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Performance Audit

# Administration of the National Greenhouse and Energy Reporting Scheme

## Department of Climate Change and Energy Efficiency

Australian National Audit Office

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Australian National Audit Office

Canberra ACT
7 February 2012

Dear Mr President
Dear Mr Speaker

The Australian National Audit Office has undertaken an independent performance audit in the Department of Climate Change and Energy Efficiency with the authority contained in the *Auditor-General Act 1997*. I present the report of this audit and the accompanying brochure to the Parliament. The report is titled *Administration of the National Greenhouse and Energy Reporting Scheme.*

Following its presentation and receipt, the report will be placed on the Australian National Audit Office's Homepage—http://www.anao.gov.au.

Yours sincerely

Ian McPhee
Auditor-General

The Honourable the President of the Senate
The Honourable the Speaker of the House of Representatives
Parliament House
Canberra ACT

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# Abbreviations

| | |
|---|---|
| ABARE | Australian Bureau of Agricultural and Resource Economics |
| ABS | Australian Bureau of Statistics |
| ACT | Australian Capital Territory |
| ACCRA | Australian Climate Change and Regulatory Authority |
| ASAE | Australian Standard of Assurance Engagements |
| ATO | Australian Taxation Office |
| AUASB | Auditing and Assurance Standards Board |
| CDP | Carbon Disclosure Project |
| COAG | Council of Australian Governments |
| $CO_2$ | Carbon Dioxide |
| $CO_2$-e | Carbon Dioxide Equivalent |
| CPRS | Carbon Pollution Reduction Scheme |
| CRM | Customer Relationship Management |
| DCCEE | Department of Climate Change and Energy Efficiency |
| DRET | Department of Resources, Energy and Tourism |
| GEDO | Greenhouse and Energy Data Officer |
| GHG | Greenhouse Gas |
| ICC | Issues Coordination Committee |
| ICT | Information and Communication Technology |
| ISM | Information Security Manual |
| ISO | International Organisation for Standardization |
| IT | Information Technology |
| JV | Joint Venture |
| MOU | Memorandum of Understanding |
| MTBI | Matters to be Identified |

| | |
|---|---|
| NCOS | National Carbon Offset Standard |
| NDT | NGERS Disclosure Tool |
| NGERS | National Greenhouse Energy Reporting Scheme |
| NSW | New South Wales |
| NPI | National Pollutant Inventory |
| OSCAR | Online System for Comprehensive Activity Reporting |
| PBOG | Petroleum Based Oils and Greases |
| PBS | Portfolio Budget Statement |
| PSM | Protective Security Manual |
| RDEX | Regulatory Division Executive Committee |
| RIS | Regulation Impact Statement |
| RTC | Reporting Transfer Certificate |
| SME | Small to Medium Enterprises |
| TJ | Terajoule |

# Glossary

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|---|---|
| Carbon Dioxide equivalent ($CO_2$-e) | Greenhouse gases include carbon dioxide, methane, and nitrous oxide, with each gas having different physical properties and global warming potential. It is conventional to express all gas emissions in 'equivalent amounts of carbon dioxide' where 'equivalent' means 'having the same warming effect over a period of 100 years'. |
| Carbon Disclosure Project (CDP) | The Carbon Disclosure Project is an independent not-for-profit organisation that holds one of the largest databases of primary corporate climate change information in the world. Thousands of organisations across the world's major economies measure and disclose their greenhouse gas emissions, water use and climate change strategies to the Project. |
| Carbon Pollution Reduction Scheme (CPRS) | The Carbon Pollution Reduction Scheme was intended to be a cap-and-trade emissions trading scheme. Under the proposed scheme, liable parties would be required to pay $10 per tonne of $CO_2$-e produced. Businesses would have been required to purchase emissions permits (made up of emissions units) requiring businesses to surrender one emissions unit for every tonne of $CO_2$-e they emitted in one year. The initial CPRS legislative package was introduced into the Parliament by the Government in 2009 and passed through the House of Representatives in June 2009. However, the Senate did not pass the legislative package. After further negotiations with the Coalition, a revised CPRS legislative package was re-introduced into the Parliament. After extensive debate, the CPRS legislative package again failed to pass the Senate and, on 27 April 2010, the then Prime Minister announced that the implementation of a CPRS would be deferred until the end of 2012. |

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|---|---|
| Kyoto Protocol | The Kyoto Protocol is a protocol to the United Nations Framework Convention on Climate Change aimed at fighting global warming. The Protocol sets binding targets for 37 industrialised countries and the European community for reducing greenhouse gas emissions. |
| Memorandum of Understanding (MOU) | An agreement mechanism between agencies used to clarify roles, responsibilities and obligations in circumstances where the parties are not seeking to establish formal legal relations. |
| Scope 1 Emissions | Scope 1 emissions are direct greenhouse gas emissions, such as from on-site combustion of coal, oil or natural gas. |
| Scope 2 Emissions | Scope 2 emissions are indirect greenhouse gas emissions derived from the purchase of energy, such as electricity produced from burning coal, oil or natural gas emissions. |
| Online System for Comprehensive Activity Reporting (OSCAR) | A web-based data tool for business to record energy and emissions data for government program reporting. OSCAR was adapted by DCCEE from a prior energy and emissions reporting system to standardise reporting from corporations and allow them to gain a clear picture of their emissions. OSCAR automatically calculates greenhouse gas emissions based on energy and emissions data. |

# Summary and Recommendations

# Summary

## Introduction

**1.** Climate change caused by the emission of greenhouse gases has been recognised as a global challenge with the potential to affect ecosystems, water resources, food production, human health, infrastructure and energy systems in all countries.[1] Within Australia, successive Australian Governments have introduced a range of initiatives to address the challenges posed by climate change. State and territory governments have also introduced programs and initiatives designed to reduce emissions or assist communities to adapt to climate change. In 2008, there were some 550 climate change related measures identified across jurisdictions in Australia.[2]

**2.** The reporting of greenhouse gas emissions is a central component of most greenhouse and energy programs as it allows entities and governments to monitor the achievement of their greenhouse and energy objectives. In response to the growing awareness of the potential impacts of greenhouse gas emissions on Australia's climate, governments have increasingly sought to engage industry in initiatives to promote greenhouse gas reductions, encourage low emission technologies and improve energy efficiency.

**3.** In April 2007, the Council of Australian Governments (COAG) agreed to establish a mandatory national greenhouse gas emissions and energy reporting system to replace a range of voluntary industry surveys and programs with greenhouse gas or energy measurement requirements.

### National Greenhouse and Energy Reporting Scheme

**4.** The National Greenhouse and Energy Reporting Scheme (NGERS) was established under the *National Greenhouse and Energy Reporting Act 2007* (the NGER Act), which was passed by the Parliament in September 2007. NGERS was designed to introduce a single national reporting framework for constitutional corporations that have significant greenhouse gas emissions

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1 International Organization of Supreme Audit Institutions, Working Group on Environmental Auditing, *Coordinated International Audit on Climate Change; Key Implications for Governments and their Auditors*, November 2010, p.9.

2 ANAO Audit Report No 27, 2009–10, *Coordination and Reporting of Australia's Climate Change Measures*, p.19.

from energy consumption and energy production.[3] The five objectives of the NGER Act are to:

- underpin the introduction of a proposed emissions trading scheme in the future;
- inform government policy formulation and the Australian public;
- meet Australia's international reporting obligations;
- assist Commonwealth, state and territory government programs and activities; and
- avoid the duplication of similar reporting requirements in the states and territories.

**5.** The NGER Scheme commenced from 1 July 2008 and is administered by the Department of Climate Change and Energy Efficiency (DCCEE). The legal framework under which NGERS is delivered comprises primary legislation, subordinate legislation, guidelines and other supporting material.

**6.** Under NGERS, registration and reporting is mandatory for constitutional corporations with energy production, energy use or greenhouse gas emissions that meet specific thresholds. The thresholds for facilities[4] controlled by corporations required to report under NGERS is 25 000 tonnes of carbon dioxide equivalent ($CO_2$-e) emissions or 100 terajoules (TJ) of electricity.[5] For corporations as a whole, the thresholds for 2010–11 are 50 000 tonnes of $CO_2$-e or 200 TJ of electricity.

**7.** Registered corporations must report to DCCEE using the Online System for Comprehensive Activity Reporting (OSCAR), a web-based data tool that has been developed for industry to record energy and emissions data. It was designed to standardise reporting from corporations, and enable the automatic calculation of greenhouse gas emissions, based on energy and

[3] A constitutional corporation is defined under paragraph 51(xx) of the Australian Constitution.

[4] Examples of facilities include: retail outlets; primary production and manufacturing plants; construction sites; air, rail road and water transport; and electricity, gas or water supply.

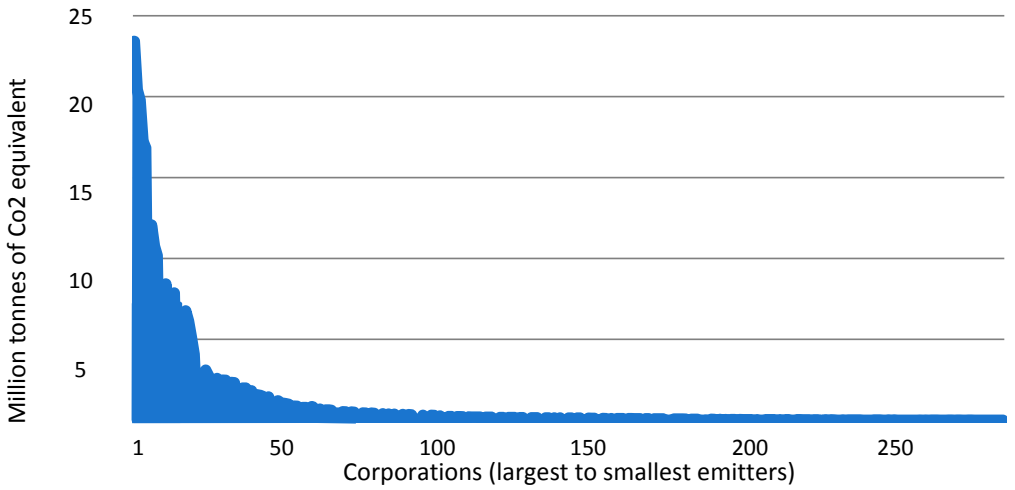
[5] One terajoule is equal to $10^{12}$ joules.

emissions data. In 2009–10, NGERS publicly reported greenhouse gas emissions totalling some 225 million tonnes of $CO_2$-e.[6]

**8.** As at March 2011, 775 corporations were registered with DCCEE and reported their emissions and energy use data through OSCAR.[7] Of these reporting corporations, those with the highest emissions (299) had their data published in 2011 for the 2009–10 reporting year.[8] Figure S 1 shows the level of direct emissions that these corporations emit annually.[9] The 100 corporations with the largest greenhouse gas emissions from direct combustion account for over 90 per cent of the total direct emissions reported. These are termed Scope 1 emissions.[10]

**Figure S 1**

**Published reporters and direct emissions levels for 2009–10**




Source: ANAO Analysis of NGER data involving direct (Scope 1) emissions for 2009–10.

6 Over the year to the June quarter of 2011, Australia's National Greenhouse Gas Inventory was an estimated 546 Mt CO2-e (million tonnes of carbon dioxide equivalent). DCCEE, *Quarterly Update of Australia's National Greenhouse Gas Inventory*, Canberra, June 2011, p.6. Total scope 1 emissions are 344 Mt of $CO_2$-e. This includes those reports below the public reporting threshold.

7 These figures are updated annually inline with the reporting cycle.

8 This data is available on DCCEE's website.

9 Direct emissions (Scope 1) are derived from the combustion of coal, oil or other energy sources.

10 Scope 2 emissions are indirect greenhouse gas emissions derived from the purchase of energy, such as electricity produced from burning coal, oil or natural gas.

### Carbon Pricing Mechanism

**9.** In February 2011, the Government proposed that a carbon pricing mechanism would be introduced from July 2012 with a cap-and-trade emissions trading scheme following within three to five years. This decision effectively re-established the link to one of the primary objectives of the NGER Act—to underpin the introduction of a proposed emissions trading scheme. On 13 September 2011, the Government introduced a legislative package that would enable the implementation of the policy set out in the Government's Climate Change Plan, *Securing a Clean Energy Future*.[11] The *Clean Energy Legislation* was passed by the Parliament on 8 November 2011. With the passage of the legislation, regulatory responsibility for NGERS is expected to transfer on 2 April 2012 to a separate authority—the Clean Energy Regulator.

**10.** The Government has indicated that the carbon pricing mechanism will apply to approximately 500 of the largest emitters of $CO_2$-e in Australia. In general, the NGERS threshold of 25 000 tonnes of $CO_2$-e will determine whether a facility will be covered by the carbon pricing mechanism. Carbon pollution from the following sources will be covered by a carbon price: stationary energy; waste; rail; domestic aviation and shipping; industrial processes; and fugitive emissions. Over half of Australia's emissions are intended to be directly covered by the carbon pricing mechanism.[12]

## Audit objective and criteria

**11.** The objective of the audit was to assess the effectiveness of DCCEE's implementation and administration of NGERS.

**12.** The audit examined whether DCCEE had effectively implemented the scheme; managed the integrity, security and quality of scheme data; monitored industry compliance with the provisions of the NGER Act; and streamlined reporting arrangements in line with the agreement by the Australian, state and territory governments.

**13.** The ANAO conducted a survey of registered corporations to obtain qualitative client data on the efficiency and effectiveness of the administration

[11] DCCEE, *Securing a Clean Energy Future—The Australian Government's Climate Change Plan*, Canberra, 2011.

[12] ibid., p.27.

of NGERS.[13] In addition, information technology (IT) testing was undertaken as part of the audit to assess the security of the NGERS online reporting system, OSCAR. The ANAO did not validate the data provided by registered corporations.

## Overall conclusion

**14.** The passing of the NGER Act in September 2007 created a new regulatory regime for Australia, with 775 constitutional corporations required to self assess and report their greenhouse gas emissions, energy use and production. This assessment and reporting was a critical prerequisite to underpin the proposed emissions trading scheme. It was also fundamental to the transparent reporting of Australia's national and global commitments to reduce greenhouse gas emissions and energy use. Accurate and complete datasets are also integral to the integrity of Australia's National Greenhouse Gas Inventory[14] and other international reporting obligations under the Framework Convention on Climate Change.

**15.** The establishment of NGERS was a substantial and complex undertaking for DCCEE given the scale and broad coverage of the legislation across the Australian economy. The changing operating environment, particularly in relation to the proposed introduction of an emissions trading scheme in 2015 and the more recent carbon pricing mechanism, presented additional challenges for DCCEE that have impacted on the department's implementation of NGERS. Nevertheless, DCCEE has established a workable greenhouse gas and energy reporting scheme that provides a more accurate measurement of greenhouse gas emissions and energy use within Australia when compared to the voluntary industry surveys and programs that were previously in place. DCCEE has established a positive relationship with the majority of registered corporations. In addition, over 50 per cent of corporations have indicated in their response to the ANAO's survey that tangible benefits have been obtained from measuring their greenhouse gases and energy use.

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[13] Not all corporations responded to every ANAO question. Consequently, the percentages stated in this report are based on varying totals based on the particular question asked.

[14] The National Greenhouse Gas Inventory provides estimates of Australia's greenhouse gas emissions based on the latest available data and the accounting rules that apply for the Kyoto Protocol within the Framework Convention on Climate Change.

**16.** Notwithstanding these positive findings and progress to date, key aspects of DCCEE's administration require strengthening to improve the operation of NGERS. These include enhancing the integrity of reported greenhouse gas emission and energy use data; better managing compliance with the regulatory requirements; and streamlining reporting obligations as intended by COAG.

### *Data integrity*

**17.** The quality and accuracy of reports submitted by corporations is critical for the overall integrity of the NGERS dataset. As the scheme relies on the self assessment and reporting of greenhouse gas emissions and energy data by corporations, a sound quality assurance process supported by a risk-based compliance program are key elements for effective administration. Currently, DCCEE does not verify[15] the data reported by corporations. Rather the department's quality assurance relies on a desk top review of submitted data.[16] It is intended that verification will be a major component of DCCEE's compliance and audit program in 2012. In 2009–10, DCCEE identified that nearly three quarters of submitted reports contained errors, with 17 per cent of reports containing significant errors. The importance of accurate greenhouse gas emission and energy use data will increase significantly with the introduction of a carbon price in 2012. DCCEE has taken steps to improve data quality, including initiating a report re-submission process and the introduction of the recent *Data Quality Improvement Strategy*, to better position the department to monitor the integrity of data provided by registered corporations.

**18.** The integrity of the data collected under NGERS also relies on the functionality and security of the IT system (OSCAR) used by entities with NGERS obligations, to report and store data. The IT security testing undertaken as part of this audit, identified significant security vulnerabilities within the system that increased the risk of an unauthorised person gaining access to, and threatening the integrity of NGERS data. The subsequent report made forty specific recommendations to improve security. Eight of these

[15] Data verification within this context is defined as testing and providing assurance that reported data is supported by accurate source material and records from which it is derived.

