

19 February 2008

Greenhouse and Energy Reporting Taskforce
Department of Climate Change
Via email: reporting@climatechange.gov.au

Dear Greenhouse and Energy Reporting Taskforce

**Re: Discussion Paper - Technical Guidelines for the
Estimation of Emissions and Energy at Facility Level.**

Thank you for the opportunity to comment on the - Technical Guidelines for the Estimation of Emissions and Energy at Facility Level (Technical Guidelines).

SA Water has contributed to previous State and Federal consultation processes for developing a national approach to greenhouse and energy reporting, and welcomes this further opportunity to ensure that our needs are considered as we contribute to the national and global effort to reduce greenhouse gas emissions.

We welcome the progress to date and attach our comments on the proposed Technical Guidelines.

Yours sincerely

Anne Howe
CHIEF EXECUTIVE

SA Water Corporation (SA Water) is wholly owned by the State Government and provides water and wastewater services to approximately 1.4 million people state wide. Employing about 1300 staff, SA Water has an annual turnover of over \$700 million and more than \$7 billion in assets. Network infrastructure includes 25 000km of water mains and 8 100km of wastewater mains, allowing the Corporation to service an area of approximately 1 million km².

SA Water is strongly committed to reducing its greenhouse gas emissions and has been an active member of the Greenhouse Challenge Plus program since 2003.

Climate change impacts, and higher standards for treated wastewater disposal, are likely to increase:

- the need for new infrastructure;
- electricity requirements (particularly for desalination);
- electricity costs (as carbon constraints are incorporated into standard energy pricing); and
- the cost of renewable energy and carbon offset products.

SA Water supports the Energy and Greenhouse Reporting Taskforce in addressing the methodologies and guidelines that will underpin greenhouse and energy reporting, and our efforts to reduce net greenhouse gas emissions as we tackle the challenges associated with climate variability and climate change.

CHAPTER 6: WASTE TO LANDFILL AND WASTEWATER TREATMENT

6.3 Wastewater Treatment—Domestic and Commercial

SA Water supports the changes proposed in the Technical Guidelines and sees this as a modest improvement on the previous Factors and Methods Workbook methodology. It is encouraging that research conducted by the Water Services Association of Australia has been incorporated.

The quantification of fugitive methane and nitrous oxide emissions is a complex task requiring even more research in some areas and potential sampling in different environments. SA Water suggests that this might give rise to further refinement of these scope 1 emission factors and methodologies earlier than the five year period suggested.

CHAPTER 7: SCOPE 2 EMISSION FACTORS (ELECTRICITY USE)

Scope 2 Emission Factors – ‘Physical’ and ‘Contract’ Based Approaches

Submissions are invited on the relative merits of the two approaches on this topic.

Stakeholder views and preferences are sought on the different reporting options for electricity (Scope 2) emissions as outlined in the Attachment C Box

SA Water uses a portfolio strategy to reducing its emissions that includes options for improving energy efficiency, purchasing of low emissions electricity products, purchasing accredited carbon offsets and revegetation for multiple benefits. For our strategy to continue, it will be essential to have a hybrid physical/contract approach in accounting for greenhouse emissions and benefits associated with using different electricity products.

For current operations, SA Water is seeking lower emission electricity products that will contribute to greenhouse gas reduction targets. More specifically, SA Water's planned 50,000 ML per year desalination plant is anticipated to operate using a substantial quantity of accredited renewable energy for the purpose of constraining net greenhouse gas emissions at or near zero tonnes CO₂-e. For such a strategy to be successful, SA Water will require legal ownership of the scope 2 greenhouse benefit associated with the use of renewable energy. **SA Water believes that, it is essential to have legal ownership of renewable energy greenhouse benefits of renewable and low emission energy products to be able to deduct these from gross emissions and display lower or zero net scope 2 emissions.**

Should a physical approach be adopted, all electricity sources would be assigned the same state aggregated scope 2 emissions factor, and this would prohibit any benefit from entering into contracts for the purchase of accredited GreenPower, Renewable Energy Certificates (RECs) or lower emission electricity from natural gas sources as opposed to the standard electricity mix.

It is therefore recommended that a hybrid physical/contract approach be adopted that would enable renewable electricity and low emission electricity products to be purchased with product specific emission factors, whilst standard electricity be reported using an adjusted standard pool electricity factor.

A hybrid physical/contract approach to determining a standard pool electricity factor could be achieved with relative ease. The current aggregated state electricity factor (total scope 1 electricity emissions per MWh consumed in the state) would be the starting point. By then making adjustments to net out lower emissions electricity sold as specific products, and renewable energy sold voluntarily in accredited products or sold interstate, a better scope 2 electricity factor would be established.

A hybrid approach could be achieved with a small change to the way that RECs are used in the methodology, and by using existing GreenPower use data, and by creating and using a register for emerging low emission energy products.

A physical approach is not compatible with the current GreenPower accreditation framework, or with voluntary trading of renewable energy certificates where the greenhouse benefits of such products are already shared amongst all other standard electricity customers.

A hybrid approach would better meet the requirements of, "transparency, completeness, comparability, time series consistency and accuracy", because it would assign legal ownership of the greenhouse benefits of renewable and low emissions electricity products to the buyers of such products supporting a market based approach and eliminating the risks of double counting.

Other indirect Emissions Factors for Electricity

Scope 3 electricity emission factors can be more transparent and better defined. The current Scope 3 component covers:

- fugitive emissions from the extraction of fossil fuels
- emissions from the transport and refining of those fuels
- electricity losses during transmission.

This does not include life cycle emissions for building power generation plants and transmission grids, which embody significant greenhouse emissions in materials and during construction. The “full fuel cycle” emissions factor is therefore not a complete emissions factor that can be used for the lifecycle assessment of emissions associated with a project. It is therefore suggested that the Technical Guidelines incorporate such embodied emissions into the scope 3 component or prepare an additional scope 3 data set for life cycle assessment.

Timeframe for Review of Emission Factors

The Discussion Paper suggests that once the Technical Guidelines are published, Scope 1 emissions emission factors would not be altered for 5 years. The Discussion Paper is not clear on the review timeframes for electricity scope 2 and 3 emission factors. As previously covered, electricity factors should be associated with particular products, and beyond this the greenhouse intensity of remaining standard pool electricity will change rapidly due to the emerging nature of electricity markets and energy sources.

It is supported that Scope 1 emission factors for electricity production be reviewed every five years, and suggested that Scope 2 and 3 emission factors for standard electricity be reviewed and re-published annually.