

**The Parliament of the Commonwealth of Australia**

**The Heat Is On:  
Australia's Greenhouse Future**

**Report of the Senate Environment, Communications,  
Information Technology and the Arts References Committee**

November 2000

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‘The whole history of international environmental action has been of arriving at a destination which looked impossibly distant at the moment of departure.’

Tony Brenton, *The Greening of Machiavelli*



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## TERMS OF REFERENCE

1. On 11 August 1999 the Senate referred the following matters to the Environment, Communications, Information Technology and the Arts References Committee for inquiry and report by the first sitting day in August 2000 (which was later extended to 8 November 2000):

The progress and adequacy of Australia's policies to reduce global warming, including:

- (a) The effectiveness of Australian policies to reduce greenhouse emissions, in the light of Australia's commitments under the Framework Convention on Climate Change, including:
- (i) whether Australia is likely to meet its commitments under the Framework Convention December 1997 Kyoto Protocol, and the potential costs if it does not;
  - (ii) the international response to the Framework Convention;
  - (iii) the development of an effective international and domestic emissions trading system;
  - (iv) the effectiveness of Australia's policies in comparison to international practice, such as emissions trading regimes and other measures;
  - (v) the level, and greenhouse implications, of the direct and indirect economic incentives currently offered to both fossil fuel and renewable energy projects;
  - (vi) the effectiveness of existing local, state and federal government policies and programs and their implementation;
  - (vii) the economic, employment and development consequences of greenhouse abatement measures with particular reference to regional Australia and the differential impact on each state and territory;
  - (viii) the social and equity consequences of greenhouse abatement;
  - (ix) the effectiveness of industry programs and policies in actual emissions reduction;
  - (x) Australia's contribution to global greenhouse gas abatement through export of alternative energy sources;
  - (xi) additional measures including, but not limited to, carbon trading;
  - (xii) the adequacy and effectiveness of greenhouse gas emission inventories; and

- (xiii) the potential for carbon leakage associated with energy intensive industries to countries not party to the framework convention;
- (b) Whether Australian government programs and policies, both state and Federal, are sufficient to provide for the development in Australia of emerging renewable energy, energy efficiency industries, the more efficient use of energy sources, the implementation of new energy technologies (eg fuel cells, hydrogen), including:
  - (i) the effectiveness of Australia's efforts in relation to other governments; and
  - (ii) the potential of these technologies to contribute to a reduction in Australia's greenhouse emissions;
- (c) Potential improvements to Australia's policies to reduce greenhouse emissions, in the light of available studies of:
  - (i) current and projected fossil fuel use in Australia, taking into account the effects of current greenhouse reduction policies, trends in transport use of fuels, the use of energy by high-demand manufacturing, and changes to electricity ownership and generation;
  - (ii) projected climate change impacts on Australian industries, such as fishing, tourism, agriculture and others;
  - (iii) estimated costs of such economic impacts, to assist cost-benefit analysis of various climate change abatement programs and policies;
  - (iv) the impact of current land management practices and policies on current and projected greenhouse emissions, and the potential for Australian agriculture in greenhouse abatement measures;
  - (v) the potential role for vegetation as carbon sinks and emissions reduction by decreasing land clearing; and
  - (vi) the availability and effectiveness of other means of sequestration as an abatement option; and
- (d) The projected effect of climate change on Australia's ecosystems including but not limited to:
  - (i) reef systems;
  - (ii) alpine areas; and
  - (iii) wetland areas.

2. On 22 September 1999 the Senate referred the Convention on Climate Change (Implementation) Bill 1999, a private senator's bill, to the Environment, Communications, Information Technology and the Arts References Committee, to be considered in conjunction with the Committee's inquiry into global warming.

This Bill seeks to give effect to Australia's obligations under the Framework Convention on Climate Change, and provides for the establishment of regulatory arrangements for Australia's greenhouse policy, including binding emissions targets, a legislated emissions cap and a domestic system of emissions trading.





## MEMBERSHIP OF THE COMMITTEE - 39<sup>TH</sup> PARLIAMENT

### *Members:*

Senator Lyn Allison (Chair) (AD, VIC)  
 Senator John Tierney (Deputy Chair) (LP, NSW)  
 Senator Mark Bishop (ALP, WA)  
 Senator the Hon Nick Bolkus (ALP, SA)  
 Senator Kate Lundy (ALP, ACT)  
 Senator Tseben Tchen (LP, VIC)

### *Substitute Member:*

Senator Jan McLucas (ALP, QLD) to substitute for Senator Bolkus for the inquiry into Global Warming and the Convention on Climate Change (Implementation) Bill 1999

### *Participating Members:*

Senator the Hon Eric Abetz (LP, TAS)	Senator Steve Hutchins (ALP, NSW)
Senator Andrew Bartlett (AD, QLD)	Senator Sue Knowles (LP, WA)
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Senator Alan Ferguson (LP, SA)	
Senator Jeannie Ferris (LP, SA)	Senator Aden Ridgeway (AD, NSW)
Senator the Hon Brian Gibson AM (LP, TAS)	appointed for arts issues
Senator Brian Harradine (IND, TAS)	Senator Vicki Bourne (AD, NSW)
Senator Len Harris (PHON, QLD)	appointed for the inquiry into the online delivery of ABC material