[16] This process tested: obvious data or calculation errors; the consistency of data received against other publicly available information such as the electricity market data; and consistency across the two years of NGERS reports.

recommendations were classified as high priority. The results of this security testing highlight the importance of managing risks through sound change and release management controls for the update and enhancement of IT systems. The ANAO's recommendations are being progressed by DCCEE.

### *Compliance management*

**19.** As the regulator, DCCEE is responsible for ensuring that regulated entities have met legislative requirements. DCCEE has put in place a number of strategies designed to educate and train representatives from corporations and to encourage compliance with NGERS registration and reporting requirements. However, the implementation of the NGERS compliance and audit program has been slower than planned. Implementation was constrained by the redistribution of resources following the deferral of the emissions trading scheme, and the lower priority afforded to this work within the first three years of NGERS. Consequently, a systematic, risk-based audit and compliance program is still in the process of being implemented. There remains substantial work to be undertaken to establish a program that is capable of providing an appropriate level of assurance that corporations are complying with their obligations. The cost of compliance for corporations is also significantly higher than the estimates in the NGERS regulatory impact statement. Striking the appropriate balance between meeting compliance obligations and the associated cost for regulated entities will be an important consideration for DCCEE in implementing the NGERS compliance and audit program.

### *Streamlined reporting*

**20.** NGERS was intended to reduce the duplication of reporting requirements across related programs and create a single national reporting framework. This legislated objective was reinforced by a Protocol agreed by Australian, state and territory governments in July 2009. There was initial progress under the Protocol to streamline reporting obligations, with DCCEE ceasing a number of national programs as well as voluntary company surveys. Despite this initial streamlining activity, progress effectively stalled from April 2010 when the Government deferred the introduction of an emissions

trading scheme. As a consequence, multiple reporting obligations remain.[17] Reporting obligations and the associated inefficient use of resources were frequently cited as a significant problem by respondents to the ANAO survey and during discussions with stakeholders. Of the corporations surveyed, 63 out of 108 respondents (58.3 per cent) stated there had been no reduction in reporting requirements. If the objectives of the agreed Protocol are to be realised, DCCEE will need to give priority to working with jurisdictions to streamline current reporting requirements.

**21.** The ANAO has made three recommendations designed to: better target departmental compliance efforts; improve data sharing with Australian Government and authorised state or territory agencies; and advance efforts to further streamline greenhouse gas emission and energy use reporting requirements.

## Key findings by chapter

### Implementation planning and delivery (Chapter 2)

*Establishing NGERS*

**22.** DCCEE undertook considerable preparation and design work in 2007–08, during the early stages of NGERS. While the department's focus was appropriately directed at those elements of the scheme necessary to facilitate registration and reporting by corporations, other key objectives of NGERS were not sufficiently progressed during this time, such as the compliance and audit program.

**23.** In parallel with DCCEE's establishment of NGERS, the department directed considerable resources into the design of the proposed emissions trading scheme, including the establishment of a new authority with responsibility for NGERS as part of an integrated regulatory framework. When the introduction of the proposed emissions trading scheme was deferred by the Government, the subsequent reduction in resources, the re-deployment of

[17] Corporations surveyed by the ANAO cited up to ten reporting obligations for different state, territory and/or Australian Government programs as well as voluntary international commitments such as the Global Reporting Initiative. Apart from NGERS, corporations cited reporting obligations under initiatives such as the Energy Efficiency Opportunities Program, Renewable Energy Certificates and the National Pollutant Inventory (Australian Government), the Environment and Resource Efficiency Plans (Victoria), New South Wales (NSW) Greenhouse Gas Abatement Scheme, Energy Savings Action Plan, NSW Greenhouse Abatement Certificates, Operating Licence reporting (NSW and other states) and QFLEET (Queensland).

staff, and the re-organisation of the department contributed, in part, to delays in progressing key elements of NGERS, such as the streamlining of greenhouse gas emissions and energy use reporting.

### *Support and guidance for corporations*

**24.** As the legislative framework underpinning the NGER Scheme is principles-based, effective guidance and support is necessary to inform corporations of their obligations under the scheme. One hundred and thirty one corporations out of 187 respondents (70 per cent) to the ANAO's survey, rated the support and guidance provided by the department as 'good' to 'very good'. The remaining 30 per cent of survey respondents have provided useful insights into areas for further improvement, such as: clear lead times for the provision of updated guidance; improvements to the dissemination of guidance materials; and targeting guidance materials at those areas of greatest concern to registered corporations.

### *Governance arrangements*

**25.** The ongoing administration of NGERS has occurred within a changing operating environment, which has presented challenges in 'bedding down' key elements of an effective governance framework. These elements include: the management of identified risks to program delivery, administrative processes for handling complaints and comprehensive performance reporting to Parliament. In response to these issues, DCCEE has implemented revised governance arrangements and systems, including establishing an Issues Coordination Committee (ICC) in mid-2011 to better coordinate matters such as the handling of major complaints or other priority business issues.[18]

**26.** DCCEE has developed and implemented a comprehensive business plan to guide the department's administration of NGERS, which incorporates performance information aligned to the five NGERS objectives. A greater focus on measuring and publicly reporting progress against the achievement of all NGERS objectives will provide stakeholders with greater insights into program performance over time and enhance accountability. A high level risk management plan and risk register have also been developed, although

[18] The ICC was established in mid-2011 to formally identify issues (such as realised risks), nominate the relevant section or team to resolve the issue and put a timeframe on the resolution of each issue.

implementation is at an early stage and will require a concerted effort to achieve the timely treatment of identified risks.

## Data collection and management (Chapter 3)

### *Collecting the data prior to submission*

**27.** Registered corporations self assess their emissions data based on methodologies and guidance provided by DCCEE. OSCAR automatically calculates greenhouse gas emissions based on the corporation's energy and emissions data. Corporations are responsible for: collecting greenhouse gas emissions and energy data; assessing data accuracy; maintaining appropriate records of the data and any assumptions or estimates; and submitting their report through OSCAR within four months from the end of each financial year.

**28.** The process used by most corporations for collecting NGERS data prior to lodgement through OSCAR is through manual spreadsheets. In response to the ANAO's survey, 128 corporations out of 180 respondents (71.1 per cent) reported that they relied exclusively or primarily on manual spreadsheets. Only five corporations (2.8 per cent) reported that they had fully automated systems. Spreadsheets are relatively low cost and may be appropriate for the majority of corporations with simple, indirect reporting requirements. However, they are prone to error and less than half of respondents to the ANAO survey indicated that they used independent assurance.[19]

### *Maintaining adequate records and verifying the data*

**29.** In accordance with the *NGER Measurement Determination,* registered corporations are required to keep records detailing their greenhouse and energy-related activities, including facilities where appropriate.[20] The ANAO's survey results indicated that 116 corporations out of 181 (64.1 per cent) considered that they met these record keeping requirements. Some 65 corporations (35.9 per cent) indicated that they were experiencing challenges in this area, including four that were not sure or did not know whether records were available to verify their level of greenhouse gas

[19] The ANAO survey found that 85 corporations (47.0 per cent) used some form of verification prior to submission.

[20] The NGER (Measurement) Determination provides for the Minister to determine methods, or criteria for methods, for the measurement of: a) greenhouse gas emissions; b) production of energy; and c) the consumption of energy.

emissions or energy use. Currently, the department does not verify the reported data. Rather, in the absence of an audit and compliance program, the department relies on a desk top review of submitted data to test matters, such as obvious data or calculation errors, consistency of data received against other publicly available information; and consistency across the two years of NGERS reports.

**30.** The most common explanations for incomplete records to support verification of reported data related to difficulties in: recording incidental emissions of greenhouse gases from minor sources; obtaining supporting records from contractors or other parties; and obtaining data and records in complex corporate relationships, such as following a merger or where there are hundreds of geographically separate sites and facilities. These findings were largely supported by the department's 2011 pilot audit program. DCCEE has recognised the tensions between the requirements of the *NGER Measurement Determination* (particularly in regard to data 'completeness') and the practical constraints facing corporations in areas such as measuring incidental emissions and petroleum based oils and greases (PBOG's) in particular.[21] There has been some flexibility introduced to enable estimates of PBOG's to be rolled over from year to year.

**31.** The development of appropriate materiality threshold/s for reporting purposes would help to maintain a focus on the highest priority areas relevant to the objectives of the legislation and, at the same time, reduce compliance costs for the department and corporations. The potential effort and cost required by DCCEE to review and verify incidental emissions through its proposed audit program will be considerable. Equally, there is a compliance burden on reporting corporations with one corporation reporting that incidental greenhouse gases may only cover 0.1 per cent of the corporation's emissions. There would be merit in DCCEE giving further consideration to the balance between the benefits gained from the current incidental reporting requirements compared to the compliance costs involved for the department and corporations. There is potential for DCCEE to significantly reduce the regulatory burden on corporations without materially impacting on the precision or completeness of NGERS data.

[21] DCCEE, (August 2010) Review of the NGER (Measurement) Determination, Discussion Paper, p.47.

### *Online reporting system functionality*

**32.** The establishment of OSCAR was intended to save business time and effort by reducing the burden of multiple reporting requirements and enable the sharing of common data across different government programs. In response to the ANAO's survey, 90 corporations out of 186 respondents (48.4 per cent) rated the system as 'average,' 59 registered corporations (31.7 per cent) rated the system 'good' to 'very good' with 37 (19.9 per cent) rating the system from 'poor' to 'very poor'. This variation is indicative of the considerable differences in the range and volume of data management issues across registered corporations. While OSCAR is broadly fit-for-purpose for smaller corporations with less complex reporting requirements, corporations with large, direct emissions or complex joint ventures indicated significant problems regarding the use of OSCAR. The absence of an upload facility, the level of duplication of data requirements across programs, the potential for errors in manual data entry and the slowness of the system, are all problems that have constrained the effectiveness of OSCAR.

**33.** DCCEE has informed the ANAO that an interim upgrade of OSCAR is expected to be in place for the 2011–12 reporting period. The department also advised that a project has been initiated to develop a more robust emissions reporting system in the longer term for NGERS and the carbon pricing mechanism.

### *NGERS data security*

**34.** An ANAO IT security audit of OSCAR, undertaken as part of the broader audit, identified significant security vulnerabilities. The subsequent report made forty specific recommendations to improve system security. Eight of these recommendations were classified as high priority. Particular security concerns related to matters such as: formalising the security patch management process; hardening the protection of the servers running OSCAR applications; limiting administrator access and privileges within the OSCAR environment; and ensuring that all parties with access to OSCAR, including service providers external to DCCEE, are implementing and adhering to security requirements. These vulnerabilities increased the risk that an unauthorised person could gain access to NGERS data. The audit highlights the importance of managing risks through sound change control and release protocols for the update or enhancement of IT systems. The ANAO's recommendations are being progressed by DCCEE.

*Data quality and verification by DCCEE*

**35.** While DCCEE conducts a data quality assurance process which tests reported data for errors, as previously noted, the department does not verify the data reported by corporations. It is expected that audits undertaken as part of the compliance and audit program will examine energy and greenhouse data. The department's quality assurance process has identified that the quality of data reported to DCCEE over the first two years of NGERS has been affected by errors and gaps. In the first year of NGERS (2008–09), more than half of all reports to the department contained minor errors and around one per cent had significant errors. In the second year of NGERS reporting (2009–10), the department implemented a comprehensive quality assurance process for the reports from 545 controlling corporations.[22]

**36.** Of the 545 reports analysed, 72 per cent contained errors with 17 per cent including significant errors.[23] The most common errors related to: gaps in own-use electricity; missing or incorrect sources; errors in facility aggregates; problems with energy production figures; and omitted corporate entities and facilities. Nine corporations were also found to have submitted incomplete reports because of 'bugs' in OSCAR. These results highlight the critical role DCCEE's quality control process plays in enhancing the quality of outputs from NGERS reporting. To improve the quality of NGERS data, the department has instituted a resubmission process to address errors in submitted reports.[24] DCCEE is also introducing a *Data Quality Improvement Strategy* to strengthen the integrity of the data provided by registered corporations. Introducing an appropriate materiality threshold for reporting purposes would also assist in this regard.

[22] This process tested: obvious data or calculation errors; the consistency of data received against other publicly available information; and consistency across the two years of NGERS reports.

[23] DCCEE has defined a significant error as one where the figure used is incorrect by greater than 40 per cent of the NGER facility threshold or that impacts on the data by 10 kilo tones of $CO_2$-e or more of total greenhouse gas emissions or 40 TJ or more of energy consumption or production.

[24] In 2008–09 and 2009–10, there were 47 and 23 corporations respectively that resubmitted their reports. About one-third of these resubmissions were instigated by discussions with the department following analysis of corporations' reports. This process has improved the quality of aggregate data available under NGERS.

## Managing compliance (Chapter 4)

*Delays in implementation and late reporting*

**37.** Implementation of an NGERS compliance and audit approach within DCCEE has been slower than planned, primarily because of limited resources and the lower priority afforded to this work within the first three years of operation. These delays have constrained the capacity of DCCEE to identify compliance issues within corporations and address these early in the implementation of NGERS. While a pilot audit program has recently been conducted by DCCEE and a full program has commenced, delayed implementation of the full audit program has compromised the assurance that the department has obtained regarding corporations' compliance with key obligations under the NGER Act. This is particularly the case with regard to the adequacy of recordkeeping and the integrity of data underpinning the reports provided to the department by registered corporations.

**38.** DCCEE's adoption of an education and guidance focus to compliance activity over the initial period of implementation has encouraged corporations to meet NGERS registration and reporting requirements. However, late reporting remains a challenge with 23 per cent of registered corporations submitting late reports from 2009–10. A total of 43 corporations had not reported at the beginning of June 2011—seven months after the statutory deadline.

*Indicative costs of compliance*

**39.** In general, registered corporations surveyed by the ANAO indicated that they were not in a position to accurately determine costs directly attributable to complying with their obligations under NGERS. Only eight corporations reported that they had firm data to support their response. A sample of corporations did, however, provide indicative estimates of their capital (22 corporations) and recurrent costs (68 corporations). These survey results indicate that registered corporations incurred capital costs ranging from $5000 to $3 million, with recurrent costs ranging from $1500 to $1.5 million. These reported estimates significantly exceed the original cost estimate of $10 000 for annual entity costs at the time the legislation was passed by the Parliament. Even taking into account that the cost data may relate to multiple reporting purposes, the reported costs do not support the 'cost-neutral' position assumed for larger corporations. Costs are also higher than the costs reported under similar international schemes.

*Tangible benefits from measuring and reporting emissions*

**40.** The ANAO sought information from registered corporations on whether measuring and reporting greenhouse gas emissions and energy use had resulted in tangible benefits. Ninety-three corporations out of 176 respondents (53 per cent) indicated that measuring and reporting had delivered benefits. Interviews with registered corporations also highlighted a number of benefits including, improved cost controls and reduced outlays for energy use—$2 million per annum for one registered corporation. Notwithstanding these positive outcomes, 83 corporations (47 per cent) indicated no tangible benefit from measuring and reporting energy use and greenhouse gas emissions, and expressed concerns regarding the significant regulatory burden they faced.

## Streamlining greenhouse and energy reporting (Chapter 5)

*Streamlining progress*

**41.** Work to streamline corporate greenhouse gas and energy reporting across jurisdictions began in 2005 following recommendations in the then Australian Government's 2004 Energy White Paper. In October 2006, a draft Regulation Impact Statement (RIS) was released for consultation. The statement identified fifteen Australian Government, state and territory programs at that time that had greenhouse and/or energy reporting requirements. COAG agreed that: 'a single streamlined system that imposes the least cost and red tape burden is the preferable course of action'. A Streamlining Protocol was agreed by Australian, state and territory governments in July 2009. Implementation of the Protocol was agreed through COAG.

**42.** At the national level, the Australian Government has discontinued a Fuel and Electricity Survey of industry and amended the Energy Efficiency Opportunities[25] (EEO) requirements to allow entities to align EEO and NGER Act reporting. This was completed before the Protocol was finalised in July 2009. DCCEE has also ceased a number of national programs as well as voluntary company surveys previously conducted to support the National

[25] The Energy Efficiency Opportunities Program is managed by the Department of Resources, Energy and Tourism. The Program encourages large energy-consuming businesses to improve their energy efficiency. It does this by requiring businesses to identify, evaluate and report publicly on cost effective energy savings opportunities.

Greenhouse Gas Inventory.[26] From 2009, DCCEE developed technical solutions to support streamlining of greenhouse and energy reporting. Initial actions included the refinement of OSCAR to align it to both the NGER legislation and the National Greenhouse and Energy Streamlining Protocol requirements for Australian Government, state and territory stakeholders. However, there has been limited progress across other jurisdictions to reduce the multiple reporting requirements for corporations.

