
C Measures related to carbon emission reduction

This appendix provides a stocktake of existing and prospective Australian, State and Territory Government carbon emission reduction measures. Some of the measures listed here are included in the Commission's overall estimates of industry assistance in *Trade & Assistance Review* (appendix A). This stocktake attempts to expand that coverage, particularly in the context of expected future increases in the number and size of government measures aimed at reducing carbon emissions. Chapter 5 provides an analysis of the measures included here.

Full details of this stocktake are available in a spreadsheet on the Commission's website (<http://www.pc.gov.au/annualreports/trade-assistance>).

C.1 Identifying carbon emission reduction measures

Identifying those measures that target emission levels *and* provide assistance to industry is not straight-forward.

- Determining whether a measure is intended to reduce carbon emissions is not always clear as some measures have multiple objectives, while others are aimed at ameliorating the effects of reforms that reduce carbon emissions.
- Many carbon emission reduction measures do not deliver direct assistance to particular industries but mandate environmental standards, such as energy efficiency ratings for new homes, or provide subsidies to install energy saving devices, such as solar panels.
- Often non-budgetary measures (such as regulations or procurement guidelines) are used to enforce reductions in carbon emissions. Data to determine how much assistance these measures provide is not always available.

Accordingly, the Commission has considered the following questions to guide its classification of carbon emission reduction measures.

- Is an objective of the measure, in whole or in part, to reduce carbon emissions or to assist firms to adjust to a lower carbon economy?

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- Does the measure selectively assist particular businesses or activities? In particular, even if the assistance is directed at households, does it *selectively* assist a particular business or activity?
 - Can the measure be quantified given practical constraints in measurement and data availability?

C.2 Application of guidelines

Applying these ‘filters’ has meant that the Commission has exercised judgement in a number of instances where inclusion or non-inclusion of a measure is not clear cut.

First, it has included measures that, in whole or in part, intend to reduce carbon emissions or are aimed at providing selective assistance to firms or activities to adjust to a lower carbon economy. This means that policies that have as an objective to reduce carbon emissions are included, even if they have other objectives, or carbon emission reduction is not the primary objective. For example, energy efficiency ratings for new homes are included, as one objective of this measure is to reduce carbon emissions. However, other objectives include lowering energy bills and reducing demands on the electricity network.

Second, the Commission only reports on measures that provide *selective* assistance to particular firms, industries activities or sectors, either directly or indirectly. Selective (as opposed to general) government measures enable assisted firms to gain an advantage, relative to other firms, thereby artificially increasing their returns and influencing the allocation of economic resources. So measures that provide *general* compensation to households to cope with higher energy or transport prices are typically not included. In contrast, government measures that provide subsidies to households to install insulation are included because they *selectively* assist the insulation industry.

Third, the Commission has taken a broader view of assistance measures than it generally does for assistance classifications in other parts of the *Trade & Assistance Review*. Measures relating to budgetary outlays, regulatory interventions, procurement policies and information provision are all included in this stocktake. Because the Commission usually only includes measures that can be quantified, many of these measures would not be included in estimates of assistance reported in the *Trade & Assistance Review*.

Reporting on these broader measures introduces difficulties in quantifying some measures. As a result, the Commission has split the classification of measures into those that can be quantified and those that cannot.

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- Measures that can be quantified are reported as *quantifiable measures*. Chapter 5 analyses the details and impact of these measures.
 - Measures that cannot be quantified are reported as *non-quantifiable measures*.

Of the measures that can be quantified, the Commission has sought to provide estimates for the last financial year and the next four financial years (that is 2007-08 to 2011-12, inclusive). In some instances, however, it has not been possible to provide annual estimates of the size of a measure. In these instances, the total funds allocated to the measure have been reported. It should be noted that some spending under programs for which annual estimates are not available, as well as other programs identified, may occur beyond 2011-12.

Fourth, some aspects of assistance measures that would normally be reported in *Trade & Assistance Review* have not been estimated for carbon emission reduction measures. For instance, the Commission has not sought to identify the initial benefiting industry of particular measures and has, therefore, not reported detailed industry or sectoral estimates of assistance.

In some respects this stocktake goes further than the normal reporting performed by *Trade & Assistance Review*. This stocktake includes State and Territory Government measures alongside Australian Government measures. Further, this stocktake reports any measures that will be introduced, or have been proposed to be introduced, over the next four financial years. So, for example, it reports on the impact of the Australian Government proposed Carbon Pollution Reduction Scheme.

In sum, this classification generally results in a relatively comprehensive listing of carbon emission reduction measures. Yet, in an exercise of this breadth it is likely that some measures may have been missed. Further, the stocktake only reports on measures that have been announced up to the end of March 2009. Some caution should be exercised in examining this list given the scope for changes to many of these measures, most probably in response to a number of reviews that are occurring (see Chapter 5 for more details).

C.3 Reporting of measures

Tables C.1 to C. 19 report on the identified carbon emission reduction measures for each jurisdiction. The measures are classified into four types:

- *Budgetary assistance* includes financial grants, subsidies or loans to firms, industries or organisations and tax concessions, including exemptions, deductions or preferential tax rates. In general, estimates of the funds allocated

(or the tax revenue forgone) have been included for these measures. Where possible, the administration costs of the programs have been excluded.

- *Regulatory interventions* include measures that mandate particular standards, quotas for the use of lower-emission energy sources or prices for the “feed-in” of lower emission energy sources. In some cases, the impact of these measures have been quantified, though these estimates are generally not included in tables below (see chapter 5).
- *Procurement guidelines* include government guidelines relating to the purchase of equipment, capital items or infrastructure that favour lower emission options. The impact of these measures has not been quantified.
- *Information provision* includes measures that provide information to businesses or households on ways to reduce carbon pollution. This encompasses information that governments deliver directly, or information that it requires businesses to give to consumers. The impact of these measures has not been quantified.

Table C.1 Australian Government quantifiable carbon emission reduction measures

Program name	Program description and/or stated objectives	Funding					
		2007-08 to 2011-12 \$m	2007-08 \$m	2008-09 \$m (est)	2009-10 \$m (est)	2010-11 \$m (est)	2011-12 \$m (est)
Commonwealth Scientific and Research Organisation (CSIRO)							
CSIRO climate change related research, excluding Flagship activity	Funding for CSIRO's climate change related activities (additional to Flagship activity); includes funding for climate change mitigation through the Agricultural Sustainability Initiative and underpinning climate and atmospheric science.	82.6	11.4	15.2	18.5	18.8	18.7
CSIRO Energy Transformed National Research Flagship	As part of the National Research Flagships program, the Energy Transformed Flagship aims to develop clean affordable energy and transport technologies.	196.1	36.2	38.5	39.4	40.6	41.4
Department of Agriculture, Fisheries & Forestry							
Climate Change Research Program	Four-year program to help prepare Australia's primary industries for climate change by supporting further research and development in the areas of reducing GHG emissions, better soil management and adapting to a changing climate.	46.2	-	10.0	15.0	15.0	6.2
Department of Climate Change							
Assistance to emissions-intensive trade-exposed (EITE) firms	Transitional assistance to emissions-intensive trade-exposed firms at risk of carbon leakage or to adjust to the additional costs in a carbon constrained economy, through the free allocation of a certain proportion of required permits where emissions intensity reaches certain levels and firms are sufficiently trade-exposed.	6 000.0	-	-	-	2 900.0	3 100.0
Assistance to strongly affected industries - Coal-fired electricity generation	Compensation to generators for reductions in asset value as a result of the CPRS, through the provision of a fixed administrative allocation of permits.	1 400.0	-	-	-	700.0	700.0

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Table C.1 Australian Government quantifiable carbon emission reduction measures (continued)

Program name	Program description and/or stated objectives	Funding					
		2007-08 to 2011-12 \$m	2007-08 \$m	2008-09 \$m (est)	2009-10 \$m (est)	2010-11 \$m (est)	2011-12 \$m (est)
Climate Change Action Fund ^a	<p>\$2.15 billion over five years from 2009-10 for small and medium enterprises, firms not receiving other assistance and those at the lowest rate of EITE assistance, community sector organisations, workers, regions and communities, totalling:</p> <ul style="list-style-type: none"> • \$130 million for information and advisory services; • \$1.37 billion for investment in energy efficiency activities, low emission technologies, processes and products and high energy saving projects; • \$200 million for general structural adjustment assistance; and • \$750 million for coal sector adjustment. 	1 700.0	-	-	300.0	700.0	700.0
Greenhouse Action in Regional Australia	Funding over 2 years to build capacity in the agriculture and land management sectors to reduce GHG emissions. Program lapses from June 2009.	7.8 ^b	-	3.9	-	-	-
Department of Environment, Water, Heritage & the Arts							
Alternative Fuels Conversion Program	Support key commercial fleet operators to trial selected alternatively-fuelled or hybrid diesel/electric engines in order to assess the commercial viability and environmental performance of these engine systems in heavy vehicles and to demonstrate their feasibility to the wider transport industry. Program concluded on 30 June 2008.	4.0	4.0	-	-	-	-

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Table C.1 Australian Government quantifiable carbon emission reduction measures (continued)

Program name	Program description and/or stated objectives	Funding					
		2007-08 to 2011-12 \$m	2007-08 \$m	2008-09 \$m (est)	2009-10 \$m (est)	2010-11 \$m (est)	2011-12 \$m (est)
Climate Change Strategy – Local Greenhouse Action	Five year program to engage local government and the community in identifying and implementing practical actions to reduce their GHG emissions. LGA has funded the Cities for Climate Protection (CCP) Australia Program, the Cool Communities and Travel Smart initiatives. Funding has also been provided through Accelerated Action Grants available to groupings of councils in the areas of sustainable transport; sustainable public lighting or greenhouse purchasing; Inventory Grants available to councils required to complete an emissions inventory and for monitoring and reporting of emissions; and Community Abatement Grants available to councils for projects like education initiatives, energy audits, pilot and implementation of energy efficient products, and community greenhouse neutral and renewable energy plans.	17.3	3.0	3.3	-	-	-
Green Loans	Subsidised provision of low-interest loans, of up to \$10,000 per home, for the installation of technologies to improve water and energy efficiency, including for solar hot water, insulation, rainwater tanks and grey water recycling (means tested at \$250,000). The program aims to encourage wide-scale improvement of energy and water efficiency and provide sound advice and financial assistance to households.	252.9	-	17.2	60.1	87.9	87.7
Green Precincts Program	Funding to establish 10 high profile green precincts that encourage energy and water savings measures at the community level. The program aims to engage the community in increasing energy and water efficiency.	15.0	-	1.0	6.1	7.1	0.8
Greenhouse Gas Abatement Program	The Greenhouse Gas Abatement Program (GGAP) aims to reduce Australia's net greenhouse gas emissions by supporting activities that are likely to result in substantial emissions reductions or activities to offset greenhouse emissions, particularly in the period 2008-2012.	15.5	15.5	-	-	-	-

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Table C.1 Australian Government quantifiable carbon emission reduction measures (continued)

