

The Chair
Standing Committee on Climate Change, Energy and Water
GPO Box 1020
Canberra ACT 2601

File No SU09/001

15 June 2009

Dear Ms Hunter

**Submission to the Standing Committee for Climate Change, Environment and
Water - Inquiry on ACT Greenhouse Gas Reduction Targets**

As is widely acknowledged humans are adding to the problem of climate change through many local activities, both large and small, and the solution will also come from many local activities, in addition to national and international efforts. The Australian Capital Territory (ACT) community is part of the solution and can lead in the development of innovative responses to take responsibility for reducing greenhouse gases and to reduce the impact of climate change in both the ACT and the wider region. The challenges and leadership shown in the ACT and surrounding region have been captured in the recent ACT State of the Environment Report (SoER) 2007/08 and the Regional State of the Environment Report (RSoER) (copies of both Reports are available at www.envcomm.act.gov.au).

These reports were presented in accordance with frameworks established for previous similar reports. They include case studies and snap shots on activities that are being undertaken to mitigate and adapt to climate change including: retrofitting buildings like the Trevor Pearcey House at Fernhill Technology Park in Bruce, Canberra Institute of Technology (CIT) switching off program to save energy, and Go Zero CO2 Farrer, a community based group dedicated to achieving carbon neutrality. However, given the current challenges, *the ACT SoER is currently being reviewed, including the best way to clearly present information on climate change and climate variability with respect to mitigation and adaptation will be identified. Accordingly, any findings your Inquiry reaches regarding this could be incorporated into this review.*

To assist the Inquiry, this submission summarizes information presented in the SoER and RSoER, along with some comments on specific issues. *Points of emphasis are in bold italics.*

Mitigation

The ACT's Government's recently announced target of zero net greenhouse gas emissions is supported and provides a clear statement of intent. It is understood that there are four main components to achieving zero net emissions, which in order of priority are:

1. drive behavioural changes that avoid or reduce the consumption of energy. For example, by walking or cycling instead of using transportation, turning off lights and equipment when not in use, and making consumption choices in favour of goods and services that do not use energy or minimise energy consumption;
2. promote and adopt energy efficient technology and measures in all aspects of the economy. This may include transportation systems, appliances, and the design of solar passive/ energy efficient buildings that reduce the need for heating, cooling and lighting;
3. increase the ACT's reliance on renewable energy sources; and
4. recognise that it will not be possible nor economically feasible to completely eliminate all sources of greenhouse gas emissions and that the achievement of zero net emissions will require the offsetting of residual emissions. Carbon offsets can be made through a range of accredited providers that invest in sequestration activities, such as tree planting and renewable energy generation.

While offsetting is flagged as a final resort, it is suggested that it be made explicit in all documents that guide actions for achieving the target, that energy efficiency and alternative energy sources must be used before offsets are pursued as a means of mitigating greenhouse gas emissions in the ACT. It is recognized that the proposed National Carbon Pollution Reduction Scheme (CPRS) has the potential to play a significant role in the mitigation of greenhouse gas emissions.

As reported in the SoER, greenhouse gas emissions in the ACT (in 2005) are comprised of:

- 72.2% from stationary sources such as heating, cooling and lighting (ie urban building and form) and our per capita use of both electricity and gas continues to increase;
- 22.8% from transport; and
- 4.7% from waste.

To assist in achieving the target of zero net greenhouse gas emissions, it would be advantageous to have mitigation (and adaptation) plans/frameworks for stationary sources (including urban building and form), transport and waste. These plans/frameworks could include actions by all sectors of our community, with targets for these three sectors.