### *Weaknesses in the National Disclosure Tool*

**43.** An electronic disclosure tool, the NGERS Disclosure Tool (NDT), was developed in 2009 to enable DCCEE to disclose greenhouse gas emissions and energy use data to specified persons and bodies within the Australian Government as well as state and territory jurisdictions.[27] However, the NDT was not 'rolled out' to users until May 2010 and there were significant technical problems with the tool for the 12 months following roll out. Effectively, the NDT was not operational at this time and data access by users was restricted. The lack of full functionality of the NDT has resulted in the continued duplication of reporting requirements and potentially higher reporting costs for industry. Delays in establishing a functional disclosure tool have also hampered the capacity of specified agencies to benefit from the detailed data available under NGERS. DCCEE established a Data Users Group in March 2011 to resolve data sharing issues.

### *Intergovernmental cooperation on information sharing*

**44.** Since the Streamlining Protocol was agreed, Memoranda of Understanding (MOUs) to safeguard the confidentiality of NGERS data have been agreed between DCCEE and other Australian Government agencies, such as the ABS, DRET and ABARE. Similar MOUs were agreed progressively with Queensland, the Northern Territory and the Australian Capital Territory (ACT) governments in 2011. MOUs are yet to be agreed with the remaining state and territory governments—over two years after the Protocol

[26] Australia's National Greenhouse Gas Inventory is required under the United Nations Framework Convention on Climate Change. The Inventory provides a national baseline of aggregate emission levels and allows emission levels to be tracked over time as well as Australia's progress towards emission targets.

[27] Australian Government agencies include the Australian Bureau of Statistics (ABS), Department of Resources Energy and Tourism (DRET) and the Australian Bureau of Agricultural and Resource Economics (ABARE).

was agreed by First Ministers in July 2009. Ongoing tensions exist in relation to data sharing arrangements, such as: potential conflicts between Australian Government and state legislation; controls over the release of sensitive, commercial-in-confidence information; warranties over the quality of the data; and the costs involved for state agencies in meeting Australian Government confidentiality and disclosure standards. Notwithstanding these tensions, DCCEE has advised that negotiations with individual jurisdictions are continuing, with outstanding issues being progressively resolved with a view to finalising all MOUs during 2012.

*Views of registered corporations*

**45.** The ANAO sought information from registered corporations regarding the progress that has been made against the objective of the Streamlining Protocol. In response to the ANAO's survey, corporations reported that they were providing data for up to ten additional Australian Government, state and territory government, or international bodies.[28] Sixty-three corporations out of 108 respondents (58.3 per cent) considered that there had been no progress, while 32 (29.6 per cent) considered that there had been progress to some extent.[29] Only seven corporations (6.5 per cent) considered that there had been a reasonable or high degree of progress.

## Summary of agency response

**46.** DCCEE responded to the report as follows, with the full response included at Appendix 2:

> The Department of Climate Change and Energy Efficiency (the Department) accepts the three recommendations of the 2011 ANAO audit report on the *Administration of the Greenhouse and Energy Reporting Scheme (NGERS).*
>
> The NGERS provides a rich and detailed data set across energy production and consumption and greenhouse gas emissions. This data set is currently meeting the majority of energy and greenhouse data needs of relevant Commonwealth agencies in advising government on policy, informing the community, and meeting international reporting obligations. The scope and

[28] Corporations with global operations commented that they have provided reports to programs in the USA, Canada and the United Kingdom, including the Carbon Disclosure Project and the Dow Jones Sustainability Index.

[29] Six corporations (5.6 per cent) were not sure or did not know if there has been a reduction in the level of duplication in reporting.

granularity of NGERS data is being examined as a model by other countries. Over time, we expect the value of the data to increase, as each year of reporting establishes a longer time series and as the Department pursues continuous improvement to data quality.

The audit report acknowledges the dynamic policy and resourcing context the Department faced in implementing NGERS, the complexities of the reporting scheme, and the efforts of the Department in seeking the agreement of states and territories to use information reported under NGERS for state greenhouse gas or energy program purposes.

Regarding recommendations 2 and 3, the Department will continue to pursue achievement of the streamlining objectives, in alignment with appropriate initiatives under the Council of Australian Governments. In this regard the Department will also foster opportunities to engage with jurisdictions and stakeholders.

Following the IT findings from the 2011 ANAO audit, the Department has made significant improvements to the security of the IT system. The Department completed actions to rectify the very high and high risks identified and has made significant infrastructure improvements in light of the audit report.

As part of the Clean Energy Legislative Package, amendments to the *National Greenhouse and Energy Reporting Act 2007* build on and strengthen a comprehensive national reporting framework to support delivery of the carbon price mechanism. With the passing of the legislation by the Senate in November 2011, the Department is firmly focused on implementation activities. A Carbon Price Implementation Program is now well underway to undertake the action necessary for the implementation of the carbon price mechanism to proceed smoothly.

# Recommendations

**Recommendation No 1**

**Para 3.27**

To reduce the compliance costs for industry the ANAO recommends that the Department of Climate Change and Energy Efficiency assess the benefits and costs of introducing an appropriate materiality threshold/s for reporting by registered corporations.

**DCCEE response**: Agreed.

**Recommendation No 2**

**Para 5.31**

Given the importance of data sharing among agencies and jurisdictions, the ANAO recommends that the Department of Climate Change and Energy Efficiency:

(a) address NGERS data sharing and access issues through an appropriate forum of relevant stakeholders; and

(b) complete outstanding memoranda of understanding with respective NGERS data users as soon as practicable.

**DCCEE response**: Agreed.

**Recommendation No 3**

**Para 5.33**

To meet the objectives of the Streamlining Protocol, the ANAO recommends that the Department of Climate Change and Energy Efficiency:

(a) involve relevant state and territory jurisdictions in progressing the agreed objective; and

(b) consult with industry representatives to implement streamlining initiatives and to identify further streamlining opportunities.

**DCCEE response**: Agreed.

# Audit Findings

# 1. Introduction

*This chapter provides the context for the National Greenhouse and Energy Reporting Scheme including its objectives, delivery and administration. The audit objective, scope and methodology are also outlined.*

## Background

**1.1** Climate change, caused by the emission of greenhouse gases has been recognised as a global challenge with the potential to affect ecosystems, water resources, food production, human health, infrastructure and energy systems in all countries.[30] Within Australia, successive Australian Governments have introduced a range of initiatives to address the challenge of climate change. State and territory governments have also introduced programs and initiatives designed to reduce emissions or assist communities to adapt to climate change. In 2008, there were some 550 climate change related measures identified across jurisdictions in Australia.[31]

**1.2** Reporting is a central component of most greenhouse and energy programs as it allows entities and governments to monitor the achievement of their greenhouse and energy objectives. In response to growing awareness of the potential impacts of greenhouse gas emissions on Australia's climate, governments have increasingly sought to engage industry in initiatives to promote greenhouse gas reductions, encourage low emission technologies and improve energy efficiency.

**1.3** The *National Greenhouse and Energy Reporting Act* (the NGER Act) was passed at the Parliament in September 2007. The legislation followed an agreement by the Council of Australian Governments (COAG) in April 2007 to establish a mandatory national greenhouse gas emissions and energy reporting system to replace a range of voluntary industry surveys and programs with greenhouse gas or energy measurement requirements. The NGER Act aims to introduce a single national reporting framework for constitutional corporations

[30] International Organization of Supreme Audit Institutions, Working Group on Environmental Auditing, *Coordinated International Audit on Climate Change; Key Implications for Governments and their Auditors*, November 2010, p.9.

[31] ANAO Audit Report No. 27, 2009–10, *Coordination and Reporting of Australia's Climate Change Measures.* Canberra, p.19.

that have significant greenhouse gas emissions from energy consumption and energy production. The five objectives of the NGER Act are to:

- underpin the introduction of a proposed emissions trading scheme in the future;
- inform government policy formulation and the Australian public;
- meet Australia's international reporting obligations;
- assist Commonwealth, state and territory government programs and activities; and
- avoid the duplication of similar reporting requirements in the states and territories.

**1.4** When introducing the legislation into Parliament, the then Minister for Environment and Water Resources commented that:

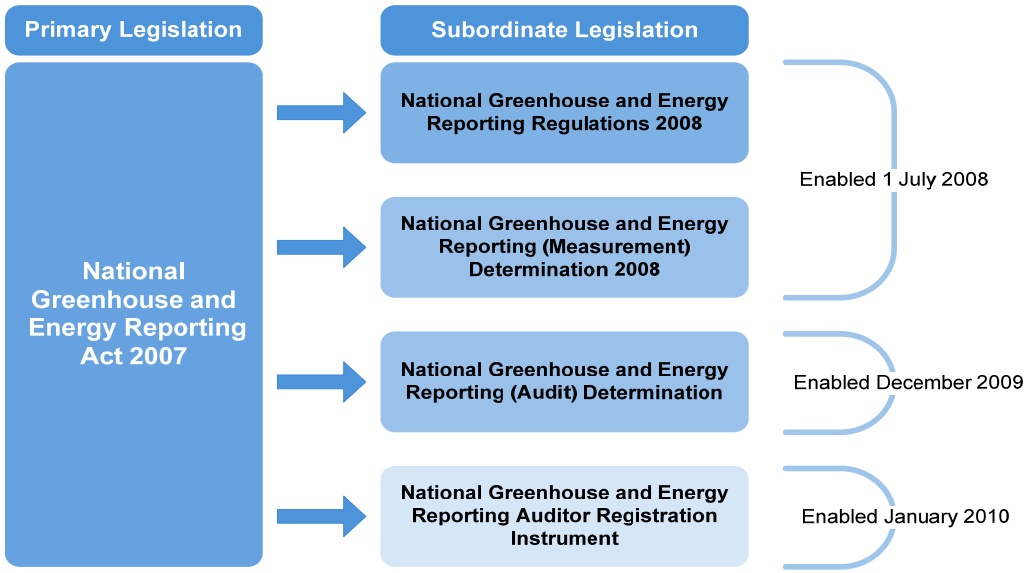
> The bill I am introducing today, lays the foundation for Australia's emissions trading scheme. Robust data reported under this bill will form the basis of emissions liabilities under emissions trading, and will inform decision making during the establishment of the emissions trading system, including with regard to permit allocation and incentives for early abatement action.[32]

**1.5** The NGER Act is administered by the Department of Climate Change and Energy Efficiency (DCCEE) and is part of a legal framework made up of primary legislation, subordinate legislation, guidelines and other supporting material as illustrated in Figure 1.1. The Act came into effect on 1 July 2008.

[32] The Hon. Malcolm Turnbull MP, then Minister for the Environment and Water Resources, Second Reading, *National Greenhouse and Energy Reporting Bill 2007*, House Hansard, 15 August 2007.

## Figure 1.1

**NGER legislative framework and reporting guidelines**




Source: DCCEE.

**1.6** The NGER Act makes registration and reporting mandatory for constitutional corporations[33] whose energy production, energy use or greenhouse gas emissions meet specified thresholds. The thresholds for facilities controlled by corporations required to report under NGERS is 25 000 tonnes of carbon dioxide equivalent ($CO_2$-e) emissions or 100 terajoules (TJ) of electricity.[34] Facilities can include: retail outlets, primary production and manufacturing plants, construction sites; air, rail, road and water transport; and electricity, gas or water supply. For corporations as a whole, the thresholds are 50 000 tonnes of $CO_2$-e or 200 TJ of electricity (as at 30 June 2011).

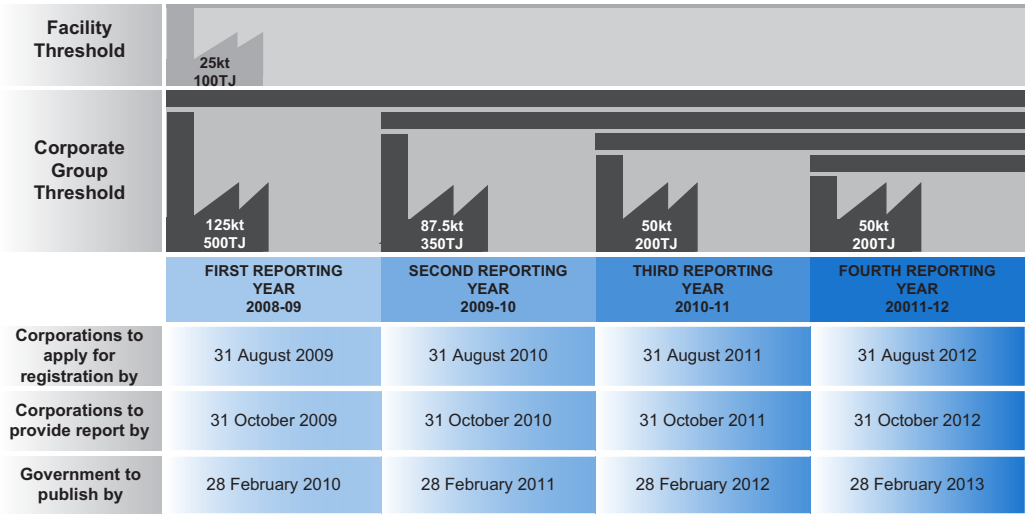
**1.7** The thresholds for corporations were lowered annually for the first three years of the scheme. This has resulted in a greater number of corporations required to register with the DCCEE over this time frame. Figure 1.2 illustrates the NGER reporting thresholds from 2008 until 2012.

[33] A constitutional corporation is defined under paragraph 51 (xx) of the Australian Constitution.

[34] One terajoule is equal to $10^{12}$ joules.

## Figure 1.2

**NGER reporting thresholds**




Source: DCCEE.

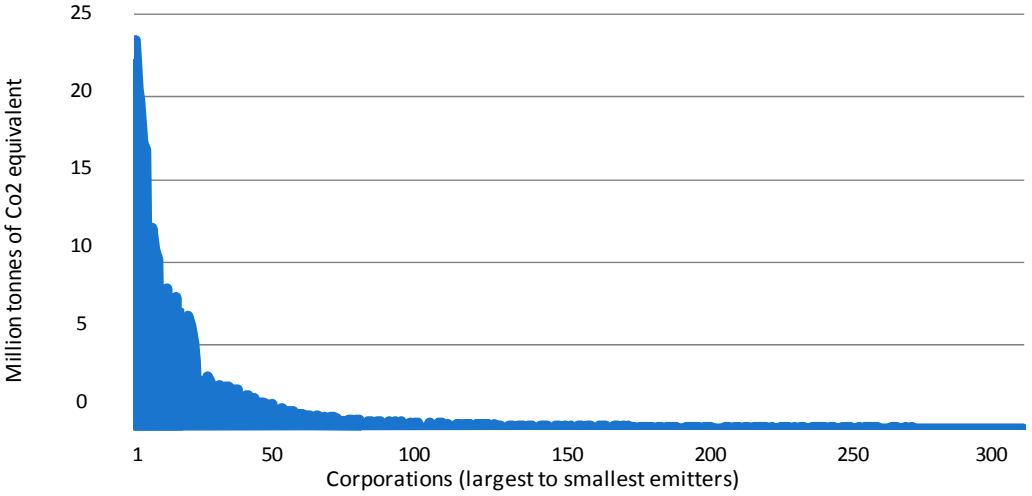
**1.8** As at March 2011, 775 corporations were registered with DCCEE and 299 corporations with the greatest emissions had their data published in 2011 from the 2009–10 reporting year.[35] Figure 1.3 shows the 299 corporations whose data was published under the NGER Act in 2009–10 and the level of direct emissions[36] that these corporations emit annually. The 100 corporations with the largest greenhouse gas emissions from direct combustion account for over 90 per cent of the total direct emissions reported. These are termed Scope 1 emissions.

[35] These figures are updated annually inline with the reporting cycle.

[36] That is, emissions coming directly from combustion of coal, oil or other energy sources.

## Figure 1.3

**Published reporters and direct emissions levels for 2009–10**




Source: ANAO Analysis of NGER data involving direct (Scope 1) emissions for 2009–10.

**1.9** In September 2007, when the NGER Act was passed by the Parliament, regulations underpinning much of the detail of the Act had not been put in place. The *National Greenhouse and Energy Reporting (Measurement) Determination* 2008 and the *Greenhouse and Energy Reporting Regulations* 2008 did not commence operation until 1 July 2008.[37] The Act was amended in 2008 to require a separation of a corporation's Scope 1 emissions[38] from Scope 2 emissions.[39] In March 2009, further amendments were made to the legislation to clarify the definition of certain key operational terms relating to greenhouse and energy audits conducted under the NGER Act and to expand the number of provisions and processes relating to the conduct of audits under the Act.[40]

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[37] Parliament of Australia, Parliamentary Library, *Information, analysis and advice for the Parliament*, 20 August 2008, No 5: 2008–09, ISSN 1328–8091.

[38] Scope 1 emissions are direct greenhouse gas emissions, such as from on-site combustion of coal, oil or natural gas.

[39] Scope 2 emissions are indirect greenhouse gas emissions derived from the purchase of energy, such as electricity produced from burning coal, oil or natural gas.

[40] Parliament of Australia, Parliamentary Library, *Information, analysis and advice for the Parliament*, 19 June 2009, No 176: 2008–09; ISSN 1328–8091.

## National Greenhouse and Energy Reporting Scheme

**1.10** The NGER Act establishes a national framework for corporations to report greenhouse gas emissions and energy consumption and production.[41] Registered corporations must report to DCCEE using the Online System for Comprehensive Activity Reporting (OSCAR), a web-based data tool that has been developed for industry to record energy and emissions data. It was designed to standardise reporting from corporations, and enable the automatic calculation of greenhouse gas emissions, based on energy and emissions data. A hardcopy of the same report endorsed and signed by the corporation's Chief Executive Officer is also required by 31 October. The privacy and confidentiality of the information collected imposes significant security obligations on the Australian Government.

