

Submission to ACT Standing Committee on Climate Change, Environment and Water

By

The IPA ACT Energy and Climate Group

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1 Contents

About Us and This Submission

General Discussion

Responses to Terms of Reference:

Term of Reference 1d: A sustainable level of resource use in terms of ACT urban, ecological and carbon footprints for the ACT.

Term of Reference 1g: The environmental, economic and social impacts of reduced resource consumption and a sustainable population.

Term of Reference 1i: Relevant infrastructure issues.

Conclusion.

2 About Us and This Submission

2.1 We are a self-funded group under the broad auspices of the Institute of Public Affairs. Although we are all members of the IPA, we receive no funding. Our interests are energy policy and climate.

2.2 The group is strongly focussed on evidence-driven policy. We question policies which have weak or no evidential basis.

2.3 We only became aware of this enquiry on the 8th of November. Had we known sooner we would have produced a more comprehensive analysis. (We will take some actions to be better informed in future!)

2.4 The group welcomes the opportunity to submit its views and would like to thank the committee for the opportunity, and the committee secretariat for their assistance.

3 General Discussion

3.1 Climate Science

3.1.1 There have been a number of significant developments in Climate Science during 2010:

- a. The publication of a book by Dr Roy Spencer which calls into question the basis of the predictions of high increases in temperature due to man-made CO₂ emissions.¹ This was followed by the publication of a peer-reviewed paper² on the same subject. Dr Spencer is a well-known Climate Scientist, responsible for one of the two satellite global temperature series, and his paper reveals that, as always in science, there is no consensus. Furthermore his paper highlights the major scientific issue – the uncertainties over the role of water vapour and clouds, uncertainties also highlighted in the latest Intergovernmental Panel on Climate Change (IPCC) Report (AR4, 2007)³,
- b. The report of the Inter-Academy Council (IAC) into the IPCC⁴. Although couched in different terms, the mandatory actions to be taken by the IPCC are a damning indictment of its previous works, and imply that the Fourth Annual Report (AR4, 2007) is not evidentially based. Among these recommendations, for example, are recommendations on minimisation of conflicts of interest, improving the review process, more securely assessing uncertainty, increasing transparency, clarifying the use of grey literature, and changing the culture of unwillingness to share data. One quotation from that report illustrates the critical nature of the changes that are required to the IPCC culture:

“Expediting approval of the Summary for Policy Makers. The final language of the Summary for Policy Makers is negotiated, line-by-line, between scientists and government representatives in a grueling Plenary session that lasts several days, usually culminating in an all-night meeting. Both scientists and government representatives who responded to the Committee’s questionnaire suggested changes to reduce opportunities for political interference with the scientific results and to improve the efficiency of the approval process.”
- c. The publication of an analysis of the IPCC AR4 (2007) report citations⁵ identifying the very high proportion of “grey” literature used in the WG2 and WG3 sections.

¹ “The Great Global Warming Blunder – How Mother Nature Fooled the World’s Top Climate Scientists”, by Dr Roy W. Spencer, New York, 2010

² “On the Diagnosis of Radiative Feedback in the Presence of Unknown Radiative Forcing”, by Roy W Spencer and William D Braswell, Journal of Geophysical Research, Vol115, 2010

³ IPCC AR4 (2007), see www.ipcc.ch

⁴ “Climate Change Assessments Review of the Processes and Procedures of the IPCC”, Interacademy Council, 2010, see <http://reviewipcc.interacademycouncil.net/report.html>

⁵ See <http://nofrakkingconsensus.wordpress.com/2010/04/14/climate-bible-gets-21-fs-on-report-card/>

