



Environmental Defender's Office ACT Inc.



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Dr Hanna Jaireth
Secretary
Standing Committee on Climate Change, Environment and Water
ACT Legislative Assembly
GPO Box 1020
CANBERRA ACT 2601

By email: committees@parliament.act.gov.au

Dear Dr Jaireth

Inquiry into ACT Greenhouse Gas Reduction Targets

The Environmental Defender's Office (ACT) is a non-profit, community legal centre specialising in public interest environmental law. Our office is one of nine independently constituted and managed Environmental Defender's Offices in each State and Territory of Australia. We provide legal representation and advice, take an active role in environmental law reform and policy formulation and offer education programs designed to facilitate public participation in environmental decision-making.

The Environmental Defender's Office (ACT) (EDO) welcomes the opportunity to comment on the inquiry into ACT greenhouse gas reduction targets.

Executive Summary

Scientific evidence confirms that greenhouse gas emissions are contributing to global warming and dangerous climate change. Recent evidence indicates that climate change is occurring at a much faster rate and with more alarming consequences than previously predicted. Without an immediate response to significantly reduce emissions there is a great risk of irreversible damage caused by catastrophic climate change.

In light of this it is imperative that the ACT government acts to reduce emissions by setting appropriate emissions reduction targets and introducing measures to facilitate deep emissions reductions through the uptake of renewable energy, increased public transport usage and energy efficiency measures.

The EDO makes the following recommendations:

- greenhouse gas emissions to peak by 2010
- a reduction of at least 10% of greenhouse gas emissions from 1990 levels by 2012
- a reduction of at least 60% of greenhouse gas emissions from 1990 levels by 2020
- ongoing monitoring, annual reporting and 3 year review of targets
- a mandatory renewable energy target of 100% by 2020
- introduction of measures to improve energy efficiency and increased funding for energy efficiency measures
- encourage the uptake of greenpower
- increased expenditure in public transport
- inclusion of a biodiversity overlay in the Territory
- introduction of a declared protected category for species and communities particularly susceptible to climate change impacts.

Background

Australia's obligation as a signatory to the United Nations' Framework Convention on Climate Change (UNFCCC) is to stabilise emissions 'at a level that will prevent the dangerous anthropogenic interference with the climate system' (article 2 UNFCCC). The Convention also highlights the timing imperative of stabilising emissions and aims to stabilise emissions at this level 'within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner'.

What amounts to dangerous climate change is not defined. However, ultimately, 'dangerous' climate change is climate change which threatens the sustainable survival of the human species, and therefore encompasses climate change impacts upon those ecological and other natural processes and systems upon which the human species depends for its sustainable survival.

It is now widely considered among the scientific community that a mean global temperature increase of 2° C is the maximum threshold before dangerous climate change occurs.

To remain below a 2 degrees temperature increase a minimum stabilisation target of 450 ppm CO₂-e is required. However, even this stabilisation target gives only a 50 per cent chance of limiting the global mean temperature increase to 2°C above pre-industrial levels¹.

Most recent scientific modeling indicates that emissions and temperature rises are occurring at a greater rate than previously predicted. As the final Garnaut report stated 'Australia and the world are running towards high risks of dangerous climate change at a more rapid rate than was previously understood. The opportunity costs of delaying decisions are high.'²

Notwithstanding the ACT's small percentage of national emissions and Australia's small percentage of global emissions, Australia's per capita emissions level make urgent action necessary.³ Australians have the unenviable record of having the largest emissions profile per capita of the OECD and among the highest in the world, with per capita emissions more than four times the world average.⁴

The most recent ACT State of the Environment Report (2007) found that in the ACT 'we are consuming natural resources at an unsustainable rate and, while efforts are being made to address this, more needs to be done as a matter of urgency, particularly given the correlation between consumption of resources and climate change'.

For the ACT region an increase of 2° C will mean increased temperatures, decreased rainfall, higher bushfire risk days and more heat related deaths. In May 2006 CSIRO prepared regional climate change scenarios which predicted that by 2020 there would be a decrease of up to 20% in the ACT's Cotter and Queanbeyan's catchments, the number of days above 35 degrees would increase by between 1 and 9 days (from 5 days to 6-14 days), the number of high or extreme fire danger days in Canberra would increase from 23 to between 26 and 29 and the number of annual heat related deaths would rise from 14 to between 37 and 41.⁵

Appropriate targets

The EDO strongly supports legislated emissions reduction targets. An appropriate target indicates to the community the seriousness with which the government views the needs for emissions reductions and together with appropriate programs aimed at encouraging renewable energy uptake, increasing use of public transport and energy efficiency measures will assist in reducing emissions.

