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Senate Select Committee on Fuel and Energy
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ENA Submission to Senate Select Committee on Fuel and Energy

The Energy Networks Association (ENA) appreciates this opportunity to lodge a late submission to the Senate Select Committee on Fuel and Energy on the impact of higher petroleum, diesel and gas prices and other matters.

By way of background, the Energy Networks Association (ENA) is the peak national body for Australia's energy networks which provide the vital link between gas and electricity producers and consumers. ENA represents gas distribution and electricity network businesses on economic, technical and safety regulation and national energy policy issues.

Energy network businesses deliver electricity and gas to over 13 million customer connections across Australia through approximately 800,000 kilometres of electricity distribution lines. There are also 76,000 kilometres of gas distribution pipelines. These distribution networks are valued at more than $40 billion and each year energy network businesses undertake investment of more than $5 billion in distribution network operation, reinforcement, expansions and greenfields extensions. Electricity transmission network owners operate over 42,000 km of high voltage transmission lines, with a value of $10 billion and undertake $1.2 billion in investment each year

ENA focuses its comments on specific aspects of the Senate Select Committees Terms of References of direct relevance to its members, namely, the following 4 issues:

1. The operation of the gas markets,
2. The impact of an emission trading scheme on the energy industry,
3. The existing Government regulatory powers as they relate to gas and electricity, and
4. The role of alternative fuels

The operation of gas markets

ENA believes that the CPRS will, even if not initially, provide a comparative advantage for gas powered plant which is supported eventually given that this is a cleaner fuel alternative to coal. Further, the expected increase in coal relative to gas prices as a consequence of the CPRS is likely to increase gas penetration of the retail market. The key issue will then be to ensure that the investment needed to augment gas distribution networks is available when needed. In this context ENA's main concern is that the regulator provides for full cost recovery including a commercial rate of return to gas network service providers to allow capital investment to enable development of the required infrastructure.

The impact of an emission trading scheme on the energy industry

ENA supports the Australian Government's proposal to implement a Carbon Pollution Reduction Schemes (CPRS) as it represents the most economically efficient path to achieve carbon reductions while recognising the Government's need to find the right balance between its priorities to effectively address the climate change challenge, and the need for maintaining a viable and internationally competitive economy. In this context ENA welcomes adjustment measures proposed under the scheme to assist Australian households and business.

Energy transmission and distribution networks, as the vital links between energy producers and final consumers, have a significant but smaller direct role than other stakeholders in carbon emissions abatement. Nevertheless, efficient and effective energy networks which have the capacity to cope with potentially large shifts in energy flows are vital to facilitate the structural changes necessary to achieve a low emission economy. This arises because, as the CPRS ramps up over time to meet emission targets, a dynamic transmission and distribution network will be necessary to accommodate the resulting change in the mix of energy sources that feed the national energy market.

A significant impediment to achieving the dynamism required of energy transmission and distribution networks is the convergence of CPRS implementation with the current global financial crisis. Both events have meant energy network businesses face a less certain business environment than at any time in the past 20 years.

The pervasive impact of the CPRS though carbon permit costs flowing on to energy prices and therefore on to all material inputs to the construction of network infrastructure will lead to quantum increases in the cost of providing energy network infrastructure. Specifically, network businesses are highly dependent on products involving energy intensive manufacturing processes such as aluminium conductors, steel pipes and pylons as well as other metal and ceramic inputs.

For the electricity distribution sector there are also cost increases related to the CPRS impact on sulphur hexafluoride, which is used in some electrical components. Gas distribution businesses, in addition to the increased costs of materials will also be liable under the CPRS of fugitive gas emissions, in this case gas leakage from pressurized pipelines.

As gas networks are exposed to trading risk under the CPRS this needs to be recognised by the national energy market regulator. Some gas distribution businesses have contract or access arrangements which only pass through costs associated with a change in a tax event, which may not allow businesses to recover permit costs. It would provide certainty to the industry if the AER made clear, through an appropriate mechanism, that the introduction of the CPRS would be deemed to meet the criteria for a change-in tax event. This would ensure a more efficient outcome as opposed to those businesses relying upon re-opening of their respective Access Arrangements - a protracted and costly approach.