Program name	Program description and/or stated objectives	Funding					
		2007-08 to 2011-12 \$m	2007-08 \$m	2008-09 \$m (est)	2009-10 \$m (est)	2010-11 \$m (est)	2011-12 \$m (est)
Low Emission Assistance Plan for owner-occupiers	From 1 July 2009, provision of \$2.7 billion over two and a half years from 2009-10 for the purchase and installation of ceiling insulation in an estimated 2.2 million established homes that are owner-occupied and not currently insulated. The program will meet the costs of installing ceiling insulation up to a cap of \$1600 per home, with interim assistance of the same amount, available from 1 July, for eligible owner-occupiers who install ceiling insulation up to 30 June 2009.	2 700.0	-	-	1 080.0	1 080.0	540.0
Low Emission Assistance Plan for Renters, as expanded in the Nation Building and Jobs Plan	Assistance of up to \$1,000 for landlords to insulate around 700,000 rental properties. Rebate program from March, full program from 1 July 2009.	785.4	-	10.5	363.0	361.9	50.0
Low Emissions Technology and Abatement (Renewables Program & Strategic Abatement)	Funding over four years to encourage ongoing investment in the development, demonstration and deployment of smaller-scale low emission technologies, and cost-effective abatement activities. The Renewables program aims to support strategically important renewable energy projects that will contribute to a stronger renewable energy industry by addressing barriers to the uptake of renewable energy technologies. The Strategic Abatement sub-program targets greenhouse gas actions in local communities.	6.2	3.7	2.5	-	-	-
National Solar Schools Plan	Over 8 years from 2007-08, provision of grants of up to \$50,000 to all eligible Australian primary and secondary schools to install solar and other renewable power systems, solar hot water systems, rainwater tanks and a range of energy efficiency measures including insulation and efficient lighting. Builds on and replaces Green Vouchers for Schools.	361.3	9.0	74.6	119.7	107.2	50.8

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Table C.1 Australian Government quantifiable carbon emission reduction measures (continued)

Program name	Program description and/or stated objectives	Funding					
		2007-08 to 2011-12 \$m	2007-08 \$m	2008-09 \$m (est)	2009-10 \$m (est)	2010-11 \$m (est)	2011-12 \$m (est)
Renewable Remote Power Generation Program (RRPGP1) and Renewable Remote Power Generation Program Extension (RRPGP2)	<p>The RRPGP1 and RRPGP2 aim to increase the uptake of renewable energy technology in remote areas of Australia, to help provide an effective electricity supply to remote users, to assist the development of the Australian renewable energy industry and to help meet the energy infrastructure needs of indigenous communities.</p> <p>RRPGP1 Jurisdictions were each allocated an amount of funding based on the relevant Diesel Fuel Excise paid by public power generators in the period 1 July 2000 to 30 June 2004. This funding could be used to support approved remote power sub-programs and projects. The Partnership Agreement allows each jurisdiction until 30 June 2010 to commit its allocation and 30 June 2012 to expend. WA is the last jurisdiction with significant RRPGP1 funds left.</p> <p>RRPGP2 Available to a jurisdiction, once its RRPGP1 allocation was fully committed, the RRPGP2 consisted of four sub-programs.</p> <p>For areas not close to a main grid, the Residential and Medium-scale sub-program provides rebates of up to 50% of the capital cost of renewable generation and essential enabling equipment, to a maximum value of \$200,000 for households, communities, not-for-profit businesses, governments and other organisations. The Renewable Energy Water Pumping sub-program provides rebates of 40% minus \$1,000 of the capital cost of the renewable energy components of eligible remote water pumps, with a maximum of \$30,000 per site or property.</p>	175.2	30.8	59.6	52.2	31.3	1.3
Solar Cities Program	Subsidises specific solar and energy efficient technologies and their installation into residential and commercial buildings, to showcase market viability and energy efficiency gains; also trialling smart metering and energy pricing trials. The program aims to engage the community in demonstrating solar technologies while collecting data on their use and cost.	76.2	9.1	37.5	12.8	11.8	5.0

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Table C.1 Australian Government quantifiable carbon emission reduction measures (continued)

Program name	Program description and/or stated objectives	Funding					
		2007-08 to 2011-12 \$m	2007-08 \$m	2008-09 \$m (est)	2009-10 \$m (est)	2010-11 \$m (est)	2011-12 \$m (est)
Solar Homes and Communities Plan	Provision of rebates of up to \$8,000 for the installation of solar power panels on owner occupied homes and grants for up to half the cost of a 2kW system for community buildings. Replaces Photovoltaic rebate program. To be replaced by non means-tested Solar Credits from mid 2009, worth up to \$7500 for solar PV systems.	254.3	54.0	157.6	42.7	-	-
Solar Hot Water Rebate Program	Rebates of up to \$1,600 for households who do not access insulation assistance to replace electric hot water systems with solar and heat pump hot water systems. The program aims to accelerate the domestic uptake, achieve cost-effective greenhouse gas abatement and assist households to tackle climate change.	727.0	11.3	62.9	192.0	216.0	244.8
Renewable Energy Equity Fund	Specialist venture capital fund operating for 10 years from 1999, open to eligible early-stage companies commercialising renewable energy technology, with funding matched by private sector capital at a 2:1 ratio.	2.1	1.9	0.2	-	-	-
Department of Innovation, Industry, Science & Research							
Clean Energy Innovation Centre	Four-year program to improve the productivity and competitiveness of small and medium sized clean energy enterprises by providing business improvement services. The program aims to help SMEs in the clean energy sector improve their productivity and competitiveness and create more high-income and sustainable jobs in clean energy.	20.0	-	5.0	5.0	5.0	5.0
Climate Ready Program	Four-year \$75 million program providing grants of \$50,000 to \$5 million on a matching funding basis to support small to medium enterprises in the development and commercialisation of innovative products, processes and services that address the effects of climate change. The program provides support for research and development, proof-of-concept and early-stage commercialisation activities.	75.0	-	13.1	22.6	23.8	15.5

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Table C.1 Australian Government quantifiable carbon emission reduction measures (continued)

Program name	Program description and/or stated objectives	Funding					
		2007-08 to 2011-12 \$m	2007-08 \$m	2008-09 \$m (est)	2009-10 \$m (est)	2010-11 \$m (est)	2011-12 \$m (est)
Cooperative Research Centres (CRC) Program	<p>The CRC Program currently provides funding for 48 CRCs, several of which have research programs investigating carbon emissions. Two CRCs with a primary focus in this area are:</p> <ul style="list-style-type: none"> The CRC for Greenhouse Gas Technologies (CO2CRC) which is focused on geosequestration and carbon dioxide mitigation technologies. CO2CRC has successfully injected over 10 000 tonnes of carbon dioxide at the CO2CRC Otway Project, providing Australia's first demonstration of geosequestration. The Antarctic Climate and Ecosystems CRC (ACE CRC) which is central to Australia's efforts to understand Antarctic and Southern Ocean processes and their role in regional and global climate changes. <p>The objective of the CRC Program is to deliver significant economic, environmental and social benefits to Australia by supporting partnerships between researchers and end-users to address clearly articulated, major challenges that require medium to long term collaborative efforts.</p>	23.5 ^c	11.6 ^c	6.4 ^c	5.5 ^c	-	
Green Building Fund	<p>Five-year \$90 million program providing grants ranging from \$50,000 to \$500,000 up to 50% of eligible project costs to reduce GHG emissions through the retro-fitting and retro-commissioning of existing Australian commercial office buildings; grants of up to 50% of eligible project costs, to a maximum of \$200,000, to improve the skills and capability of those involved in the operation of commercial office buildings to improve energy efficiency and reduce emissions.</p>	80.0	-	10.0	25.0	30.0	15.0
Green Car Innovation Fund	<p>From 1 July 2009, provision of grants to support the design, development and commercialisation of low-emission fuel-efficient cars, components and technologies in Australia over ten years.</p>	513.7 ^d	-	0.8	168.3	104.0	240.5

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Table C.1 Australian Government quantifiable carbon emission reduction measures (continued)

Program name	Program description and/or stated objectives	Funding					
		2007-08 to 2011-12 \$m	2007-08 \$m	2008-09 \$m (est)	2009-10 \$m (est)	2010-11 \$m (est)	2011-12 \$m (est)
Renewable Energy Development Initiative	Matching grants from \$50 000 up to \$5 million for eligible projects extending up to the three years related to the development of renewable energy technology products, processes or services with strong early stage commercialisation potential and emissions reduction potential. Program was closed to new grants in April 2008.	49.4 ^e	17.2	23.2	8.3	0.7	-
Re-tooling for Climate Change	Four-year \$75 million program providing grants of \$10 000–\$500 000 to support Australian manufacturers reducing their environmental footprint through projects that improve the energy and/or water efficiency of their production processes.	75.0	-	2.9	25.3	27.9	18.9
Department of Resources, Energy & Tourism							
Advanced Electricity Storage Technologies Program	Supports the development and demonstration of efficient electricity storage technologies for use with intermittent renewable generation sources such as wind and solar.	20.4	3.1	9.6	7.5	-	-
APEC Tourism and Transport Working Group Research and Economic Model Development Project	The Department is contributing US\$25 000 to the joint APEC Tourism Working Group and Transport Working Group titled 'Study of International Visitor Flows and Greenhouse Gas emissions for a Template to examine the Impact on APEC economies of future market based measures applying to International transport'. The project has a total budget of US\$75 000.	0.04	-	0.04 ^f	-	-	-
Asia-Pacific Partnership on Clean Development and Climate	The Asia-Pacific Partnership on Clean Development and Climate (APP) brings together Australia, Canada, China, India, Japan, South Korea and the United States to address the challenges of climate change, energy security and air pollution in a way that encourages economic development and reduces poverty.	75.8	14.9	33.0	20.0	7.9	-

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Table C.1 Australian Government quantifiable carbon emission reduction measures (continued)

Program name	Program description and/or stated objectives	Funding					
		2007-08 to 2011-12 \$m	2007-08 \$m	2008-09 \$m (est)	2009-10 \$m (est)	2010-11 \$m (est)	2011-12 \$m (est)
Biofuels Capital Grants Program (BCGP)	From 2004, the BCGP provided competitive grants from \$800,000 - \$10 million to fund one-off capital projects that provided new or expanded biofuels production capacity, with grants subsidising construction at a rate of 16c per litre. As of 2007, the program's funds had been entirely allocated.	7.2	7.2	-	-	-	-
Energy Innovation Fund	Provision of \$150 million over four years to support the development of clean energy technologies. Includes the establishment of the \$100 million Australian Solar Institute, to expand Australia's solar thermal and solar photovoltaic research capacity, and \$50 million for the Clean Energy Program for general clean energy research and development.	150.0	-	40.9	51.2	36.2	21.7
Ethanol Distribution Program	Grants of \$10,000 for retail service stations to upgrade existing equipment or install new equipment to supply E10 before 31 March 2008; sales target grants of up to \$10,000 for service stations that reach a specific sales target within 12 months of completing the upgrade.	15.0	6.7	8.3	-	-	-
Ethanol Production Grants (EPG)	From September 2002, provision of a subsidy (38.143 cents per litre) for eligible ethanol, providing a zero effective rate of excise tax for these biofuels. The EPG will cease on 30 June 2011 and the Energy Grants (Cleaner Fuels) Scheme, which currently applies to biodiesel, will also apply to ethanol from 2011-2015.	500.4	56.7	100.4	160.0	183.3	-
Geothermal Industry Development Framework and Geothermal and Hydrogen Technology Roadmaps	The Australian Geothermal Industry Development Framework and the Geothermal Technology Roadmap provide detail on the challenges and opportunities for the development of an Australian geothermal industry. Developed in close consultation with industry, the framework identifies the key issues facing the geothermal sector in Australia, and recommends actions to encourage the development of a viable geothermal energy industry in this country. The Geothermal Technology Roadmap and the Hydrogen Technology Roadmap provide detail on the research and development challenges facing both the geothermal industry and the development of hydrogen technologies.	1.4	0.9	0.5	-	-	-

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Table C.1 Australian Government quantifiable carbon emission reduction measures (continued)