**1.11** The first annual reporting period began on 1 July 2008 and ended on 30 June 2009. The second reporting period was completed on 30 June 2010 with reports to be finalised and submitted by October 2010, with the third year reports submitted by 31 October 2011. In 2009–10, NGERS reported greenhouse gas emissions totalling some 225 million tonnes of $CO_2$-e.[42]

### Carbon pricing mechanism

**1.12** In February 2011, the Government announced that a carbon pricing mechanism would be introduced from July 2012 with a cap-and-trade emissions trading scheme following within three to five years. This decision effectively re-establishes the link to one of the primary objectives of the NGER Act—to underpin the introduction of a proposed emissions trading scheme. On 13 September 2011, the Government introduced a legislative package that would enable the implementation of the policy set out in the Government's Climate Change Plan, *Securing a Clean Energy Future*.[43] The *Clean Energy Legislation* was passed by the Parliament on 8 November 2011. With the

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41 DCCEE, *National Greenhouse and Energy Reporting Overview*. Available from: <http://www.climatechange.gov.au/government/initiatives/national-greenhouse-energy-reporting/tools-resources/publications/nger-overview.aspx> [accessed 25 August 2011].

42 Over the year to the June quarter of 2011, Australia's National Greenhouse Gas Inventory was an estimated 546 Mt CO2-e (million tonnes of carbon dioxide equivalent). DCCEE, *Quarterly Update of Australia's National Greenhouse Gas Inventory*, Canberra, June 2011, p.6.

43 DCCEE, *Securing a Clean Energy Future—The Australian Government's Climate Change Plan*, Canberra, 2011.

passage of the legislation, regulatory responsibility for NGERS will transfer on 2 April 2012 to a separate authority—the Clean Energy Regulator.

**1.13** The Government has indicated that the carbon pricing mechanism will apply to approximately 500 of the largest emitters of $CO_2$-e in Australia. In general, the NGERS threshold of 25 000 tonnes of $CO_2$-e will determine whether a facility will be covered by the carbon pricing mechanism. Carbon pollution from the following sources will be covered by a carbon price: stationary energy; waste; rail; domestic aviation and shipping; industrial processes; and fugitive emissions. Over half of Australia's emissions are intended to be directly covered by the carbon pricing mechanism.[44]

## Penalties for non-compliance

**1.14** Significant penalties apply for failure to comply with the NGER Act. There are maximum civil penalties of $220 000, with daily penalty provisions for continuing offences. Chief Executive Officers of corporations can be held personally liable in the event that the corporation fails to:

- register or register on time;
- report or report on time or where the report contains false or misleading information; and
- maintain adequate records to allow the corporation to report accurately on emissions and energy and to allow compliance with NGER obligations to be established.

**1.15** While these civil penalties support the enforcement of the NGERS legislation, the then Government indicated that:

> The emphasis of the compliance and enforcement regime in the initial years of the scheme will accordingly be on encouraging compliance, rather than punitive measures. As the scheme matures, a more stringent approach was considered to be appropriate, particularly with regard to data that will inform emissions trading.[45]

[44] DCCEE, op cit., p.27.

[45] Second Reading Speech, *National Greenhouse and Energy Reporting Bill 2007*, House of Representatives, *Debates* 15 August 2007, p.14.

### NGERS administration

**1.16** The NGER Act also establishes the statutory position of the Greenhouse and Energy Data Officer (GEDO), within DCCEE. The GEDO is responsible for many of the regulatory tasks under the Act, including:

- managing the National Greenhouse and Energy Register;
- monitoring and enforcing compliance with the legislation;
- auditing corporations;
- disclosure and publication of data; and
- registering and deregistering corporations.

**1.17** The GEDO is also responsible for providing capacity-building materials and communicating policy interpretation to help corporations comply with their legislative obligations.

**1.18** The Greenhouse and Energy Reporting Division (Regulatory Division) within DCCEE is responsible for managing the implementation and administration of the NGER Scheme. The Division acts as a regulator to industry and supports the GEDO in achieving set regulatory tasks. To achieve the objectives of the NGER Act, the Regulatory Division works with, and gains support from the department's policy and IT divisions.

## International initiatives

**1.19** Internationally, there have been a range of initiatives designed to standardise the measurement and reporting of greenhouse gas emissions. The Greenhouse Gas Protocol (GHG Protocol) Initiative[46] is one of the largest international efforts to create common measuring standards applicable to corporations. The United States Environment Protection Agency's Climate Leaders Program (a partnership between government and industry) has adapted the GHG Protocol Initiative to create its own standards as well as developing additional tools and resources to help corporations.

[46] The Greenhouse Gas Protocol (GHG Protocol) is a widely used international accounting tool for government and business leaders to understand, quantify, and manage greenhouse gas emissions. The GHG Protocol, a decade-long partnership between the World Resources Institute and the World Business Council for Sustainable Development, involves businesses, governments, and environmental groups around the world building programs for tackling climate change. It provides the accounting framework for GHG standards and programs—from the International Standards Organization to the Climate Registry—as well as hundreds of GHG inventories prepared by individual companies.

**1.20** While there are establishment costs for a measuring and reporting regime, there is evidence to suggest that large businesses in particular, can achieve net cost savings and energy efficiencies from measuring and reporting their greenhouse gas emissions.

**1.21** The Carbon Disclosure Project (CDP) is an independent, not-for-profit organisation. The project contains carbon data on 3000 organisations in 60 countries worldwide including 475 institutional investors which have US $55 trillion in assets under management. The CDP has found that measuring and reporting emissions helps companies to identify opportunities for emissions reductions. It also helps companies set meaningful and achievable reduction targets, as well as advancing better risk management and increased awareness of new market opportunities. A report for the CDP and the United Kingdom Parliament found that most companies believed that the costs of reporting were not financially material to the business, with the majority of businesses (65 per cent) spending up to £50 000 on reporting greenhouse gas emissions and over 50 per cent spending less than £50 000 on measurement.[47] Some 14 per cent of respondents documented energy cost savings of over £200 000.[48]

## Audit objective, criteria and methodology

### Objective and scope

**1.22** The objective of the audit was to assess the effectiveness of DCCEE's implementation and administration of NGERS.

**1.23** The audit examined whether DCCEE had effectively implemented the scheme; managed the integrity, security and quality of scheme data; monitored industry compliance with the provisions of the NGER Act; and streamlined reporting arrangements in line with the agreement by Australian, state and territory governments.

[47] The highest cost of measurement was reported as £450 000 while the highest cost of reporting was £400 000.

[48] Australian companies may have already realised some net financial savings as a consequence of participation in programs, such as the Greenhouse Challenge and Energy Efficiency Opportunities that preceded the introduction of NGERS.

## Methodology

**1.24** The audit methodology was developed with reference to the following publications:

- *Implementation of Programme and Policy Initiatives: Making implementation matter* (ANAO Better Practice Guide, August 2006);
- *Planning and Approving Projects—an Executive Perspectiv*e (ANAO Better Practice Guide, June 2010); and
- *Administering Regulation* (ANAO Better Practice Guide, March 2007).

**1.25** The audit considered key implementation risks and core compliance requirements of the NGER Act. The audit team reviewed planning, procedural, guidance and support documentation and files, interviewed departmental staff and stakeholders and conducted a review of the data collection, storage and analysis systems used.

**1.26** A survey of companies listed on the National Greenhouse and Energy Register (using an external service provider) enabled qualitative client data on the efficiency and effectiveness of the implementation process to be considered in the audit. This was further supported by interviews with a selection of businesses listed on the National Greenhouse and Energy Register.

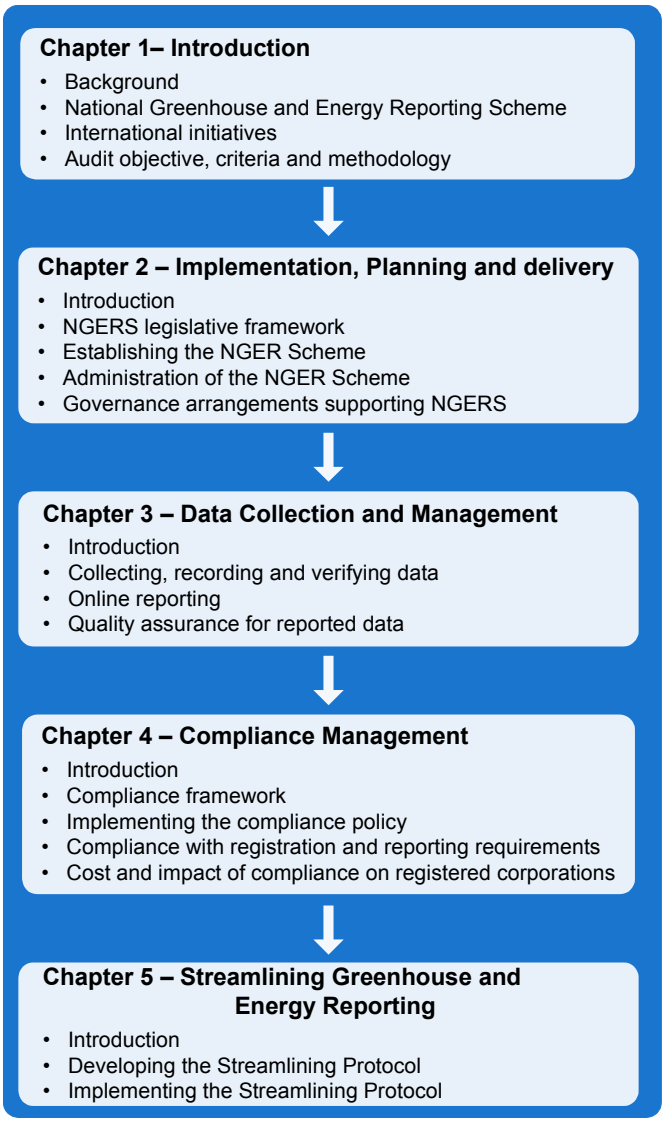
**1.27** An expert Information, Communications and Technology (ICT) firm was engaged to assess the security of the NGERS online reporting system, OSCAR, in terms of privacy and confidentiality with oversight provided by the Defence Signals Directorate.[49]

**1.28** The audit was conducted in accordance with the ANAO Auditing Standards at a cost of $472 569. The report structure is outlined in Figure 1.4.

[49] The Defence Signals Directorate (DSD) is an intelligence agency in the Australian Government Department of Defence. DSD provides information security advice and services mainly to Australian federal and state government agencies. DSD also works closely with industry to develop and deploy secure cryptographic products.

## Figure 1.4

### Report structure




Source: ANAO.

# 2. Implementation, Planning and Delivery

*This chapter examines the planning, implementation and delivery of the National Greenhouse and Energy Reporting Scheme.*

## Introduction

**2.1** Implementation and delivery of Australian Government policy initiatives is one of the key responsibilities of government agencies. In recent years, there has been an increasing focus on and a community expectation of, sound policy implementation and seamless delivery of government policies—on time, within budget and to an acceptable level of quality.[50]

**2.2** The implementation of NGERS represented a substantial reform and a challenging undertaking that necessitated sound planning and effective governance to support achievement of the Government's policy objectives.

**2.3** The ANAO examined DCCEE's implementation, planning and delivery of NGERS with a focus on the: legislative framework; establishment of the scheme; ongoing administration of the scheme; and governance arrangements supporting the scheme.

## NGERS legislative framework

**2.4** The NGER legislation is principles-based with a focus on intended outcomes rather than on prescriptive requirements. The NGER Act and associated regulations, determinations and instruments establish the legislative framework for the NGER Scheme. The NGER Act is supported by the following subordinate legislation:

- **National Greenhouse and Energy Reporting Regulations 2008:** provides the detailed requirements that regulated entities are required to follow in order to adhere to the NGER Act;
- **National Greenhouse and Energy Reporting (Measurement) Determination 2008:** made under ss10(3) of the NGER Act and

[50] ANAO Better Practice Guide—*Implementation of Programme and Policy Initiatives*, October 2006, Canberra, p.1.

establishes the methods to be used by corporations to determine the criteria and measurement of greenhouse gas emissions, the production of energy, and the consumption of energy;

- **Greenhouse and Energy Audit Determination 2009:** created under s73 of the NGER Act and sets out the requirements for preparing, conducting and reporting on greenhouse and energy audits; and
- **National Greenhouse and Energy (Auditor Registration) Instrument 2010:** created under s75A(3) of the NGER Act and sets out the qualifications, knowledge and experience required for registered greenhouse and energy auditors.

**2.5** Since the NGER Act was passed by the Parliament in 2007, two amendments came into effect on 15 September 2008 and on 18 September 2009.[51]

## Greenhouse and Energy Data Officer

**2.6** As a division head within DCCEE, the GEDO is appointed by the Secretary under the *Australian Public Service Act 1999* and is currently supported by the Regulatory Division of the department. The NGER Act establishes the GEDO's role and responsibilities, including: the registration and deregistration of corporations; the establishment of reporting arrangements; and the disclosure and publication of data.[52]

## Statutory reporting arrangements

**2.7** The NGER Act (s19(6)) specifies that registered corporations are to report in a manner and form approved by the GEDO. The manner and form of reporting has also been influenced by the streamlining objective of NGERS, with COAG agreeing that an online reporting tool would underpin reporting for Australian government and state and territory government programs.

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[51] The 2008 amendment facilitated the publishing of additional information reported by registered corporations and made a number of minor administrative changes to the legislation. The 2009 amendment established the Greenhouse and Energy Audit Framework and established Reporting Transfer Certificates (RTCs). RTCs allow the voluntary transfer of NGER reporting and record keeping obligations from a controlling corporation—where one member of its group has operational control of a facility—to a member of a different corporate group that has financial control of that facility.

[52] The NGER Act provides for a number of decisions made by the GEDO, under the Act, to be reviewed by the Administrative Appeals Tribunal (for example, a decision not to register or the making of a declaration of a facility).

**2.8** In accordance with the NGER Act, the GEDO has issued supplementary guidelines to establish the manner and form of NGERS reporting. These guidelines reflect the agreement of COAG and specify that NGERS reports must be prepared and generated in the Online System for Comprehensive Activity Reporting (OSCAR).[53] OSCAR was an existing web–based data collection tool used to record energy and greenhouse data for a number of government environmental reporting programs.[54]

**2.9** DCCEE advised that, at the time that OSCAR was adopted, it was intended to be used as a temporary reporting system until the proposed emissions trading scheme was implemented—bringing with it additional funding for the development and implementation of a purpose built online reporting system.

## Establishing the NGER Scheme

**2.10** As of 1 July 2008, all corporations regulated under NGERS were required to collect and record their energy and greenhouse gas emissions data to meet the first reporting deadline of October 2009.[55]

**2.11** The GEDO, supported by the Regulatory Division, initially focused early work on the establishment of the key statutory elements of NGERS, which was to be administered by DCCEE in the period preceding the establishment of a new regulatory authority as part of the proposed emissions trading scheme. Within the first month of appointment, the GEDO developed an *NGERS Implementation Plan*[56] and *Program Management Schedule*.[57]

**2.12** At the time, the Regulatory Division comprised seven staff with the primary responsibility of supporting the GEDO to implement NGERS. Finalisation of the GEDO's budget for the delivery of NGERS in 2008–09 was delayed, with an amount of $4.8 million not agreed until February 2009.

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53 The signed *Part A* of the report is required to be submitted separately to the GEDO.

54 DCCEE, *National Greenhouse and Energy Reporting Streamlining Protocol*, 2009, Canberra, p.9.

55 The NGER Act (s19(6)(d)) states that reports must be given to the GEDO before the end of four months after the end of the financial year.

56 DCCEE engaged a consultant to design the Implementation Plan, which provided detailed information on each of the major business activities to be undertaken to implement the NGER Scheme, such as the design and implementation of the corporation registration, reporting and publishing processes.

57 The Schedule provided a detailed sequence of actions required to implement the NGER Scheme, including information on the duration, responsible party and date of completion for each action.

**2.13** The key activities undertaken to establish NGERS included:

- **guidance material**: development and publication of NGER reporting guidance and technical guidelines;
- **communication**: communicating to all stakeholders with particular emphasis on identifying and advising those corporations likely to be regulated by the Act;
- **registration**: including the planning, processing of applications and the formal registration of applicants;
- **reporting**: including drafting advice on, and training of, registrants in data collection and reporting methodologies;
- **OSCAR**: developing OSCAR and an electronic register of corporations, and the rollout of OSCAR training sessions;
- **data quality assurance**: analysing reported data against other publicly available data sets to determine the creditability and completeness of data reported; and
- **audit and compliance process**: planning of the audit process.

**2.14** DCCEE undertook considerable preparation and design work over the early years of operation of NGERS to facilitate the statutory reporting obligations of corporations registered under the NGER Act. While the department's focus was appropriately directed at those elements of the scheme necessary to facilitate registration and reporting, work also continued on the planning and development of other key objectives of the Act.

