



Review of Energy Market Frameworks in light of Climate Change Policies

2nd Interim Report

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The South Australian Chamber of Mines and Energy (SACOME) is pleased to have this opportunity to make a submission to the Australian Energy Market Commission's (AEMC) *Review of Energy Market Frameworks in light of Climate Change Policies (2nd Interim Report)*.

SACOME is the peak industry association for all companies with business interests in the resources industry in South Australia, including those with business, vocational or professional interests in minerals exploration, mining and processing, oil and gas exploration, extraction and processing, power generation, transmission and distribution, logistics, transport, infrastructure, and those with clients in these sectors.

SACOME represents over 300 core industry and services members.

SACOME retains a unique position among industry associations in Australia in representing a broad base of energy companies with interests in South Australia. This includes companies developing coal, gas, oil and uranium resources; renewable and emerging technologies such as geothermal, solar, wind, wave/tidal, and coal to liquid; power generation and infrastructure (electricity and gas); retailing; and a number of major energy users.

The energy sector (stationary and transport) contributes significantly to the national greenhouse gas emissions inventory (69.9% of Australia's total emissions profile) making the sector the primary target of government climate change policy to reduce emissions. Implementation will inevitably have significant economic and strategic consequences for energy companies. The costs will ultimately flow through to all consumers; whether industrial, commercial, or residential. However, in addressing climate change, policy must also have regard for the delivery of reliable and secure energy in an economically efficient manner.

The views contained in our submission are the views of our members, which we have either quoted directly or condensed into a summary.

SACOME looks forward to ongoing consultation of the Independent Review with the resources industry during the review process.

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Chapter 2: Connecting remote generation

SACOME supports the network extension for remote generation (NERG) concept recommended by the AEMC as a framework to facilitate coordinated planning and development of transmission infrastructure to connect remote generation to the national electricity grid.

New policy settings in the manner of the Carbon Pollution Reduction Scheme (CPRS) and expanded Mandatory Renewable Energy Target (MRET) represent direct government intervention in to the energy market to drive the deployment of renewable energy. The current market and infrastructure was established around centralised generation plant, and the deployment of renewable energy will initiate a departure from the current system to a more decentralised arrangement; a consequence of the very nature of the renewable resources. The proposed model reflects this to advance a more strategic approach to planning network development, including efficient locational and size considerations, and accommodate differential deployment in projects.

While climate change policy is designed to drive the energy market to lower greenhouse gas intensive power generation by accelerating the development of renewable technologies, these policies will not on their own deliver the transmission infrastructure required to connect renewable generation. This is the obstacle the AEMC is looking to over come with the NERG approach. There remains a significant role for government funding of network infrastructure to deliver on climate change policy. Such a role is highlighted in the report by Infrastructure Australia which prioritises the development of a true national electricity market, including transmission planning and investment. The National Transmission Planner (NTP) role of AEMC is critical to meeting this strategic objective, by ensuring the decisions made are consistent with a true national electricity market.

Chapter 3: Efficient utilisation and provision of the network

SACOME acknowledges the logic behind the recommendation to introduce a charge to provide a long-term congestion price signal to inform efficient locational decisions of generation capacity. While this driver is understood, SACOME is cautious of the generator transmission use of system (G-TUOS) model as proposed in the AEMC Report. This view is based on the charge reflecting the cost of transporting one megawatt from 'zones' to the regional reference node. The approach seemingly favours generation plant in close proximity to the regional reference node, which would be predominantly conventional generation plant. This would potentially disadvantage new entrant remote generation, including renewable technologies which the AEMC rightly states will likely cluster in specific geographical locations. Should the outcome of the proposed price signal deliver an inequitable cost burden on renewable generators and impede deployment this would run counter to the objectives of climate change policies.

The NERG framework proposed by the AEMC would also contribute to efficient locational and network capacity decisions, as well as the funding arrangements.

The chamber is aware of the Australian Geothermal Energy Associations submission in proposing a variant on the model design to use funds to address generation dispatch limitations and congestion management. In any event, SACOME believes it advisable for the AEMC to consult further with stakeholders to refine the G-TUOS prior to its introduction.

In terms of an additional congestion pricing mechanism, SACOME members are not of the view such a charge would contribute to sound strategic development of generation capacity.

More broadly, SACOME's view is that the current bilateral approach to network connection enquiries and applications also delivers inefficiencies in investment and planning in the NEM. The Chamber is aware of the AEMC consideration of a rule change proposal by Grid Australia to move the framework to position that allows better coordination of network connection applications (*'Confidentiality Provision for Network Connections'*, AEMC Reference ERC 0089). SACOME supports the proposed rule change.

