

7th April 2009

Committee Secretary
Senate Select Committee on Climate Policy
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Parliament House
Canberra ACT 2600
Australia

By email: climate.sen@aph.gov.au

ENA Response to inquiry by Senate Select Committee on Climate Policy

The Energy Networks Association (ENA) welcomes this opportunity to respond to the inquiry by the Senate Select Committee on Climate Policy.

ENA is the peak national body for Australia's energy networks. 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 \$52 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 57,000 km of high voltage transmission lines, with a value of \$15 billion and undertake \$1.6 billion in investment each year.

Energy networks are the key link to a clean energy future and will be integral in connecting renewable energy sources where there is currently no infrastructure in place. Therefore efficient and effective energy transmission and distribution networks are vital for the delivery of an environmentally sustainable and secure energy supply. In this context, it is worth noting that the Government's recently released forward looking National Energy Security Assessment (NESA) 2009 key finding is that energy security will decrease in the face of mounting challenges which include climate change. The report states that among the key influences on the future security of energy supply are; carbon pricing, infrastructure resilience, the revised renewable energy target and the implementation of energy market reform. In making its assessment the report notes that:

"the effects of previous shocks which include uncertainty about climate policies, drought in South Eastern Australia, and the increased reliance on gas supplies are currently being observed in the market. Current market arrangements, including architecture and structure issues, are limiting the capacity of the market to absorb such shocks and respond in an efficient manner"

On gas supply, the NESA identifies the dominant factor contributing to its assessment has been that the additions to gas supply chain capacity have struggled to keep up with demand growth and notes that future supply will again depend on the ability of investment to keep up with demand which will grow as a result of climate change policy. For electricity, the NESA observes that the increased use of intermittent renewable energy sources will place further pressure on market operators to manage system reliability and security.

For ENA the challenges posed by climate change to the delivery of secure and reliable energy to consumers resulted in the initiation of a consultancy in May 2007 to examine the impact of climate change on energy network infrastructure. The report, *Energy Network Infrastructure and the Climate Change Challenge* by Parsons Brinckerhoff (enclosed) assesses both the mitigation and adaptation responses which will need to be undertaken by network businesses. The PB Report states that energy businesses require a regulatory framework that supports and encourages the mitigation of emissions but that they are not currently structured to do so. Therefore there are opportunities for policy makers to implement regulatory incentives that facilitate the changes network businesses will need to undertake to enable them to realise their potential to contribute to the reduction in greenhouse gases.

In its response to the Senate Inquiry terms of reference attached ENA draws on elements of the report and on the experience of its membership in the delivery of energy through their networks.

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

Yours sincerely



Andrew Blyth
Chief Executive

ATTACHMENT

ENA Response to Senate Inquiry Terms of Reference

(1) (a) the choice of emissions trading as the central policy to reduce Australia's carbon pollution, taking into account the need to:

(i) reduce carbon pollution at the lowest economic cost,

(ii) put in place long-term incentives for investment in clean energy and low-emission technology, and

(iii) contribute to a global solution to climate change

ENA recognises that a market based system has the potential to provide efficient price signals for emissions reduction so that carbon pollution can potentially be reduced at the lowest cost. However, this goal can only be achieved if the legislative and regulatory framework enables Australian businesses and more specifically for ENA, energy network businesses to take advantage of opportunities to respond to those signals. Impediments to obtaining the required response include:

1. Inappropriate regulatory settings; and
2. CPRS design issues leading to energy market instability.

Inappropriate regulatory settings

If energy network businesses are constrained in pursuing emission reductions because of regulation, it will limit the potential benefits that Australia can access from an emissions trading scheme.

ENA therefore considers that the energy reform process currently underway will need to reform elements of the regulatory regime that may impede energy network businesses from pursuing carbon emission reductions.

ENA's primary concerns are that the current regulatory settings:

- do not ensure full cost recovery for energy network providers,
- impede the passing on of climate change related price signals to end users, and
- do not adequately address the increased risk posed by large numbers of renewable generators connected to distribution networks.

Unless these issues are adequately addressed, options identified and solutions implemented, the vital contribution that energy networks can make to meet the climate change challenge will be compromised. The report by Parsons Brinckerhoff, *Energy Network Infrastructure and the Climate*

Change Challenge (see PB Report attached) assessed both the mitigation and adaptation responses which will need to be undertaken by network businesses. The PB Report estimates that \$2.5 billion will be required over the next 5 years as a result of climate change not including the investment needed to address new energy generation. This represents a small part of the \$4.4 billion per year of investment needed by distributors to cover maintenance and augmentation requirements¹.

In addition, the PB Report identifies electricity line losses, which are in the order of 50 times greater than business operational losses, as a significant area to address for major emission mitigation. The PB Report notes that a high level of investment will be required to reduce electricity line losses (in the order of \$1.2 billion for a 10 percent reduction).

For this investment to occur, the PB Report concludes that there will need to be sufficient flexibility in the energy market framework. In addition, the PB Report concludes that to achieve the high level of investment required to meaningfully reduce electricity line losses, would require a regulatory framework that provides assistance and strong incentives to undertake such investment.

Another area of potential reform is in the ability of network businesses to pursue energy efficiency opportunities within the community. Current regulatory regimes applying to electricity network businesses provide few if any incentives to pursue wide scale energy efficiency amongst their customer base. This may be a lost opportunity considering that Australian network businesses connect to almost every Australian home, and, with the right incentives and regulatory regime, distribution businesses could be encouraged to introduce economically efficient energy efficiency programmes within their customer base in the same way as some businesses are encouraged to pursue demand management opportunities. These programmes could assist in overcoming some of the information barriers faced by customers in choosing energy efficient products and approaches, and allow customers to access additional value from their improved energy efficiency.

