



# Coordination and Reporting of Australia's Climate Change Measures

[Home](#) > [Publications](#) > [Audit Reports](#) > 2009/2010

## Coordination and Reporting of Australia's Climate Change Measures

- [Introduction](#)
- [Audit objectives and scope](#)
- [Overall conclusion](#)
- [Key findings by chapter](#)
- [Summary of agency responses](#)

### Introduction

1. Climate change caused by the emission of greenhouse gases, has been recognised as a global challenge. Although the impacts of climate change may vary worldwide, these can include increases in average surface temperatures, sea level rise, increased climate variability and

extreme weather events, such as prolonged drought and severe storms.<sup>1</sup> There is evidence in Australia that climate change has already had an impact. The Australian Bureau of Meteorology has indicated that since the 1950s temperatures in Australia have, on average, risen by about one degree Celsius with an increase in the frequency of heatwaves and a decrease in the numbers of frosts and cold days.<sup>2</sup> Rainfall patterns have also changed with the northwest of Australia experiencing an increase in rainfall over the last 50 years, while much of eastern Australia and the far southwest have experienced a decline in rainfall and prolonged drought conditions.

2. The United Nations Framework Convention on Climate Change (UNFCCC) was established in 1992. It sets out an overall framework for intergovernmental efforts to address the challenges posed by climate change. Australia is among some 194 national signatories to the convention, which is the primary forum for designing global climate change strategies. In recognition of the risks presented by rising greenhouse gas (GHG) emissions, the Kyoto Protocol was established under the convention in 1997. The protocol aims to foster national emission reductions through a binding international agreement. Forty countries, including Australia, have emission targets under the Kyoto Protocol designed to be achieved over the five year Kyoto period, 2008-12.

3. The Government has indicated that addressing climate change is a high priority and more than \$15 billion has been committed to climate change initiatives.<sup>3</sup> The Government's response to climate change is based on its *Three Pillars strategy*: reducing emissions; adapting to unavoidable climate change; and helping to shape a global solution.

4. The Department of Climate Change (DCC) was established in December 2007 to assist the government to pursue its climate change agenda. DCC had specific responsibility for:

- coordinating climate change policy;
- measuring and reporting national GHG emissions;
- international reporting commitments under the UNFCCC and the Kyoto Protocol; and
- measuring the impact of abatement measures towards national targets.

5. In March 2010, DCC became the Department of Climate Change and Energy Efficiency (DCCEE). The energy efficiency function of the Department of the Environment, Water, Heritage and the Arts was also transferred to the new department.

6. DCCEE also administers the recently legislated 20 per cent renewable energy target and will implement the Carbon Pollution Reduction Scheme (CPRS) being proposed by the Government subject to the passage of the legislation by the Parliament.<sup>4</sup>

7. State and Territory Governments have also introduced an extensive range of measures to reduce GHG emissions and to adapt to climate change. The Australian Government has been working with State and Territory Governments through the Council of Australian Governments (COAG) to achieve a coordinated intergovernmental response to climate change. In December 2007, COAG 'acknowledged the benefits in reducing the confusion, overlap, duplication, and red-tape associated with the current proliferation of climate change programs across jurisdictions.'<sup>5</sup> In March 2008, COAG agreed that each jurisdiction would review their climate change mitigation measures<sup>6</sup> in order to harmonise and align existing and future programs with the proposed emissions trading scheme.

