



25 November 2011

Mr Tim O'Loughlin
Commissioner for Renewable Energy
Level 17, 31 Flinders St.
Education Building
Adelaide SA 5000
Email: climatechange@dpc.sa.gov.au

Dear Mr O'Loughlin,

Carbon intensity of South Australia's new electricity generation

The South Australian Chamber of Mines and Energy (SACOME) is pleased to have this opportunity to make a submission to RenewablesSA on the Carbon Intensity Discussion Paper.

South Australia has great potential to deliver a highly integrated mix of electricity generation options which will be integral towards securing the states and Australia's electricity supply, reducing the carbon dioxide profile of the national electricity network, and contributing to national greenhouse gas emissions reduction targets.

As the peak Association representing the energy sector in South Australia, SACOME is keen to ensure the regulatory environment is conducive to enabling the full endowment of the state's energy options, and not arbitrarily precluding particular technologies.

1. Emissions Intensity Limit

The emissions intensity limit of 0.7 tonnes of CO_{2e}/MWh announced by the government in 2010 essentially references the upper boundary of the emissions profile of open cycle gas turbine (OCGT) technology¹, recognition that no new 'conventional' coal-fired power stations will likely be deployed in SA, and gas will remain the predominant fuel for electricity generation for the foreseeable future, both base and peaking. The government policy of a renewable energy target of 33% by 2020 which will be dominated by wind power means OCGT is favoured as the technology best placed to complement the intermittent nature wind generation.

SACOME understands the option of imposing emissions intensity limits where broad based climate change policy (emissions trading scheme or carbon tax) is not in place. However with the 'Clean Energy Future' legislation becoming law and the commencement of a pricing system in 2012 which is intended to force business to reduce their emissions profile, and therefore away from conventional coal-fired power, state based schemes such as this should be unnecessary and could well be inefficient. The Discussion Paper itself indicates that the emissions intensity limit would be a 'transitional measure pending the introduction of a national carbon policy'.

In view of this, SACOME considers that implementing a carbon intensity limit on new electricity generation in legislation is unnecessary.

¹ Worley Parsons (2010), Emissions Intensity Limit New Utility Scale Electricity Generation South Australia, Report to RenewablesSA, November 2010

2. Methodology and Scope

Scope 2 emissions

Should the emissions intensity limit be legislated, SACOME supports Scope 2 emissions being excluded from the emissions intensity methodology.

Plant Size

Should the emissions intensity limit be legislated, SACOME supports special consideration for circumstances where diesel is the only viable option for power generation, and in recognising its higher carbon emissions ratio.

Remoteness to the national electricity grid, insufficient capacity of existing transmission infrastructure to meet additional load requirements (for example, Eyre Peninsula) or mine project time frames are ahead of planned augmentation of transmission infrastructure will mean diesel power generation is the only economic option available for many future mining operations. While in the main operations dependent on on-site diesel generation will be well below the minimum limit, there is potential for projects to exceed this limit. As with the IGCC and CTL, the carbon intensity threshold for diesel generation where the plant size limit is exceeded should also be considered on a case-by-case basis because of the higher carbon emissions ratio associated with diesel generation.

SACOME seeks appropriate provisions within the Electricity Act to enable mining projects dependent on diesel and exceeding the minimum plant size limit to be considered on a case-by-case basis.

Integrated Gasification Combined Cycle (IGCC) & Coal to Liquids (CTL)

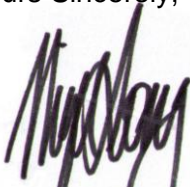
The discussion paper and supplementary report from Worley Parsons² highlights the particular case of integrated gasification and CTL and the challenge in separating emissions purely from electricity generation with the remainder of the process, and therefore requiring special consideration within this policy proposal.

Should the emissions intensity limit be legislated, the assurance that the emissions intensity threshold for these technologies will be considered on a case-by-case basis through the amendments to the Electricity Act and that it will be sufficiently flexible to accommodate the unique nature of such projects is welcome, but the devil will be in the detail. We would need to be satisfied that the amendments do enable an adjusted carbon intensity threshold for these projects, and that there is no unintended effect of excluding such projects from being deployed. We would expect that additional consultation will take place in relation to the specific amendments proposed.

Due to the highly energy intensive nature of integrated gasification and CTL, where 50% of the power generated is internally consumed in the process³, the recommended measure of 'sent out' will significantly disadvantage this technology compared to gas and high efficient conventional gas-fired technologies. SACOME would expect this issue to be dealt with on a case-by-case basis and that legislative amendments will provide such flexibility.

Should you wish to discuss this submission further please contact me on phone number 8202 9999 or nlong@sacome.org.au.

Yours Sincerely,



Dr Nigel Long
Director, Corporate Social Responsibility

² Worley Parsons (2010), Integrated Gasification and Coal to Liquids-Sankey Flow Diagrams, Report for RenewablesSA, December 2010.

³ Ibid.