A measure which reflects our greenhouse gas emissions, amongst other things, is our ecological footprint. In 2004, the average ACT resident had an ecological footprint of

8.5 global hectares, which is nearly four times higher than the global average, and a 15 percent increase per person since 1998-99. *The Office is intending to update the ecological footprint for the next SoER in 2011/2012 as it is considered to be an important measure of our overall progress towards sustainability.*

The following recommendations, to guide actions to address climate change, were made to the ACT Government in the SoER, with a commitment from our Office to assist in advancing their implementation:

- a) giving a high priority to implementing the ACT Government's *Weathering the Change* Strategy and Action Plan;
- b) the Commissioner's Office annually assessing the progress made in implementing *Weathering the Change*, in particular the ACT Government's progress toward carbon neutrality. (Under *Weathering the Change*: Action Plan 1 2007-2011, Action 2 states that Agency Resource Management Plans – which is taken to include energy and water use, waste production and transport – and the expenditure of the Energy Efficiency Fund will be subject to scrutiny by the Commissioner. *To this end this Office is progressing its reporting on Government Agencies Environmental Performance Audit/Assessment (Draft Terms of Reference are currently being developed);*
- c) the Commissioner, working with the ACT Government and key environmental and business groups, advocating climate change actions and community involvement; and
- d) requesting the Australian Government to establish a new weather station in the ACT and ensuring data is adequately correlated with previous data from the weather station at Canberra International Airport. *It is understood that the Bureau of Meteorology is progressing actions with respect to the issues mentioned in this recommendation.*

If the Weathering the Change Strategy is amended or replaced, it is recommended that the actions it promotes be continued until actions under the amended or replacement document are initiated.

In the SoER, a number of recommendations to advance sustainable transport, improve waste management and better manage resources (including urban building and form) were made. *Sustainable transport was identified in the SoER as a key climate change and sustainability issue for the ACT community as a whole. It was recommended that this be progressed by:*

- a) continuing to implement and support the Territory's Sustainable Transport Plan by:
 - i. Finalising and implementing a Territory parking strategy (with supporting actions) for ACT lands and those in the parliamentary triangle (it will be important to ensure that the Australian Government supports this strategy); and
 - ii. Developing a pedestrian action plan, in consultation with the community to foster walking, particularly for commuter trips.
- b) amending the Territory's Sustainable Transport Plan to include greenhouse gas emissions, energy efficiency and/or carbon neutrality targets for the transport sector, and specific efficiency targets, such as energy efficiency per person or persons per kilometer travelled.

- c) developing and discussing with the community a paper on long-term innovative sustainable transport options for the Territory. Pending the results of this work, update the Territory's Sustainable Transport Plan to include any government-adopted options. An independently chaired, multidisciplinary taskforce should be charged with developing the options, consulting with the community and reporting to government. (Mr Jon Stanhope, Chief Minister and Minister for Territory and Municipal Services has invited me to chair a forum on this topic in July, 2009.);
- d) the Commissioner's Office annually assessing the progress made in implementing the Sustainable Transport Plan; and
- e) the Commissioner working with the ACT Government and key environmental and business groups to advocate that the community travels in a sustainable manner.

The following were recommended in the SoER to further advance waste management:

- a) developing and implementing a waste minimisation/avoidance action plan with specific measurable performance measures; *No Waste* would be an appropriate inspirational goal rather than being used as a target (e.g. *No Waste by 2010*);
- b) progressing a domestic and business organic waste collection system;
- c) developing and implementing a Business Waste Reduction Strategy that includes:
 - i. reducing waste,
 - ii. recycling and reusing waste,
 - iii. collecting and reporting on data,
 - iv. holding a businesses waste forum to encourage innovative and cost-effective approaches for reducing waste;
- d) increasing community education and promotion to further reduce recyclables in potential landfill waste;
- e) providing more facilities for recycling in public places and at major events;
- f) establishing an ACT e-waste consortium, including Australian and ACT Government agencies, universities and CIT, CSIRO, businesses, industry and other major e-waste generators to:
 - i. provide data on e-waste,
 - ii. raise awareness about e-waste,
 - iii. develop e-waste minimisation and management strategies; and
- g) promoting waste minimisation as a practical way to advance sustainability.

With respect to managing resources in general, there were several recommendations in the SoER, relating to building design, including:

- ensuring sustainability criteria are used to guide the assessment, planning and management of new uses for buildings no longer needed for school purposes (as per the *Towards 2020; Renewing Our Schools* program) and any other buildings disposed of as surplus to government requirements; and
- managing significant urban growth in a sustainable and integrated way including urban consolidation.

The ACT Government is yet to respond to the recommendations in the SoER.