8. To measure Australia's GHG contribution, the Australian Government has maintained a national emissions inventory since the early 1990s. The inventory, which is managed by DCCEE, provides a detailed national profile of Australia's emissions. The inventory is classified into six internationally defined sectors, based on particular emissions processes:

- energy (including stationary energy, transport and fugitive emissions);<sup>7</sup>
  - industrial processes;
  - solvents and other products;
  - waste;
  - agriculture; and
  - land use, land use change and forestry (LULUCF).
- Australia's largest emitting sector is stationary energy and, in 2007, it contributed to over half of the national GHG emissions.<sup>8</sup>

9. Data from the inventory is used to meet international reporting requirements under the UNFCCC and the Kyoto Protocol, and to track progress towards the Kyoto emission target. Activity data, used to estimate GHG emissions, is principally sourced from other Australian Government agencies, such as the Australian Bureau of Statistics. The introduction of the *National Greenhouse and Energy Reporting Act 2007* (NGER Act) has also meant new reporting arrangements, as the Act mandates annual emissions reporting for corporations whose energy production, energy use, or GHG emissions exceed defined thresholds. Data collected under the NGER Act will supplement existing data collection arrangements.

10. Measures to mitigate the production of GHG emissions have been undertaken by all jurisdictions, primarily through a mixture of regulatory measures, grant programs, incentive and rebate schemes. To assess the impact of Australia's climate change programs, reliable and accurate calculations of the amount of GHG emissions abated is necessary. Abatement estimates are calculated by DCCEE to determine the aggregate and likely future impact of Government measures. The department's estimates are used to track Australia's progress towards meeting emission targets, including the Kyoto Protocol target.

Abatement estimates for individual programs are also calculated by the agency responsible for delivering the program. The impact of Australia's abatement initiatives are reported by DCCEE in public reports and in the four yearly National Communications report to the UNFCCC.

<sup>1</sup> M Parry; O Canziani and J Palutikof; World Meteorological Organization Bulletin 57 (1) April 2008; Key IPCC Conclusions on Climate Change Impacts and Adaptations, p. 4.

<sup>2</sup> Bureau of Meteorology, Monitoring Australia's Climate Change fact sheet, [internet] BOM available from <<http://www.bom.gov.au/climate/change/docs/FactSheet3.pdf>> [accessed 5 January 2010].

<sup>3</sup> Climate Change Budget Overview 2009–2010, p. 3.

<sup>4</sup> The department has advised that it is establishing the Australian Climate Change Regulatory Authority to implement the CPRS.

<sup>5</sup> Department of Finance and Deregulation, 'Strategic Review of Australian Government Climate Change Programs,' Final Report, July 2008, p. 42.

<sup>6</sup> Mitigation is achieved through abatement initiatives. The terms mitigation and abatement are used interchangeably throughout the report. Measures can include grant programs, regulation, incentives, rebate schemes and voluntary initiatives.

<sup>7</sup> Fugitive emissions are by-products, waste or loss in the process of fuel production, storage or transport, such as methane released into the atmosphere during oil drilling and refining, or leakage from pipelines.

<sup>8</sup> Department of Climate Change, Australia's Fifth National Communication on Climate Change, 2010, p. 5.

## **Audit objectives and scope**

11. The objective of this audit was to assess the coordination of Australian, State and Territory Government climate change programs and the integrity of measuring and reporting of Australia's greenhouse gas emissions and abatement. Particular emphasis was given to the:

- coordination of Australian Government and State/Territory climate change programs;
- integrity of the national inventory to measure Australia's greenhouse gas emissions; and
- integrity of measuring and reporting government abatement measures.

12. The effectiveness of the administration of specific climate change programs by the departments of the Environment, Water, Heritage and the Arts<sup>9</sup> and Resources, Energy and Tourism is examined in ANAO Audit Report No.26, *Administration of Climate Change Programs*, tabled in conjunction with this report.

<sup>9</sup> The programs administered by the Department of the Environment, Water, Heritage and the Arts were transferred to the Department of Climate Change and Energy Efficiency in March 2010.

## Overall conclusion

13. Australian, State and Territory Governments are taking action in response to climate change. Measures have been put in place across all jurisdictions to reduce Australia's GHG emissions and, under COAG, programs are being streamlined. Since 1992, Australia has also been involved in international efforts to address climate change through the UNFCCC. Australia's national inventory has been improved over time and provides a sound basis for understanding the sources, trends and levels of emissions from industry sectors. The inventory is also used to measure and report on Australia's progress in meeting the Kyoto Protocol emission target of 108 per cent of 1990 levels (under the UNFCCC).

