to use its expertise and ability to initiate reviews to proactively provide advice to governments and seek to influence policy. If such forays into broader energy policy matters serve as a way of catalysing reinvigoration of the reform agenda and assist the Commonwealth Government in successfully implementing a

carbon price mechanism that allows the sector an orderly transition to lower emissions generation, then the policy outcomes will be welcomed by the industry. However, this should not be a justification for the AEMC exceeding its remit.

Priority 2 Building the capacity and capturing the value of flexible demand

esaa notes that the AEMC has recently initiated Stage 3 of the Demand Side Participation (DSP) review. It is valuable to understand to what extent there are remaining barriers to DSP and how they can be addressed without introducing other distortions into the market. esaa considers that DSP is but one element of a potential work program to address the key issue of how to facilitate efficient utilisation of the energy system, which we consider to be a strategic priority for the energy sector as a whole (see below). This ties in with the key issues of peak demand and rising prices identified by the AEMC in its discussion paper, and if this priority is recognised by the Government through the Energy White Paper process it could shape the future work program for the AEMC.

Priority 3 Ensuring the transmission framework delivers efficient and timely investment

esaa notes that the AEMC is already undertaking significant work on transmission frameworks, most notably through the Transmission Frameworks Review. We agree that this work should be followed through to its conclusion, and the importance of transmission in the electricity supply chain demand that the work be appropriately resourced. However, once the current review and related rule changes are complete, efficient and timely investment will best be facilitated by allowing the framework to remain in a steady state for some time.

Strategic priorities for the energy sector as a whole

Many of the Association's members, along with the Secretariat, were present at the forum held to launch the Discussion Paper. Minister Ferguson, in his opening address, expressed his intention that the AEMC's priorities would feed in to the Energy White Paper process. esaa considers that the White Paper process is vitally important to determine a broad energy policy over at least a two-decade time horizon. We consider that articulation of strategic priorities in that context is critical, but that it is a very different context from our understanding of what the AEMC is seeking to achieve with its own set of priorities for its work program. We think it is important to make this clear, and as we appreciate that the AEMC is not the architect of the White Paper, we have written separately to the Minister with our suggested set of broad, long-term strategic energy priorities (copy attached).

Any questions about our submission should be addressed to Kieran Donoghue, by email to kieran.donoghue@esaa.com.au or by telephone on (03) 9670 0188.

Yours sincerely

Brad Page
Chief Executive Officer

cc The Hon Martin Ferguson, MP, Minister for Resources, Energy and Tourism

Attachment: Copy of letter to The Hon Martin Ferguson regarding strategic priorities energy market development

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23 May 2011
The Hon Martin Ferguson, MP
Department of Resources, Energy and Tourism
GPO Box 1564
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Dear Minister

Strategic Priorities for Energy Market Development

The Energy Supply Association of Australia (esaa) welcomes your recent commitment to complete and release an Energy White Paper by the end of 2012[1].

esaa is the peak industry body for the stationary energy sector in Australia and represents the policy positions of the Chief Executives of over 40 electricity and downstream natural gas businesses. These businesses own and operate some $120 billion in assets, employ over 52,000 people and contribute $16 billion directly to the nation's Gross Domestic Product.

esaa looks forward to engagement with the Department on the contents of the White Paper and its implications for Government policy. We note that in your opening address to the Australian Energy Market Commission's Strategic Priorities Forum you expressed the intention that the AEMC's priorities would feed in to the White Paper process. esaa sees the White Paper process as being vitally important to determine a broad energy policy over at least a two-decade time horizon. We consider that articulation of strategic priorities in that context is critical, but that it is a very different context from our understanding of what the AEMC is seeking to achieve with its own set of priorities for its work program over the next two to three years[2]. We think it is important to make this clear, and would like to take this opportunity to suggest a set of broad, long-term strategic priorities for the energy market. Some of these priorities may be dealt with by the AEMC in the context of its role in energy market development, but others have broader policy implications and will need to be driven directly via a reinvigoration of the Ministerial Council on Energy's reform program. They are intended to be a basis for further discussion and investigation, rather than a definitive list of such concerns.

Strategic priority #1: Improving capital utilisation of the energy system

One of the critical challenges for the energy system is rising costs. This is being driven by a number of areas, including generation and networks. Improving capital utilisation of the energy system is an important means of minimising future cost increases.

[1] Speech to the AEMC Stakeholder Forum, Melbourne, 1 April 2011. Other attributed quotes in this letter are from the transcript of this speech.
[2] A copy of our response to the AEMC is attached to this letter

This is prompted by the peak demand issue highlighted by the AEMC but it also has wider connotations. It may include the following:

1. Tariff reform at both network and retail level to give all consumers price signals in respect of peak demand periods. Careful consideration would of course need to be given to how to protect the most vulnerable households from any adverse consequences of such reform. Such reform will be most effective if retail price regulation is removed, allowing the industry flexibility to find the most efficient ways to price the services they provide.