- d. The publication of the “Climategate” emails, and the analysis⁶ of their content, revealing disturbing evidence of anti-scientific behaviour by some of the key Climate Scientists used by the IPCC.
- e. The call from several established Climate Scientists to members of that profession to eschew proselytisation of the cause and return to scientific discussion. The same scientists have also stated that they consider the IPCC AR4 report to be fatally flawed and that they have no confidence in it or the IPCC.⁷
- f. A recent poll of Scientific American readers elicited 6479 responses as of 10th November 2010. 83% thought that the IPCC is a corrupt organisation, and 77% thought that recent climate change is caused by natural processes. This is a significant change from a year ago.⁸

3.1.2 These developments have significantly weakened the certainty in the hypothesis that anthropogenic emissions of Greenhouse gases (primarily CO₂) cause catastrophic temperature change. The “consensus” position is that the likely temperature change due to these emissions will be between 0 and 6 Degrees C by 2100, with a majority now favouring the low end of the range (0-1 Degree C).

3.1.3 Given this uncertainty, our group is of the opinion that the argument by Lord Lawson⁹, that adaptation rather than mitigation should be the economic response to the possible threat, is now the optimum public policy. This is the strategy already used by all governments to all other environmental threats which arguably have far more impact and significant likelihood of occurrence (including cyclones, earthquakes, tsunamis, volcanic eruptions, ice ages, and comet/meteor impact.) It is also the strategy now being recommended by increasing numbers of experienced scientists.¹⁰

3.2 Sustainability

3.2.1 The Discussion Paper attempts to define “Sustainability” in paragraphs 2.8 and 2.9, stating

“The essence of environmental sustainability is reflected in the commonly understood and valued principles of intergenerational equity, the precautionary approach, and biodiversity conservation.”

⁶ Climategate Analysis by John P Costella, 2009-10, see <http://assassinationscience.com/climategate/>

⁷ See Professor Judith Curry’s blog <http://judithcurry.com/> and von Storch, H., 2009: Climate Research and Policy Advice: Scientific and Cultural Constructions of Knowledge. Env. Science Pol. 12, 741-747 <http://dx.doi.org/10.1016/j.envsci.2009.04.008>

⁸ See http://www.surveymonkey.com/sr.aspx?sm=ONSUsVTBSpkC_2f2cTnptR6w_2fehN0orSbxLH1gIA03DqU_3d

⁹ “An Appeal to Reason- A Cool Look At Global Warming”, By Nigel Lawson, London, 2008

¹⁰ Brunner, R.D. & Lynch, A.H., 2010. Adaptive governance and climate change. American Meteorological Society & University of Chicago Press, 410 pp.; Carter, R.M., 2010. Climate: the counter consensus. Stacey International, London, 315 pp.

3.2.2 Many authors have challenged all of these so-called “valued principles”. Time and space do not allow detailed argument to be developed, we merely note that all three are not “commonly understood and valued”, but lie at the heart of political debate within our society.¹¹ The implication that sustainability is definable in measureable terms is not agreed.

3.2.3 The basic problem with sustainability is that it means different things to different people. For example, a 36 story tower block may be sustainable from the viewpoint of economics, water, energy, building materials, building skills, workforce and population, but may be unsustainable due to the lack of car parking spaces.

3.2.4 One view on sustainability is:¹²

“Sustainability...has no merit...If unsustainability were really regarded as a reason for rejecting a project, there would be no mining, and no industry. The world would be a very primitive place.”

4 Responses to Terms of Reference:

4.1 Term of Reference 1d: A sustainable level of resource use in terms of ACT urban, ecological and carbon footprints for the ACT.

4.1.1 In the previous section we identified the increasing uncertainty in the scientific community that the hypothesis that human emission of CO₂ causes significant warming is in fact correct. The increased uncertainty is due to three causes:

- a. There is considerable doubt that the processes used by the IPCC to arrive at its conclusions in its 2007 report were robust or reliable.
- b. The planet has not warmed as much as predicted (or indeed at all since 1998 despite a more than 5% increase in atmospheric carbon dioxide levels). There is an increasing likelihood that Solar influences, and particularly the Solar Magnetic Field have played a major role in the 1990’s heating and 2000’s hiatus. As several solar physicists have already pointed out, it is certainly possible that temperature will decrease in the near future given that the sun has been unusually lacking sunspots for a considerable time.¹³
- c. The scientific unknown has always been the role of water vapour (humidity) and clouds. A number of well-credentialed climate scientists have held positions opposed to those of the IPCC group, and argued that the feedback effects of these is negative rather than positive. This position is becoming more supported, with the implication