14. In 2008, there were some 550 climate change related measures across jurisdictions, resulting in the overlap and duplication of programs. In general, the program reviews requested by COAG have resulted in some rationalisation and subsequent adjustment to programs to enhance complementarity and consistency with the proposed CPRS. However, progress in streamlining some State and Territory programs has been slower than anticipated by COAG, with some reviews yet to be finalised. There is still considerable scope for further rationalisation across jurisdictions. However, this is a matter for consideration by responsible governments.

15. Australia's national GHG inventory is well developed and provides a reliable method for measuring and reporting national emissions.

Technical reviews, overseen by UNFCCC accredited experts, indicate that the inventory broadly meets international requirements for data preparation and reporting. The department has implemented 74 per cent of UNFCCC recommendations but could improve its process for the ongoing management of outstanding recommendations by documenting required actions, resources and timeframes.

16. The aggregate impact of all government mitigation actions has been revised by DCCEE over time. The estimated aggregate level of abatement is 74.5 Mt CO<sub>2</sub>e<sup>10</sup> annually over the five year Kyoto Protocol period; a 15 per cent revision down from 2007. The downward revision reflects a more realistic assessment of program achievements as well as the termination and adjustments to a range of programs. The aggregate abatement is made up of 35 measures, covering programs, legislation and strategies. Of these measures, only nine account for 85 per cent of the aggregate abatement. A first step would be to more clearly define a 'measure' and focus on those measures that are quantifiable and materially significant in terms of overall national abatement.

17. Overall, the methodology employed by DCCEE to estimate the impact of abatement measures provides a reasonable level of assurance as to the integrity of the aggregate abatement. The department uses the best available program level data, takes into account reasonable assumptions of future uptake and gives consideration to the overlap between programs that can result in double counting abatement. Notwithstanding, improvements could be made in estimating individual abatement measures through a more comprehensive consideration of 'business as usual' operations,<sup>11</sup> the attribution of overlap to individual measures, and improvements in the quality and consistency of data provided by delivery agencies.

18. There is no consistent approach by delivery agencies to estimating abatement. Guidelines and methodology are currently being developed by DCCEE to assist agencies to calculate the impact of abatement measures and cost new climate change initiatives. To be effective, the methodology will need to be applied consistently across all relevant delivery agencies and be supported by administrative practices and performance reporting frameworks. Extending this approach in the future to State and Territory agencies would facilitate a nationally consistent approach to performance measuring and reporting on GHG abatement.

19. DCCEE publishes national aggregate abatement estimates in four-yearly international submissions to the UNFCCC. However, the 2010 submission did not provide comparable figures for individual measures as it only gave an estimate for 2020. The Tracking to Kyoto report also provided an aggregate abatement estimate for the Kyoto period. Although previous reports were supplemented by emission sector papers that provided details of individual measures, this did not occur for the 2009 report. Currently, the absence and variability of abatement figures

being reported means that a consolidated picture of individual abatement measures and aggregate abatement is lacking. For greater transparency, abatement figures for individual measures and in aggregate could be reported more regularly by the department in a consolidated domestic publication.

20. The public reporting of achievements for individual measures has also not been consistent across Australian Government agencies and has generally been poor. Where abatement figures are published in annual reports, they are often not comparable across years or programs. A more consistent approach to reporting abatement programs would inform the Government and Parliament of the success, or otherwise, of government program achievements.

21. Despite these administrative shortcomings, current projections by DCCEE suggest that Australia is on track to meet its target under the Kyoto Protocol of limiting emissions to no more than 108 per cent of 1990 levels. Preliminary estimates by DCCEE indicate that Australia's total GHG emissions in 2008 were likely to limit emissions to 106 per cent of 1990 levels by 2012. However, confirmation of Australia's performance throughout the five year Kyoto period—through Australia's GHG inventory—will not be available until 2015.