2. Smart networks, including advanced metering (which will be required to give consumers the right price signals and to allow them to acquire the tools to understand and manage their energy use).

3. Demand response and embedded generation/storage (within distribution networks).

4. Integration of electric vehicles with consideration of ultimately using them as storage devices.

5. Measures to enhance customer acceptance of these changes. This is not an optional extra – events in Victoria associated with the rollout of advanced metering have illustrated how critical this area is to successful implementation of new technologies and policy reform.

We would caution though, that any policies should not seek to strand existing generation or network assets built to meet the current levels of demand.

Strategic priority #2: Interaction of energy and related markets

There are links between all markets in our economy. The electricity market is impacted by markets for the key inputs to electricity supply; fuel, materials, labour, capital. But some of these links are more critical and complex than others. So while coal is still a critically important input as the major fuel source for electricity generation, the interaction is relatively straightforward (although the increasing trend to link production sources with export markets is expected to have a price impact); coal is often supplied from a mine either next door or linked by dedicated infrastructure. Where the generator does not own the coal mine, it is usually sourced through long-term contracts, which gives the generator a good deal of stability in price and volume.

By contrast the gas market, which is expected to become an increasingly important fuel source once a carbon price is introduced (and is already important in Western Australia) typically has some differences. Firstly, it is a partial substitute for electricity as well as a fuel source. Secondly, the transportation infrastructure is typically more interconnected and may be shared by different producers and users. Thirdly, most existing gas plant provides shoulder or peak electricity supply and so has intermittent fuel requirements and the ability to make trade-offs between prices in the two markets. Finally and most importantly if fuel-switching is to materialise, changes in the contract market may inhibit efficient development of baseload gas-fired power stations. This is explained further below.

The length of contracts is changing from the original 30 year contracts that underwrote development of Bass Strait and the Cooper Basin, to around 10-15 years. These types of contracts are critical to developing baseload gas-fired plant. Currently, the options for any domestic gas buyers seeking long-term contracts in Queensland, New South Wales or South Australia are fairly limited, since major production fields due to come on stream are already fully contracted, or in the case of LNG proponents, the producers are unlikely to sign major long-term gas contracts while they have significant uncertainty about off-take agreements and the productivity of their fields.[3] Such issues are already being experienced in Western Australia, despite the existence of a domestic gas reservation requirement on major LNG producers there. Domestic gas buyers are however expected to have access to additional volumes of short-term spot market supply.[4] These issues impact the gas market in its own right as well as the electricity market.

It's not clear how this lack of certainty will be managed in the long-term or whether gas markets can naturally evolve to accommodate a broader spectrum of supply capability or indeed electricity markets adapt to gas market conditions. On the other hand, any emerging problems may be too complex to be simply fixed by government diktat. A more careful consideration of the interaction of gas and electricity markets is required to determine what additional role government policy and regulation should play, if any, in facilitating market development.

Carbon markets will also have a significant impact on energy markets, given the emissions intensity of Australia's current electricity generation mix. However, consideration of the interaction between carbon and energy markets can of course only be undertaken as carbon markets develop, which in turn depend on the outcome of the current carbon pricing policy process.

Strategic priority #3: Market frameworks

In Western Australia, the government's Strategic Energy Initiative has provided a useful opportunity to step back and consider market design issues. On the electricity front this has, together with the Independent Market Operator's Market Evolution Program, prompted consideration of the fundamental market framework. Ultimately this has resulted in incremental change, which undoubtedly reflects an inherent conservatism amongst market participants who may have made investment decisions based on the current market design, but the wider debate has been a useful stepping stone to that outcome. On the gas front, this has brought into sharper focus the lack of a short-term market and the transparent price signals that can emanate from such a market. esaa considers that the White Paper process offers a similar opportunity for taking stock of the market frameworks in eastern Australia.

[3] Long-term contracts are currently available in Victoria, but are likely to be at higher prices, reflecting increases in offshore development costs.

[4] It's estimated by gas market experts that LNG spot sales may amount to 5-8% of total capacity based on built in redundancy. For an 8Mtpa LNG plant this equates to 0.4 to 0.6Mtpa, the equivalent of 73TJ/d LNG output or 80TJ/d gas supply to LNG plant gate. This is a significant volume, close to 30PJ/a or nearly 20% of the current Queensland market.