¹¹ see for example, “Small is Stupid” by William K Beckerman, London, 1995

¹² Little IMD and Mirrlees JA, “Project Appraisal and Planning Twenty Years On” *Proceedings of the World Bank Annual Conference on Developing Economics*, 1990, p365

¹³ Paper titled “Empirical evidence for a celestial origin of the climate oscillations and its implications by Nicola Scafetta & accepted on 12th April 2010 by the Journal of Atmospheric and Solar-Terrestrial Physics See http://arxiv.org/PS_cache/arxiv/pdf/1005/1005.4639v1.pdf

that the warming of the two decades to 2000 had natural rather than anthropogenic causes.

4.1.2 Our modern society does not depend on the ability of the local geographical area to supply our needs. Patently it would be stupid to rely on the pineapple production of the ACT to supply this commodity into the local market. Nor could the ACT reliably supply the food required for its population. (The group has no opinion at present on whether such food self-reliance should not be actively encouraged by the ACT Government – for example by subsidising farmland improvement, encouraging growing of backyard vegetables or by releasing National Park land for agricultural use. Any such controversial measures would require cost-benefit analysis.)

4.1.3 Similarly, our energy needs cannot be met from the local area. In this regard it is important to emphasise that solar and wind technologies which might fill the ACT energy void are prohibitively uneconomic and also extremely expensive (and therefore much less effective) ways of reducing CO₂ emissions¹⁴.

4.1.4 One US economist has also gone so far as to say¹⁵:

“Windmills don’t run on wind, they run on subsidies. Solar Panels are not powered by sunlight, but by taxpayers. Without subsidies and renewable mandates they don’t operate....The green energy sector takes \$2 worth of inputs and procures \$1 worth of energy. This is not wealth creation, it is wealth destruction. It is not job creation since even more jobs have to be destroyed to fund the subsidies.”

4.1.5 The ineffective reduction of carbon emissions by the encouragement of household solar panels therefore should be critically reviewed, from two points of view:

- a. Recent developments in climate science cast considerable doubt on the global warming hypothesis. If it turns out that the hypothesis is incorrect, it would be positively bad to have reduced emissions of what is otherwise an entirely beneficial gas.
- b. The previously cited study¹⁶ shows this to be the MOST expensive mitigation strategy of all the power generation options.

4.1.6 Furthermore, given the drawbacks of Windpower (excessive footprint, unacceptable blade noise, visual pollution, bird-chopping, instability introduced into the grid, increased transmission complexity, increased requirement for additional gas fired generators) and the relatively poor CO₂ mitigation performance, the responsible course for the ACT government would be to require ACTEW to petition its power suppliers to avoid this power source

¹⁴ See <http://bravenewclimate.com/2010/01/09/emission-cuts-realities/> particularly Figure 12, which gives the relative emission efficiency of the various power options.

¹⁵ See http://rossmckitrick.weebly.com/uploads/4/8/0/8/4808045/mckitrick_windconference.pdf

¹⁶ See <http://bravenewclimate.com/2010/01/09/emission-cuts-realities/> particularly Figure 12, which gives the relative emission efficiency of the various power options.

entirely. Essentially windpower is environmentally and economically unsustainable as a replacement power generation option.

4.2 Term of Reference 1g: The environmental, economic and social impacts of reduced resource consumption and a sustainable population.

4.2.1 In the late 1800's the main resources used in transport were wood, coal, and hay. Since then the ACT has markedly reduced its consumption of these resources for that purpose, without economic or social disruption. Au contraire, there has been a great improvement in transport, with an accompanying improvement in economic and social life. One might conclude that it was the voluntary rationing of these resources that led to this utopian outcome, but that would ignore the fact that resource use has changed to use of fossil fuels.