## Designing an emissions trading scheme

**2.15** At the same time as DCCEE was establishing the NGER Scheme, the department was also preparing for the introduction of an emissions trading scheme—the Carbon Pollution Reduction Scheme (CPRS).[58] In 2009, the Australian Government introduced the CPRS legislative package to Parliament. This package provided for the creation of an independent regulator, the Australian Climate Change Regulatory Authority (ACCRA), to

[58] The Government's proposed CPRS would have placed a limit, or cap, on the amount of carbon pollution industry could emit. The CPRS, as proposed, would have required affected businesses and industry to buy a 'pollution permit' for each tonne of carbon they contributed to the atmosphere, with the aim of creating a strong incentive to reduce pollution.

implement and administer the CPRS, as well as assume responsibility for the administration of two key pieces of existing climate change legislation—the NGER Act and the *Renewable Energy (Electricity) Act 2000*. Amalgamating the functions of the GEDO, the Renewable Energy Regulator and the CPRS regulator within ACCRA, was intended to streamline regulatory processes and minimise the compliance burden on the regulated entities.[59]

**2.16** Substantial planning work was undertaken during 2009 which resulted in a comprehensive planning framework for ACCRA. This work was based on the assumption that NGERS would be managed through ACCRA and that the proposed CPRS would be established. As part of this framework, DCCEE developed a suite of comprehensive planning documents[60] to inform the development and management of ACCRA, including the integration of existing legislative requirements within the new Authority. The planning materials indicated that DCCEE had considered the risks associated with the establishment of ACCRA and the implementation of the proposed CPRS. As at April 2010, there were 210 DCCEE staff working on projects dedicated to the establishment of ACCRA and the implementation of the proposed CPRS.

### *Development of a replacement online reporting system*

**2.17** In preparation for the establishment of ACCRA, DCCEE advised that work was also undertaken to develop an online reporting system to replace OSCAR, which would underpin the data collection and recording requirements of the proposed CPRS.[61]

**2.18** Pending the introduction of the new system, it was intended for OSCAR to be used to manage the data collection requirements of the CPRS in the interim. To gain assurance regarding the capability of OSCAR to support the proposed CPRS, in particular the adequacy of data security afforded by the system, DCCEE prepared a threat and risk assessment and conducted a security penetration test on the system. These actions were taken to provide an

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[59] DCCEE, *Australian Climate Change Regulatory Authority Establishment Strategy (Draft),* 4 March 2010, p.6.

[60] Planning documents included: the *ACCRA Establishment Strategy*; the *ACCRA Establishment Blueprint*; the *Regulatory Division Strategic Plan*; the *Regulatory Division Implementation Plan*; the *Regulatory Division Divisional Risk Assessment*; the *Regulatory Division Operating Models*; *Intelligence Support*; *Regulatory Architecture*; and *Business Needs Definitions*.

[61] The budget established to create ACCRA included substantial funding for the GEDO to develop and implement a system to enable efficient collection, recording and reporting of emissions data.

assurance that OSCAR adhered to Australian Government security requirements[62] and would be capable of accommodating data submitted under the CPRS.[63]

### A changing business environment

**2.19** The initial CPRS legislative package was introduced into the Parliament by the Government in May 2009 and passed through the House of Representatives in June 2009. However, the Senate did not pass the legislative package. After further negotiations with the Coalition, a revised CPRS legislative package was re-introduced into the Parliament. After extensive debate, the CPRS legislative package again failed to pass the Senate and, on 27 April 2010, the then Prime Minister announced that the implementation of a CPRS would be deferred until the end of 2012 in line with the timetable for the Government's Kyoto Protocol commitment. This announcement resulted in plans for the establishment of ACCRA to be abandoned, and necessitated a restructuring of the administration of the regulatory functions for NGERS.

**2.20** The abandonment of ACCRA also meant that financial and staffing resources allocated to the GEDO were re-deployed to other areas within DCCEE. Staff remaining in the Regulatory Division were required to prioritise the work program, concentrating on the core activities necessary to administer the NGER Scheme. The progression of key objectives such as the audit and compliance framework and the Protocol were also deferred.

## Administration of the NGER Scheme

**2.21** DCCEE's ongoing administration of NGERS, following the deferral of the emissions trading scheme and the abandonment of ACCRA, involved an integrated delivery model. This approach has continued through to the current implementation arrangements for both NGERS and the new carbon pricing mechanism. Figure 2.1 illustrates the different functional areas currently established within the Regulatory Division (December 2011).

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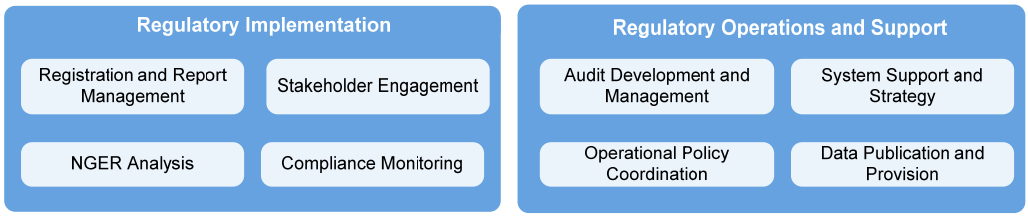
[62] All systems used to manage Government Information must be managed in accordance with the Information Security Manual (ISM) issued by the Defence Signals Directorate and the Protective Security Manual issued by the Attorney-General's Department. These documents require a Threat and Risk Assessment to be conducted over new government systems and significant changes to existing systems.

[63] NGERS data security is discussed further in Chapter 3 on *Data Collection and Management*.

## Figure 2.1

**Regulatory Division functional structure**




Source: DCCEE, Regulatory Division's 2011–12 Business Plan.

**2.22** The Regulatory Division's administration is focused on the efficient and effective delivery of NGERS and the carbon pricing mechanism.[64] Underpinning DCCEE's regulatory capability are principles aimed at guiding planning and day-to-day delivery decisions. The principles cover matters such as: 'ensuring all affected parties understand their NGER obligations and are able to comply with them; fostering cooperative relationships; minimising regulatory costs; ensuring that restorative and procedural justice is consistently applied; and maintaining a risk-based and intelligence-led approach to detecting, targeting and remedying risks in a timely manner'. These guiding principles provide a useful framework to guide the administration of the scheme. Responsibility for progressing the principles has been shared across the Regulatory Division, but the level of progress varies.

**2.23** In general, actions to progress those principles relating to engagement with stakeholders, particularly regulated entities, are more advanced than those that relate to the development of a risk-based compliance strategy. The changing resourcing profile for the Regulatory Division since the commencement of NGERS, and particularly following the deferred introduction of the proposed emissions trading scheme, has meant that resources were directed to other priorities within DCCEE. This situation is now less of a challenge for the division given the passage of the carbon pricing mechanism legislation and the subsequent increase in resources to meet priorities. The ANAO examined the implications of resourcing issues in terms of two critical functions, stakeholder engagement and compliance monitoring.

[64] Regulatory Division, Business Plan 2011–12; 6 September 2011, p.3.

## Stakeholder Engagement

**2.24** As NGERS is underpinned by principles-based legislation, it focuses on accountability and outcomes rather than prescriptive rules or specific requirements. This approach provides administering agencies with greater flexibility to determine the processes and functions to be used in order to meet legislative obligations. It also necessitates effective communication and guidance to ensure that corporations are aware of their obligations under the legislative framework and the processes established by administering agencies to achieve compliance.

### *Guidance documentation*

**2.25** DCCEE has developed comprehensive guidance materials to assist corporations to meet their obligations, including:

- guidelines on legislative requirements;
- technical guidelines on specific measurement issues;
- supplementary guidelines covering more complex compliance areas, such as for joint ventures, trusts or corporate acquisitions, disposals and mergers;
- fact sheets covering matters such as registration processes, reporting, recordkeeping, and the operational control of facilities;
- an online newsletter (*NGER e-news*)[65]; and
- online calculators to assist corporations to measure emissions from more complex sources such as solid waste and waste water.

**2.26** The guidance materials are available on DCCEE's website and are updated in accordance with legislative changes, revised practice, or new determinations. DCCEE'S website provides information to inform both registered corporations and the corporations subject to regulation of their obligations under the NGER Act. The provision of email alerts or 'flags' on the website to indicate when updates or changes have been made to guidance materials would further assist corporations to comply with their obligations.

[65] The '*NGER e-News'* is the monthly electronic newsletter that is used by the Regulatory Division to disseminate information to registered corporations. The newsletter has been designed to provide stakeholders with a monthly update on important issues relating to NGER reporting and compliance.

**2.27** The ANAO survey of registered corporations[66] found that the majority of respondents commented favourably on the quality of guidance and support provided to them by DCCEE. Some 70 per cent of survey respondents rated the support and guidance provided as 'good' to 'very good' (see Figure 2.2).

**Figure 2.2**

**ANAO Survey: Quality of guidance and support provided by DCCEE**


Source: ANAO analysis of survey results. 187 corporations responded to this question.

**2.28** Notwithstanding the largely positive response from registered corporations, 30 per cent of respondents rated support services as 'average' to 'very poor'. These results, in addition to interviews and discussions the ANAO held with registered corporations during the audit, identified the following issues:

- inconsistent advice to corporations on similar issues;
- incorrect advice provided to corporations on technical issues experienced while developing and submitting reports;

[66] The ANAO conducted a survey of registered corporations to collect data on the views of key stakeholders on the implementation of NGERS. The survey was provided to 299 registered corporations in April 2011 after pilot testing. The 299 registered corporations were the total population published by DCCEE in 2009–10. Responses were received from 188 registered corporations (61 per cent). However, not all corporations responded to every question.187 registered corporations responded to the question on quality of guidance and support.

- the department's failure on occasions to respond to formal written queries or verbal questions; and
- different areas of the Regulatory Division attempting to resolve the same issue previously resolved by other parts of the division.

**2.29** The results from the ANAO survey also indicated that some corporations were having particular difficulty with the technical requirements of NGERS. For example, 78 out of 181 respondents (43.1 per cent) rated the level of technical documentation required for interpreting and applying the requirements of the NGER Act as 'difficult' or 'very difficult' to implement, while similar numbers of corporations also reported difficulties in defining operational control and calculating uncertainty.

**2.30** Timely communication of new or updated guidelines was also considered by stakeholders as an important area that could be improved by the department. Stakeholders reported that there had been previous instances where the department had not provided corporations with formal decisions on reporting issues, or updated guidance until after registered corporations had developed their reports. Corporations also stated that, while information may be included in the NGER newsletter, this is often not read immediately primarily due to time constraints experienced when reporting deadlines are approaching.

**2.31** While stakeholder engagement is at a relatively mature stage, DCCEE advised that their stakeholder engagement processes had identified and acknowledged these areas for improvement. As a part of the process to remedy these issues, and others, the Regulatory Division has established the Issues Coordination Committee (ICC). The role of the ICC is discussed later in this chapter.

### *Workshops and training for registered corporations*

**2.32** NGER workshops are a key tool used by DCCEE to communicate with registered corporations. For each of the last two years, a series of workshops have been conducted in each capital city. These workshops have consisted of an NGER information session and an OSCAR training session for both new and advanced users. Additional OSCAR specific training sessions are held in

Canberra every fortnight over the months of August to October.[67] Over 1143 people registered to attend these workshops throughout the 2009–10 year.

**2.33** Although the workshops represent a significant cost to DCCEE, (approximately $110 per attendee), they have been well attended and have been a useful communication and training tool. DCCEE advised that the use of an external provider to deliver workshops was investigated, with a view to reducing workshop delivery costs. However, the department considered that in-house delivery of the workshops provided DCCEE with an important opportunity to build relationships with corporations. The feedback that DCCEE collected from participants attending workshops in 2009 and 2010 has been largely positive, with the majority of participants (over 80 per cent) rating the workshops highly.

**2.34** DCCEE has undertaken considerable work to engage with registered corporations, with a suite of guidance materials developed and a program of workshops delivered to assist corporations to meet their NGERS obligations. While registered corporations generally consider the quality of NGERS guidance and support to be of a high standard, there is scope for the department to record those issues discussed during each workshop and respond to identified issues on the DCCEE website and in the NGER electronic newsletter. This would assist corporations unable to attend workshops and potentially reinforce the key messages for those that did attend.

## Compliance monitoring

**2.35** Compliance is defined by DCCEE as: 'providing the ability for the regulator to encourage affected parties to comply and to remedy any identified contravention of the NGER Act through the use of appropriate and proportionate risk-based compliance actions'.[68] This definition recognises that the onus for compliance rests primarily with registered corporations.

**2.36** To monitor regulated corporations' compliance with their obligations under the NGER Act, DCCEE has developed a structured compliance framework that allows the department to encourage or enforce registered corporations' compliance.

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[67] OSCAR workshops are held at this time of the year to ensure that people new to the reporting process, and corporations requiring refresher training, have access prior to the reporting deadline in October.

[68] DCCEE, *Greenhouse and Energy Reporting Division Strategic Plan*, 2009, Canberra, p.5.

The *NGERS Education, Compliance and Enforcement Policy*, which was released in June 2009 and updated in May 2010, sets out DCCEE's broad approach to compliance monitoring and the department's powers to enforce the NGER Act.

**2.37** However, implementation of this compliance regime has been delayed largely because of resource constraints facing the division as well as the intention to focus on stakeholder engagement in the early years of implementation. Compliance functions are currently being developed, but a fully functional compliance capability is not yet in place. This will be a critical capability to have in place prior to the introduction of the carbon pricing mechanism in July 2012. DCCEE's approach to compliance management is examined in more detail in Chapter 4—*Compliance Management*.

### Conclusion

**2.38** Significant policy decisions and consequential changes to resourcing contributed to delays in progressing key elements of NGERS. Nevertheless, despite the complexities and technical challenges involved, DCCEE has implemented a workable greenhouse gas and energy reporting scheme. However, because of resource constraints and competing priorities, the compliance and audit functions are yet to be finalised. An effective compliance and audit function will become increasingly important with the implementation of a carbon pricing mechanism from July 2012.

## Governance arrangements supporting NGERS

**2.39** Governance refers to the processes by which organisations are directed, controlled and held to account.[69] Sound governance arrangements also enable regulators to meet their responsibilities and be accountable for their decisions and actions, which helps to build stakeholder and public confidence.[70]

### NGERS oversight

**2.40** At the time of the audit, the structure of the Regulatory Division was broadly aligned with each of the major components required to be administered under the NGER Act (as outlined in Figure 2.3). However, the

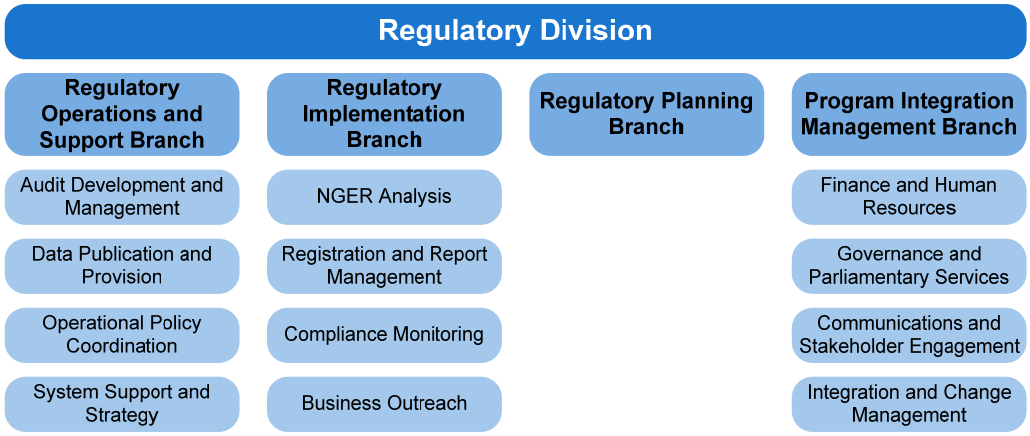
[69] It encompasses authority, accountability, stewardship, leadership, direction and control exercised in the organisation.

[70] ANAO, Better Practice Guide–*Public Sector Governance*, July 2003, Canberra, p.6.

Regulatory Division structure has been subject to regular change in response to the fluctuating resource allocations for NGERS regulation and subsequent machinery of government changes over time.[71]

**Figure 2.3**

**Regulatory Division structure**




Source: DCCEE, 20 September 2011.

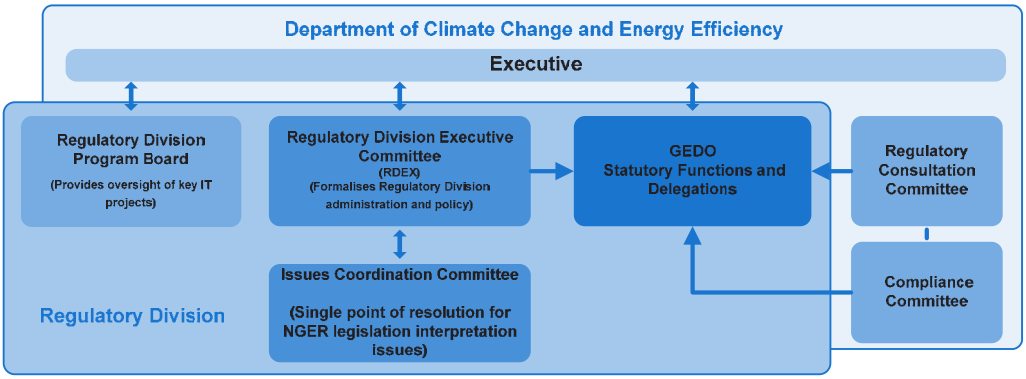
### *Governing committees*

**2.41** The governance arrangements for NGERS largely consists of a series of committees to support the GEDO in the discharge of his statutory responsibilities (as outlined in Figure 2.4).