The ENA therefore considers that the choice available to governments to reduce carbon emissions is not just one of choosing between market and regulatory measures. Instead, market and regulatory measures may be complementary, by ensuring that businesses are not impeded by regulation from making efficient decisions about their investments in emission reductions in response to market signals.

CPRS design issues leading to energy market instability

ENA is concerned that the transition to the CPRS will give rise to increased energy supply insecurity and investor uncertainty.

The former arises if the outcome results in insufficient assistance to key coal generation plants this may lead to premature closure of small but significant base load power supply. The result could have negative impacts on the ability of energy networks to supply reliable and affordable electricity to their customers at least over the short to medium time frame. It could also strand electricity infrastructure assets.

A separate matter is that a poorly designed CPRS could accentuate carbon permit price volatility thereby creating an unnecessary level of investor uncertainty with consequent negative impacts on clean energy enabling infrastructure investment. In this context ENA notes that the CPRS proposal

¹ ACIL Tasman estimates cited in S3 Advisory Report commissioned by AEMC

is for a 5 year firm carbon emission cap. This time frame makes it much harder for energy network service providers to forecast the cost of the CPRS both directly via permit prices and indirectly via their operating and capital costs. Given that most energy infrastructure investments are for long lived assets the result will be an increase in the minimum threshold rate of return the industry and fund providers set in assessing whether to bring forward developments needed to reduce carbon emissions. The outcome would therefore be a delay in the response of the energy sector to the CPRS. A longer scheme cap would assist in addressing this concern.

A related issue is the impact of the CPRS on energy network input costs and their ability to pass-on those costs to customers.

ENA is disappointed that the government has abdicated responsibility for ensuring that the cost of carbon permits flows on to consumers in all situations. The gas industry often involves long term contracts for gas production and transportation, and there are some long term contracts which pre-date the notion of carbon trading. Unless there is a legislative or regulatory mandate that overrides such contracts, it is commercial reality that the party that bears a carbon cost will be unable to pass on that cost. The end result will be that the end consumer will not receive the appropriate price signal intended from the CPRS, which in turn will distort the outcomes of the CPRS and lead to its ineffectiveness for reducing carbon emissions.

Many of ENA's members own energy networks which are regulated (by the Australian Energy Regulator). Those networks effectively operate under regulated contracts (access arrangements, in the case of gas), usually of a 5-year duration. Some of those contracts have tax/impost pass-through provisions which may or may not cater for the pass-through of carbon-related costs. As electricity and gas networks can be significant contributors to emissions in the energy delivery chain, it is imperative for the proper operation of the CPRS that the cost of carbon is properly reflected in the cost of gas and electricity.

The ENA therefore wishes to ensure that legislation specifically mandates that contracts (including regulatory arrangements) that allow for cost increases due to changes in taxation or any similar impost be specifically allowed to pass-through the costs arising from the CPRS.

The relative contributions to overall emission reduction targets from complementary measures such as renewable energy feed-in laws, energy efficiency and the protection or development of terrestrial carbon stores such as native forests and soils

ENA's view is that all the aforementioned measures have a contribution to make to the overall objective.

However, ENA also believes that an essential prerequisite to any meaningful contribution by the energy sector to climate change abatement is a robust energy transmission and distribution network to accommodate the change in the mix and location of energy sources that feed the National Energy Market (NEM) and the consequent changes in the expected energy flows into these networks.

(c) whether the Government's Carbon Pollution Reduction Scheme (CPRS) is environmentally effective, in particular with regard to the adequacy or otherwise of the Government's 2020 and 2050 greenhouse gas emission reduction targets in avoiding dangerous climate change

The effectiveness of the CPRS in avoiding dangerous climate change is crucially dependent on:

1. The alignment of other Government policies with the objectives of the CPRS. To this end ENA notes that the Ministerial Council on Energy (MCE) along with national regulatory bodies such as the Australian Energy Commission(AEMC) and the Australian Energy Regulator(AER) are currently engaged in reviewing and assessing the way forward for many crucial aspects of energy market reform which have a bearing on the outcome including:

- Determination of the regulated return on capital,
- Energy distribution network planning and connection,
- Demand side participation in energy markets, and
- Energy market frameworks in the light of climate change; and
- Setting the parameters for the national rollout of smart meters.

2. The timely achievement of the required level of international cooperation and coordination to achieve a meaningful outcome

(d) an appropriate mechanism for determining what a fair and equitable contribution to the global emission reduction effort would be

No comment

(e) whether the design of the proposed scheme will send appropriate investment signals for green collar jobs, research and development, and the manufacturing and service industries, taking into account permit allocation, leakage, compensation mechanisms and additionality issues

The proper design of the CPRS is not in itself a sufficient factor in determining whether the “appropriate” signal to achieve the aforementioned outcomes will be realised. To ensure investment in energy market infrastructure is timely, efficient, and effective in achieving climate change outcomes investors must be given the right incentives to invest. This crucial fact seems to have been lost by the AER in its December 2008 draft decision on cost of capital parameters to be applied energy network infrastructure. It is hoped that the AER in its final determination will listen to the words of the Prime Minister when he said at the launch of the CPRS White Paper:

“Given the scale of investment we will see in our energy sector as we move to the low pollution economy of the future, a secure investment environment in the electricity sector is critical.”

(f) any related matter.

No comment