22. The ANAO has made one recommendation aimed at improving the transparency and consistency of reporting of climate change abatement.

<sup>10</sup> Mt CO<sub>2</sub>e refers to millions of tonnes (Mt) of carbon dioxide equivalents (CO<sub>2</sub>e). 74.5 Mt CO<sub>2</sub>e represented 13.5 per cent of Australia's emissions in 2008 using Kyoto Protocol accounting.

<sup>11</sup> Business as usual refers to the likely action taken in the absence of the measure.

## Key findings by chapter

### Coordination of Climate Change Mitigation and Science Programs (Chapter 2)

#### *Coordination of climate change programs*

23. In March 2008, COAG agreed that each jurisdiction would review its climate change mitigation measures within the context of a proposed emissions trading scheme and agreed complementarity principles.<sup>12</sup> The aim of the reviews was to achieve a coherent and streamlined set of

climate change measures across jurisdictions and reduce the confusion, overlap, duplication and red tape associated with the proliferation of climate change programs

24. In July 2008, the Australian Government completed its Strategic Review of Climate Change Programs (the Wilkins Review). The review assessed whether climate change programs were efficient, effective and appropriate to address the challenges posed by climate change and the extent to which they complement the proposed Carbon Pollution Reduction Scheme (CPRS). The review assessed 62 Australian Government climate change programs.<sup>13</sup>

25. The Government's response to the Wilkins Review, and the Australian Government's 2009–10 Budget indicate that there has been some rationalisation and redesign of existing Commonwealth climate change mitigation programs so that they are more compatible with the COAG principles and the proposed CPRS. Results from the State and Territory reviews also suggest that there has been progress in implementing the COAG commitments. In total, 488 measures were reviewed across all States and Territories, an important first step in the ongoing coordination of the 550 climate change mitigation measures across different levels of government.

26. The timeframes for completing the reviews have been slower than anticipated, and have been extended by over eight months. There are still a number of significant transitional measures in particular States that either directly conflict with, or overlap with the proposed CPRS. One transitional program in New South Wales, the Greenhouse Gas Reduction Scheme has the potential to directly conflict with a national CPRS.<sup>14</sup> The Queensland Gas Scheme also has the potential to significantly overlap with the proposed CPRS.<sup>15</sup> DCCEE will need to carefully monitor these programs and advise Ministers accordingly of any significant risks prior to the introduction of the proposed CPRS. Such an approach would give the Australian Government a reasonable level of assurance that the introduction of the proposed CPRS will not be impeded by the operation of State and Territory programs cutting across its objectives.

### ***Coordination of climate change science and research***

27. Across Australian, State and Territory Governments, there has been considerable investment made in climate change science and research. DCCEE has indicated that approximately \$466 million in Australian Government funding has been directed towards a National Framework for Climate Change Science. This is expected to be implemented by mid 2010. However, the ANAO has identified additional programs outside of this framework that may also be focused on climate change science and/or research. These additional programs, which cover five Commonwealth agencies, numerous State and Territory agencies and universities bring funding to at least \$675 million.

28. The Government has noted the importance of scientific research and the cost to the Australian economy as a result of ill-informed decisions and poor contingency or adaptation planning. A Parliamentary review undertaken in 2009 also commented on the relatively fragmented way that research was conducted.<sup>16</sup> Progressing the Framework for Climate Change Science is a key initiative and it will be important for DCCEE and the Chief Scientist to be mindful of the range of initiatives in train across governments to avoid any unintended overlaps or duplication in the delivery of climate change science and research.

