

Climate Change Science

'Top ten' sources to build your personal knowledge

The announcement about the introduction of a price on carbon by the Prime Minister Julia Gillard is generating intensive commentary in the media. Much of it is ill informed. The Federal Opposition frontbencher Malcolm Turnbull issued the following challenge during his recent Virginia Chadwick Memorial Foundation lecture:

"It is undoubtedly correct that there has been a very effective campaign against the science of climate change by those opposed to taking action to cut emissions, many because it does not suit their own financial interests, and this has played into the carbon tax debate," he said.

"Normally, in our consideration of scientific issues, we rely on expert advice [and] agencies like CSIRO or the Australian Academy of Science, are listened to with respect. Yet on this issue there appears to be a licence to reject our best scientists both here and abroad and rely instead on much less reliable views."¹

Managers in local government need to ensure they personally understand the fundamentals of climate science and the rationale for a market based approach to reducing carbon emissions. They will then be better placed to guide and support the policy responses of their council.

In acknowledging the confusing array of material on the topic and the importance of drawing from credible sources, this paper provides advice on 'top ten' reliable and easily accessible sources of research written for non-specialist readers.² Each website and publication cited below contains a range of other useful references.

Organisation	Resources available on line
Australian Academy of Science, Canberra www.science.org.au	<ul style="list-style-type: none">▪ <i>The Science of Climate Change, Questions and Answers, August 2010</i>, aims to summarise and clarify the current understanding of climate change for non-specialist readers, and is structured around seven questions including 'How has Earth's climate changed in the distant past?' and 'How has climate changed during the recent past?'
CSIRO and the Bureau of Meteorology www.climatechangeinaustralia.gov.au/index.php	<ul style="list-style-type: none">▪ <i>Climate Change in Australia: Technical Report -2007</i> provides the most up to date assessment of Australia's changing climate. It includes the results of climate change modelling of a range of climate change variables for each of three time horizons (2030, 2050, 2070) for each season as well as annual averages for each of three greenhouse emission scenarios (low, medium, high)▪ Catchment climate change scenarios (2009)▪ <i>State of the Climate Snapshot</i> (March 2010)
Australian Government Department of Climate Change and Energy Efficiency	<ul style="list-style-type: none">▪ <i>Climate Change 2009: Faster Change & More Serious Risks</i> authored by Professor Will Steffen of the ANU

¹ <http://www.abc.net.au/news/2011-07-22/turnbull-climate-speech/2805536>

² See also ACELG paper, *Australian Local Government and Climate Change*, available at www.acelg.org.au

Organisation	Resources available on line
<p>www.dcc.gov.au</p>	<p>Climate Change Institute. This report draws on the science of climate change since the IPCC's 2007 'Fourth Assessment Report'.</p> <ul style="list-style-type: none"> ▪ <i>Q & A – Climate change science fact and fiction</i> provides responses to common questions. ▪ <i>Climate Change Adaptation Actions for Local Government, 2009.</i>
<p>Climate Commission http://climatecommission.gov.au</p>	<ul style="list-style-type: none"> ▪ <i>The Critical Decade: a Report from the Commission, 2011</i>, reviews what the science is telling us about the need to act on climate change, and the risks of a changing climate to Australia. The Climate Commission website also provides information on how pricing pollution works.
<p>Parliament of Australia - Parliamentary Library www.aph.gov.au/library</p>	<ul style="list-style-type: none"> ▪ Series of background notes on climate change written for parliamentarians and updated on a regular basis. For example <i>Climate change: The case for action</i>, by Dr Julie Styles www.aph.gov.au/library/pubs/rp/2008-09/09rp28.pdf
<p>Garnaut Climate Change Review www.garnautreview.org.au</p>	<ul style="list-style-type: none"> ▪ <i>Garnaut Climate Change Review Final Report, 2010</i>, addresses likely impacts of climate change on Australia's economy, environment and resources, and the costs and benefits of a range of possible policy interventions.
<p>Australian Bureau of Agricultural and Research Economics and Sciences http://www.abares.gov.au/publications</p>	<ul style="list-style-type: none"> ▪ The ABARES economic and scientific research includes reports of the economic model developed with CSIRO which enables policy makers to weigh up the cost of climate change mitigation against the benefits.
<p>Australian Local Government Association www.alga.asn.au/sor/2007</p>	<ul style="list-style-type: none"> ▪ The <i>2007-08 State of the Regions Report</i> focuses on climate change and its implications and impact on Australia's diverse regions. The issues of water supply, drought, health and legal impacts for local government are discussed. ▪ ALGA to shortly publish report on the legal base of local government climate change responsibilities.
<p>The Climate Institute www.climateinstitute.org.au</p>	<ul style="list-style-type: none"> ▪ Useful reports for local government decision makers include: <ul style="list-style-type: none"> ○ <i>Bushfire Weather in Southeast Australia</i> ○ <i>Recent trends and projected climate change impacts (2007)</i>
<p>National Climate Change Adaptation Research Facility http://www.nccarf.edu.au</p>	<ul style="list-style-type: none"> ▪ The federally funded NCCARF produces interdisciplinary research aimed at assisting decision-makers manage the risks of climate change impacts. The website includes a local government portal.