4.2.2 The lesson is that a change in technology to more convenient and superior forms of transport caused the change in resource use. That movement will continue in the future: some other technology will replace present fossil-fuelled transport - but only when that technology is economically attractive. And it has to be developed and proven before resource usage changes.

4.2.3 At present such replacement technologies are not in place. It might be that electric cars, hybrid vehicles, hydrogen powered transport, natural gas conversion to propane, compost powered cars, magnetic rail cars, or teleportation become economic or practical – who can say? It is well known that “governments can't pick winners” – that's really because no-one can. But what is sure is that the change will not be forced by decree.

4.2.4 The title of this Term of Reference implies that there will be a government mandated (by decree or taxation) reduction of resource consumption. Implicit in this is a reduction of economic activity. Government subsidies of solar panels either force up the price of electricity, if the subsidy is in the form of a mandatory requirement with the costs smeared across all consumption, or an increase in taxes if it is a direct subsidy. Either approach has a negative effect on efficiency and therefore the economy. A corollary is a mix of higher prices, reduced overall wages and lower employment levels.

4.2.5 Greater economic activity means greater individual wealth, and greater individual wealth means better environmental and social outcomes. Mandated reduction of resource use means less economic activity, less individual wealth, and poorer environmental and social outcomes.

4.2.6 The term “sustainable population” is very rubbery, as it begs the question – “under what exact stress circumstances?” Obviously some stresses are more inimical to human population than others. (Cometary impact or nuclear bomb blast spring to mind.) Leaving extreme disaster scenarios out of consideration (you can't take precautions against everything!) what stresses should we consider?

4.2.6.1 Increased Mean Temperatures

The IPCC range is 1.5 to 6 Degrees by 2100, with a likelihood of around 3 Degrees C. (As pointed out in the discussion, the probity and reliability of these IPCC projections is now in great scientific dispute. The consensus position appears to be moving towards the lower end of the projections, particularly given the lack of temperature increase in the last decade.) The rainfall implications for the ACT are unclear, some models suggest that there would be a slight increase in, and a greater reliability of, rain. (An increase of 3 Degrees C means a global rainfall *increase* of between 5 and 20%, due to increased evaporation over the oceans. If such a change occurred, we would expect the tropical zone to expand, the desert zones to contract polewards, and the temperate zone to expand polewards.)

4.2.6.2 Decreased Mean Temperatures

Some may think this to be unlikely, but the natural variation in climate is huge and on the longer time scale we are overdue to commence the next ice age. In addition, but in the shorter term, the decade-long stasis in temperature change since 1998 has been associated with an increasingly quiet sun and, over the last three years, a lack of sunspots. Similarly quiet solar conditions in the 17th and 19th century were associated with the very cold Maunder and Dalton minima of the Little Ice Age. Should a return to Little Ice Age conditions occur in the near future, the global temperature fall would be of the order of 1-2 Degrees C. The change would likely be abrupt (a few years).

Assuming that we wanted to plan for a limited drop in temperature of 2 degrees C (rather than the catastrophic global cooling of 6-8 degrees C that would accompany a major Ice age), we might anticipate a global rainfall *decrease* of between 4 and 10%, due to decreased evaporation over the oceans. If such a change occurred, we would expect the tropical zone to contract, the desert zones to expand equatorwards, and the temperate zone to contract equatorwards. The implications for ACT rainfall are unclear, but the geological record shows that cool periods are periods of severe drought in Australia, so the likelihood is decreased rainfall and increased drought.

4.2.6.3 Drop in Crop Yields

If CO₂ were to double in concentration, crop yields would increase by around 40%. So if the concentration of CO₂ continues to increase, the projection for future crop yields is quite rosy. We can expect more food to be grown everywhere.