[71] The ANAO acknowledges that in response to the Government's announcement of the *Clean Energy Future* package, the Regulatory Division will be subject to major structural changes in preparation for the delivery of the carbon pricing mechanism. Changes to the governance and management arrangements of the Regulatory Division were already apparent towards the end of this audit.

## Figure 2.4

**NGERS committee structure**




Note: The Regulatory Consultation Committee and the Compliance Committee are whole-of-department committees which have been implemented to provide advice and cross-departmental consultation to deliver consistency across DCCEE policies.

Source: DCCEE.

**2.42** As at September 2011, the GEDO was supported from within the Regulatory Division primarily by the Regulatory Division Executive Committee (RDEx) and the ICC. The Regulatory Consultation Committee and Compliance Committee are departmental committees which were established to provide high level advice and input across the department to assist statutory officers, such as the GEDO, to develop strategies and policies to administer regulation and to promulgate a consistent approach to compliance across the DCCEE's regulatory functions. Prior to the establishment of these committees, the GEDO was advised by the NGER Compliance and Enforcement Committee within the Regulatory Division. This Committee ceased to operate in October 2010.

### *Regulatory Division Executive Committee*

**2.43** The RDEx is the primary NGERS governance committee providing oversight of administration of the scheme. It was established in February 2011, meets on a weekly basis, and is responsible for strategic and operational decisions relating to the functions of the Regulatory Division. The RDEx terms of reference indicate that the committee is responsible for monitoring issues of a high to medium impact on the administration of the NGER Scheme. However, the ANAO noted from early meeting records that the implementation of key scheme components and regulatory functions, such as

the Streamlining Protocol and the development and implementation of the audit function were not actively monitored by the Committee.

*Issues Coordination Committee*

**2.44** The ICC was established by the GEDO, with the first meeting held on 29 June 2011. The ICC has met every three weeks to provide a single, streamlined point of resolution for issues relating to the interpretation of the NGER Act.[72] The aim of the ICC is to formally identify issues, nominate the relevant section that will work to resolve a particular issue, and set a timeframe for the resolution of each issue. The ICC was also established to address the risk of inconsistent advice being provided to stakeholders, or the duplication of work occurring across teams. ICC minutes, along with formal recommendations made by the committee to the GEDO, shows that the ICC has been actively working to address legislative issues identified by both the department and stakeholders. A log of legislative issues and their solutions has also been maintained and updated regularly—this is shared with the relevant policy teams within DCCEE.

## Business planning processes

**2.45** The 2011–12 Regulatory Division Business Plan has been used by DCCEE to guide the administration of the NGER Scheme. The business plan reflects the outcomes of the Division's formal planning process which was conducted prior to and during the 2011–12 year. The Business Plan includes key business management considerations including: vision, mission and values; assumptions and constraints; outcomes; objectives and deliverables; performance targets and timeframes. Future staffing needs and existing requirements are also addressed by the plan.

## Risk management

**2.46** The Regulatory Division has also established an overarching risk management plan for the delivery of NGERS, which outlines how risks will be managed within the Division. The plan is accompanied by a detailed risk matrix that covers the major risks that the Regulatory Division faces in administering the NGER Act.

[72] DCCEE, *Issues Coordination Committee Procedures Manual*, Canberra, 2011, p.3.

**2.47** While the 15 risks identified have specific treatments to address them, four were considered to have materialised. However, some of the designated risk treatments designed to mitigate these risks had not been implemented. One example, where the risk was classified by the DCCEE as 'extreme', relates to the department's IT capability for the administration and management of NGERS data not being delivered on time or to specification. This risk specifically related to the effective operation of OSCAR and the NGER Disclosure Tool (NDT). As will be discussed further in this report, OSCAR and the NDT both require significant improvements to be fully effective. It is important that risk treatments are not only identified, but also implemented as soon as practicable to remedy or reduce their impacts.

## Performance reporting

**2.48** Effective and timely reporting is important as it informs the decision making process and stakeholders of program performance. As noted earlier, the committee structures established within the Regulatory Division and the wider department, inform the GEDO of developments and issues related to the administration of NGERS. The Regulatory Division utilises existing reporting channels to convey NGERS issues and developments to the DCCEE Executive, including Executive Information Sharing Sessions[73] and through issues-based briefings.

**2.49** Within the Regulatory Division, reports outlining non-compliance with the registration requirements of the NGER Act are provided to the GEDO on a weekly basis. As at July 2011, 20 corporations had been identified by DCCEE as having obligations, but not reporting. Six of these were in the process of reporting and were being managed by the compliance team within DCCEE. The remaining outstanding reports related to corporations with problems over determining operational control, or corporations in receivership or takeover.

### *Advice to the Minister*

**2.50** Public sector agencies have a responsibility to ensure that their Ministers are well informed and that programs are being effectively

[73] These sessions are attended by the Secretary and all First Assistant Secretaries within DCCEE. As a part of the information sharing process, all participants are required to provide a brief update of current issues that may impact on the department. The sessions also provide a forum for advising the Secretary of any high level or significant issues that may be affecting a particular branch or division.

implemented in the way intended.[74] Where significant implementation problems arise, it is important that analysis of the issues and possible solutions are promptly escalated through the agency's governance arrangements for higher level consideration and action. Where appropriate, the Minister should be informed and involved.[75] In the period from July 2008 to June 2011, the department provided 32 briefs to the Minister for Climate Change and Energy Efficiency on the management of NGERS (as outlined in Table 2.1).

**Table 2.1**

**NGERS ministerial briefs**

| Subject | Number |
|---|---|
| Publishing NGER data | 2 |
| Publishing NGER Register and NGER compliance issues | 2 |
| Amendment and approval of legislation or policy | 11 |
| Release of documentation for public consultation and results | 8 |
| Formal release of NGER documentation/guidance | 2 |
| Audit determination and framework | 3 |
| Approval and publication of the Streamlining Protocol | 1 |
| Other | 3 |
| **Total** | 32 |

Notes: DCCEE advised that additional information relating to key administrative elements of NGERS may have been provided to the Minister as a part of broader briefings.

Source: ANAO analysis of DCCEE information.

**2.51** As outlined in Table 2.1, the majority of issues presented to the Minister related to amendments to policy and legislation, public consultation, or publication of information. These are appropriate, relevant and reflect accepted public service practice. However, there are some areas where there was scope for more comprehensive Ministerial briefing—particularly in relation to important NGERS milestones, such as delays to the implementation of the Streamlining Protocol.

**2.52** There is scope for DCCEE to improve the focus and frequency of Ministerial briefings. Timely briefs outlining progress toward the achievement of NGERS objectives would inform the Minister of developments and any

[74] Andrew Podger, Australian National University, *The Role of Departmental Secretaries—personal reflections on the breadth of responsibilities today*, 2009, Canberra, p.17.

[75] ANAO, Better Practice Guide–*Innovation in the Public Sector: Enabling Better Performance, Driving New Directions*, Canberra, December 2009, p.30.

delays that the department is experiencing in achieving the Government's policy objectives. In particular, briefings should be provided where previous advice is no longer current.

*Reporting to Parliament*

**2.53** The foundation for external agency accountability and transparency is performance information presented initially in Portfolio Budget Statements (PBS) and subsequently reported against in agencies' Annual Reports.[76] As the NGER Scheme came into effect on 1 July 2008, performance information relating to the scheme was first included in the PBS in 2008–09.

**2.54** The performance information presented in the PBS for NGERS does not currently provide coverage of all scheme objectives, which would make it difficult for stakeholders to effectively monitor progress. A further issue is the lack of consistency of measures across years, which means that progress can not be tracked and trends are not able to be monitored. Performance information included in the PBS since commencement of the scheme is shown in Appendix 1.

**2.55** Annual Reports are one of the principal accountability mechanisms between government and departments and from departments through the government to the Parliament.[77] The reporting of performance through the annual reporting cycle provides an opportunity for agencies to demonstrate and promote their achievements and explain any variance from expectations or reference points, while meeting statutory accountability requirements. Also, it offers a counter to ill-informed judgements and assertions about the agency's contribution and achievements.[78] The inclusion of NGERS-specific performance information in DCCEE's PBS and Annual Reports provides stakeholders with useful insights into some aspects of NGERS. For example, DCCEE has commented on the Streamlining Protocol being in place in July 2009 and that annual NGER reports are receipted and reviewed through a quality assurance process before data is published by 28 February 2011.

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[76] Portfolio Budget Statements are presented to Parliament by Australian Government agencies to inform Senators and members of Parliament of the proposed allocation of resources to government programs and outcomes. They also facilitate understanding of the proposed appropriations in Appropriations Bills (Nos 1 and 2). Agencies are required to provide sufficient information, explanation and justification in their PBS to enable Parliament to understand the purpose of each program and outcome proposed.

[77] Department of the Prime Minister and Cabinet, *Requirements for Annual Reports,* 2010, Canberra, p.3.

[78] ANAO, *Better Practice in Annual Performance Reporting*, April 2004, Canberra, p.4.

## Conclusion

**2.56** Governance arrangements for NGERS have evolved over time in response to policy decisions, machinery of government changes and changes to resources. Key business planning processes have accordingly been updated and are in place to guide the current direction and priorities for NGERS. DCCEE has also identified key risks early in the implementation. However, there is scope to improve the treatment of key risks—particularly in regard to IT systems delivery.

**2.57** DCCEE's Annual Reports on the administration of the NGER Scheme have also been limited by the absence of a set of fit-for-purpose performance measures. The department's Annual Reports have included narrative coverage of selected NGERS activities and provided specific results that DCCEE has achieved related to the implementation of NGERS. However, DCCEE's annual reporting has not addressed significant delays in the implementation of key elements of NGERS—including the Streamlining Protocol and the disclosure of information to user groups. A greater focus on measuring and publicly reporting progress against the achievement of all NGERS objectives and any limitations on anticipated results would provide stakeholders with greater insights into program performance over time and enhance accountability.

# 3. Data Collection and Management

*This chapter examines data collection, assessment and record keeping practices. It also examines the functionality of the online reporting system used to record NGERS data, data security and the quality control process within the DCCEE.*

## Introduction

**3.1** Data integrity is critical to the achievement of the outcomes sought by the NGERS legislation. Corporations listed on the National Greenhouse and Energy Register are responsible for collecting energy and emissions data, self assessing its accuracy, maintaining appropriate records of the data and any assumptions or estimates, and reporting annually. Registered corporations self assess their emissions data based on methodologies and guidance provided by DCCEE.[79] Corporations must submit their final report electronically using OSCAR, and provide a hardcopy of the report endorsed by the corporation's Chief Executive Officer four months after the end of the financial year (generally 31 October each year).

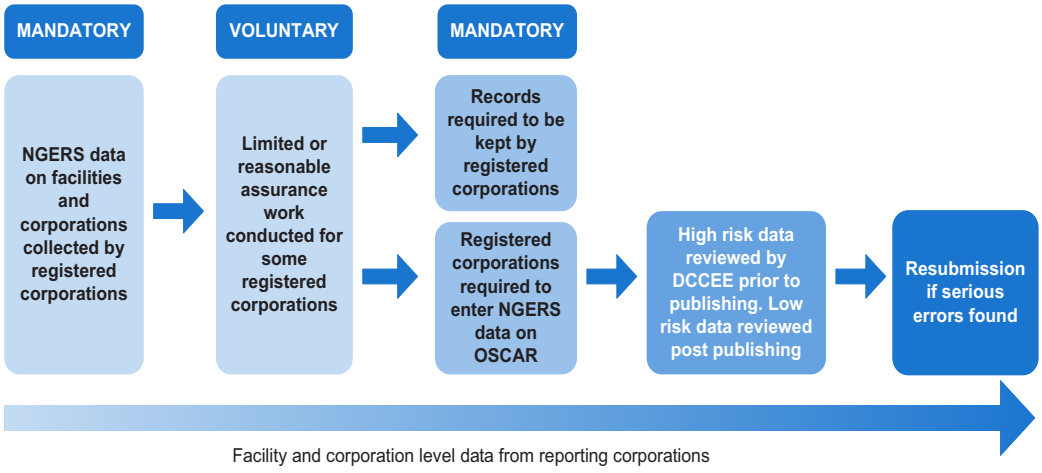
**3.2** DCCEE is responsible for developing and maintaining OSCAR. It also provides a degree of quality assurance over the data that is directly entered into OSCAR by corporations. This aspect of the department's role is particularly important given the use of this data to inform public policy relevant to the mitigation of greenhouse gas emissions and to fulfill international reporting obligations under the Framework Convention on Climate Change.[80] Figure 3.1 sets out high level business processes surrounding the collection, recording and verification of NGERS data.

[79] OSCAR automatically calculates greenhouse emissions based on the corporation's energy and emissions data.

[80] The Framework Convention on Climate Change sets an overall framework for intergovernmental efforts to tackle the challenges posed by climate change. It recognises that the climate system is a shared resource whose stability can be affected by industrial and other emissions of carbon dioxide and other greenhouse gases.

## Figure 3.1

**Collection, recording and verification of NGERS data**




Source: ANAO based on DCCEE information.

**3.3** To determine the effectiveness of processes to manage the integrity of NGERS data, the ANAO examined the: collection; recording; and verification of data.

# Collecting, recording and verifying data

## Data collection

**3.4** The process whereby registered corporations collect and self assess NGERS data prior to submission is a key determinant of the quality of data contained in reports provided to DCCEE. The automation of data collection processes helps to minimise input errors and independent verification prior to submission provides additional assurance regarding data integrity. Any errors identified should be corrected by reporting corporations prior to submission to the department.

**3.5** The ANAO's survey of registered corporations sought responses regarding how greenhouse gas emissions and energy data was captured for NGERS reporting purposes. The survey results from 180 corporations are outlined in Table 3.1.

**Table 3.1**

**ANAO Survey: How do reporting corporations capture greenhouse gas emissions and energy data for NGERS reporting?**

| Method of capturing NGERS data | | No. of corporations | Respondents (%) |
|---|---|---|---|
| Decreasing risk of error | Manual spreadsheets | 62 | 34.4 |
| | Manual spreadsheets for the majority of data requirements and automated systems for some data | 66 | 36.7 |
| | Automated spreadsheets for the majority of data requirements and manual systems for some data | 47 | 26.1 |
| | Fully automated information systems for all data requirements | 5 | 2.8 |
| | **Total** | **180** | **100** |

Source: ANAO survey of reporting corporations under NGERS.

**3.6** The use of manual spreadsheets to capture self assessed NGER data was cited as the most common approach used. Such an approach is relatively low cost, but increases the risk of input and transposition errors. It can also make it difficult to verify data accuracy. A small number of companies (five corporations representing 2.8 per cent of respondents) have fully automated systems to support NGERS and sustainability reporting. Comments from registered corporations indicated that many are in the process of moving towards automated data collection systems while others are concerned about the cost or the practicality of this approach.

**3.7** One company interviewed by the ANAO had redesigned its financial management system to manage and report greenhouse gas emissions data in a similar manner as is used for financial reporting. This resulted in an efficient process for collecting, storing, analysing and reporting on emissions data as well as for monitoring and managing operational fuel costs. The company has made a public commitment to reduce its rate of carbon emissions by 50 per cent by 2015 based on 2006–07 levels. The company advised the ANAO that this represents a further 22 per cent reduction from what has already been achieved.

**3.8** Some corporations indicated that they had outsourced much of their reporting requirements to a third party, but were, nevertheless, investigating automated systems.

**3.9** From the survey results, there is a trend towards greater automation in the future—particularly within the context of a carbon pricing mechanism. However, some corporations expressed concern about the cost or the practicality of automated systems for their particular circumstances. The absence of an upload facility in OSCAR for corporations appears to be a constraint on the further development of automated systems. The development of a data upload facility in OSCAR would enhance the functionality and effectiveness of the system for both corporations and DCCEE.

## Recording data

**3.10** To comply with the provisions of the NGER Act, a registered corporation is required to keep records detailing the greenhouse and energy-related activities of members of its group, including facilities where appropriate.[81] Records of activities are required to contain information that will provide the GEDO with adequate evidence of a registered corporation's compliance with the legislation. This includes information that can be used to verify the relevance, completeness, consistency, transparency and accuracy of reported data during an external audit.[82] Consequently, records must be available to cover all identifiable emission sources required under NGERS.