Electricity network businesses can only recover these cost changes if the regulatory framework enables timely pass-on to customers through increased prices and through establishing the appropriate regulated return on capital (for more discussion see next Section). However, unless the current regulations for determining price setting are made to be more flexible there is a material risk that increased input costs will not be fully recoverable by network service providers. The Government through the AER needs to consider this matter as any perceived increase in risk that costs will not be recovered will have a negative impact on investment in infrastructure.

Media statements have suggested that some existing coal power stations could be forced to close due to the CPRS. This may be premature but nevertheless raises concerns that the CPRS is increasing investment uncertainty and may compromise energy reliability and security. In this context ENA's issue is that the CPRS settings should not have a negative impact on energy supplies while there is not a concerted credible global effort to address climate change that includes developing nations such as China and India. ENA therefore supports the Garnaut Climate Change Reviews final report's linkage between Australia's reduction target under the CPRS and the level of international commitment in the mitigation effort.

The existing Government regulatory powers as they relate to gas and electricity

The Regulatory Framework settings are crucial in determining whether the energy market adjust to enable balanced and coordinated investments in energy infrastructure needed to accommodate changes in Government policy. It is vital that the Regulator ensures that the regulations do not distort outcomes which could lead to a surplus in some essential energy infrastructure components while other aspects are under developed. For example, regulations favouring network augmentation will lead to under investment in non-network solutions such as renewable energy. Alternatively, regulatory rules favouring renewable generation will lead to underinvestment in vital network infrastructure leading to congestion and power quality problems.

ENA supports a regulatory approach which places non-network options, such as embedded generation (that is generation connected to distribution networks comprising photovoltaics systems, wind power generators, and small gas power generators) on an equal footing with established network augmentation approaches. Regulatory neutrality between the treatment of conventional network options and those required to respond to such issues as climate change are essential for achieving the appropriate levels of investment. It follows that national access rules should ensure that renewable energy generation connections are not subsidised by the networks.

A recent Energy Supply Association of Australia (ESAA) paper on the impact of the CPRS scheme highlighted that 5,000MW of extra capacity had been delivered over the last decade. Approximately 16,000MW would need to be built over the next decade as power stations close.[1] This is a significant challenge in terms of investment requirement but also in terms of capability to deliver. There is a risk that there may not be sufficient resources with the necessary expertise to deliver such large scale infrastructure development projects in the timeframe.

To ensure investment in energy market infrastructure is timely and efficient market frameworks will need to provide investors with clarity and certainty regarding the rules and the ability to manage risk while allowing for the minimum rate of return enabling a business case to support development related to climate change policy. Some areas that will need to be addressed are:

- Ensuring that the regulatory regime recognises and provides for full cost recovery in relation to investments in energy infrastructure developed in response to climate change. This includes investment in research and development including pilots and trials required to establish the viability of options to abate and adapt to climate change

[1] Energy Supply Association of Australia, The impact of the ETS on the energy supply industry, June 2008, p86

- The achievement of a level of national uniformity in the definitions, requirements and conditions required for the integration of renewable energy into transmission and distribution networks.

- The establishment of clarity in regulations such as in renewable energy generation contracts covering the process for application, and the acceptance of obligations, liability and sanctions.

- Consideration needs to be given to the impact of the risks to network performance related to the increased use of renewable energy generators, and other demand management responses so that networks are not penalised for adopting non-network options. ENA submits that in the application of the Regulatory Test and in developing supply agreements, reliability performance measures need to take into account all three reliability risk measures, namely supply availability, supply risk and repair time implications.

- Allowing for, capital and operating costs for demand management projects to be treated the same as such costs associated with network energy infrastructure investment. Currently only ex-post recovery of capital costs applies to demand management in contrast to ex ante capital cost recovery relating to network augmentation.