Program name	Program description and/or stated objectives	Funding					
		2007-08 to 2011-12 \$m	2007-08 \$m	2008-09 \$m (est)	2009-10 \$m (est)	2010-11 \$m (est)	2011-12 \$m (est)
Global Carbon Capture and Storage Initiative	Funding for a Global Carbon Capture and Storage (CCS) Institute which aims to accelerate the development and deployment of a global portfolio of industrial-scale CCS demonstration projects. It will facilitate demonstration projects, establish information sharing frameworks, remove regulatory and legal impediments to CCS projects globally and, where necessary, identify and support research related to commercial deployment of CCS.	400.0	-	100.0	100.0	100.0	100.0
Low Emissions Technology Demonstration Fund (LETDF)	Funding for Australian firms to demonstrate the commercial potential of new energy technologies or processes, or the application of overseas technologies or processes to Australian circumstances. There will be no further application rounds under the LETDF, though funded projects will continue.	327.7	17.0	89.2	119.5	25.1	76.9
National Low Emissions Coal Initiative	An eight-year program to support clean coal and advanced fossil fuel technology development through initiatives including: \$50.0 m for a national carbon mapping and infrastructure plan; \$75.0 m for a National Clean Coal Research program (including \$25 million to support low emission coal research by the CSIRO); \$50.0 m for a pilot coal gasification plant in Queensland; \$50.0 m to demonstrate carbon capture and storage; \$50.0 m for a large scale post combustion capture plant in the Latrobe Valley (Vic); \$15.0 m to fund Australia's Involvement in the FutureGen Alliance; and \$20.0 m for the Australia-China Clean Coal Co-ordination Group.	303.0	14.0	25.2	86.1	102.8	74.9
Renewable Energy Fund	The \$500 m Renewable Energy Fund is designed to fill the gap between post-research and commercial uptake for renewable energy technologies. The fund comprises the \$435 million Renewable Energy Demonstration Program, the \$50 million Geothermal Drilling Program, and the \$15 million Second Generation (Gen2) Biofuels Research and Development Program.	227.5	-	-	55.5	71.0	101.0

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Table C.1 Australian Government quantifiable carbon emission reduction measures (continued)

Program name	Program description and/or stated objectives	Funding					
		2007-08 to 2011-12 \$m	2007-08 \$m	2008-09 \$m (est)	2009-10 \$m (est)	2010-11 \$m (est)	2011-12 \$m (est)
Sustainable Tourism CRC	The Department provided \$20,000 to the STCRC to produce a report on the Carbon Footprint of Australian Tourism. The STCRC is also undertaking five regional case studies on the economic impacts of climate change on tourism, which will also identify adaptation strategies. The Department has contributed \$40,000 to this project.	0.1	-	0.1	-	-	-
Tourism and Climate Change - A Framework for Action	The Government worked in partnership with the Australian tourism industry and State and Territory Governments to develop the Framework. A set of actions were determined through this process to assist the tourism industry to address and adapt to climate change challenges. A subcommittee has now been formed to implement these actions. The Department will also contribute to a regional taskforce to address the effects of the UK air passenger duty.	0.2	-	0.2	-	-	-
Wind Energy Forecasting Capability	Five-year program of support to the development and installation of software and systems for the effective forecasting of wind energy generation in Australian electricity markets, including related research and development projects.	4.4	3.2	1.2	-	-	-
Department of Treasury		4 400.0	-	-	-	2 400.0	2 000.0
Carbon Pollution Reduction Scheme Fuel Tax Adjustment Arrangements	Fuel excise for all liquid fuels currently subject to the general 38.143 cents/litre excise rate will be reduced to offset increases in fuel prices resulting from the CPRS, with the reduction based on the effect of pricing diesel emissions. The transitional fuel tax adjustments are scheduled to cease in 2013. A CPRS fuel tax credit will be introduced for agriculture, fishing and heavy on-road transport that effectively does not pay fuel tax: the credit will be available to agriculture and fishing businesses for three years, and heavy on-road transport businesses for one year, also to CNG and LNG for one year, and to LPG for three years, with credits for LPG, CNG and LNG reflecting the lower emissions of these fuels.						

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Table C.1 Australian Government quantifiable carbon emission reduction measures (continued)

Program name	Program description and/or stated objectives	Funding					
		2007-08 to 2011-12 \$m	2007-08 \$m	2008-09 \$m (est)	2009-10 \$m (est)	2010-11 \$m (est)	2011-12 \$m (est)
Luxury car tax concession	The luxury car tax threshold is set higher for fuel efficient cars.	38.8	-	8.5	9.2	10.1	11.0
Tax deductibility of establishment costs for carbon sink forests	Immediate tax deduction available to businesses that plant a forest for the purpose of absorbing carbon dioxide from the atmosphere. Once the measure ends, new expenditure is written off at the same rate as horticulture plants (7 per cent per year for 14 years and 105 days).	38.0	-	5.0	9.0	11.0	13.0

a Various departments and agencies are likely to be responsible for administering funding under this program. **b** This figure represents total funding allocated to the program. Some spending under this program may occur beyond 2011-12. **c** The figures identified under this program allocation are the combined funds provided under the CRC Program for CO2CRC and ACE CRC only. **d** The forecast expenditure amounts reflect the Administrative Funds planned for the Fund. The bulk of the Administered Funds total is expected to be allocated as grants, however a small portion could be expended on activities to support the Fund's implementation. **e** REDI is funded from within the total Commercial Ready allocation. There is no specific annual breakdown; funds are drawn as required from the Commercial Ready allocation to meet REDI commitments. **f** Converted from US dollars using rate published in the Australian Financial Review, 1 April 2009, p. 17.

Table C.2 New South Wales Government quantifiable carbon emission reduction measures

Program name	Program description and/or stated objectives	Funding				
		2007-08 to 2011-12 \$m	2007-08 \$m	2008-09 \$m (est)	2009-10 \$m (est)	2010-11 \$m (est)
NSW Department of Commerce						
Energy Efficiency Skills Development Program for Tradespeople and Professionals	For existing trades and new technologies, to develop skills in delivering energy-efficient design, building and other services, through subsidised short courses, professional development for trainers and partnership projects with industry. This program has an objective of industry development.	20.0 ^a	-	-	-	-
NSW Department of Environment & Climate Change						
Energy Performance Contracts (EPCs)	EPCs provide loans to budget-funded agencies for the purpose of undertaking large building-related water and energy saving projects (costing over \$500,000). Agencies are permitted to repay the cost of the loans from energy and water savings. The program aims to improve the energy and water efficiency of government agencies and promote industry development.	44.7 ^a	-	-	-	-
Expansion of Sustainability Advantage Program	Assist 800 medium to large businesses on identifying and prioritising waste reduction and energy- and water-saving measures.	20.0 ^a	-	-	-	-
Fleetwise Partnership	Fleet operators are encouraged to improve the sustainability of their fleets by changing vehicle choice, the ways existing fleets are used and the extent of use. As ex-fleet vehicles make up a substantial portion of the used vehicle market, improvements to fleets can have a long-lasting impact on the numbers of fuel efficient vehicles on NSW roads. The heavy vehicles component of the program is currently being developed and tested. The program aims to reduce greenhouse gases and to reduce fuel costs by increasing the numbers of fuel efficient vehicles entering the used vehicle market.	0.7 ^a	-	-	-	-

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Table C.2 New South Wales Government quantifiable carbon emission reduction measures (continued)

Program name	Program description and/or stated objectives	Funding					
		2007-08 to 2011-12	2007-08	2008-09	2009-10	2010-11	2011-12
		\$m	\$m	\$m (est)	\$m (est)	\$m (est)	\$m (est)
Government Energy and Water Efficiency Investment Program	Established under the NSW Treasury Loan Fund, to provide funds for projects to improve energy efficiency of lighting, heating, ventilation and cooling systems, hot water and appliance upgrades. Agencies are permitted to re-pay the cost of the loans from energy and water savings. The program aims to improve the energy and water efficiency of government agencies. This program aims to promote industry development.	4.7 ^a	-	-	-	-	-
Green Business Program	As part of a \$30 million program over five years, for projects that will save energy and water in business operations in NSW. The program aims to encourage uptake of energy and water efficiency measures. This program has an objective of industry development.	30.0 ^a	11.7	-	-	-	-
Greenhouse Innovation Fund	Aims to raise awareness about climate change, promote the adoption of emission reduction, research the impacts of climate change and develop adaptation initiatives. Created to support the 2005 NSW Greenhouse Plan. This program has an objective of industry development and encouraging R&D.	24.0 ^a	-	-	-	-	-
Hot water system rebate	As part of a \$100m Residential Rebate Program for improved water and energy efficiency, this rebate provides up to \$1200 to switch from electric to solar, heat pump or gas hot water systems. The program aims to assist households overcome high upfront costs of achieving energy and water efficiencies. This program has an objective of industry development.	100.0 ^a	3.3	-	-	-	-

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Table C.2 New South Wales Government quantifiable carbon emission reduction measures (continued)

Program name	Program description and/or stated objectives	Funding							
		2007-08 to 2011-12	2007-08	2008-09	2009-10	2010-11	2011-12		
		\$m	\$m	\$m (est)	\$m (est)	\$m (est)	\$m (est)	\$m (est)	\$m (est)
Insulation rebate	As part of a \$100m Residential Rebate Program for improved water and energy efficiency, this rebate provides for half the cost of installing home ceiling insulation, up to a maximum of \$300. This rebate will be re-directed in light of the Commonwealth Government's program for free ceiling insulation, to assist in insulating homes which will not receive funding under the Commonwealth Government's Energy Efficient Homes package, e.g. public housing. The program aims to assist households overcome high upfront costs of achieving energy and water efficiencies. This program has an objective of industry development.	_b	0.9	-	-	-	-	-	-
Low income household retrofit program	Home energy audits and free energy savings kits such as energy-efficient light bulbs and water saving showerheads, with a target of 220,000 low income households. The program aims to encourage households to take-up of energy efficient technology and reduce their energy bills. This program has an objective of industry development.	63.0 ^a	-	-	-	-	-	-	-
Public Facilities Program	Provides \$30 million for energy and water saving projects in facilities which are open to, and frequently accessed by, the public including schools, community buildings, sporting facilities, museums and art galleries. The program aims to demonstrate good practice for adoption by private industry.	30.0 ^a	1.7	10.4	-	-	-	-	-
Renewable Energy Development Fund	Provides \$40 million over five years under the Climate Change Fund, aimed at stimulating investment in the development or commercialisation of new renewable energy technologies that will generate electricity or displace grid electricity use in NSW for stationary energy purposes, and consequently result in reduced greenhouse gas emissions. The program aims to commercialise and develop new renewable energy. The program aims to demonstrate good practice for adoption by private industry, promote industry development and encourage R&D.	40.0	27.3	12.7	-	-	-	-	-

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Table C.2 New South Wales Government quantifiable carbon emission reduction measures (continued)

Program name	Program description and/or stated objectives	Funding					
		2007-08 to 2011-12	2007-08	2008-09	2009-10	2010-11	2011-12
		\$m	\$m	\$m (est)	\$m (est)	\$m (est)	\$m (est)
Small Business Energy Efficiency Program	Subsidised cost of audits to identify energy savings, for up to 6000 small to medium businesses, and rebates to assist measures such as lighting upgrades and improvements to air-conditioning and refrigeration. The program aims to encourage business take-up of energy efficient technology. This program has an objective of industry development.	15.0 ^a	-	-	-	-	-
NSW Department of Environment & Climate Change / Department of Education & Training							
School Energy Efficiency Program	Provides \$20 million to help reduce GHG emissions and increase energy efficiency from NSW public high schools, including full lighting retrofit for each participating school. This program aims to promote industry development.	20.0 ^a	0.6	-	-	-	-
NSW Department of Planning							
BASIX Multi Unit Cogeneration Demonstration Project	The installation of small-scale, gas-fuelled generators in a seven storey development in western Sydney, and a 25 storey apartment building in northern Sydney, in order to trial and showcase cogeneration technology in a residential setting. This program aims to demonstrate the use of technologies and promote industry development.	0.4 ^a	-	-	-	-	-
NSW Department of Primary Industries							
Clean Coal Fund	Provide \$100 million to fund research, demonstration and commercialisation of clean coal technologies and to increase public awareness of the importance of reducing GHG emissions through clean coal technologies. This program aims to reduce greenhouse emissions, encourage R&D, promote industry development and demonstrate technologies for adoption by the private sector.	100.0 ^a	-	-	-	-	-