***Committee Secretariat***

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Ms Roxane Le Guen (to 25 August 2000)

Ms Andrea Griffiths (from 28 August 2000)

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## GLOSSARY

ABARE	Australian Bureau of Agricultural and Resource Economics
ABEC	Australian Building Energy Council
ACA	Australian Cogeneration Association (see AEA)
ACCC	Australian Competition and Consumer Commission
ACF	Australian Conservation Foundation
AEA	Australian EcoGeneration Association (formerly Australian Cogeneration Association)
AGA	Australian Gas Association
AGO	Australian Greenhouse Office
AIGN	Australian Industry Greenhouse Network
ALGA	Australian Local Government Association
AMEIF	Australian Municipal Energy Improvement Facility
Anthropogenic	Caused by human activity, in relation to climate change it describes greenhouse gas emissions resulting from human activities.
ANZECC	Australia and New Zealand Environment and Conservation Council
AOGCMs	ocean-atmosphere global climate models
ARA	Australasian Railways Association
ARMCANZ	Agriculture and Resource Management Council of Australia and New Zealand
BAU	'business-as-usual' scenario
BCA	Business Council of Australia
BFG	Bush For Greenhouse
CANA	Climate Action Network Australia
CCA	Coca-Cola Amatil

CCP	Cities for Climate Protection™
CDM	Clean Development Mechanism
CERs	certified emission reductions
CH <sub>4</sub>	methane
CIF	Cement Industry Federation
CNG	Compressed Natural Gas
CO <sub>2</sub>	carbon dioxide
COAG	Council of Australian Governments
CoP	Conference of the Parties
DISR	Department of Industry, Science and Resources
DNV	Det Norske Veritas
EEBPP	Energy Efficiency Best Practice Program
ENSO	El Nino-Southern Oscillation
EPBC Act	<i>Environmental Protection and Biodiversity Conservation Act 1999</i>
ERUs	emission reduction units
ESAA	Electricity Supply Association of Australia
ETI	Energy Technology Investments
EU	European Union
FBT	Fringe Benefits Tax
FCCC	Framework Convention on Climate Change
FE	‘frozen’ or ‘static’ efficiency assumption
GDP	Gross Domestic Product
GEF	Global Environment Facility
GEMS	Greenhouse Energy Management System
GGAP	Greenhouse Gas Abatement Program

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GNE	Gross National Expenditure
Gt	Giga (billion) tonnes
GTEM	Global Trade and Environment Model
GWP	Global warming potential
HADCM3	Hadley Centre for Climate Prediction and Research latest climate change model
HFCs	Hydrofluorocarbons
ICLEI	International Council of Local Environment Initiatives
ICSU	International Council of Scientific Unions
INC	Intergovernmental Negotiating Committee
IPART	NSW Independent Pricing and Regulatory Tribunal
IPCC	Inter-Governmental Panel on Climate Change
JI	Joint Implementation
LNG	Liquefied Natural Gas
LPG	Liquid Petroleum Gas
LUC	Land use change
LULUCF	Land Use, Land Use Change and Forestry
MEPS	Minimum Energy Performance Standards
MMA	McLennan Maganasik
Mt	Mega (million) tonnes
N <sub>2</sub> O	nitrous oxide
NCC	National Competition Council
NCP	National Competition Policy
NEC	National Electricity Code
NECA	National Electricity Code Administrator
NEEP	National Energy Efficiency Program

NEM	National Electricity Market
NEMMCO	National Electricity Market Management Company
NEPC	National Environment Protection Council
NEPM	National Environment Protection Measure
NGAP	National Green Power Accreditation Program
NGGI	National Greenhouse Gas Inventory
NGS	National Greenhouse Strategy
NSSP	National Strategy Study Program
OECD	Organisation for Economic Co-operation and Development
OEM	original equipment manufacture
PFCs	Perfluorocarbons
PMSEIC	Prime Minister's Science, Engineering and Innovation Council
Ppbv	Parts per billion by volume
PPMFA	Pulp and Paper Manufacturers Federation of Australia
ppmv	Parts per million by volume
PVRP	Photovoltaic Rebate Program
QCC	Queensland Conservation Council
R&D	Research and Development
RECP	Renewable Energy Commercialisation Program
REEA	Renewable Energy Action Agenda
REEF	Renewable Energy Equity Fund
RESP	Renewable Energy Showcase Program
RFAs	State Regional Forest Agreements
RRPGP	Renewable Remote Power Generation Program
SCARM	Standing Committee on Agriculture and Resource Management

SECV	State Electricity Commission of Victoria
SEDA	Sustainable Energy Development Authority
SEIA	Sustainable Energy Industry Association
SF <sub>6</sub>	sulphur hexafluoride
SRES	Special Report on Emissions Scenarios
UNEP	United Nations Environment Program
UNFCCC	United Nations Framework Convention on Climate Change
UNSWTP	University of NSW Transport Program
VEEP	Voluntary Energy Efficiency Program
WCP	World Climate Program
WMO	World Meteorological Organization
WWF	World Wildlife Fund