- Provision of a mechanism(s) in the regulations to deal with the energy network revenue losses arising from the implementation of successful demand management projects whereby energy through put declines.

- The provision of nationally consistent information disclosure and planning regime for network businesses that is proportionate to the expected benefits of that regime.

- Allow for more cost reflective structures in regulatory regimes for customers, supported by transparent community service obligations to assist those in financial hardship.

The role of alternative fuels

ENA supports the implementation of a national enhance Renewable Energy Target (RET). It should however be noted that network businesses, unlike electricity generators, do not as a general rule participate in the provision of renewable energy. ENA members are therefore not direct participants in the RET scheme but nevertheless have a vital role in the achievement of the overall outcome, that is, the delivery of more renewable energy and consequently the reduction of the national carbon foot print. To that end, energy networks are the key link to a clean energy future.

ENA's primary issue arising from the RET is that the increased connection of renewable energy into transmission and distribution networks is the material risk of a reduction in reliability should a significant portion of additional generation requirement come from intermittent sources such as wind and solar power.

To address this matter and other issues relating to renewable energy, significant work remains to ensure that electricity networks realise their full potential for facilitating the achievement of the Government's RET. This is manifest in the current work of the Ministerial Council on Energy (MCE) and the Australian Energy Market Commission (AEMC) in the areas of demand management and embedded generation. The ultimate objective of their ongoing work has been to assess the National Electricity Rules (NER) framework with a view to delivering changes which would provide

for a more balanced outcome for the consideration of network and non-network options, including embedded generation consisting predominantly of wind power and photovoltaics.

ENA is a significant contributor to the MCE and AEMC deliberations through direct consultation and by submissions on relevant issues. At the broadest level these submissions seek to ensure that consideration of network augmentation options and alternatives, such as the incorporation of renewable energy sources into the grid, are put on an equal footing within the regulatory framework. This approach would see the Australian Energy Regulator (AER) recognising all the costs, risks and benefits faced by networks and renewable energy proponents. The regulatory changes required to deliver this would include:

- Consideration by the regulator of the reliability risks inherent in renewable energy supply so that networks are not unduly penalised for linking renewable energy generation into the grid.
- Incentives in the regulations which will allow for consideration of non-network options, including renewable energy supply and energy efficiency on the same basis as conventional alternatives.
- Incorporation of R&D expenditures into the regulators building blocks mechanism in determining network revenue requirements.
- Establishment of national access rules which ensure that renewable energy generator connections are not subsidised by electricity networks.
- The harmonisation of protection requirements, operating protocols and procedures for the connection of small renewable energy generators across jurisdictions.

ENA recognises that in addition to the resolution of the above issues there is a need for an improved understanding and co-ordination of approaches between electricity network operators and renewable energy proponents. This is particularly important in dealing with the impact of renewable energy generation on the network. One issue in this regard is the connection of isolated renewable energy generators to the existing electricity grid.

Electricity transmission and distribution businesses have a long standing interest in seeking non-network solutions to deliver successful demand management opportunities. Such opportunities deliver benefits through reducing the need for investment in network infrastructure and help to address national energy and environment objectives. Therefore ENA is keen to continue to constructively engage in the Government's efforts to meet the RET through seeking the appropriate changes to the national legislative and regulatory framework.

For further detail on ENA's concerns, key messages and recommendations regarding the four matters addressed in this letters I urge you to go the ENA website (ena@asn.au) and refer to ENA submissions to the following:

- AEMC Scoping Paper – Review of Energy Markets in light of Climate Change.
- Infrastructure Australia Discussion Paper on Australian future infrastructure requirements & accompanying Concept Economics report.
- AER Issues paper – Review of the Weighted Average Cost of Capital (WACC) parameters for electricity transmission and distribution.
- Carbon Pollution Reduction Scheme Green Paper.

- Strategic Review of Climate Change Programs.
- Garnaut Review – Emissions Trading Scheme Discussion Paper.

Please contact ENA if you require clarification on any points in the submission.

Yours sincerely

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Chief Executive