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Table C.2 New South Wales Government quantifiable carbon emission reduction measures (continued)

Program name	Program description and/or stated objectives	Funding						
		2007-08 to 2011-12	2007-08	2008-09	2009-10	2010-11	2011-12	
		\$m	\$m	\$m (est)	\$m (est)	\$m (est)	\$m (est)	
Location of geosequestration sites	Funding of work by the Department of Primary Industries to locate geosequestration sites, including a possible site for a demonstration scale carbon capture and storage project. This program has an objective of industry development and encouraging R&D.	6.0 ^a	-	-	-	-	-	
Pilot carbon capture plant	Post combustion pilot facility to capture GHG emissions from the Munmorah Power Station using ammonia absorption technology, hosting a range of experimental trials to determine the potential to adapt the technology to NSW coal power station conditions. Joint program between Delta Electricity and the CSIRO. This program aims to encourage R&D, promote industry development and demonstrate technologies for adoption by the private sector.	5.0 ^a	-	-	-	-	-	

^a This amount represents the total funding allocated to this program. It may be spent beyond 2011-12. ^b Program allocation included in funding for the hot water system rebate program.

Table C.3 Victorian Government quantifiable carbon emission reduction measures

Program name	Program description and/or stated objectives	Funding					
		2007-08 to 2011-12 \$m	2007-08 \$m	2008-09 \$m (est)	2009-10 \$m (est)	2010-11 \$m (est)	2011-12 \$m (est)
Sustainability Victoria							
Insulation rebates	Rebates of 30% of the total cost of installed insulation, up to \$300; 50% of the total cost of the installed insulation for concession card holders, up to \$500.	0.4 ^a	0.4	-	-	-	-
Vic Department of Innovation, Industry & Regional Development							
Biofuels Infrastructure Grant program	Provides \$5 million in grants to assist in the development of infrastructure necessary for the production and distribution of biofuels. Part of the Regional Infrastructure Development Fund (RIDF).	5.0 ^b	-	-	-	-	-
Enhancing Sustainability in New Investment	Financial support to companies to bridge the gap between conventional technology and 'best practice', aiming for improved energy efficiency and reduced GHG emissions, water use and waste generation. Grants available for 50 per cent of total project costs, up to a maximum of \$100,000.	1.3	-	1.3	-	-	-
Water and Energy Efficiency Initiative	Funding to regional industry to implement energy efficiency measures.	10.0 ^b	-	-	-	-	-
Vic Department of Primary Industries							
Clean Coal Victoria	Strategic and regional planning of coal resources, including future mines, infrastructure requirements, carbon storage, new technologies and future coal demands.	13.4	1.0	3.1	3.1	3.1	3.1
Investigating carbon storage sites in the Gippsland basin	Research and modelling of the Gippsland region's geology, to better understand carbon storage potential.	5.2	-	1.8	1.3	1.1	1.1

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Table C.3 Victorian Government quantifiable carbon emission reduction measures (continued)

Program name	Program description and/or stated objectives	Funding					
		2007-08 to 2011-12 \$m	2007-08 \$m	2008-09 \$m (est)	2009-10 \$m (est)	2010-11 \$m (est)	2011-12 \$m (est)
Sustainable Energy Research and Development (SERD) Grants Program	\$10 million in funding for developing new technologies in sustainable energy to commercial stage.	22.0	-	1.5	3.5	4.5	12.5
Vic Department of Sustainability & Environment							
Solar Hot Water rebates	Rebates for installations within regional Victoria, from \$1900 to \$2500, and between \$900 to \$1500 for metro installations, depending on system size and performance (rebate reduced by \$1000 where applicant chooses to apply for \$1000 Australian Government rebate).	33.1	0.5	11.6	13.1	7.9	-
Vic Department of Transport							
Melbourne Hybrid Bus Trial	The trial (from mid 2008) is part of a \$500,000 commitment to trial hybrid electric technology in the State's metropolitan bus fleet as outlined in the 2006 Sustainability Action Statement.	0.5 ^b	-	-	-	-	-
Vic not elsewhere classified							
Funding for new solar power station	As announced in March 2009, funding of up to \$100 million to develop a new large-scale solar power station in Victoria, with the aim of having the plant operating by 2015. (Project subject to matching funding from the Commonwealth's Renewable Energy Demonstration Program).	100.0 ^b	-	-	-	-	-

^a Estimate based on all insulation rebate recipients receiving the maximum concessional rate. ^b This amount represents the total funding allocated to this program. It may be spent beyond 2011-12.

Table C.4 Queensland Government quantifiable carbon emission reduction measures

Program name	Program description and/or stated objectives	Funding					
		2007-08 to 2011-12 \$m	2007-08 \$m	2008-09 \$m (est)	2009-10 \$m (est)	2010-11 \$m (est)	2011-12 \$m (est)
Qld Department of Employment, Economic Development and Innovation							
Carbon Geostorage Initiative	Funding for the assessment, evaluation and categorisation of geological sites in Queensland with the potential for long-term, safe and secure storage of carbon dioxide emissions.	10.0	0.04	3.1	2.3	2.4	2.2
Clean Coal Fund	\$300 million allocated from the Queensland Future Growth Fund to develop carbon capture and storage technologies. Combined project with the state's coal industry.	300.0 ^a	-	-	-	-	-
Clean coal levy offset to liability for mining royalty	Allowance of levy under the Clean Coal Technology Special Agreement Act 2007 as a deduction in determining coal mining royalty.	17.5	-	7.0	3.5	3.5	3.5
Energy Choices Program: (including Residential Gas Rebate; and Energy Wise program)	The program includes residential gas installation rebates, energy audit service, school energy efficiency action plans and an EnergyWise off-peak campaign.	14.3 ^a	-	-	-	-	-
Research & development into emissions reducing and biosequestration opportunities in Qld agriculture	Improved agricultural practices including methane emissions from livestock; reduced nitrous oxide emissions from fertilisers; improved biosequestration in vegetation; and reduced emissions from energy efficiency in agriculture and fishing.	2.6	0.8	1.8	-	-	-
Qld Department of Environment and Resource Management							
EcoFund	An offsets exchange facility to assist developers to find offsets for vegetation clearing.	7.0 ^a	-	1.2	1.8	1.7	-

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Table C.4 Queensland Government quantifiable carbon emission reduction measures (continued)

Program name	Program description and/or stated objectives	Funding						
		2007-08 to 2011-12	2007-08	2008-09	2009-10	2010-11	2011-12	
		\$m	\$m	\$m (est)	\$m (est)	\$m (est)	\$m (est)	
Queensland Sustainable Energy Innovation Fund	Since 1999, funding energy and water projects. Currently, grants of up to 80% of project costs (up to \$200,000) are available through competitive merit based assessment.	1.5	0.4	1.1	-	-	-	
Qld Department of Public Works								
Energy Smart Buildings Program (Government)	A whole-of-government program to promote and facilitate energy efficiencies in government buildings. (Previously known as GEMS – Government Energy Management Strategy)	5.3	1.8	1.8	1.8	-	-	
Qfleet ClimateSmart Action Plan 2007-2010	Offsetting 50% of emissions from the Queensland Government vehicle fleet by 2010 and 100 per cent by 2020.	0.2	0.2	-	-	-	-	
Renewable Energy program for Government Buildings	A centralised purchase to meet the Government's ClimateSmart 2050 commitment that at least 5% of electricity used in government buildings will be from renewable sources.	4.2	1.4	1.4	1.4	-	-	
Qld Office of Clean Energy								
Climate Smart Homes Rebate Program	Rebates for energy conservation measures by households and small businesses located in isolated and remote areas	7.2 ^a	-	-	-	-	-	
Cloncurry Solar Thermal Power Station	Funding of \$7 million towards the \$30 million development, based on solar energy and a conventional stream turbine electricity generator.	7.0	7.0	-	-	-	-	
Geothermal Centre of Excellence	\$15 million allocated over five years, in partnership with the University of Queensland.	15.0 ^a	-	-	-	-	-	
Queensland Renewable Energy Fund	Funds allocated annually as grants and loans to support proven renewable energy technologies statewide.	50.0 ^a	-	-	-	-	-	

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Table C.4 Queensland Government quantifiable carbon emission reduction measures (continued)

Program name	Program description and/or stated objectives	Funding						
		2007-08 to 2011-12 \$m	2007-08 \$m	2008-09 \$m (est)	2009-10 \$m (est)	2010-11 \$m (est)	2011-12 \$m (est)	
Smart Energy Savings Fund	Support for cost-effective energy improvements by Queensland businesses to buildings, appliances and industrial processes, through grants and loans where projects cannot be funded internally or attract traditional funding sources.	50.0 ^a	-	-	-	-	-	
Smart Energy Savings Program	Under the Clean Energy Act 2008, large energy using businesses (100-500 terajoules per annum) not registered or required to be registered under the Energy Efficiency Opportunities Act 2006 (Cwth) are required to undertake mandatory energy efficiency audits, development of energy savings plan and publication of their implementation.	5.0	5.0	-	-	-	-	
Qld Office of Clean Energy / Qld Department of Environment and Resource Management								
Solar Schools Project	\$60 million package over three years for solar panels, energy efficient light bulbs, and circuit timers to turn off non-essential power at night.	60.0 ^a	-	-	-	-	-	
Qld Office of Climate Change								
Climate Smart Homes Service	Funding to assist householders with tools to monitor and reduce their energy use	60.0	-	20.0	25.0	15.0	-	
ClimateSmart Living education campaign	Funding to promote actions to reduce greenhouse gas emissions at home and work	2.5	2.5	-	-	-	-	
National Climate Change Adaptation Research Flagship	A partnership with the Australian Government, Griffith University and other tertiary institutions to coordinate Australia's climate change adaptation research agenda to deliver key research evidence for Australian policy makers. Includes \$2 million investment from the Queensland Climate Change Fund from 2008 to 2013.	2.0 ^a	-	0.4	0.4	0.4	0.4	

^a This amount represents the total funding allocated to this program. It may be spent beyond 2011-12.