Chapter 4: Inter-regional transmission charging

SACOME agrees with the AEMC assessment of the potential for cross-subsidies and less cost-reflective transmission pricing in the provision of inter-regional transmission under the existing framework.

The nature of the national electricity market will likely be considerably different due to the diverse mix of generation promoted by the implementation of the CPRS and expanded MRET. SACOME considers the introduction of a load export charge should address the deficiencies in the existing framework and offer a more cost-reflective and equitable approach among NEM participants to funding the necessary transmission capacity to manage the flow of electricity within the national electricity market.

This is particularly relevant to South Australia which will likely be a major centre for a range of renewable resources including geothermal. The potential capacity of geothermal is likely to far exceed demand in South Australia and inter-connection to the larger load centres in the eastern states will be essential to the economic efficiency of new generation. The load export charge should provide the necessary economic drivers to deliver effective and efficient inter-connection capability.

Chapter 5: Regulated retail prices

The South Australian (SA) Government has indicated that retail price regulation for electricity and gas will be retained, despite the AEMC recommendation for removal of price regulation. As the AEMC would also be aware the SA Government position is that the standing framework in SA is suitably flexible to adjust for changes due to the CPRS and MRET and allow pass through of costs to customers; and safe guard the interests of public during the transition to a price on greenhouse gas emissions. To that end the SA Government has indicated they are seeking changes to the 2006 Australian Energy Market Agreement to ensure the framework provides for CPRS/MRET related costs to be passed through.

To initiate the behavioural change necessary to deliver on the objectives of climate change policy the cost of emissions need to be passed through to consumers. While de-regulation of retail pricing would deal with this matter, the SA Government position means de-regulation will not occur in the near term. In light of this, SACOME's perspective is that implementation of any mechanism to address the cost impacts of climate change policy within existing price regulation frameworks should be consistently applied across the NEM.

Chapter 9: System operation with intermittent generation

The existing framework particularly through the rule change on the semi-dispatch of wind generation, the introduction of a semi-scheduled category to apply to wind generators greater than 30MW and the Australian Wind Energy Forecasting System has improved the system operators' capacity to manage dispatch to maintain a secure system.

In the short to medium term, the expanded MRET will provide incentive to deploy wind generation capacity in the NEM. Increased intermittent capacity will lead to a consequential increase in deployment of fast start gas generation plant, most notably open cycle gas turbine plant (OCGT). This makes OCGT an ideal match with wind, and in combination with existing base-load plant will allow the market operator to ensure security of supply into the NEM. However, until there is an effective price on carbon dioxide under the CPRS, the MRET will potentially have the effect of delaying further investment in combine cycle gas turbine generators (CCGT). The obvious outcome is a compromise on thermal efficiency and progress in reducing greenhouse gas emissions.

Longer term there is concern this could lead to a reduction in the reliability of electricity supply, compounded by the possible reduction in long-term maintenance of base-load coal power stations and the increase in demand in the network. The economic efficiency of maintaining reliability and the transition to lower carbon base may also be distorted by the higher overall cost of electricity supply with a system concentrated with wind and gas

peaking generation. As the strategic and operational advisor on national energy markets to the COAG's Ministerial Council on Energy, the AEMC has a clear role to inform government of these potential outcomes of the MRET and delay in certainty over emissions trading legislation, and the possible implications to achieving federal government GHG reduction targets.

Chapter 10: Distribution networks

SACOME agrees with the AEMC that the introduction of the CPRS and the expanded MRET will likely bring about substantial change in the operation and management of distribution networks and ultimately impacting on the costs of achieving service obligations for distribution businesses. Our members suggest the cost impacts of proposals for the connection of embedded generating units for existing and new technologies are already being felt by Distribution Network Service Providers (DNSP).

In managing these expected cost impacts the Chamber sees real merit in refining the existing framework to provide temporary funding to distribution businesses to recover the costs of accredited innovation projects.

With the anticipated increase in deployment of embedded generation, smart metering and smart networks DNSP's will need to respond to changes in an efficient and timely manner to develop innovative approaches for system operation and maintenance in order to facilitate new technologies. Therefore it is essential that any arrangement allows DNSPs to access the innovation allowance outside the normal periodic regulatory reset processes.

One of the issues that require consideration is the level of uncertainty with regard to the potential impacts of embedded and renewable generation on the distribution network. Ideally the technologies would be tested for network impacts prior to agreeing to any connection. Testing the protection and performance of the embedded generating units once connected to distribution networks cannot adequately be achieved without major inconvenience to other customers.