National Electricity Market (NEM)

As an energy-only market, a perennial question regarding the design of the NEM is the extent to which it generates appropriate price signals for investment in new plant. This question has occupied many minds, including the Reliability Panel, but has never been fully answered. At present uncertainty over carbon policy is considered to be inhibiting investment and affecting decisions as to what sort of plant is built. This makes it difficult to properly evaluate the electricity market's performance in this area. Once carbon policy decisions have been resolved and implemented, it would be useful for the MCE to direct the AEMC to monitor the performance of the market in order to confirm that market mechanisms provide adequate signals to drive timely and efficient investment. If it is ultimately failing to do so, then the causes of failure must be addressed. These may of course not be limited to the market design itself but to the impact of other policies, for example where some types of generation are rewarded for their output by additional mechanisms outside the gross pool.

Short Term Trading Markets (STTMs)

The gas STTMs are relatively new – or in some cases still in development. It will be important to monitor how they develop and operate in response to any increases in use of gas as a fuel for generation purposes, especially if an outcome of large-scale LNG contracting is that larger volumes of gas are released onto the spot market than is currently the case.

Strategic priority #4: Regulatory frameworks

esaa welcomes your acknowledgement that "getting the 'right' level of network investment is extraordinarily complex" and that, contrary to some recent papers released into the public domain, there are no easy ways to reduce network costs whilst maintaining desired levels of service and reliability. We note that the AER is currently conducting an internal review of its regulatory processes and that this may engender rule change proposals, on which the AEMC will then widely consult. It is appropriate after one full round of the new regulatory regime[5] to take stock of whether this area of energy market reform has delivered the promised 'light-handed, least-cost' regulatory regime (esaa's network members' experience to date suggests that this is *not* the case) that delivers what network companies need in order to be able to deliver an efficient, reliable service to customers. In particular, does the framework appropriately reward and encourage innovation by networks, innovation that will be required to transform networks in to "smart" grids? Whilst an internal review by the regulator is a useful initiation of these issues, they are sufficiently fundamental to require consideration and ultimately direction at the political level.

In considering these questions, it's important to remember that investors are attracted to the network sector because it is expected to offer stable returns over a long period, which in turn relies on a consistent regulatory framework over time. Whilst this should not inhibit beneficial reform, the impact of material changes in the framework on the cost of capital should not be taken lightly, and the net benefits of any reforms should be robustly demonstrated.

[5] Noting that Aurora's distribution review is still in progress

Strategic priority #5: Governance issues

Robust policy outcomes can be enhanced by good governance arrangements. Instituting a national regulator, rule maker and market operator and a national customer framework have all been useful steps in developing the governance of the sector. These reforms have in turn been driven by the MCE, and a multi-government forum that, as you have noted, "seeks to operate away from the spotlight of the daily media cycle" and is likely to be the best way to make further progress. The Association notes, however, that several elements of the current MCE reform program remain outstanding, which highlights the fragility of a complex and interdependent reform when there is no sanction for failing to deliver agreed commitments. Questions of asset ownership may be a factor in some states, and esaa notes that the recent NSW sales process indicates the difficulties of explaining to the community the implications of public versus private ownership of energy system assets.

Strategic priority #6: Technological challenges

To the extent that energy and carbon policy drives a new set of generation and network technologies to emerge and join the market, issues may arise due to the different characteristics of some of these technologies from the existing stock of mostly thermal coal plant and analogue networks. Some of these issues are considered under some of the other priorities, including network digitisation and gas-fired electricity generation. Other issues may include:

Location: the remote location of some renewable resources, e.g. geothermal, offshore resources such as wave, tides, wind, some high quality solar, presents challenges for efficient connection of the networks. This issue has already been given some consideration by way of the Scale-efficient Networks Extension rule change, but it does not yet appear to be fully resolved..

Intermittency – of renewables such as wind and solar. To date the market has accommodated wind intermittency, but consideration of whether solar or other resources present different challenges or whether greater penetration could test resilience of market frameworks is appropriate.

Unit size: the efficient unit size for steam turbines in particular has grown over time. this is especially the case where they are nuclear–powered, noting that such technologies are currently prohibited in Australia.

esaa considers that Australia's transition to a low-emissions future is best served by the market being able to choose from the widest-possible spectrum of generation options, and that policy settings and market rules should reflect this. This is consistent with the findings of a recent Australian Academy of Technological Sciences and Engineering (ATSE) report that the full spectrum of low carbon technologies, including nuclear, had a positive option value over the longer term.[6]

[6] LOW-CARBON ENERGY: Evaluation of New Energy Technology Choices for Electric Power Generation in Australia, ATSE, Nov 2010

These suggested priorities are an example of some of the wide range of concerns the industry has regarding the future development of an efficient, safe and reliable stationary energy system for Australia. As noted above, they are intended to be a basis for further discussion and investigation, rather than a definitive list of such concerns. We would be happy to meet with you or your department at any time to explore these concerns further. This letter has been copied to the AEMC in the context of their own priorities review

Yours sincerely

Brad Page
Chief Executive Officer

cc Australian Energy Market Commission

Attachment: esaa submission to the AEMC Strategic Priorities discussion paper