Dr Andrew Blakers' submission to your Inquiry (a copy was sent to my Office) is supporting material to a complaint he has made to this Office regarding Government policy and actions with respect to retrofitting of buildings to achieve greenhouse gas emission reductions. *The Office has requested information from the relevant Government agencies on issues raised in Dr Blakers' complaint. Following advice from the Government agencies, if there is a need we will consult with relevant experts, and may convene a meeting between these experts, Dr Blakers and relevant Government officers. Then we will respond to Dr Blakers' complaint and if appropriate recommendations will be made to the relevant Government agencies or the Government.*

Adaptation

It is understood from the Terms of Reference for your Inquiry that you are mainly focusing on mitigation measures. As you would be aware there are two key elements in addressing a sustainable response to climate change:

- mitigating greenhouse gas emissions; and
- adapting to unavoidable climate change.

Adaptation actions in the ACT include the following:

1. National Research Flagship on Climate Adaptation run by the CSIRO and established by the Council of Australian Governments as part of its Climate Change Adaptation Framework in April 2007. Understanding the Region's vulnerability to climate change is the first step in developing programs for adaptation. The Office is currently consulting with the CSIRO regarding building resilient communities in the Australian Capital Region (ACR)¹ and identifying ways of promoting some of the everyday things that the community can do to adapt to climate change now; and
2. The ACT Government providing financial support to an adaptation project being undertaken by the ANU Climate Change Institute in the ACR. The ANU is currently working with the ACT and NSW Governments on the Climate Vulnerability and Adaptation in the ACR Project. It is understood that phase one of this project will be completed in late 2009/early 2010 and will provide a library of the work being undertaken in the Region on climate change vulnerability and adaptation. This Institute will provide the opportunity for more direct interdisciplinary collaboration between governments, industry and the research community working in climate change.

Climate change impacts create considerable risks to assets, investments, biodiversity and ecosystems, communities and regional economies. Action now to adapt to challenges and harness opportunities can reduce costs in the future.

Adaptation is one of the most effective options to help manage the risk of climate change in our region. Adaptation will help us cope with our changing climate in the

¹ The Australian Capital Region includes the ACT and the surrounding New South Wales local government areas of: Bega Valley, Boorowa, Bombala, Cooma-Monaro, Cootamundra, Eurobodalla, Goulburn-Mulwaree, Gundagai, Harden, Queanbeyan, Yass, Young, Upper Lachlan, Palerang, Snowy River, Tumbarumba and Tumut.

short to medium terms, while other longer term mitigation measures take effect and help reduce our greenhouse footprint².

With the effects of climate change already being felt, traditional approaches or making minor adjustments to business as usual alone, are unlikely to secure an effective and successful future for the ACT and its region.

Adaptation needs to occur by:

- incremental changes –work is being undertaken in the ACT and its region on incremental actions such as improving water and energy efficiency, community education, landscape restoration and enhancement etc; and
- transformational changes – this includes shifting the way we generate energy, how we build our houses, where we source our food and our attitudes and action on consumption.

The need for both incremental and transformational changes was emphasised at the launch of the RSoER on 5 June 2009 (only available electronically due to size at www.envcomm.act.gov.au). This Office, in partnership with the councils in the ACR developed the RSoER. The RSoER includes three papers addressing the issue of sustainability and climate change (attached):

- The Commissioner's Observation Paper; and
- Progressing Sustainability in the ACR and a supporting paper Regional Sustainability (by John Schooneveldt).

The Commissioner's Observation Paper (attached) highlighted some key observations in relation to changes in the ACR as a result of climate change and variability and included:

- **Catchments, Water security and availability** - water, along with climate change, is one of the key challenges facing the Region. Like the Murray–Darling Basin, the ACR has been functioning under drought conditions during the entire reporting period. Over this reporting period many Councils have introduced schemes and incentives for reducing the consumption of water at both a residential and a commercial level. The reuse of waste water and the introduction of rebates for installation of water tanks and the mandating of further water restrictions have been introduced in certain Council areas. At an institutional level Council's are encouraged to:
 - continue to work closely with their Catchment Management Authority, to implement joint projects and ensure consistency in approach to land and water management and complementary actions.
 - continue to ensure impacts on ground and surface water quality are considered in land use zoning, development applications, sewage and water supply treatment.
 - continue and build on the effective relationships with NSW and ACT Governments agencies to ensure up-to-date information regarding condition of the catchments environmental drivers such as salinity, and associated management issues relevant to them.