Table C.5 Western Australian Government quantifiable carbon emission reduction measures

Program name	Program description and/or stated objectives	Funding						
		2007-08 to 2011-12 \$m	2007-08 \$m	2008-09 \$m (est)	2009-10 \$m (est)	2010-11 \$m (est)	2011-12 \$m (est)	
WA Department for Planning and Infrastructure								
Household Sustainability and Education Program	Under the Climate Change Action Statement, the program provides practical information on how GHG emissions can be reduced in the household. 10,000 homes will be provided with free audits to identify opportunities to reduce emissions. Includes energy and water saving kit.	1.5	0.8	0.8	-	-	-	
WA Department of Environment & Conservation								
Low Emissions Energy Development Fund	Funding under the Climate Change Action Statement of May 2007 to provide financial incentives to support technological advances that cut GHG emissions.	35.5 ^a	-	8.5	8.5	9.3	9.3	
WA Sustainable Energy Development Office								
Energy Smart Enterprise	Assist small to medium sized business to improve energy efficiency and environmental outcomes and reduce energy costs, through grants and technical assistance.	6.1	-	-	2.7	2.7	0.8	
Facilitation Grants for Government agencies	Funding under the Climate Change Action Statement of May 2007 to provide financial incentives to support technological advances that cut GHG emissions.	2.0	0.4	0.4	0.4	0.4	0.4	
Solar Schools Program	Provides up to \$12,500 for metropolitan schools (up to \$13,000 for regional schools), above a minimum school contribution of \$1,000, for new systems and additions to existing ones.	3.3	0.3	1.9	1.1	-	-	
Solar Water Heater Subsidy	Rebates of \$500 for natural gas-boosted solar water heaters (\$700 for bottled LP gas-boosted solar hot water heaters in areas without reticulated gas); program to run for four years or until funds are fully committed.	4.7	1.5	1.2	2.0	-	-	

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Table C.5 Western Australian Government quantifiable carbon emission reduction measures (continued)

Program name	Program description and/or stated objectives	Funding						
		2007-08 to 2011-12	2007-08	2008-09	2009-10	2010-11	2011-12	
Sustainable Energy Development Office (SEDO) Grants Program	Provides grants of up to \$50,000 for community-based sustainable energy projects and sustainable energy research and development projects.	\$m 2.0	\$m 0.4	\$m (est) 0.4	\$m (est) 0.4	\$m (est) 0.4	\$m (est) 0.4	\$m (est) 0.4

^a Funding allocations are notional as actual disbursements are linked to the attainment of objectives which will spread over several years beyond the year in which funding was awarded.

Table C.6 South Australian Government quantifiable carbon emission reduction measures

Program name	Program description and/or stated objectives	Funding					
		2007-08 to 2011-12	2007-08	2008-09	2009-10	2010-11	2011-12
		\$m	\$m	\$m (est)	\$m (est)	\$m (est)	\$m (est)
SA Department for Transport, Energy & Infrastructure							
Solar hot water rebates	A rebate of \$500 for low income owner-occupiers on the cost of a new solar or electric heat pump water heater system installed on or after 1 July 2008.	9.3	2.1	1.8	1.8	1.8	1.8
Use of biodiesel on public transport/purchase of diesel-powered buses	Since March 2006, all metropolitan buses and trains have run on 5% biodiesel; over 2008-09, 80 new diesel-powered buses for the Adelaide passenger transport network.	0.5	0.1	0.1	0.1	0.1	0.1
SA Department of Further Education, Employment, Science & Technology							
Biofuels from microalgae	Support for a joint project by SARDI and Flinders University to initiate development of new capabilities in the area of biofuels from microalgae. Funding is provided through via the Premier's Science and Research Fund.	0.1	0.1	-	-	-	-
SA Department of Premier & Cabinet							
Art Gallery of South Australia - improved energy efficiency	A staged program to reduce Art gallery energy use and GHG emissions by 20 per cent.	2.5	0.1	0.8	1.6	-	-
Building Tune-ups Project	A four-year project to improve the performance of commercial buildings through upgrading buildings to reduce GHG emissions.	2.4	-	0.6	0.6	0.6	0.6
Provision of a solar power station at Coober Pedy	Upgrade to the solar power station at Coober Pedy	0.6	-	0.6	-	-	-
Renewable Energy	Installation of mini wind turbines for SA Government buildings.	0.3	0.3	-	-	-	-

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Table C.6 South Australian Government quantifiable carbon emission reduction measures (continued)

Program name	Program description and/or stated objectives	Funding						
		2007-08 to 2011-12	2007-08	2008-09	2009-10	2010-11	2011-12	
		\$m	\$m	\$m (est)	\$m (est)	\$m (est)	\$m (est)	
Solar Power Grant to the Royal Agricultural and Horticultural Society (RAHS)	An \$8 million grant to the RAHS to facilitate the installation of solar power at the Goyder Pavilion at the Wayville Showground.	8.0	8.0	-	-	-	-	
Solar power station upgrade - Umawa	Upgrade to the Umawa solar power station in the far north-west of SA, which will more than double electricity output from 335 MWh to 715 MWh	0.6	0.6	-	-	-	-	
University of Adelaide - Chair of Climate Change	Funding for the Sir Hubert Wilkins Chair of Climate Change at the University of Adelaide	0.8	0.3	0.3	0.3	-	-	
SA not elsewhere classified								
Green School Grants	Supports measures that improve energy and water use efficiency.	5.0	1.0	1.0	1.0	1.0	1.0	
Solar Schools Program	Support for schools to switch into solar power, with a goal of solar power for 250 schools by 2014.	12.3 ^a	-	-	-	-	-	

^a This amount represents the total funding allocated to this program. It may be spent beyond 2011-12.

Table C.7 Tasmanian Government quantifiable carbon emission reduction measures

Program name	Program description and/or stated objectives	Funding					
		2007-08 to 2011-12 \$m	2007-08 \$m	2008-09 \$m (est)	2009-10 \$m (est)	2010-11 \$m (est)	2011-12 \$m (est)
Tas Climate Change Office							
Climate Change grants program (ClimateConnect)	Incorporated and not-for-profit community organisations are eligible for grants of up to \$50,000 for projects that encourage people to work together to reduce emissions or conserve energy.	1.5	-	0.5	0.5	0.5	-
Tas Department of Education							
Climate Change Minor Works Program	Schools will be able to apply for funding assistance to undertake small capital projects to address efficiency and climate change concerns.	0.8	-	0.8	-	-	-
Tas Department of Environment, Parks, Heritage & the Arts							
CleanBiz sustainability program	Funding to help Tasmanian enterprises reduce operating costs and environmental impacts by encouraging more resource efficient practices.	1.1	0.3	0.2	0.2	0.2	0.2
Tas Department of Infrastructure, Energy & Resources							
Extra Low Voltage/ Light Emitting Diode Technology	This initiative will, over four years, roll out a sustainable and power efficient traffic signals system using ELV/LED technology which will deliver a significant reduction in carbon emissions.	3.1	-	1.1	1.0	0.8	0.2

Table C.8 Northern Territory Government quantifiable carbon emission reduction measures

Program name	Program description and/or stated objectives	Funding					
		2007-08 to 2011-12	2007-08	2008-09	2009-10	2010-11	2011-12
		\$m	\$m	\$m (est)	\$m (est)	\$m (est)	\$m (est)
NT Department of Natural Resources, Environment, the Arts & Sport (NRETAS)							
\$5 million package of incentives under the proposed climate change strategy	A range of climate change initiatives for businesses and households, under the climate change strategy are being developed in 2009. Initiatives include: Energy Smart Building Policy for the NT Government; energy efficiency hardware rebate; energy efficiency solar hot water rebate (retrofit) scheme; Ecobiz NT (business energy efficiency program), and Energy Smart Schools Program.	5.0	-	2.0	2.0	1.0	-
Continued funding of COOLmob community initiative	COOLmob are community based groups in Darwin and Alice Springs, established to reduce greenhouse gas emissions through improved home energy efficiency and reduced car usage as well as reduced water consumption and waste going to landfill. Staff and volunteers conduct energy audits on households, and information campaigns.	0.4	0.1	0.1	0.1	0.1	-
Environment Grants	Grants available to individuals, community groups, local government and industry associations for environmental projects and education activities in the Territory.	2.3	0.5	0.6	0.6	0.6	-
NT Department of Planning & Infrastructure							
Public bus network expansion	More bus services and free bus travel for seniors and youth to meet the growing transport needs of Darwin, Palmerston and the Rural Area. Aimed at increasing the number of people using public transport to reduce pollution and greenhouse gas emissions.	7.2	-	1.8	1.8	1.8	1.8
School Energy Blitz	Assisting with the costs of building improvements which will lower electricity consumption, reduce GHG emissions and save energy costs.	0.04	0.04	-	-	-	-

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Table C.8 Northern Territory Government quantifiable carbon emission reduction measures (continued)

Program name	Program description and/or stated objectives	Funding					
		2007-08 to 2011-12 \$m	2007-08 \$m	2008-09 \$m (est)	2009-10 \$m (est)	2010-11 \$m (est)	2011-12 \$m (est)
NT Department of Regional Development, Primary Industry, Fisheries and Resources							
Solar Cities renewable energy program	This is a joint program between the Commonwealth, the Northern Territory Government and other partners. The funding recorded here represents the Northern Territory Government's contribution to the Alice Springs Solar City, which is one of five solar cities in Australia. The Australian Government's Solar Cities Program is designed to demonstrate how solar power, smart meters, energy efficiency and new approaches to electricity pricing can combine to provide a sustainable energy future in urban locations. Includes support for a feed-in tariff for generators with small photovoltaic systems (up to 2 kW) supplying to the grid, for all electricity supplied (gross supply) at a rate of 45.76 cents per kWh, capped at \$5 per day.	2.3	0.5	1.9	0.4	0.3	0.2
NT Department of the Chief Minister							
Climate change website	Maintain a whole of government climate change website to give the community access to the climate change information relevant to the NT. Similar focus to the Australian Government 'One Stop Green Shop' web portal for climate change activities and programs.	0.02	-	0.02	-	-	-
Tourism NT							
'Make the Switch' grants program	Provides grants to tourism operations, not connected to the NT electricity grid, to assist with the costs associated with replacing fossil fuel generations with renewable energy technology.	0.5	0.2	0.1	-	-	-
Outback Offsets	Pilot program which aims for the operations of participating tour companies to be carbon neutral for 2008-09, with Tourism NT purchasing 5000 tonnes of carbon credits as part of the pilot, to test the importance of providing a carbon offset facility for travellers.	0.2	-	0.2	-	-	-

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Table C.8 Northern Territory Government quantifiable carbon emission reduction measures (continued)

<i>Program name</i>	<i>Program description and/or stated objectives</i>	<i>Funding</i>					
		<i>2007-08 to 2011-12</i>	<i>2007-08</i>	<i>2008-09</i>	<i>2009-10</i>	<i>2010-11</i>	<i>2011-12</i>
		<i>\$m</i>	<i>\$m</i>	<i>\$m (est)</i>	<i>\$m (est)</i>	<i>\$m (est)</i>	<i>\$m (est)</i>
Tourism Electricity Support Program (TESP)	The TESP provides grants to qualifying applicants to fund electricity infrastructure outside the Territory's major regional centres. Priority is placed on applications that incorporate renewable energy generation systems or other energy efficiency initiatives.	0.2	-	0.2	-	-	-

Table C.9 ACT Government quantifiable carbon emission reduction measures

Program name	Program description and/or stated objectives	Funding					
		2007-08 to 2011-12	2007-08	2008-09	2009-10	2010-11	2011-12
		\$m	\$m	\$m (est)	\$m (est)	\$m (est)	\$m (est)
ACT Department of Disability, Housing and Community Services							
Energy efficiency improvements in public housing	A \$20 million initiative over 10 years, including improvements such as wall insulation, draught sealers and more efficient heating.	10.0	1.0	2.3	2.3	2.3	2.0
ACT Department of Education & Training							
Greens Schools Initiatives	\$20 m will be invested over 10 years to assist government and non-government schools to become carbon neutral by 2017, through the development of emissions reduction and energy efficiency initiatives.	1.6	-	0.4	0.4	0.4	0.4
ACT Department of Territory and Municipal Services							
CNG Bus Fleet replacement	Progressive change-over of the ACTION bus fleet to CNG.	8.0	5.0	3.0	-	-	-
Energy efficient street light replacement	Replacement of public street lights with more efficient lamps.	3.0	-	3.0	-	-	-
Free bus travel for bicycle riders using on-bus bike racks	Free bus travel for bicycle riders using on-bus bike racks.	0.01	0.01	-	-	-	-
One Million Trees initiative	Aims to plant one million new trees over ten years as part of the ACT Climate Change Strategy.	3.3	-	0.6	1.1	0.8	0.8
ACT Department of the Environment, Climate Change, Energy and Water							
ACT Energy Efficiency Fund	\$1m energy efficiency loan fund accessible to ACT government agencies for the purposes of identifying and implementing energy savings and greenhouse gas reduction initiatives: loans range from \$20,000 to \$150,000, repayable within 3 years.	1.0	1.0	-	-	-	-

