

SUBMISSION TO THE
INQUIRY INTO ACT GREENHOUSE GAS REDUCTION TARGETS
February, 2009.

I refer to section 2 (a)(iii) and (c) in relation to the ACT Government's Standing Committee Reference paper.

Some scientists, like James Hansen, have been stating that globally, we are between the "tipping point" for climate change and "the point of no return". There is evidence that action needs to occur over the next 4 years, and that targets for greenhouse gas (ghg) reductions should be brought forward and be greater. So instead of the proposed ACT Government's target of 60% reduction to 2000 levels by 2050, we should be acting to reduce ghgs by such an amount, at least, by 2015 or earlier. Andrew Glikson states "Humanity needs to invest in development of techniques for atmospheric CO2 down-draw to levels of 350 ppm and below", to give humanity a chance to try to prevent run-away climate change that, as his studies show, have occurred in Earth's atmospheric history associated with mass extinctions. That would mean 100% reductions, quickly.

It is possible for the people and governments to make large changes to our ghg emissions.

Renewable Energy

1. Since, according to the ACT State of Environment Report, 2007, 95% of the ACT's ghg emissions are energy related, and 70% of that is for electricity, then switching to renewable energy should be an immediate target.

Apart from the proposed gas-fired electricity station, there is a strong case for the ACT to "Weather the Change" by investing in a solar-thermal(with storage) power station/s. This will make the ACT less dependent on out of Territory supplies, especially as 80% of those are from ghg polluting coal-fired power stations, and make use of what is now, and is likely to be increasingly abundant, and that is solar supplies. If the target was to reduce the ACT's electricity from coal-fired power stations to zero, then the ACT would achieve early reductions of ghg emissions. At the recent Inquiry in to Climate Change, Environment and Water at the ACT Assembly, the Minister spoke about inquiring into a solar-thermal plant. The climate change data shows an urgent need to move to such electricity sources.

The ACT Government could enhance the uptake of Photo Voltaic cells even further, as they are still expensive, even with subsidies, for individuals. There is a movement for community groups, like Jamison SEE Change to shop around for bulk purchasing. I think there is potential with the ACT Sustainable Schools Initiative, to combine with communities, local shopping centres, businesses and local schools, especially those with northerly aspect roof tops, to bulk purchase PV solar power to feed into the grid. All new commercial buildings should be required to use solar power, and make energy efficiencies.

There could be legislation to inhibit office and other commercial buildings being unnecessarily lit at night. (Cleaners can switch off lights!) These building could make large energy efficiency gains.

This would reduce ghg emissions very quickly, and save costs.

Positive Building Designs for the environment

2. There still seem to be “fashionable’ building designs that are not only very poorly designed for local climatic conditions, they will cost the community/taxpayers in the long run, as future effects of climate destabilisation occurs.

Professor Janis Birkeland, in her book “Positive Development” writes about how we can design FOR the environment, rather than just a few energy efficiencies in designs. The Australian Ethical Investment building in Belconnen is an example of a retro-fitted building that made massive savings on energy use, while creating a more comfortable and pleasant working environment.

So, retro-fitting programs would make a difference. In answer to the retort that these all cost too much, there have been plenty of people not hesitating on spending large sums of money on yet another new kitchen or bathroom, in their homes, and many offices are constantly being refurbished.

The Federal Government’s recent proposal for providing insulation for public housing goes some way to address one energy-efficiency.

Another positive move has been by the Planning Authority designing building blocks so northerly orientation for solar access is possible on any house block. Also there is the stated aim of the Eastlake development being more sustainably designed.

However, there are still new developments that are being approved that have very poor orientation, for example, at Lyons.

Change management for Sustainability

3. The ACT Government through its stated strategies and projects has made efforts to educate the public. Increasing government programs to engage the broader community, including businesses and government and agencies, in collaborating on a range of programs, projects and changes to behaviour, could make significant changes to ghg emissions.

Transport

4. An analysis of the feasibility and scale required for successful public transport options like light rail, as in the Perth region and in Adelaide would be worth publishing. Again, a light rail for the ACT has appeared in the recent Federal Government proposals. The time is right for such proposals to become actions.

Biosequestration and water

5. There are a number of studies showing that biosequestration, including in soils can make large impacts on CO₂ absorption. Apart from the Arboretum and the Greening Australia plantings in the lower Cotter catchment, rapidly restoring vegetation in catchments and riparian zones, would improve both CO₂ absorption and the quality of water in our catchments.

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Ref: James Hansen , “Global Warming Twenty Years Later. Tipping Points Near”, 2008

Hansen, J, et.al. “Target atmospheric CO₂: Where should humanity aim?” In “Open Atmos. Sci.J.2, 217-231

Andrew Glikson, “21st Century Climate Tipping Points”, ANU Canberra, 2008.