¹ Garnaut Climate Change Review Final Report, Chapter 2, page 43, accessed at <http://www.garnautreview.org.au/index.htm>

² Opcit 1, Chapter 1, page 3

³ The ACT is responsible for about 1.2% of Australia's emissions and in turn Australia contributes between 1 and 2% of the global total, ACT State of the Environment Report 07/08, accessed at <http://www.envcomm.act.gov.au/soe/2007actreport/indicators07/greenhouse07>

⁴ Opcit 1, Chapter 7, p154

⁵ CSIRO 'Climate change scenarios for initial assessment of risk in accordance with risk management guidance', May 2006, p.20, accessed at <http://www.climatechange.gov.au/impacts/publications/pubs/risk-scenarios.pdf>

(i) an appropriate date for the peaking of greenhouse gas emissions in the ACT

The EDO submits that an appropriate date for the peaking of green house gas emissions in the ACT is 2010.

The scientific evidence points to a need to act quickly on reducing our emissions in an effort to halt the damaging effects of climate change. Delaying action to reduce emissions below current levels increases the risk of dangerous climate change occurring. We risk doing irreversible damage to our environment.

Any later peaking date will require much deeper cuts at a later date to reduce the ACT's emissions to a level so as to avoid dangerous climate change. The cost of deeper emissions reductions at a later date will then be felt more strongly. The cost of our delay must not be left for others to pay.

The principle of intergenerational equity, which means that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations, underpins much environmental legislation and decision making in the ACT.⁶ This principle demands that deep reductions are made quickly to ensure that irreversible damage is not done to the detriment of future generations.

The EDO supports the Conservation Council ACT Region's submission to this inquiry, that early and deep emissions reductions can be delivered by implementing energy efficiency measures as set out in the paper 'Achieving Better Energy Efficiency in the ACT, how to significantly reduce greenhouse gas emissions in the nation's capital'.

(ii) an appropriate target for the reduction of greenhouse gas emissions in the ACT by 2012

The EDO supports a short term reduction target to assist in ensuring that the 2020 target is met. The EDO submits that a reduction of at least 10% of greenhouse gas emissions from 1990 levels by 2012 is an appropriate target.

(iii) an appropriate target for the reduction of greenhouse gas emissions in the ACT by 2020

EDO submits that a reduction of a minimum of 60% by 2020 from a baseline of 1990 levels is an appropriate target.

In addition there must be a mechanism to allow the adjustment of these targets if scientific evidence indicates that increased or decreased targets are necessary. Recent scientific evidence has highlighted that climate change is progressing much faster than originally predicted. An

⁶ See s12(3) and 9 of the *Planning and Development Act 2007*, s2 *Environment Protection Act 1997*

ability to increase (or decrease) targets will help ensure that appropriate targets are maintained in the light of any new scientific evidence.

Climate scientists have advised that emissions cuts between 25-40 per cent below 1990 levels by 2020 are required to avert the worst impacts of climate change. However, even this target gives only a 50 per cent chance of keeping temperatures below 2 degrees.

The Australian Network of Environmental Defender's Offices (ANEDO) has consistently advocated for a reduction in Australia's greenhouse gas emissions by a minimum of 60% by 2020 to ensure that dangerous climate change does not eventuate. Such a medium term target is necessary to effectively progress Australia towards at least an 80 to 90% reduction in greenhouse gas emissions by 2050. ANEDO has previously submitted that the Commonwealth government's aim of a 60 per cent reduction target in emissions by 2050, with a 5-15 per cent reduction (from a 2000 baseline) by 2020 is inadequate based on latest available projections.⁷

To support these suggested targets for national reductions it is necessary that States and Territories, including the ACT, adopt these targets for their own emissions. Rather than adopting the inadequate targets committed to by the Federal Government, the ACT has an opportunity to lead the way in emissions reductions.

The EDO supports the submission of the Conservation Council ACT Region which advocates that a target of at least 50% can be achieved in the ACT through energy efficiency measures and increased public transport infrastructure.

The vast majority of the ACT's greenhouse gas emissions (approximately 95%) are attributable to stationary energy use and transport. Clearly any emissions reductions must be focused on reducing emissions from these areas.