## **Australia's Greenhouse Gas Emissions Inventory (Chapter 3)**

### ***International requirements for the inventory***

29. The Australian Government maintains a GHG emissions inventory to measure national emission levels and to meet international commitments under the UNFCCC and the Kyoto Protocol. The inventory provides a national baseline of aggregate and sectoral emissions and allows emission levels to be tracked over time through consistent time series data going back to 1990. Australia has submitted annual inventory reports to the UNFCCC Secretariat since 1994. The first mandatory inventory report for the Kyoto Protocol is due in April 2010.<sup>17</sup>

### ***Annual technical review by the UNFCCC***

30. Inventory reports are the subject of an annual technical review, which is coordinated by the UNFCCC and undertaken by an international expert review team (ERT). ERT reviews for 2006 to 2008 indicate that Australia's inventory report has consistently been prepared in-line with the prescribed guidelines developed by the Intergovernmental Panel on Climate Change. The reports have met the requirements for completeness, transparency, key category identification, uncertainty analysis, recalculations and time series consistency.

31. Nevertheless, the ERT made 70 recommendations across all sectors of the inventory.<sup>18</sup> DCCEE has implemented the majority (74 per cent) of these recommendations. Outstanding recommendations represent a mixture of actions currently in train and items planned for future review. While the department has provided a broad and indicative timeline for addressing outstanding recommendations, DCCEE could improve its process for managing ongoing ERT recommendations by explicitly documenting required actions, resources and timeframes.

### ***Inventory accuracy***

32. Uncertainty analysis is an estimate of the accuracy of a measurement or calculation. Using a Tier 1 or global default methodology,<sup>19</sup> DCCEE has annually reported quantified uncertainty estimates from 2003 onwards. The aggregate inventory uncertainty has

decreased from  $\pm 5$  per cent in 2003 to  $\pm 2.4$  per cent in the 2007 inventory submission. The department's uncertainty estimates conform to agreed guidelines and are largely consistent with the typical uncertainty ranges. However, international best practice suggests that the application of Tier 2 uncertainty analysis should be applied where resources permit. Currently, DCCEE does not apply Tier 2 uncertainty analysis comprehensively across all sectors. However, the department has indicated that the integration of data from the introduction of the *National Greenhouse and Energy Reporting (NGER) Act 2007* is a pressing national priority and the key focus of inventory improvement. Once the integration of the NGER data has been addressed, the department may wish to consider the expansion of Tier 2 uncertainty analysis, as appropriate, on a periodic, rather than annual basis.

### ***Inventory supporting systems***

33. The national emissions inventory is required to meet a number of institutional, legal and procedural requirements as set out by UNFCCC provisions. The ERT noted that the national inventory system is prepared in accordance with guidelines and the necessary procedures are working effectively. Although quality control and assurance plans and procedures are in place, DCCEE will need to continue to refine quality control tests and quality assurance mechanisms given the greater reliance that is now being given to data collected through the *National Greenhouse and Energy Reporting Act 2007*.<sup>20</sup>

## **Measuring and Reporting the Impact of Australian Mitigation Measures (Chapter 4)**

### ***Measuring the impact abatement measures***

34. Since 2003, the impact of mitigation measures, undertaken across all jurisdictions, has been periodically assessed. In 2009, the then DCC undertook a partial review of these measures, based on a more comprehensive assessment conducted in 2007. The 2009 revision builds upon and revises previous calculations and takes account of matters such as recently commenced and terminated measures and more up to date program data.

35. The cumulative impact of 35 individual measures is currently estimated at 74.5 Mt CO<sub>2</sub>e, on average, over the five year Kyoto period. Revisions by DCCEE of individual measures have resulted in the downward revision of aggregate abatement by 15 per cent since 2007. This decrease reflects factors such as more realistic estimates of what measures have achieved and the termination of some programs. In undertaking these calculations, the department used the best available program level data, took into account reasonable assumptions of future uptake and gave consideration to the overlap between programs that can result in double counting abatement. Overall, this methodology

provides a reasonable level of assurance as to the integrity of these calculations and the aggregate level of abatement.