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Table C.9 ACT Government quantifiable carbon emission reduction measures

Program name	Program description and/or stated objectives	Funding					
		2007-08 to 2011-12 \$m	2007-08 \$m	2008-09 \$m (est)	2009-10 \$m (est)	2010-11 \$m (est)	2011-12 \$m (est)
ACT Energy Wise Program	For houses and semi-detached houses built before 1996, homeowners who spend at least \$2,000 on energy efficient improvements, identified during an audit by the ACT Government's Home Energy Advice Team, will be eligible to receive a \$500 rebate plus a refund of the \$30 audit fee.	0.9	0.4	0.4	-	-	-
Grant Program for Community Groups	\$1 million fund to enable grants to be made to community and not-for-profit groups to assess and improve the energy performance of buildings and to promote energy efficiency to their stakeholders.	1.0	0.3	0.7	-	-	-

Table C.10 Australian Government non-quantifiable carbon emission reduction measures

<i>Program name</i>	<i>Program description and/or stated objectives</i>	<i>Type of measure</i>	<i>Start year</i>	<i>End year</i>
Department of Climate Change				
Climate Change Action Fund: Additional coal sector adjustment assistance	Provision of \$300 million over the period 2013-14 to 2014-15 for industry adjustment	Budgetary outlay	2013	2015
Greenhouse Friendly Program	Labelling of products and services as carbon neutral if their 'cradle-to-grave' GHG emissions are fully offset by approved abatement which itself must be approved under the program as being additional, permanent and verifiable. Current abatement projects will continue until the conclusion of their deeds or 1 July 2010, whichever occurs first.	Information provision	2001	2010
Mandatory GHG emissions and energy use reporting	The National Greenhouse and Energy Reporting Act 2007 introduces a national mandatory reporting system for corporations that meet specified thresholds to report greenhouse gas emissions and energy consumption and production from 1 July 2008. Introducing a single national reporting system ensures the collection of consistent and comparable data to inform government policy formulation and the Australian public. The system underpins the development and operation of a Carbon Pollution Reduction Scheme and also provides the basis for ongoing work with Commonwealth, State and Territory Government programs to better streamline reporting obligations and reduce the reporting burden placed on Australian business.	Regulation	2008	
Mandatory Renewable Energy Target	To encourage the deployment of renewable energy technologies, legal liability is imposed on wholesale purchasers of electricity (retailers and large users) to contribute proportionately towards annual targets, to achieve a target of 9,500 gigawatt hours (GWh) by 2010 and remain at that level until 2020. The scheme also regulates the market for tradeable Renewable Energy Certificates, equivalent to one megawatt hour (MWh) of renewable energy. (See proposed Renewable Energy Target under COAG)	Regulation	2001	2020
Renewable Energy Target	An expanded, renewable energy target scheme, which is intended to amalgamate the MRET (see Department of Climate Change) and existing and proposed state and territory government targets into a single national Renewable Energy Target (RET) scheme. The proposed scheme is to include a legislated target of 45,000 GWh of renewable energy in Australia's electricity supply by 2020, to be achieved through interim targets. The scheme is intended to operate as a transitional measure in the context of the Carbon Pollution Reduction Scheme phasing out by 2030.	Regulation	2010	2030

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Table C.10 Australian Government non-quantifiable carbon emission reduction measures (continued)

<i>Program name</i>	<i>Program description and/or stated objectives</i>	<i>Type of measure</i>	<i>Start year</i>	<i>End year</i>
Department of Environment, Water, Heritage & the Arts				
Amended fuel quality standards	Under the Fuel Quality Standards Act 2000, a cap of 10% by volume of ethanol, for ethanol petrol blends, was introduced on 1 July 2003.	Regulation	2003	
Global Warming Cool It (brochure)	A home guide to reducing energy costs and greenhouse gases: provides information on heating and cooling, appliances and equipment, electricity use, lighting and energy saving tips. (Brochure to be updated.)	Information provision		
Greenhouse Challenge/Challenge Plus - Industry Partnerships	The Greenhouse Challenge Plus program is a partnership between industry and the Australian Government to: reduce greenhouse gas emissions (including promotion of awareness of greenhouse gas abatement opportunities in industry); accelerate the uptake of energy efficiency; integrate greenhouse issues into business decision-making and provide more consistent reporting of greenhouse gas emissions levels. A mandatory element of GCP is under the Fuel Tax Act (2006), companies that receive more than \$3 million in fuel tax credits are required to join the GCP program.	Regulation	2006	2009
Online Portal	Establishment of a government portal to link schools, businesses and families to all Commonwealth, State and local government household energy, water and other resource efficiency programs.	Information provision	2008	2011
Phase out of energy-inefficient light bulbs	Phase out of inefficient incandescent globes over 4 years, accelerated by publishing standards in March 2008 and bringing forward to February 2009 a ban on imported inefficient incandescent general lighting service (GLS) lamps. The phase out will be implemented by adopting MEPS for lighting products with a staged approach to implementation of point of sale restrictions planned to commence from November 2009.	Regulation		
Phase out of inefficient hot water systems ^a	Development of nationally-consistent greenhouse performance standards for domestic hot water products to meet new performance requirements and introduce check testing for hot water products to ensure suppliers are providing products that meet the new performance requirements.	Regulation		
Windows Energy Rating Scheme (WERS)	Since 2001, a system of energy performance labelling for window products, developed by the window and glazing industry and supported by the Australian Government.	Information provision	2001	
Your Development	A joint initiative of the Australian Government and developed in partnership with CSIRO and urban planners around Australia. Your Development is a dynamic website providing information on sustainable urban development, including fact sheets and case studies.	Information provision	2008	

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Table C.10 Australian Government non-quantifiable carbon emission reduction measures (continued)

<i>Program name</i>	<i>Program description and/or stated objectives</i>	<i>Type of measure</i>	<i>Start year</i>	<i>End year</i>
Your Home resources for environmentally sustainable housing	A joint initiative of the Australian Government and the design and construction industries. Your Home is a suite of consumer and technical guide materials and tools developed to encourage the design, construction or renovation of homes to be comfortable, healthy and more environmentally sustainable.	Information provision	2001	
Department of Infrastructure, Transport, Regional Development & Local Government				
Expansion and revision of Vehicle Fuel Consumption Labelling Standard	Vehicle labelling requirement commenced in January 2001. Since January 2004, expanded requirements for vehicle fuel consumption labelling including requirement to label carbon dioxide emissions as well as fuel consumption, to include all new vehicles up to 3.5 tonnes gross vehicle mass; and to use fuel consumption and carbon emissions figures from a UN test procedure. From April 2009, revised label will improve level of information to consumers by providing a breakdown of test results reflecting both urban and non-urban driving conditions.	Regulation	2001	
Green Vehicle Guide	An internet based searchable database providing information and environmental performance ratings (air pollution and GHG emissions data) for all new road vehicles sold in Australia since 2004 weighing 3.5 tonnes gross vehicle mass or less.	Information provision	2004	
Department of Resources, Energy & Tourism				
Energy Efficiency Exchange website	Website to provide best practice energy efficiency information for industry (delivered through the Commonwealth-State jointly funded National Framework for Energy Efficiency).	Information provision	2004	2011
Energy Efficiency Opportunities Programme	The Energy Efficiency Opportunities Act 2006 (Cwth) mandates energy efficiency opportunities assessments and public reporting of outcomes by large energy using businesses, with the aim of increased take-up of energy efficiency measures that are privately cost-effective.	Regulation	2006	2009

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Table C.10 Australian Government non-quantifiable carbon emission reduction measures (continued)

<i>Program name</i>	<i>Program description and/or stated objectives</i>	<i>Type of measure</i>	<i>Start year</i>	<i>End year</i>
Department of Treasury				
Cleaner Fuels Grants Scheme	The Energy Grants (Cleaner Fuels) Scheme Act 2004 established the cleaner fuels grants scheme for importers and manufacturers of cleaner fuels, these being renewable fuels such as biodiesel and renewable diesel, and low sulphur conventional fuels, ensuring that the excise tax for biofuels is zero until 1 July 2011. The Scheme will also progressively introduce fuel tax to alternative fuels from 1 July 2011 to 30 June 2015.	Budgetary outlay	2003	2015
Energy Grants Credits Scheme	Fuel grant for businesses using alternative fuels for road transport, including biodiesel, ethanol, liquefied petroleum gas (LPG), liquefied natural gas (LNG) and compressed natural gas (CNG). Rates depend on fuel type, and are gradually being reduced to zero by 1 July 2010.	Budgetary outlay	2003	2010

a No funding allocated against this program as it is being absorbed within a another program.

Table C.11 New South Wales Government non-quantifiable carbon emission reduction measures

<i>Program name</i>	<i>Program description and/or stated objectives</i>	<i>Type of measure</i>	<i>Start year</i>	<i>End year</i>
NSW Department of Commerce				
Cleaner NSW Government Fleet Program	Efficiency targets for Government Fleets. Cars with V8 engines no longer available for purchase through Government Contract. Encourages the use of smaller, cleaner and less polluting vehicles. This program has objectives of industry development and the demonstration of good practice.	Procurement	2005	
NSW Department of Environment & Climate Change				
Carbon Neutral NSW Government	In May 2008, the NSW Government announced that it will become 'carbon neutral' by 2020. The operations of the NSW Cabinet are to become carbon neutral from mid-2009. This program aims to demonstrate good practice.	Procurement		
Energy Efficiency Community Awareness Program	Community awareness program which will provide practical advice on how to save energy at home and work. The program aims to demonstrate good practice and stimulate green industry development.	Information provision	2009	2011
Mandating energy savings measures (Energy Savings Action Plans)	For high energy users, cost-effective energy savings measures to be implemented by the end of 2010. The program aims to increase the implementation of energy savings measures, increase energy efficiency and remove barriers to the uptake of cost effective investment in energy efficiency technologies.	Regulation		2010
NSW Energy Savings Scheme (ESS)	New energy efficiency targets will be imposed on NSW electricity retailers, in relation to energy used in the residential, commercial and industrial sectors; with demand-side abatement activities under the GGAS to be eligible to create the new class of abatement certificates that represent GHG savings from reduced consumption of electricity, with the exception of activities relating to the reduction of emissions from on-site generation (embedded generation and cogeneration), as this will be covered by the CPRS. The Scheme will continue until 2020 or until a national energy efficiency trading scheme is in place, and will be subject to five yearly reviews. The scheme aims to create financial incentives to overcome market failures and barriers to energy efficiency activities so as to help reduce electricity use and costs, complement the CPRS and reduce the cost of, or need for, additional electricity infrastructure. This program aims to promote industry development.	Regulation	2009	2020

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Table C.11 New South Wales Government non-quantifiable carbon emission reduction measures (continued)