The EDO supports the measures outlined in the 'achieving better efficiency in the ACT' paper as a means of reducing stationary energy use together with increased funding for such energy efficiency measures. In addition the EDO supports the greater purchase of GreenPower as a cost effective way of increasing renewable energy uptake. The EDO also supports the recently introduced feed in scheme as part of the solution to reducing emissions through increased use of renewable energy.

The EDO submits that such measures must also be accompanied by initiatives designed to decrease energy consumption, such as mandatory energy efficiency labelling of products and education campaigns.

After stationary energy use, transport emissions count for the second largest proportion of the ACT's emissions, approximately 23 per cent of the ACT's total emissions. Reductions in

⁷See ANEDO submission on the Carbon Pollution Reduction Scheme Green Paper, at http://www.edo.org.au/policy/080910carbon_greenpaper.pdf

emissions could be achieved by improving the reliability, regularity and usage of public transport by increasing investment in public transport. The ACT government should be facilitating sustainable transport choices by investing in public transport infrastructure rather than investing heavily in road infrastructure projects which encourage greater private vehicle use. While the EDO supports the public transport initiatives invested in as part of the 08/09 ACT budget, it notes that greater investment is still made in public road projects which encourage increased private vehicle usage at the expense of public transport.

Public transport investment is particularly important in outer suburbs where lower income households are forced to rely on their private vehicles, which will become more expensive as petrol prices increase.

The EDO recommends that the Government encourage the reduction of private car usage and increase in public transport usage through considering initiatives such as a car free CBD. Additional measures to reduce transport emissions include ensuring that all commercial, industrial and retail centres provide improved facilities and access for walking, cycling and public transport users. The EDO supports the introduction of planning rules that require bicycle parking to be provided in a wide range of developments, such as schools, offices and shops.

(b) appropriate monitoring, reporting and review processes to accompany the target;

EDO supports ongoing monitoring with an annual reporting of emissions levels. This short term reporting assists in ensuring that targets are met by providing early notice if reductions are not tracking towards required levels.

EDO supports a three year review of the targets. While legislative reviews commonly adopt a five or ten year review period the EDO is of the view that, in light of the significant changes in predicted rates of climate change in the past two years, it is imperative to have a shorter review time to ensure that the targets remain appropriate in light of the best available scientific projections.

It is recommended that the review could be undertaken by the Commissioner for Sustainability and the Environment. A review should include current emissions levels, progress towards meeting targets and latest scientific predictions. Adequate resourcing would need to be provided for monitoring, reporting and reviews.

(i) the efficacy of existing programs within the current ACT Climate Change Strategy Weathering the Change, and the need for additional programs in the Strategy

The current ACT Climate Change Strategy Weathering the Change contains a target for reducing greenhouse gas emissions by 60 per cent by 2050 and by limiting greenhouse gas emissions in the year 2025 to the levels of the year 2000.

As noted above, given the scientific evidence that climate change effects are progressing faster than previously anticipated, the need for deeper reductions is necessary and the EDO is of the view that the Strategy's current 60% by 2050 target is too weak. The scientific consensus says we need a 60-90% target by 2050 based on 1990 levels to hold temperature to a 2°C rise.

The Strategy's 60% target is compounded by the fact that it is taken from a baseline of 2000 emissions levels, a different baseline year to the baseline year of 1990 which is typically used by countries under the Kyoto Protocol when measuring reductions. This is significant as it represents an even less ambitious milestone than a target reduction based on a baseline year of 1990.

The EDO supports the current programs outlined in the Strategy's first action plan, including a feed in tariff scheme and differential stamp duty for low emissions vehicles but is of the view that additional measures with increased funding as outlined above are required if substantial reductions are to be made. Based on current emissions figures it is clear that emissions continue to rise and further measures are required if reductions are to be achieved.

(ii) the ACT's future energy supplies, taking account of the draft ACT Government Energy Strategy due to be published in late 2008 and options for sourcing or producing sufficient renewable energy to meet the needs of the ACT

The EDO submits that the Government should allocate further resources to finalise a draft Energy Strategy which was due to be published in late 2008, but has not yet been published.

The EDO has previously advocated for the introduction of a feed in tariff scheme as an effective way of ensuring the rapid uptake of renewable energy uptake⁸.

In addition to this, the EDO supports increased purchase of GreenPower as a cost effective means of increasing renewable energy usage.

Investment in local renewable industries represents an opportunity to support local businesses and provide job opportunities.