36. The ANAO reviewed calculations of the nine largest abatement measures, which account for 85 per cent of total government emission reductions during the period, 2008-12.<sup>21</sup> In relation to the calculation of individual measures, the ANAO noted that while the methodology used has been refined over time,<sup>22</sup> there are a number of areas where there is scope to improve the accuracy of the estimation and transparency of the process. These areas are:

- greater precision in distinguishing government induced abatement measures from business as usual activities;
- better identification and reporting of overlaps between measures; and
- improved quality and consistency of source data.

37. For a number of measures, it has been difficult to distinguish abatement from business as usual activities. That is, the activities undertaken as part of normal business and economic conditions, and in the absence of government action. For example, business as usual activities may be largely driving abatement in the waste sector, where emission reductions have been identified from broader economic drivers, such as rising costs of landfill management. The distinction between business as usual abatement and government induced emission reductions will require ongoing consideration in the calculation of all abatement measures.

38. Six of the nine largest measures are affected by overlaps with other programs. For example, individual firms can be a party to several different programs at the national level as well as at the State or Territory level. This creates a potential overlap in any calculation of derived abatement. DCCEE has been working to improve the precision of the calculations of overlap but further work and consideration is required to attribute overlaps to individual programs. While overlaps account for a relatively small proportion of double counting, they have the potential to misrepresent the achievements of individual programs.

39. Although DCCEE is responsible for estimating total abatement for Government measures, the department is reliant on program delivery agencies for providing credible program data. Activity data of program performance forms a critical starting point in any abatement calculation. The consistency/quality of source data provided by delivery agencies could be improved and this will need to be a priority for all agencies delivering climate change programs.

40. DCCEE is currently developing guidelines and methodology to assist in determining the actual and forecast abatement as well as the economic costs of proposed climate change programs. To be fully effective, the guidelines will need to be consistently applied by delivery agencies and clearly set out roles and responsibilities.

### ***Public reporting of abatement measures***

41. The level of public reporting by Australian Government agencies on the impact of individual climate change programs has generally been poor. Typically, reporting of individual programs by responsible Australian Government agencies has been ad hoc, often activity based, and year on year abatement figures are not reported in a consistent matter. More consistent public reporting of program abatement would enhance transparency and provide a clear assessment of program achievements. However, reporting of the aggregate abatement impact of government action during the Kyoto period has been more consistent.

42. Since 2003, the Australian Government has published Tracking to Kyoto reports annually, which provide projections of national emissions during the Kyoto period and to 2020, including an aggregate abatement figure for the 2008<sup>12</sup>. Official figures of individual abatement measures have been reported in a series of sectoral projections papers, published annually from 2003 to 2007. However, this reporting format fragments the results of the individual abatement estimates across multiple separate sectoral papers, making it difficult to examine the abatement achievements relative to the aggregate national figure. As a result, there is no domestic publication that draws together the aggregate, per measure and sectoral abatement figures.

43. At the international level, aggregate and individual abatement is reported in a four yearly submission to the UNFCCC. The Australian Government's most recent report, released in February 2010, presents a 2020 figure for the estimated impact of climate change programs, but does not provide comparable data with previous reports, such as abatement estimates for 2010. The publication of comparable figures for 2010 would assist in assessing the effectiveness of climate change programs and actual performance relative to their original abatement targets. While the public disclosure of the abatement achievements occurs in the four yearly National Communications report, the length of time between reports means that it is difficult to track results year to year and evaluate the progress of programs over time.

44. Given the absence and variability of abatement figures being reported by delivery agency reports, a consolidated picture of individual abatement measures and aggregate abatement is currently lacking. For greater transparency, abatement figures for individual measures and in aggregate should be reported more regularly by the DCCEE in a consolidated domestic publication.

<sup>12</sup> In summary, the complementarity principles were to focus programs on market failure, meet best practice regulatory principles and be targeted to manage the impacts of the CPRS on particular sectors of the economy. Where measures met these criteria, it was anticipated that they would be implemented by the level of government that was best able to deliver the measure.