**3.11** To gain insights into the recordkeeping practices of registered corporations, the ANAO conducted interviews with firms and companies undertaking verification or audit work for corporations, as well as with a small sample of individual reporting firms.[83] Discussions with verification and/or greenhouse and energy audit firms indicated that recordkeeping could generally be improved. In some cases, the corporations either did not adequately understand their obligations under the NGER Act or were not allocating sufficient resources to meet their reporting obligations. For example,

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[81] DCCEE, *the National Greenhouse and Energy Reporting Overview*. Available from: http://www.climatechange.gov.au/government/initiatives/national-greenhouse-energy-reporting/publications/nger-overview.aspx [accessed on 6 October, 2011].

[82] The NGER Audit Determination Handbook, August 2010, requires reporting corporations to prepare a 'basis of preparation' document that details how the organisation has interpreted and applied the requirements of NGER, including methodologies applied, assumptions and estimates used. This is reinforced through the guidelines that emphasise good record keeping practice.

[83] While the DCCEE's guidance on record keeping requirements was clear and comprehensive, documentation on actual record keeping practice by corporations was absent because the department's audit program had not been finalised at the time of audit fieldwork.

the ANAO was informed that some corporations were passing down the data collection and reporting responsibilities to company graduates or placing complete reliance on third party providers.

**3.12** To better understand the recordkeeping practices of corporations, the ANAO included a question on recordkeeping in its survey of registered corporations. Table 3.2 outlines the results from the survey. The ANAO included materiality in the question to make it specific to emissions relevant or 'material' for NGERS reporting purposes.

**Table 3.2**

**ANAO survey: Extent to which corporations' records enable verification of the level of greenhouse gas emitted and energy used**

| | | Number of corporations | Respondents (%) |
|---|---|---|---|
| Increasing risk of error | Records are available to cover all identifiable and material emission sources | 116 | 64.1 |
| | Records are available to cover between half and all of identifiable and material emission sources | 60 | 33.1 |
| | Records are available to cover less than half of identifiable and material emission sources | 1 | 0.6 |
| | Not sure/don't know | 4 | 2.2 |
| **Total** | | **181** | **100** |

Source: ANAO survey.

**3.13** Table 3.2 indicates that 116 registered corporations (64.1 per cent) considered that they met the recordkeeping requirements of the NGER Act. Some 65 corporations (35.9 per cent) indicated weaknesses in recordkeeping, including four that were not sure or did not know whether records were available to verify their level of greenhouse gas emissions or energy used. The most common explanations for gaps in recordkeeping related to the difficulties in:

- recording small volumes of greenhouse gas emissions from minor or incidental sources;
- obtaining supporting records from contractors or other parties; and
- obtaining data and records in complex corporate relationships, such as following a merger, or where there are hundreds of separate

geographically dispersed sites and facilities. Illustrative comments from reporting corporations are outlined in Figure 3.2.

**Figure 3.2**

**The most common explanations for gaps in records**

Minor or incidental sources of emissions. There are many items that are impossible to accurately measure yet are required by the legislation to be reported. The effort involved to cover the last five per cent of emissions is considerable and time consuming. The legislation is not realistic in requiring 100 per cent data and chasing the last five per cent is a major cost impost to businesses for no value.

* * *

Records from contractors or third-parties. In the construction sector, NGERS requires collection of data from hundreds (in some cases thousands) of third-party contractors and suppliers many of them small or medium enterprises.

* * *

Complex corporate relationships. Our group has over 400 separate geographic sites many of which have small self accounting offices and therefore gathering information is very difficult. We have no sites which need to report as facilities as all [are] under the thresholds, however as we have so many sites we get captured under the group reporting requirements. I feel NGERS is designed in the belief that reporting entities will have large facilities with ready access to internal systems and information. Much of the information we need to collect is not readily available from our many small sites.

Source: ANAO survey.

**3.14** These findings were largely supported by the department's 2011 pilot audit program. DCCEE has also recognised the tensions between the requirements of the *NGER Measurement Determination* (particularly in regard to data 'completeness') and the practical constraints facing corporations in areas such as measuring incidental emissions and petroleum based oils and greases (PBOG's) in particular.[84] There has been some flexibility introduced to enable estimates of PBOG's to be rolled over from year to year. However, comments from registered corporations suggest that this has not been sufficient to address the problem.

*An appropriate materiality threshold for reporting corporations*

**3.15** Registered corporations commented on the absence of materiality thresholds applying to their greenhouse gas emissions, once they have triggered the reporting thresholds specified in the NGER Act. This is creating a high compliance cost, with significant effort required to collect data on

[84] DCCEE, August 2010, *Review of the NGER (Measurement) Determination*, Discussion Paper, p.47.

incidental emission sources.[85] The potential effort and cost required by DCCEE to review and verify incidental emissions through its proposed audit program in 2011–12 will also be considerable. Equally, there is a compliance burden on reporting corporations with one corporation reporting that incidental greenhouse gases may only cover 0.1 per cent of the corporation's emissions. One suggestion from a registered corporation was to collect data for incidental emissions, such as from oils and lubricants at the manufacturer/importer level rather than requiring companies to review hundreds of materials in stock lists or material safety data sheets.

**3.16** While recognising that this is a matter for the Government, the ANAO considers that there would be merit in DCCEE assessing the benefits and costs of appropriate materiality threshold/s for reporting by registered corporations. Such an approach is likely to reduce the compliance costs for industry and achieve better targeting of departmental compliance efforts towards the highest priorities of the NGER legislation.

### *The quality of data from contractors*

**3.17** A further issue relates to contractors and third parties. This has been a problem in terms of recordkeeping and also in terms of obtaining required data. It is particularly relevant for corporations involved in large scale projects and/or joint ventures, such as in relation to a mine site development or the construction of a new manufacturing or processing facility where contractors can be responsible for over 50 per cent of total greenhouse gas emissions.

**3.18** Some corporations have taken action to include a clause in their contracts to ensure that all contractors collect and maintain data. However, one peak industry body commented to the ANAO that, from their experience, there is little consistency applied to the methodology used for calculating contractors' data. In many cases the data provided by contractors is unreliable, unavailable or 'in-confidence'. One company with a complex legal structure and commercial relationships commented that where there were multiple facilities within a corporation, each facility can have its own system for dealing with contractors and their own contractual requirements. Consequently, it can be very difficult to pass on obligations to report energy use.

[85] DCCEE has allowed corporations to roll forward sources and fuel/energy data types based on a corporation's 2009–10 final report which should ease reporting requirements to some extent.

**3.19** The accuracy and completeness of data obtained from contractors is both a matter for corporations and for the department in terms of its guidance in this area. In particular circumstances, data from contractors can be significant to a reporting corporation in terms of compliance with the legislation and material to the overall level of emissions reported. More specific guidance from DCCEE on model contract clauses for the obligations of contractors would assist reporting corporations to collect and maintain the data required under the legislation.

## Verifying data

**3.20** Although independent third party verification prior to submitting a report under NGERS can provide a higher level of assurance for a corporation, it is not a requirement under the legislation. Rather, it is a voluntary practice that provides a level of assurance for the corporations in relation to their compliance with the NGER Act.

**3.21** The NGER Act was amended in 2009 to specifically allow for the registration of greenhouse and energy auditors. Only registered greenhouse and energy auditors are able to conduct greenhouse and energy audits as directed by the GEDO. Corporations are however, able to engage any auditor to conduct an audit to verify NGERS data. According to the requirements of the Audit Determination Handbook[86] an audit conducted voluntarily by a registered corporation will not be recognised as a formal greenhouse and energy audit by the GEDO for the purposes of the NGER Act, unless it has been conducted by a registered greenhouse and energy auditor.

**3.22** The ANAO's survey found that 85 corporations, out of 181 respondents (47.0 per cent), indicated that they used some form of verification. Of those corporations that indicated the type of assurance obtained, 42 used limited assurance and 31 used reasonable assurance.[87] Ten did not know the type of assurance that they had obtained. While independent assurance is important, it

[86] The handbook was developed by DCCEE following consultation with industry, the accounting profession, greenhouse gas verifiers and the environmental audit sector. The handbook adopts established accounting and greenhouse gas verification standards.

[87] The draft ISAE Assurance Framework notes that an assurance engagement can be either a reasonable assurance engagement or a limited assurance engagement. Because the level of assurance obtained in a limited assurance engagement is lower than in a reasonable assurance engagement, the nature and timing of the procedures the practitioner will perform to satisfy these requirements in a limited assurance engagement will be different from, and their extent will be less than, a reasonable assurance engagement. (Draft ISAE 3410, Assurance Engagements on Greenhouse Gas Statements, 2011).

is particularly relevant for larger corporations with more complex operational circumstances and direct emissions. These corporations are also likely to be affected by the Government's carbon pricing mechanism.

**3.23** The ANAO survey and discussions with corporations indicated some confusion between limited assurance and reasonable assurance audits and considerable cost sensitivity. Subsequent discussions with audit firms explained much of this confusion. While limited assurance audits should, in principle be lower cost, the business controls around NGERS data often required substantive testing which diminished the cost differential between limited and reasonable assurance. Audit firms also indicated that there were frequent material errors identified in the assurance work that required attention prior to submission. Consequently, for larger corporations, careful consideration of the merits of assurance work to verify NGERS data would be of benefit—particularly with the introduction of a price on carbon in 2012.

## Conclusion

**3.24** The process of collecting, recording and self assessing data for NGERS purposes has been complex and difficult with considerable variation in the degree of effort required by reporting corporations. The use of manual spreadsheets to capture self assessed NGER data was the most common approach used by corporations, with very few implementing fully automated systems. While relatively low cost, manual spreadsheets increase the risk of errors and can make it more difficult to verify data accuracy. Improvements to recordkeeping practices are also a matter for consideration within almost a third of registered corporations.

**3.25** There are particular challenges in recording small volumes of data from minor or incidental sources as well as from contractors or where more complex corporate relationships are in place. There would be merit in DCCEE assessing the benefits and costs of appropriate materiality thresholds for reporting. Such an approach would reduce the regulatory burden on registered corporations and the compliance efforts of the department.

**3.26** Independent third party verification has assisted almost half of registered corporations with their data integrity and there is scope for this to be expanded depending on the benefits and costs involved for individual corporations. The proposed ISAE assurance framework may also assist corporations in the future.

## Recommendation No.1

**3.27** To reduce the compliance costs for industry the ANAO recommends that the Department of Climate Change and Energy Efficiency assess the benefits and costs of introducing an appropriate materiality threshold/s for reporting by registered corporations.

***DCCEE response***: Agreed. The Department of Climate Change and Energy Efficiency, in consultation with the Clean Energy Regulator, will examine the variety of methods available to reduce the reporting burden while maintaining the integrity of the reported data during 2012–13.

## Online reporting

**3.28** OSCAR was established by the DCCEE to standardise reporting from corporations and support the streamlining agenda. As previously noted, OSCAR is a web–based data tool for business to record energy and emissions data for government program reporting. OSCAR was designed to provide corporations with insights into their emissions and enable automatic calculation of greenhouse gas emissions based on energy and emissions data. The system was intended to save business time and effort by reducing the burden of duplicative reporting and allowing the sharing of common data across different government programs.[88]

**3.29** Corporations that are registered under NGERS are required to enter energy and emissions data into OSCAR and submit their annual report to meet NGERS obligations. OSCAR is structured according to reporting years, beginning with the first NGERS reporting year of 2008–09.[89] A single online portal to meet the reporting requirements for all related Australian, state and territory government programs involving greenhouse gas emissions or energy data was anticipated to be in place by October 2010.

**3.30** The ANAO examined the functionality of OSCAR and commissioned a specialist consultancy firm to test the security of the system.

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[88] DCCEE website, OSCAR—frequently asked questions. Available from: http://www.climatechange.gov.au/government/initiatives/oscar.aspx [accessed 16 June 2011].

[89] DCCEE website, NGER reporting tool (OSCAR). Available from: http://www.climatechange.gov.au/government/initiatives/national-greenhouse-energy-reporting/oscar.aspx [accessed 16 June 2011].

## NGERS data security

**3.31** A robust and secure online reporting system is critical to the effective operation of NGERS. Under the NGER Act, it is an offence for anyone to disclose greenhouse and energy information obtained in an official capacity unless the disclosure is made in accordance with the Act or for the purposes of another law of the Commonwealth or of a state or territory.[90]

**3.32** The Australian Government Information Security Manual (Defence Signals Directorate) and the Protective Security Manual (Attorney-General's Department) require a Threat Risk Assessment to be conducted for new government IT systems and when existing IT systems undergo significant changes. In July 2008, at the commencement of NGERS, DCCEE finalised a detailed report on threats and risks facing OSCAR. The report found that:

> the information and communications technology (ICT) environment and controls in place are not currently designed to support the deployment of a system such as NGERS and that significant action will be required to reduce the risks associated with the collection and storage of NGERS information and processes to a level acceptable to management.[91]

**3.33** The treatments to address identified ICT risks were grouped into three main categories:

- **establishing an effective security framework**: this encompassed policies, standards and practices that would enable specific security and control measures to operate with integrity and consistency;
- **establishing effective application security and control measures**: each of the application systems and associated processes comprising NGERS required specific control measures to manage access as well as to enable complete, accurate and valid information to be processed and stored within the relevant databases; and
- **enabling effective implementation of robust and secure systems**: this involved the overall integrity of the systems development, as well as sound project management and governance practices for staff and contractors.

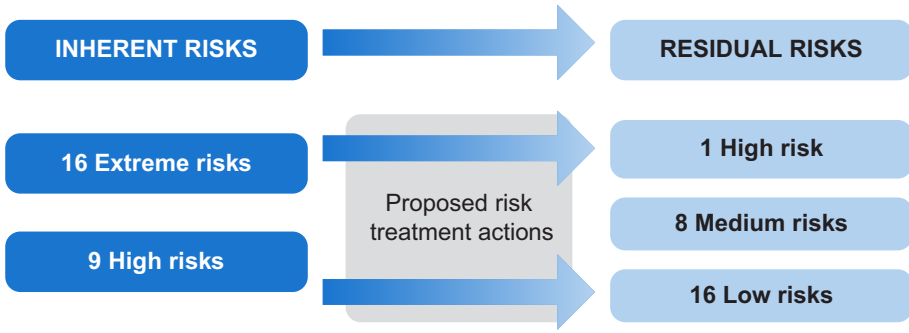
[90] Section 23 of the NGER Act outlines the secrecy provisions.

[91] DCCEE, *Threat Risk Assessment,* July 2008, p.4.

**3.34** Twenty five specific risks relating to the NGERS information held in OSCAR were identified. All 25 risks were assessed with an inherent risk classification of either 'extreme' or 'high' prior to consideration of actions to manage the risks. After the proposed treatments for the identified risks were implemented, residual risks were expected to be more manageable (see Figure 3.3).

**Figure 3.3**

**Indicative risks before and after proposed treatment**




Source: DCCEE *Threat Risk Assessment*, July 2008, p.5.

**3.35** In response to this threat risk assessment, DCCEE advised that a range of IT security measures were implemented and a penetration test was conducted to assess the vulnerability of OSCAR to unauthorised access. The penetration test was conducted prior to the first NGERS reports being received by DCCEE and prior to significant developmental work that was subsequently undertaken on OSCAR to improve its functionality. Nine actions were recommended. Documentation within DCCEE indicates that the department implemented actions to respond to the identified risks.

**3.36** In order to test the current status of IT security, the ANAO, through an IT security consultant, conducted a review of the OSCAR architecture and a simulated 'brute force' attack of the system. Two detailed reports outlining the ANAO's findings were provided to the department. These reports identified the key security risks that DCCEE continues to face in relation to the operation of OSCAR and provided a basis for prioritising actions to address them.

**3.37** The ANAO's IT security testing found that the design of OSCAR exposed the system to significant security risks. The ANAO made 40 specific recommendations to DCCEE to improve the security of OSCAR, with eight recommendations classified as high priority.

Particular security concerns related to:

- formalising the security patch management process;
- hardening the protection of the servers running OSCAR applications;
- limiting administrator access and privileges within the OSCAR environment; and
- ensuring that there is adequate security in place for the networks of any private service providers with administrator access to OSCAR.

**3.38** These findings indicate that, at the time of the audit, there were a range of security vulnerabilities remaining in OSCAR, including the risk that an unauthorised person could gain access to NGERS data. Priority actions were required to reduce the risks to an acceptable level. DCCEE agreed with the findings and advised that initiatives were being put in place to address the ANAO's recommendations.

**3.39** In light of these findings, there would be merit in DCCEE establishing arrangements to routinely test the security of its IT systems, particularly following significant developmental work. These arrangements will be particularly important for those systems that hold sensitive data that may be of interest to external parties.

## OSCAR development

**3.40** DCCEE has indicated to the ANAO that OSCAR was based on an existing IT platform that was used for collecting energy data from Australian government agencies. Following improvements after the initial threat risk assessment, OSCAR was considered fit-for-purpose to meet NGERS reporting requirements. The department invested in online learning material for users and an electronic user's guide with modules covering a specific set of instructions for performing specific tasks. E-learning simulations also provided on-line to help users to work through particular program functions.