(iii) climate change impacts on the sustainability of existing ecological communities

Australia's biodiversity is already under threat from a number of sources such as land clearance, feral animal and pest plant invasion, trade in wildlife and wildlife products, fragmentation of ecosystems and pollution, amongst other threats.

Climate change impacts represent another threat to the sustainability of certain communities.

⁸ See EDO (ACT) submission to the ACT Government's Feed in tariff discussion paper and on the proposed Solar Premium Bill at <http://www.edo.org.au/edoact/>

The climate change impacts on ecosystems are well documented and include increases in temperature, sea level rise, increase in sea surface temperature, altered rainfall and run off patterns, altered frequency of extreme weather events (such as bushfires, cyclones) and elevated CO₂ in the atmosphere.⁹ However while the impacts on climate change on biodiversity are likely to be significant there are still uncertainties as to how individual species and ecological communities will respond.

ANEDO has provided significant material on the predicted impacts on climate change on biodiversity in its submission to the 10 year review of the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*. I refer the Committee to pages 59 to 68 of this submission which is available at <http://www.edo.org.au/policy/090219epbc.pdf>.

In summary the submission sets out the predicted impacts of climate change on biodiversity:

- range shifts and species movements towards higher latitudes and altitudes;
- Some species may not be able to migrate through fragmented landscapes;
- extinctions of local populations at range boundaries at lower latitudes or elevations;
- geographic distributions of most species are likely to contract and become increasingly fragmented;
- increasing threats to ecosystems as extreme events become more frequent or severe;
- increasing invasion by opportunistic, weedy or highly mobile species, especially to sites where local populations of existing species are declining;
- progressive decoupling of species interactions e.g. plants and pollinators, as a result of phenological changes and changes in geographic distribution; and
- changes in community composition and structure.

In this submission ANEDO advocated that to minimise climate change impacts we need to facilitate adaptation of biodiversity by minimising disruption to the adaptation mechanisms of species as much as possible. The best way to facilitate adaptation of natural systems is to enhance their resilience (through representation and resilience, protecting and creating large patches of habitat, providing connectivity, improving management of off-reserve lands, identifying and protecting refugia, adjusting focus to protecting ecosystem function and process and protecting key functional species), as well as incorporating a few other key principles such as recognising and managing for uncertainty, prioritising protection and considering triage and exploring assisted migration/translocation. For further discussion of these adaptation measures see pages 59 to 68 of the ANEDO submission

These comments are applicable both at a national level and for the ACT. In the ACT region the climate change impacts identified are increased temperature, decreased rainfall and increased likelihood of bushfire. The potential impacts from these changes are identified above.

⁹ See <http://www.climatechange.gov.au/impacts/biodiversity.html>

To assist in minimising these impacts the EDO supports the Conservation Council ACT Region's submission that a biodiversity overlay be included in the Territory plan to ensure ecological communities and corridors are recognised and assist in their protection.

In addition, EDO recommends that a specific protective listing category under the *Nature Conservation Act 1980* be considered for those species particularly susceptible to the impacts of climate change (in addition to the current categories of endangered, vulnerable, protected or specially protected).

This will provide additional protection where development is proposed. Currently under the *Planning and Development Act 2007* a development proposal that is likely to adversely impact on the conservation status of an endangered, vulnerable, protected or specially protected species or an endangered ecological community and certain other proposals which relate to the clearing of native vegetation are automatically considered under the impact development assessment track. This means that an environmental impact statement (EIS) is required.

It is noted, however that even those declared protected species are not guaranteed protection against development. While an EIS must include a description of the effects on ecological communities, this is only one of the considerations to be taken into account by the decision maker when approving a development application.

(iv) social equity and economic issues, costs and opportunities in achieving this target

It is increasingly recognised that the costs of inaction on climate change may far outweigh the costs of acting now.¹⁰ The impacts on both the Australian and the global economy of inaction are potentially significant.

Given Australia's exceptional vulnerability to the impacts of climate change, it should aim over and above other developed countries in investing in new technologies for mitigation.

However it is noted that there are costs associated with taking mitigation action and the impact of these costs are most likely to be felt most strongly by lower income earners. Measures to assist low income earners adjust to this, such as initiatives which encourage the energy efficiency measures in rental properties are supported.

However, in addition to costs associated with achieving this target the increase in renewable energy gives rise to job opportunities in the renewable energy sector. Investment in local renewable industries represents an opportunity to support local businesses and provide job opportunities.