² PSMEIC Independent Working Group 2007, Climate Change in Australia: Regional Impacts and Adaptation - Managing the Risk for Australia, report prepared for the Prime Minister's Science, Engineering and Innovation Council, Canberra June 2007.

- monitor and adapt to the impacts of climate change to ensure no significant detrimental effects are sustained from the changing conditions and any future actions.
- work towards managing water at a regional and inter-regional scale; and
- **Ecosystems services and Biodiversity protection** - councils are in a prime position to take a leading role in protecting and enhancing these vital ecosystem services. A range of activities in the local government areas is aimed at improving the condition of native ecosystems and the habitat of native species and reducing the pressures on them. At a local level, councils need to continue to ensure diversity aspects, in particular consideration of native species and ecosystems as well as local threatened or vulnerable species are considered in planning for and implementing land use zoning, assessment of development applications, road management and construction activities, stormwater management, hazard control burning and weed control activities.

In the *Progressing Sustainability in the ACR* paper, those sectors, which may experience significant climate change impacts in the Region were identified, namely: tourism, coastal infrastructure, biodiversity and ecosystems and urban water availability. This paper also presented four key areas for progressing sustainability in the ACR, all of which will be significant in adapting to climate change. They are:

- **Renewable energy** – this Region has significant potential for the generation of renewable energy. There are about 28 renewable energy power stations in the region (solar, water, wind, biomass etc) and about 30 more proposed;
- **Water** - at the local level action such as community education on water use, protecting and enhancing infrastructure partnerships with business, community and other councils are important to address water availability in the ACR. Beyond the local level there is a need to address issues such as water pricing, metering and supply options;
- **Land management** –strategic and inclusive planning systems are needed that address fire vulnerability, water availability and impact of urban and peri-urban areas on ecosystems, ecological connectivity and waterways. There is also a need to acknowledge that land management issue impact beyond political borders; and
- **Building adaptive communities** - understanding the Region’s vulnerability to climate change is the first step in developing programs for adaptation. As such, this Office has undertaken a cooperative and collaborative approach to develop and promote climate adaptation in the Region with councils, individuals, non-government organisations and businesses. Developing appropriate adaptation responses at the local level will be pivotal for climate change adaptation to be successfully implemented and assist in making the ACR a strong and liveable Region in the future.

While we can reduce our greenhouse gases, and should do so as quickly as possible, this needs to be done within the context of the ACT contributing about 1.2% of Australia’s emissions, and Australia contributing about 1% of global emissions³ yet the actual affect of climate change and climate variability on this region will result in very significant and dramatic changes, and given recent trends and information these changes are occurring at a very rapid rate. It is therefore suggest that your

³ Weathering the Change, ACT Government Climate Change Strategy

work on mitigation be complemented by an analysis, which is made public, of the adaptive measures in the ACT which are being implemented, proposed and needed so that we are better positioned to meet the challenges and harness the opportunities from the inevitable consequences of climate change and climate variability.

While the next SoER will address mitigation and adaptation, it will not be available for several years, therefore, *given the importance of adaptation there maybe benefits in an initial overall assessment on adaptation actions in the ACT being undertaken to identify gaps that need to be addressed.* This would complement the work of your Inquiry. *It may also be appropriate for Government agencies when reporting on their use of resources (refer to page 3, point b) of this submission, to also report on adaptation actions, both those being undertaken and proposed.* A logical extension of the requirement in *Weathering the Change* would be that this Office report on adaptation actions (being undertaken and proposed) by Government.

I hope this submission assists you.

Yours sincerely

Dr Maxine Cooper
Commissioner

Attached:

Regional State of the Environment Report

- The Commissioner's Observation Paper
- Progressing Sustainability in the ACR
- Regional Sustainability (by John Schooneveldt).