There are some possible problems: wheat rust is an unconquered blight, which at present is threatening world yield. Also at any time a major plant pathogen could destroy our ability to feed ourselves. If it turns out (and this is now much more likely) that the IPCC is wrong about the temperature effects of increased CO₂ concentrations, it would be sensible to generate as much CO₂ as possible to provide a yield buffer and ensure environmental sustainability.

4.2.6.4 . Increased Costs of Doing Business

As noted above, increased costs of doing business imply a fall in economic activity, less individual wealth and consequential worse environmental and social outcomes. So increased costs are to be avoided – rather we should aim to decrease the cost of doing business.

A threat to the ACT is the increased subsidisation/ mandation of unreliable and ineffective power generation technologies such as windfarms, solar panels, hot rocks, wave and tidal. These are being forced on power generation organisations by governments, both Federal (through the ill-considered 20% renewables legislation) and the States (to avoid scrutiny of their collective failure to invest in reliable and effective power generation in the last 20 years).

The ACT should take a lead here to protect its economic, social and environmental sustainability by refusing to accept these faddy but wasteful (in CO₂, cost and reliability terms) technologies. If, as is widely predicted, the cost of power to the ACT from the NSW and Victorian generators is to more than double, the ACT should seek to minimise the impact on business and its citizens by building its own gas-fired generator facilities. This would have the advantages of maintaining power during crisis periods (anecdotally NSW is predicted to have blackouts from 2014), providing power at a reduced cost compared with power from windfarm-happy states, and cut CO₂ generation by a considerable amount (gas generators produce less CO₂ per kW than wind or solar).

The ACT needs to move to cut or eliminate its solar generated power subsidies as a matter of urgency. These are economically (and therefore environmentally and socially) unsustainable.

4.2.6.5 Drought

The recent drought shocked all. The circumstance where the ACT lost all water supply from the Cotter dams for an extended period due to bushfires showed the importance of diversity and back-up in water storage.

Much was achieved during the last few years, but security of water supply demands some additional infrastructure measures:

- a. If bushfires threaten (and they will, from time to time) it would be an excellent thing if all the firetrails were immediately usable. At present that is not the case. It is suggested that consideration be given to increasing the funding to the relevant services so that fire trails can be properly maintained and regularly used. Additionally an annual remote location bushfire exercise should be funded and organised with the NSW bushfire organisations.
- b. The long-mooted storage on the Naas River should proceed.

4.3 Term of Reference 1i: Relevant infrastructure issues.

We have covered these above:

Power Generation Infrastructure: Paragraph 4.2.6.4

Water Supply Infrastructure: Paragraph 4.2.6.5

5. Conclusions

5.1 There is increasing uncertainty in the scientific community that the hypothesis that human emission of CO₂ causes significant warming is in fact correct.

5.2 Given this uncertainty, adaptation rather than mitigation is now the optimum public policy.

5.3 The ACT needs to move to cut or eliminate its solar generated power subsidies as a matter of urgency. These are economically (and therefore environmentally and socially) unsustainable.

5.4 Windpower is environmentally and economically unsustainable as a replacement power generation option.

5.5 A threat to the ACT is the increased subsidisation/ mandation of unreliable and ineffective power generation technologies such as windfarms, solar panels, hot rocks, wave and tidal.

5.6 If, as is widely predicted, the cost of power to the ACT from the NSW and Victorian generators is to more than double, the ACT should seek to minimise the impact on business and its citizens by building its own gas-fired generator facilities.

5.7 Should the hypothesis that human emission of CO₂ causes significant warming prove incorrect, consideration should be given to increasing the ACT's carbon footprint so as to maximise crop yields.

5.8 To improve water supply security, consideration should be given to increasing the funding to the relevant services so that fire trails can be properly maintained and regularly used. Additionally an annual remote location bushfire exercise should be funded and organised with the NSW bushfire organisations.

5.9 To improve water supply security, the long-mooted storage on the Naas River should proceed.