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Dr Anna Dacre
Committee Secretary
Environment and Heritage Committee
House of Representatives
Parliament House
CANBERRA ACT 2600

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Dear Dr Dacre

Re: Inquiry into Sustainable Cities

Thank you for the opportunity to make a submission to the House of Representatives Standing Committee on Environment and Heritage Inquiry into Sustainable Cities.

REGA is an association of organisations with a common purpose of supporting the development of electricity generation from truly renewable resources. REGA represents over 95% of Australia's renewable energy generation, which accounts for approximately 10% of Australia's total electricity generation. REGA represents all sectors of Australia's renewable energy industry. Our broad membership is comprised of existing generators, equipment suppliers, developers and industry specialists. We aim to bring together the experience and views of both generators and the wide cross section of those involved in the supply of renewable energy equipment.

REGA is a member of the Renewable and Sustainable Energy ROUNDTABLE and has provided input to the ROUNDTABLE's substantive submission to the Inquiry into Sustainable Cities.

REGA considers that the sustainable development of cities is essential on both a national and international level. The provision of a sustainable energy supply is inextricably linked to improved quality of life for the significant proportion of the world's population who live in cities. Increasing the supply of renewable energy to Australian cities will decrease particulate air pollution and atmospheric concentrations of greenhouse gases; improve the eco-efficiency of goods produced for and consumed in cities; and create employment through industry growth. Furthermore, the uptake of renewable energy technologies can provide additional advantages such as: effective water management in the case of hydro-electricity (existing reservoirs and water systems, micro- and mini-hydro); reducing waste streams in the case of energy recovery from bagasse and municipal solid and green waste; and improving salinity problems through bioenergy crops or water pumping via electricity sourced from renewable resources such as hydro, wind and solar.

The current patterns of energy supply and consumption in Australian cities are clearly unsustainable. The world's energy systems are responsible for more than half of all global greenhouse gas emissions. High levels of these emissions are due to anthropogenic fossil fuel use for the purpose of electricity generation. In this context, zero and low emission renewable energy technologies must achieve a greater penetration into the electricity market.

The Commonwealth Government's Mandatory Renewable Energy Target (MRET) is central to achieving the growth of the renewable energy industry in Australia. The MRET is a market based price transfer system that has provided the incentive for existing renewable energy generators to enhance their generation output and has encouraged new renewable energy technologies such as wind, mini-hydro and biomass to grow in the Australian market.

Strengthening and extending the MRET will enable the industry to achieve the economies of scale required to realise the reduction in costs required by new renewable energy technologies. Increasing the demand for renewable energy technologies to a sufficient level will also attract investment in local manufacture of these technologies, and consequently capture the export opportunities in our burgeoning economic region. Already, one of REGA's members, Vestas International Wind Technology Pty Ltd, has commenced manufacturing

wind turbine components in Tasmania and has indicated that an expanded MRET would provide the stimulus required to consider establishing further manufacturing facilities in Australia.

The enhancement of Australia's significant renewable energy base (predominantly hydro-electricity) is essential to achieving a sustainable energy supply for Australia's cities. REGA members are planning and implementing a number of important additional generation projects. The upgrade and refurbishment of aging hydro-electric assets has been central to enhancing the existing renewable energy base. These projects are financially viable due to the additional revenue achieved under the MRET.

REGA regards sustainable development as a fundamental component of sound business and natural resource management practice. The five key themes presented to the World Summit on Sustainable Development (WSSD) for consideration were Water, Energy, Health, Agriculture and Biodiversity (WEHAB) and should be seen as the five key elements required to realise sustainability in Australian cities.

It was noted at the WSSD that less than 1% of the world's fresh water resources are accessible for human use, and that an additional 1.6 billion people will need access to adequate drinking water, infrastructure and services by 2015. By 2025, two-thirds of the world's population is likely to live in countries with moderate or severe water shortages. There is a basic need in Australia and Internationally for an improved framework for integrated water resource management to meet the competing requirements of supplying water for domestic use, industry, agriculture and ecosystem requirements.

The United Nations Millennium Declaration called on all member States to:

'...stop the unsustainable exploitation of water resources by developing water management strategies at the regional, national and local levels which promote both equitable access and adequate supplies'.

There is an implicit recognition in this statement that water interacts with almost all other sectors of the economy; and is a key element for the improvement of health and quality of life. It also recognises that the continued neglect of water resource requirements for ecosystems is having devastating consequences for natural capital and aquatic biodiversity. As a result, the global community is confronting a number of challenges with regard to the development and management of water resources within the framework of sustainable development.

As we move into the 21st century, population growth, urban expansion and economic development are driving both energy and water use to record levels. Hydro-electricity is a major renewable energy resource that can play an increasingly important role in enabling cities around the world to meet sustainability objectives. As a high quality, reliable and flexible energy source it has a pivotal role in integrated energy systems. Furthermore, new renewable energy technologies such as wind, solar and biomass have a central role in diversifying Australia's energy mix and providing a more robust and sustainable electricity supply.

The provision of incentives to existing and new renewable energy generators is essential to building a strategic industry that can provide cost effective long term energy solutions for Australia, thereby increasing the sustainability of Australian cities.

Please find attached REGA's *10 Point Roadmap to Australia's Lower Carbon Economy*. If you have any queries please contact REGA's Executive Officer, Mr Alex Beckitt, on (03) 6230 5413 or email Alex.Beckitt@hydro.com.au. I look forward to participating further in the Inquiry.

Yours sincerely

Original signed

Hon Peter Rae AO
Chairman
Renewable Energy Generators of Australia

ADDITIONAL INFORMATION HELD BY THE COMMITTEE

ATTACHMENT TO SUBMISSION NO. 116

**ATTACHMENTS, APPENDICES AND PHOTOGRAPHS PROVIDED WITH
SUBMISSIONS ARE HELD IN THE COMMITTEE OFFICE**