<i>Program name</i>	<i>Program description and/or stated objectives</i>	<i>Type of measure</i>	<i>Start year</i>	<i>End year</i>
NSW Government Sustainability Policy	In May 2008, the policy announced targets and strategies for NSW Government budget-dependent agencies including on reducing GHG emissions from energy, waste and fleet management, and sustainable purchasing; includes a state-wide target for NSW Government agencies to reduce GHG emissions from building energy use to 2000 levels by 2019-20 (using interim targets); plus compliance with the Cleaner NSW Government Fleet Policy. This program aims to reduce greenhouse gases and demonstrate good practice.	Procurement	2008	2020
Public sector energy savings	Target for reduced emissions from energy use in government-owned or tenanted buildings to 2000 levels by 2019-20. The program aims to demonstrate good practice.	Procurement		
NSW Department of Lands				
Mandatory proportion of ethanol in total petrol volume sold	Under the Biofuel (Ethanol Content) Act 2007, primary wholesalers of petrol are required to ensure that ethanol sales (in petrol-ethanol blends) comprise no less than 2 per cent of the total volume of petrol they sell (including petrol-ethanol blends). Among other things, the program aims to improve air quality. This program aims to promote industry development.	Regulation	2007	
NSW Department of Planning				
Building Sustainability Index (BASIX)	Requirement for all residential developments with a total estimated cost of works of \$50,000 or more to comply with energy and water reduction targets. Uses an online program to assess building applications. This program aims to promote industry development.	Regulation	2004	
NSW Department of Water & Energy				
Energy efficiency licence conditions on gas suppliers	Under the Gas Supply Act 1996, gas suppliers distributing more than 100 terajoules of natural gas a year are required to prepare a three-year plan to promote the adoption of thermally efficient gas appliances and efficient energy-use practices, plus preparing and publishing an annual report on implementation of the plan. This program aims to promote industry development.	Regulation	2004	

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Table C.11 New South Wales Government non-quantifiable carbon emission reduction measures (continued)

<i>Program name</i>	<i>Program description and/or stated objectives</i>	<i>Type of measure</i>	<i>Start year</i>	<i>End year</i>
Greenhouse Gas Reduction Scheme (GGAS)	Mandatory benchmarks for electricity retailers for GHG reduction, based on their market share; to reduce emissions and to develop and encourage activities to offset the production of emissions. GGAS is expected to end on the commencement of the Carbon Pollution Reduction Scheme.	Regulation	2003	2010
Renewable energy requirement as licence conditions on electricity suppliers	Under the Electricity Supply (General) Regulation 2001, all electricity suppliers that supply or offer to supply electricity to residential premises are required, as a condition of licence, to make an offer to each potential new or moving customer that the equivalent of a minimum of 10 per cent of their electricity will be obtained from accredited renewable energy sources. The conditions aim to encourage household support for renewable energy. This program aims to promote industry development.	Regulation	2006	

Table C.12 Victorian Government non-quantifiable carbon emission reduction measures

<i>Program name</i>	<i>Program description and/or stated objectives</i>	<i>Type of measure</i>	<i>Start year</i>	<i>End year</i>
Sustainability Victoria				
ResourceSmart Buildings - Commercial	A program aimed at improving the environmental performance of commercial buildings.	Budgetary outlay	2006	
ResourceSmart Business Program	Provides information and financial support to SMEs for projects that reduce carbon emissions.	Budgetary outlay	2002	
Trades and Professional Training	Develops training and accreditation systems for tradespeople and professionals to overcome knowledge gap in sustainability skills.	Budgetary outlay	2005	
Vic Department of Human Services				
Sustainability in Healthcare Capital Works	Part of capital works budget for 'lead' and 'demonstration' Ecologically Sustainable Development (ESD) initiatives.	Budgetary outlay	2004	
Vic Department of Innovation, Industry & Regional Development				
Clean Technology Industry Capability Mission	Building on MOU (2007), encouraging collaboration between Victoria and California to encourage the development of clean and renewable energy technologies	Information provision	2009	
Vic Department of Planning & Community Development				
Victorian planning provisions	Planning provisions to manage land use, including renewable energy sites etc.	Regulation	2002	
Vic Department of Primary Industries				
Energy Technology Innovation Strategy (ETIS) – Brown Coal Research and Development, Large Scale Demonstration Projects and Renewables	\$370 million in funding has been committed to facilitating investment in sustainable energy supply sources and low emission technology to support Victoria's industrial competitiveness.	Budgetary outlay	2004	
Greenhouse in Agriculture	Research and development work to reduce GHG from agricultural processes	Budgetary outlay		
Premium feed-in tariffs	Payments to households that provide excess energy, from small-scale photovoltaic systems, back into the electricity grid.	Regulation	2009	2024

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Table C.12 Victorian Government non-quantifiable carbon emission reduction measures (continued)

<i>Program name</i>	<i>Program description and/or stated objectives</i>	<i>Type of measure</i>	<i>Start year</i>	<i>End year</i>
Victorian Energy Efficiency Target Scheme	From 2009, creates a legal liability for energy retailers (both electricity and gas) to meet a share of an annual carbon emissions reduction target, based on their proportional share of the markets, by providing households with energy saving products and services at little or no cost: to continue to 2029, or end earlier if the national ETS delivers lower cost GHG abatement.	Regulation	2009	2029
Victorian Renewable Energy Target (VRET)	Electricity retailers and wholesale purchasers of electricity are required to contribute towards the generation of additional renewable energy by acquiring Victorian renewable energy certificates. It is proposed that in 2010 VRET will be incorporated into the Commonwealth Government's expanded Renewable Energy Target.	Regulation	2009	2030
<i>Vic Department of Sustainability & Environment</i>				
BushBroker	Aimed at providing a market for environmental services.	Information provision		
BushTender	Aimed at providing a market for environmental services.	Procurement		
EcoMarkets	Aimed at providing a market for environmental services.	Procurement		
Government Sustainable Energy Targets	Reduce by 2010 energy use in Government buildings by a further five per cent to 20 per cent of 1999/2000 levels and increase use of Green Power to 25 per cent.	Procurement		
Greenhouse Regional Partnership Program	The regional partnerships provide a means for local organisations to work together on reducing greenhouse emissions while at the same time building stronger links with relevant local and State government programs.	Budgetary outlay	2003	
Victorian Advanced Resource Recovery Initiative (VARRI)	A \$10 million partnership between government and industry to explore high technology waste recovery infrastructure.	Budgetary outlay		
Victorian Government Fleet Offsets Purchase	Carbon offsets purchased to offset the emissions of the government fleet. Encouraging the development of a market for carbon offsets in Victoria.	Procurement	2002	
<i>Vic Department of Sustainability & Environment / Vic Environment Protection Authority</i>				
Carbon Innovators Network	Aims to stimulate debate and innovation in carbon management and provide the support and tools businesses require to develop appropriate carbon management strategies.	Information provision	2006	
Carbon Management Information and Tools	Provides information to businesses (among others) to develop GHG emission strategies to reduce emissions (through energy efficiency and new technology)	Information provision	2006	

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Table C.12 Victorian Government non-quantifiable carbon emission reduction measures (continued)

<i>Program name</i>	<i>Program description and/or stated objectives</i>	<i>Type of measure</i>	<i>Start year</i>	<i>End year</i>
<i>Vic Department of Transport</i>				
Hybrid Taxi and Hire Car Fleet Trial	Lower taxi and hire car licence fees to encourage uptake of hybrid cars	Regulation	2008	
<i>Vic Environment Protection Authority</i>				
Environment and Resource Efficiency Plans	Under the Environment Protection (Environment and Resource Efficiency Plans) Regulations 2007, commercial and industrial sites using more than 100 terajoules of energy/or 120 megalitres of water per year are required to prepare and implement a plan that identifies actions with a 3 year or less payback period to reduce energy and water use, and waste generation.	Regulation	2008	
<i>Vic Urban</i>				
AURORA	A 6-Star energy rated community developed to demonstrate best practice, affordable living.	Information provision	2006	
Sustainable Community Rating	A tool for developers to use to raise the standard of planning of residential estates - to reduce building/operating environmental impacts.	Information provision		

Table C.13 Queensland Government non-quantifiable carbon emission reduction measures

<i>Program name</i>	<i>Program description and/or stated objectives</i>	<i>Type of measure</i>	<i>Start year</i>	<i>End year</i>
Qld Department of Employment, Economic Development and Innovation				
Alternative Fuels Policy	The policy seeks to provide a framework for strategies which will encourage the continued development of alternative fuels.	Regulation	2008	2013
Queensland Gas Scheme	Requirement on electricity retailers to source a minimum percentage of their electricity from eligible gas-fired electricity provided above a baseline production amount: the % to increase from 13% in 2008 and 2009, to 15% in 2010 and not more than 18% for any year after 2010.	Regulation	2005	2020
Qld Department of Environment and Resource Management				
Queensland Solar Homes Program	Providing cheaper solar power systems for 1000 households. The measure also underwrites the program to a maximum of \$10 million.	Procurement	2008	2009
Vegetation Management Act 1999	To regulate vegetation clearing in a way that conserves vegetation, prevents biodiversity loss and reduces greenhouse gas emissions.	Regulation		
Qld Department of Infrastructure & Planning				
4-star commercial buildings	New commercial buildings required to achieve 4-star energy equivalence rating.	Regulation	2010	
5-star housing ^a	New houses and townhouses required to achieve 5-star energy equivalence.	Regulation	2009	
5-star units ^a	New units required to achieve 5-star energy equivalence.	Regulation	2010	
Energy efficiency in Residential Covenants and Body Corporate ^a	Prevention of residential estate covenants and body corporates that restrict the use of energy efficient design features and fixtures e.g. roof-mounted solar hot water systems.	Regulation		
Energy Efficient Air Conditioners ^a	Hard-wired air-conditioners installed or replaced in houses and units need to have an Energy Efficiency Ratio (EER) of at least 2.9 (equivalent to a current 4-star energy rated system).	Regulation	2009	
Energy Efficient Lighting ^a	New houses and units must have energy efficient lighting to 80% of total fixed internal lights.	Regulation	2009	
Greenhouse-efficient Hot Water Systems ^a	New houses (not units) are required to install a greenhouse-efficient option-gas, solar or heat pump.	Regulation	2006	

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Table C.13 Queensland Government non-quantifiable carbon emission reduction measures (continued)

<i>Program name</i>	<i>Program description and/or stated objectives</i>	<i>Type of measure</i>	<i>Start year</i>	<i>End year</i>
Phase-out of electric storage hot water systems ^a	Phase-out electric hot water systems from existing houses (not units) in gas reticulated areas with a greenhouse-efficient option-gas, solar or heat pump (ClimateSmart 2050).	Regulation	2010	
Recognition of outdoor living areas in Queensland's building standards ^a	New houses and townhouses (Class 1 buildings) in BCA climate zones 1 and 2 can gain optional credit of up to 1 star towards their 5-star energy equivalence requirement by including a veranda, deck, etc.	Regulation	2009	
Sustainability Declaration ^a	When selling a house or unit a sustainability declaration must be provided informing prospective buyers of the sustainability features of the dwelling.	Regulation	2010	
Qld Department of Public Works				
Carbon Reduction Strategy for Government Office Buildings	By 2020, government-owned office buildings required to achieve 'carbon neutral' status (zero net greenhouse gas emissions). This will be achieved through: i) energy savings eg. mandating minimum air-conditioning temperatures; ii) sourcing renewable energy; and iii) purchasing carbon offsets. Also, all new and major refurbished office buildings to have at least a 4.5 star energy rating.	Procurement	2008	2020
Offset government domestic and international air travel and hire vehicles	A purchasing framework that ensures carbon offsets are purchased to negate the GHG emissions associated with air travel and vehicle hire by government departments.	Procurement	2007	ongoing
QFleet ClimateSmart Action Plan 2007-2010	Minimum CO2 emissions standards for QFleet vehicles, based on Green Vehicle Guide (GVG) Greenhouse Ratings (5.5 for Passenger vehicles and 3.5 for all Light Commercial vehicles), unless approved by the agency CEO.	Procurement	2008	2010
Strategic Energy Efficiency Policy for Government Buildings	Requirement for each department to develop and implement a Strategic Energy Management Plan for its building portfolio and achieve energy reduction targets of 5% by 2010 and 20% by 2015.	Procurement	2008	2015
Qld Office of Clean Energy				
Solar Bonus Scheme (feed-in tariff)	The Queensland Government Solar Bonus Scheme pays households and other small customers 44 cents per kWh (net metered) for surplus electricity generated from roof-top solar photovoltaic panel systems that is fed into the Queensland electricity grid.	Regulation	2008	

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Table C.13 Queensland Government non-quantifiable carbon emission reduction measures (continued)

<i>Program name</i>	<i>Program description and/or stated objectives</i>	<i>Type of measure</i>	<i>Start year</i>	<i>End year</i>
Qld Office of Climate Change				
Queensland Climate Change Fund	Part of the ClimateSmart 2050 initiative. \$430 million fund. Interest earned on the fund provides an ongoing funding source of \$30 million each year for climate change initiatives (including some of those listed herein).	Budgetary outlay		
Qld Office of State Revenue				
Reduced motor vehicle transfer duty for smaller vehicles	From 1 January 2008, graduated scale for motor vehicle transfer duty based on the number of cylinders.	Tax concession	2008	

a Program funding is allocated on a yearly/mid year review basis, i.e. budget submissions.