¹⁰ Sir Stern, Nicolas 'The Stern review on the Economics of Climate Change', quoted from http://www.aussmc.org/Stern_Review.php

(v) the relationship between the ACT's legislated target and policy and measures agreed to and implemented at a national level

The EDO is of the view that given the serious consequences of inaction the ACT Government should move towards deep emissions cuts regardless of any measures implemented at a federal level. The ACT has an opportunity to lead the way nationally.

There are various policies and measures relating to the reduction of greenhouse gas emission being developed at a national level, including a mandatory renewable energy target and the carbon pollution reduction scheme (CPRS). However, the EDO is of the view that these measures should not be relied upon as the sole means by which the ACT participates to reduce emissions.

There is no certainty that the CPRS will function as intended and reduce greenhouse gas emissions to levels required to avoid dangerous climate change, in accordance with the latest climate science. In this regard, Professor Garnaut, in his Final Report, recognised that there is a risk that a proposed emissions trading scheme (ETS) could become so heavily compromised that it would not effectively reduce emissions, such that a carbon tax would be more appropriate.¹¹ Serious concerns have now been raised about the proposed CPRS, with some groups who had previously supported an ETS in principle now withdrawing their support of the CPRS because they view it as being compromised.

The EDO notes that the draft legislation for an expanded national renewable energy target (RET) scheme has been released. This is designed to bring the existing national mandatory RET and existing State-based targets into a single national scheme. ANEDO has submitted that the 20% renewable energy target proposed in this draft legislation does not go far enough.¹² The EDO submits that the ACT should work towards a much more ambitious target and supports the Conservation Council's call for a MRET of 100% by 2020.

(vi) the acceptability of local and offshore offsets

ANEDO has consistently raised concerns relating to the use of offsets as a means of 'reducing' emissions.¹³

EDO reiterates these concerns here and is of the view that offsets should not be relied upon as the predominant means of reducing greenhouse gas emissions. We believe that offsets fall at the bottom of the climate action hierarchy. Firstly, ACT must seek to reduce emissions through measures outlined in this submission, rather than relying on local or offshore offsets which would allow the ACT to continue to emit at levels above the set targets.

¹¹ Opcit 1, Chapter 13

¹² See ANEDO submission on the Renewable Energy Target Scheme – Exposure Draft Legislation, February 2009 at <http://www.edo.org.au/policy/090219ret.pdf>

¹³ See ANEDO submission regarding abatement incentives prior to the Commencement of an Australian emissions trading scheme – 3 December 2007, ANEDO submission on the draft National Carbon Offset Standard, March 2009

If local and offshore offsets were allowed then EDO submits that allowable offsets should be limited to projects for which there is a high level of certainty as to the accuracy of measurement methodologies, and those that are additional, permanent and ecologically sustainable. ANEDO has previously examined these principles in the context of forestry offset projects and there are real concerns relating to the permanence of forestry offsets, the measurement of carbon actually sequestered, and the ecological sustainability of such projects especially in a drying climate. Therefore, forestry offsets should be treated with much caution and should be subject to rigorous assessment prior to being accepted as valid offset projects.

vii) the need to ensure that the ACT does not transfer its greenhouse emissions to other jurisdictions

A very large percentage, 72.3%, of the ACT's greenhouse gas emissions is currently attributable to stationary energy use. Much of the ACT's current electricity supply is from electricity generated outside the ACT. Moving towards a 100 per cent renewable energy goal will assist in ensuring that the ACT does not transfer its greenhouse gas emissions to other jurisdictions.

(viii) the adequacy of existing data collection and methodology for the purpose of establishing a baseline year of 1990 or 2000 and for future monitoring and reporting purposes

The EDO notes that the ACT currently uses a baseline of 2000 emissions levels in measuring reductions in the Weathering the Change Strategy. This is different to the baseline year of 1990 which is typically used by countries under the Kyoto Protocol when measuring reductions. From 1990 to 2000 ACT's greenhouse gas emissions increased by 12 per cent. Therefore measuring reductions from a baseline year of 2000 is significant as it represents a less ambitious milestone than a target reduction based on a baseline year of 1990.

The baseline year of 1990 is an internationally accepted baseline for measurement and to ensure that meaningful comparisons between targets in line with other Kyoto signatories can be made it is appropriate that the ACT adopt a baseline year of 1990 for measuring reductions. If a baseline year of 2000 were adopted for measurements then it is recommended that targets be increased accordingly to take into account the increased emissions from 1990 to 2000.

Please do not hesitate to contact me if you wish to discuss this submission further.

Yours sincerely

Environmental Defender's Office Ltd

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