<sup>13</sup> The review also highlighted that there were in excess of 200 State and Territory climate change measures running concurrently.

<sup>14</sup> The New South Wales Government has advised that it will terminate the Greenhouse Gas Reduction Scheme when the proposed CPRS commences.

<sup>15</sup> The Queensland Gas Scheme requires electricity retailers and large users to source at least 13 per cent of their electricity from gas-fired generators (18 per cent by 2020).

<sup>16</sup> The House of Representatives Standing Committee on Climate Change, Water, Environment and the Arts; October 2009; Managing our coastal zone in a changing climate; ACE CRC, Submission 46, p.5. The Parliamentary report was particularly related to the specific and local effects of sea level rise and changes in ocean properties.

<sup>17</sup> Annual inventory reports for the five year Kyoto Commitment period have additional reporting requirements and must include information on the Article 3.3 land based activities, changes to the emissions allowance, the national inventory system and the registry. These reports are submitted annually from 2010 to 2015.

<sup>18</sup> These recommendations covered a range of issues from minor presentational items, to providing additional explanatory information about methodology, and cross cutting issues that impact upon the overall completeness and transparency of the inventory.

<sup>19</sup> Tier 1 refers to a generic method or global default, which generally represents the minimum standard. Tier 2 methods are a nationally derived default that is generally more accurate than Tier 1 methods. Tier 3 methods are more refined again and refer to facility level approaches. Consequently, it is the most complex and accurate of the three approaches.

<sup>20</sup> The reports from industry were received by the Department of Climate Change in October 2009.

<sup>21</sup> The single largest measure is attributed to reduced rates of deforestation following the introduction of land clearing legislation in Queensland and New South Wales which accounts for 18.0 Mt CO<sub>2</sub>e of abatement.

<sup>22</sup> Methodology for estimating abatement measures varies according to the type of measure. Typically, estimation involves an estimation of the business as usual scenario, the collection of activity data of project level activities, such as energy consumption,

and the conversion of activity data into units of abatement, carbon dioxide equivalents.

## Summary of agency responses

### Department of Climate Change and Energy Efficiency

45. *The Department notes the report shows that the methods used to estimate abatement are rigorous and reliable. In particular, that the Department "employs a sound methodology to estimate the overall impact of Government measures". DCCEE places a strong focus on quality assurance and consistency between and within estimates and the report provides a useful perspective on what refinements may further improve the transparency and understanding of estimates.*

46. *The Department agrees it would be desirable for Government agencies to report DCCEE approved estimates of abatement from climate change programs in their annual reports and against program targets where applicable. The Department of Climate Change and Energy Efficiency has a work program already in place to improve estimates of individual measures and, where feasible, to allocate overlaps to individual measures. Once this work program is complete, DCCEE intends to publish this data in a consolidated report to improve transparency and consistency.*

47. *The report also makes mention of the development of guidelines for abatement measurement and a costing methodology for new climate change policy proposals. This guidance will be a crucial tool to improve abatement estimation across agencies. There is also a process underway through the Senior Officials Group on Energy Efficiency (SOG EE) to provide information to the State and Territory Government officials on the Australian Government's approach and methodologies for abatement and costing estimation.*

### Department of Innovation, Industry, Science and Research

48. *The Department of Innovation, Industry, Science and Research has a key role to play in implementing science and research measures to respond to climate change, including through the Super Science Initiative announced by the Australian Government in May 2009.*

49. *The Department agrees that it is critical that measures relating to climate change science and research are well coordinated across the Australian Government as well as between levels of government and*

*across key stakeholders. In particular, we wish to endorse the expectation that the implementation of the National Framework for Australian Climate Change Science would promote a coordinated approach to climate science and research activities and of the resources and funding for climate change science.*

© Commonwealth of Australia 2006