Table C.14 Western Australian Government non-quantifiable carbon emission reduction measures

<i>Program name</i>	<i>Program description and/or stated objectives</i>	<i>Type of measure</i>	<i>Start year</i>	<i>End year</i>
WA State Fleet Greening the WA government fleet	Program involves replacement of six-cylinder vehicles with four-cylinder alternatives, requirement that a proportion of six-cylinder vehicles be LPG-powered and a set of environmental programs including revegetation and tree planting to offset the carbon emissions of the vehicle fleet.	Procurement	2007	

Table C.15 South Australian Government non-quantifiable carbon emission reduction measures

<i>Program name</i>	<i>Program description and/or stated objectives</i>	<i>Type of measure</i>	<i>Start year</i>	<i>End year</i>
SA Department for Transport, Energy & Infrastructure				
Government building leasing preferences	Since July 2006, preference in leasing to office accommodation that achieves a 5-star Australian building greenhouse energy rating.	Procurement	2006	
Performance Standards for Domestic Water Heater Installation	From 1 July 2008, water heaters installed in new or established dwellings need to meet performance standards that increase the proportion of low emissions/high efficiency water heaters and water efficient showerheads.	Regulation	2008	
Residential Energy Efficiency Scheme	The scheme requires electricity and gas providers to deliver energy audits and energy efficiency measures to households, such as ceiling insulation, draught proofing and more efficient appliances, with a certain proportion of measures delivered to low-income households. Aims to improve residential sector energy efficiency and lower energy costs for households, particularly low income households, assist households to get prepared for the CPRS, and to support industry development.	Regulation	2009	
SA Department of Further Education, Employment, Science & Technology				
Community awareness and behaviour change program	Awareness program aimed to encourage individuals, households and the community to reduce their GHG emissions. Includes a 'black balloons' media campaign.	Information provision	2008	2009
SA Department of Premier & Cabinet				
Solar feed-in tariff	A subsidy of 44 cents per kWh (net metered) for electricity generated by the solar photovoltaic system (up to 10 kW capacity) of households and small customers (less than 160 MWh per annum) that are fed back into the state electricity grid. The premium tariff arrangements will apply until 2028.	Regulation	2008	2028
SA not elsewhere classified				
Alternative fuel requirement for State Government fleet	Requirement that half of South Australia's government fleet be alternatively fuelled by 2010.	Procurement		

Table C.16 Tasmanian Government non-quantifiable carbon emission reduction measures

<i>Program name</i>	<i>Program description and/or stated objectives</i>	<i>Type of measure</i>	<i>Start year</i>	<i>End year</i>
Hobart City Council				
Hobart City Solar and Heat Pump Hot Water Rebate Scheme	Offers Hobart ratepayers a \$500 incentive to install a solar or heat pump hot water system into their homes. Scheme began July 2007 and will continue until December 2011	Budgetary outlay	2007	2011
Tas Climate Change Office				
Procurement requirements on Government purchases and projects	The impact of climate change to be included in the evaluation criteria for all major purchases of goods and services and to be taken into consideration in the selection of goods and services for all minor purchases of relevant goods and services, also to be taken into account in the planning design, specification, construction, operation and ongoing maintenance of all relevant major building and construction/roads and bridges projects; and the evaluation criteria for the selection of consultants and contractors to also include commitment to and capacity to deliver effective climate change outcomes.	Procurement	2008	2012
Tas Department of Treasury & Finance				
Government Vehicle Emission Policy	Mandating of GHG emissions of all fleet vehicles.	Procurement	2008	2012
Tas not elsewhere classified				
Carbon neutral government vehicle fleet	From March 2008, all new Tasmanian Government vehicles will have to meet minimum Green Star ratings. Government will also increase the number of hybrid and alternative fuel vehicles in the Government fleet.	Procurement	2008	2012
Tasmanian Government air travel fully carbon offset	From March 2008 a proportion of all Tasmanian Government air travel will be invested towards a biodiverse carbon sequestration research project in Tasmania.	Procurement	2008	2012

Table C.17 Northern Territory Government non-quantifiable carbon emission reduction measures

<i>Program name</i>	<i>Program description and/or stated objectives</i>	<i>Type of measure</i>	<i>Start year</i>	<i>End year</i>
<i>NT Department of Business and Employment</i>				
Green Fleet Plan	Aimed at reducing GHGs produced by the Government's light commercial and passenger vehicle fleet - a 20% reduction target over five years has been set. Working with agencies to acquire a more environmentally friendly fleet.	Procurement	2008	
<i>NT Department of Natural Resources, Environment, the Arts & Sport</i>				
Carbon accounting and land research	The NRETAS Division of Environment, Heritage and the Arts supports a 3-year CDU research proposal on greenhouse gas emissions and land use in the NT, which has successfully gained an Australian Research Council Linkage Grant. Other related research proposals are being considered.	Budgetary outlay	2006	2011
<i>NT Department of Planning & Infrastructure</i>				
Target reductions in Government energy use	Target reduction of 10% by 2011 in NT Government department's building portfolio energy use, applying to all departments and government business divisions with more than fifty full-time employees; covering each department's total owned and leased building portfolio; involving audits for all medium to large government buildings, monitoring and annual reporting.	Procurement		

Table C.18 ACT Government non-quantifiable carbon emission reduction measures

<i>Program name</i>	<i>Program description and/or stated objectives</i>	<i>Type of measure</i>	<i>Start year</i>	<i>End year</i>
ACT Department of Territory & Municipal Services				
Stamp duty concessions for low emissions vehicles	From 3 September 2008, stamp duty on fuel-efficient vehicles has been cut: all new light vehicles will have a Green Vehicle Rating on which duty rates will be based, with a lesser rate of stamp duty for vehicles with better environmental performance based on carbon emissions and air pollution ratings.	Tax concession	2008	
ACT Department of the Environment, Climate Change, Energy and Water				
ACT Greenhouse Gas Abatement Scheme	Mirrors the NSW Greenhouse Gas Abatement Scheme. The NSW and ACT schemes are, in many respects, operated as a single scheme. Under this arrangement, the NSW Independent Pricing and Regulatory Tribunal administers the overall scheme and accredits abatement projects, while the ACT Independent Competition and Regulatory Commission is the regulator of the Scheme in the ACT.	Regulation	2005	2020
Feed-in tariff	Under the Electricity Feed-in (Renewable Energy Premium) Act 2008, generators of electricity using solar and other renewable energy sources (of up to 30 kW installation capacity) are paid 50.05 cents per kWh (gross metered) for systems up to 10kW, and 40.04 cents per kWh for systems between 10kW and 30kW. The premium rate of 50.05 cents per kWh is set at 3.88 times the most common price paid by the ACT electricity users. Access to the premium rate is to apply for a period of 20 years after connection to the grid.	Regulation		2009
Offer of GreenPower to all new electricity customers	Requirement on electricity suppliers that GreenPower be offered to all new electricity customers.	Regulation	2009	
Requirement for fuel sales data to be provided by service stations	To improve the accuracy of data on emissions from transport fuels.	Regulation	2008	
Showcase renewable and energy efficient technologies	Showcase low-emissions or renewable energy technologies as an example of how individuals, property owners and businesses can adapt older buildings to reduce their energy impacts or incorporate energy efficient design in new buildings.	Information provision		
Support for sustainable schools	Development of a curriculum package and Best Practice Guide to support schools to integrate sustainability into the school curriculum.	Information provision	2007	
Switch Your Thinking (water, energy and waste programs)	Extends and expands existing sustainability programs relating to water, energy and waste, and streamlines these into a one-stop-shop delivery vehicle. Aimed at encouraging the ACT community to reduce water usage, energy consumption and waste production.	Information provision	2008	

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Table C.18 ACT Government non-quantifiable carbon emission reduction measures (continued)

<i>Program name</i>	<i>Program description and/or stated objectives</i>	<i>Type of measure</i>	<i>Start year</i>	<i>End year</i>
ACT Planning and Land Authority				
Disclosure of NatHERS rating on existing houses	Disclosure of rating under the ACT House Energy Rating Scheme during the sale or lease of a house	Regulation		

Table C.19 Inter-governmental non-quantifiable carbon emission reduction measures

<i>Program name</i>	<i>Program description and/or stated objectives</i>	<i>Type of measure</i>	<i>Start year</i>	<i>End year</i>
Department of Environment, Water, Heritage & the Arts (Secretariat)				
Nationwide House Energy Rating Scheme (NatHERS) - assessor and software accreditation	Nationwide House Energy Rating Scheme (NatHERS) sets national standards for professionals offering assessment services as well as the software they use and the minimum set of information required.	Regulation		
Ministerial Council on Energy				
Mandatory energy efficiency labelling	Prescribes labelling of comparative energy consumption for air-conditioners, dishwashers, clothes washers and dryers, and refrigerators and freezers.	Regulation	1999	
Minimum Energy Performance Standards (MEPS)	Prescribes minimum energy use standards for specific types of major energy-using devices in the residential, commercial and industrial sector.	Regulation	2001	
Performance standards for buildings (Building Code of Australia)	On 1 January 2003, the ABCB introduced energy efficiency standards into volume two of the Building Code, covering new houses and additions to existing houses. From May 2006, energy efficiency provisions for detached and semi-detached dwellings increased to a nominal 5 star rating under the Nation-wide House Energy Rating Scheme (NatHERS).	Regulation	2003	
NSW Department of Environment & Climate Change (Secretariat)				
National Australian Built Environment Rating System (NABERS)	NABERS is a performance-based rating system which rates a building on the basis of its measured operational impacts on the environment. NABERS is a national initiative managed by the NSW government.	Information provision		
NSW Department of Water & Energy				
GreenPower Accreditation Program	National accreditation program for products offered by energy providers, setting environmental and reporting standards	Regulation	1997	
WA Office of Energy				
Mandatory Energy Efficiency Program	Under the Climate Change Action Statement, mandatory energy efficiency program that requires large and medium energy users to invest in cost-effective energy efficiency measures. Being progressed through MCE.	Regulation		