**3.41** OSCAR has been upgraded to include, through separate modules, additional Australian Government programs, such as the Energy Efficiency

Opportunities (EEO) program. State and territory program data is submitted through separate state-based components of OSCAR.[92]

**3.42** DCCEE's intention was to improve IT functionality in parallel with the implementation of the CPRS. However, when the CPRS was deferred in April 2010, the resources directed to the system upgrade were reallocated. As a consequence, the department has made only incremental changes to the system to improve functionality over time. The single online portal to meet the reporting requirements for related Australian, state and territory government greenhouse or energy related programs is yet to be achieved. DCCEE advised that it recognises the difficulties for users of OSCAR, with elements of the system slow and cumbersome and requiring significant 'work-arounds'.

## Registered corporations' views

**3.43** As part of the ANAO's survey, reporting corporations were asked to rate the functionality of OSCAR. The survey found a divergence of views on OSCAR's functionality. Most reporting corporations (48.4 per cent) rated the system 'average', while 31.7 per cent rated the system 'good' to 'very good' and 19.9 per cent rated it 'poor' to 'very poor'.[93] This variation may be attributed to the considerable differences in range and volume of data management issues across registered corporations. For example, the top 100 corporations represent 15 per cent of corporations that have reported under NGERS and account for over 90 per cent of the total direct emissions reported.[94] Large resource or construction corporations or joint ventures might have many hundreds of facilities with direct and indirect emissions, as well as thousands of staff and/or contractors working at these facilities. Illustrative examples of challenges facing users of OSCAR are outlined in Figure 3.4.

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92 Office of Environment and Heritage website, *Online System for Comprehensive Activity Reporting (OSCAR)*, available from: <http://www.environment.nsw.gov.au/government/oscar.htm> [accessed 16 June 2011]. As an example, NSW Government budget-dependent agencies with more than 200 staff are required to report their annual energy and water consumption data through the NSW OSCAR database.

93 186 corporations responded to this survey question.

94 DCCEE, *Annual Report 2009–10*, p.72.

## Figure 3.4

### Illustrative examples of the challenges facing corporations using OSCAR

OSCAR is a clunky, time consuming and a non-intuitive tool to use. The supporting manual for OSCAR is detailed and helpful. Once it is mandatory to report uncertainty for emissions figures, the uncertainty calculations for all Method [Scope] 1 emissions need to be built into OSCAR (to be calculated automatically) since the supporting uncertainty spreadsheet is very difficult to use. Any additional reporting of energy (for example the reporting of net energy consumption as well as gross energy consumption) should also be captured in OSCAR to avoid additional data submission and sign off processes.

* * *

Everything has to be manually uploaded. Industry has been promised an automatic upload for a long period but nothing has eventuated. With many hundreds of data point entries this leads to the possibility of significant transcription errors which then need to be checked and rechecked. Now with the uncertainty calculator which is presently outside the OSCAR system you will need to enter the same data twice in both systems to allow the uncertainty calculation to be made. This is a time consuming and burdensome exercise. It is recognised that the calculator is supposed to be included in OSCAR next reporting year. The OSCAR system would need substantial revision if it is to be used for reporting under any carbon price. All information for States and Territories should come from OSCAR. Companies should not have to report separately the same data which has been provided to the Federal Government.

* * *

The system is not aligned between NGERS and the Energy Efficiency Opportunities program via OSCAR requiring organisations to ensure organisational structure information twice. The system does not allow information to be downloaded into OSCAR from company systems, thus requiring manual data transfer and potential errors. The proposed data validation tool is another manual process requiring data to be input into the tool, then manually transferred back into OSCAR.

Source: ANAO survey.

**3.44** ANAO interviews with reporting corporations, as well as with reporting agents,[95] indicated that industry has responded to the difficulties with OSCAR in a number of ways. Some individual reporting corporations have developed their own management information systems to enable reporting on NGERS. Other corporations have commissioned specialist services to assist them to compile or verify their data, with some corporations effectively outsourcing all reporting requirements to reporting agents.

**3.45** Some private providers have developed a web-based software capability that consolidates reporting requirements for corporations across a number of environmental reporting programs, such as NGERS, the EEO program and the National Pollutant Inventory. However, regardless of the sophistication of the systems being developed within industry, there remains a

[95] Reporting agents are private firms engaged by reporting corporations to assist them to meet NGERS reporting obligations.

requirement for reporting corporations or agents to manually enter the data into OSCAR.

**3.46** DCCEE has indicated that for the 2010–11 reporting year, OSCAR was upgraded to include features such as:

- corporations that reported in 2009–10 having their corporate structure rolled forward into the new reporting period, including all group member and facility details;
- sources and fuel/energy data types were also rolled forward based on corporations' 2009–10 reports; and
- validation warnings to alert reporting corporations when the data reported for electricity consumption (not from grid) was not at greater or equal to electricity production (inside use).

**3.47** These features are among a suite of improvements announced by DCCEE during the course of the audit that is likely to improve the functionality of OSCAR. However, the absence of an upload facility, the level of duplication of data requirements across programs, potential for errors in manual data entry, and the slowness of the system adversely impacts upon registered corporations. Some of these issues may become particularly acute with the price on carbon due to commence in July 2012.

**3.48** DCCEE has indicated that resources have now been allocated to substantially upgrade the IT capacity for NGERS reporting in line with the introduction of the Government's carbon pricing mechanism and that an interim upgrade of OSCAR is expected to be in place for the 2011–12 reporting period. The department also advised that a project has been initiated to develop a more robust emissions reporting system in the longer term for NGERS and the carbon pricing mechanism.

## Conclusion

**3.49** A single online portal to meet the reporting requirements for all related Australian, state and territory government programs involving greenhouse gas emissions or energy data was not in place as expected by October 2010. The system was intended to save business time and effort by reducing duplicate reporting. This has yet to be achieved and concerns from corporations have highlighted design weaknesses in OSCAR. Testing of OSCAR security also found that the design exposed the system to significant security risks. Forty recommendations were made to DCCEE and these have been agreed and

actions to address them have been put in place by the department. A significant upgrade is now being planned in conjunction with the implementation of the Government's carbon pricing mechanism.

**3.50** Transitioning to a new IT system will require careful planning to manage the risk to data integrity and the efficient operations of NGERS. Given the substantial investments being made in IT capability within industry, it would be highly desirable to engage representation from reporting corporations in the development process as soon as practicable.

## Quality assurance for reported data

**3.51** Under the NGER Act, registered corporations' reports must be prepared in accordance with statutory requirements. Once a registered corporation has submitted its data, DCCEE analyses the report for data or calculation errors; the consistency of data received against other publicly available information; and the consistency across the two years of NGERS reports. This analysis has enabled the department to identify potential issues with reported data, and to provide corporations with feedback on their obligations under the NGER Act.

### Identifying data errors

**3.52** Since the first NGERS reporting year (2008–09), DCCEE has encountered a number of common issues and errors, including:

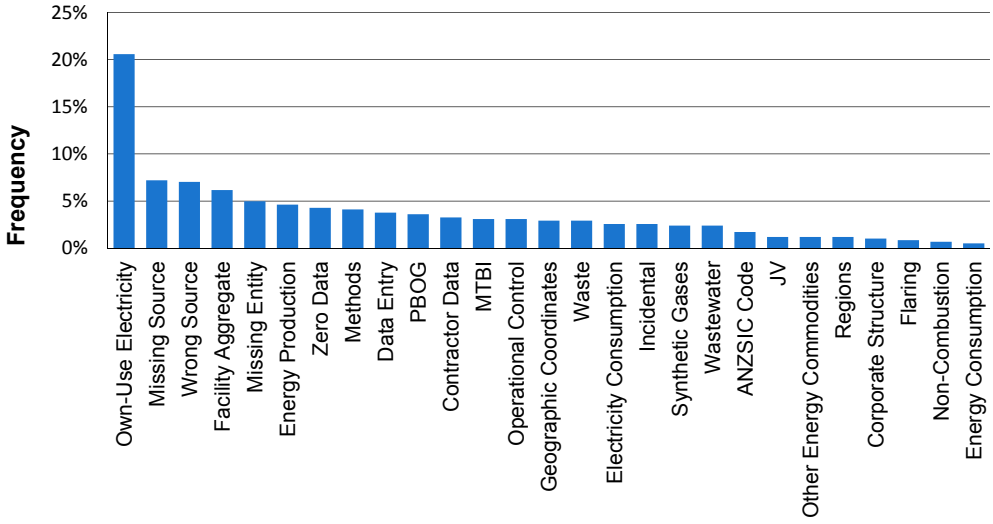
- warnings from the online reporting tool (OSCAR) ignored;
- incorrect method used for emission calculations;
- incorrect identification of the state or territory where the facilities were located;
- energy production not reported (from operating black coal mines);
- fuel consumption reported using the incorrect units (for example, reporting fuel consumption in litres rather than kilolitres);
- electricity produced for internal use not reported by electricity producers; and

- contractors' emission and energy data not added to total for a facility.[96]

**3.53** To identify issues and errors DCCEE examined all reports submitted for the first year of NGERS. More than half of all reports contained minor errors and about one per cent had serious errors.[97] In the second NGERS reporting year (2009–10) DCCEE undertook a more in-depth quality assurance process on the reports of 545 controlling corporations. Of the 545 reports analysed, 72 per cent contained errors, with 17 per cent containing significant errors. A summary of the errors including their frequency as a per cent of total issues and errors is provided in Figure 3.5.

## Figure 3.5

### Quality assurance issues and errors (2009–10)




1. PBOG–petroleum based oils and greases
2. MTBI–Matters to be identified: information that must be provided according to Part 4 of the NGERS regulations
3. JV–Joint Venture

Source: DCCEE.

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[96] DCCEE, *NGER Fact Sheet 15—Analysis of NGER Reports*, May 2010. Available from: <http://www.climatechange.gov.au/reporting/~/media/publications/greenhouse-report/nger-factsheet-15-analysis.ashx> [accessed 7 July 2011].

[97] DCCEE, *NGER eNews*, Volume 12, July 2010. Available from: <http://www.environmentalaccounting.org/NGEReNews/NGEReNewsVol12.pdf > [accessed 7 July 2010]. DCCEE has defined a significant error as one where the figure used is incorrect by greater than 40 per cent of the NGER facility threshold or that impact on the data by 10kt of $CO_2$-e or more of total greenhouse gas emissions or 40 TJ or more of energy consumption or production. Minor errors are small or incidental mistakes that do not materially impact on the facility threshold or the data.

**3.54** Half of all identified errors were covered by six error types: own-use electricity; missing source; wrong source; facility aggregate; energy production and missing entity.[98] The assurance activity identified that nine corporations submitted incomplete reports because of 'bugs' in OSCAR, indicating the importance of putting in place adequate controls before OSCAR updates or changes are implemented.

## Report resubmission process

**3.55** The errors identified by DCCEE from the first two years of the scheme had the potential to materially distort the NGERS data and significantly reduce its value for national and international public policy purposes. To facilitate improved accuracy and data integrity, the department established a resubmission process that allows corporations to resubmit their reports where an error or omission had been identified. The resubmission process involved corporations lodging a request with the DCCEE to unlock OSCAR for a limited time to allow the modification of data and resubmission of a revised report.

**3.56** In the 2008–09 and 2009–10 reporting years, there were 47 and 23 corporations respectively that resubmitted their reports.[99] About one-third of resubmissions were initiated following discussions with the department and analysis of corporations' reports. For 2008–09 and 2009–10 this represents approximately 22 and nine per cent of NGERS published direct emissions respectively. While the number of total errors may have increased over the two reporting years, the actual percentage of total greenhouse gas emissions involved in these errors has actually declined.[100] Nevertheless, the number of corporations with significant errors will present a challenge for the department in future years.[101]

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98 It should be noted that the increase in errors from 2008–09 to 2009–10 may reflect the more in-depth analysis by DCCEE rather than an actual increase in errors. This is a common difficulty in assessing the efficacy of compliance efforts by regulatory authorities.

99 This figure is based on those resubmissions received by 1 July over respective reporting years.

100 In 2008–09 and 2009–10, the level of Scope 1 emissions decreased by 77.3 and 29.9 million tonnes of $CO_2$-e respectively as a result of the resubmission process.

101 DCCEE advised that reports are continually reviewed with reporters contacted for clarification as issues arise. In the future, this may lead to a rise in the number of resubmissions received for the 2008–09 and 2009–10 reporting years

## Improving data quality

**3.57** In response to the imperative for accurate NGERS data, DCCEE has developed the *Regulatory Division Quality Improvement Strategy* to: 'progressively improve the quality of NGERS reports so the data can increasingly be relied upon as a single source of energy and greenhouse information for Australia'. The strategy recognises that while, 'the accuracy of the reports is still the responsibility of the reporting corporations, the credibility of the scheme and the quality of the data can be improved by the department taking a proactive view towards data accuracy'. DCCEE has indicated that the key elements of the strategy include: statutory validation of reports; sectoral analysis of data; comparison of results against other data sources; year on year analysis; energy flow analysis;[102] audits; and peer review of the data. DCCEE has also advised that current processes have incorporated elements of the *Quality Improvement Strategy.* Given the importance of data integrity for compliance with the NGER Act and the implications for corporations impacted by the price on carbon emissions, there is merit in DCCEE implementing remaining elements of the strategy as a priority.

## Conclusion

**3.58** The quality of data in reports over the first two years of NGERS has been affected by errors and gaps in the data. DCCEE has instituted a comprehensive quality assurance and resubmission process in an effort to identify and remedy these errors and gaps. Together, these processes have improved data quality. The *Quality Improvement Strategy*, when fully implemented, should further strengthen the integrity of the data provided under NGERS. This will be particularly important within the context of the carbon pricing mechanism.

[102] An energy flow analysis examines the distribution of energy from production through to final end use. With suitably measurable boundary conditions (that is not too complex a system) it could enable DCCEE to find missing energy in a chain of energy transactions between facilities/corporations or errors in data measurement, such as through poor measuring systems (belt weighers on conveyors are regarded as being inaccurate ways of measuring coal) or errors in units of energy reported.

# 4. Compliance Management

*This chapter examines the implementation of the compliance functions within the National Greenhouse and Energy Reporting Scheme.*

## Introduction

**4.1** Public sector regulators have a responsibility to provide assurance to the Australian community that legal requirements are being met. This includes monitoring the compliance of regulated corporations and making sure that all corporations operating in a regulated market are treated equitably. Regulators also need to consider the most appropriate means of detecting non-compliance and enforcing the requirements of the legislation.[103]

**4.2** As a relatively new regulatory regime with a heavy reliance on self assessment, NGERS compliance obligations need to be effectively communicated to registered corporations. Clearly communicating what constitutes non-compliance and the range of possible departmental responses is also important to provide incentives for corporations to meet their compliance obligations.

**4.3** The ANAO examined DCCEE's management of the compliance with NGERS regulatory requirements. Particular attention was given to:

- the compliance framework;
- the implementation of the compliance policy;
- compliance with registration and reporting requirements; and
- the cost and impact of compliance on registered corporations.

## Compliance framework

**4.4** DCCEE has described compliance as:

> Managing compliance is about encouraging corporations to voluntarily comply, and dealing with contraventions appropriately. We will use intelligence analysis and risk assessment to make strategic decisions about the

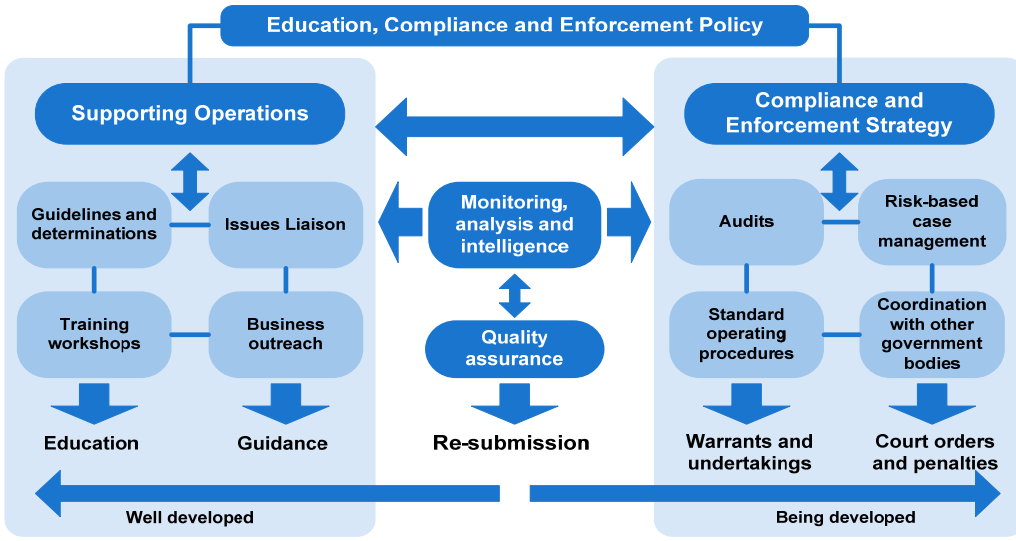
[103] Council of Australian Governments, October 2007, *Best Practice Regulation: A Guide for Ministerial Councils and National Standard Setting bodies,* p.16.

allocation of resources, with the intent to maximise the number of corporations that voluntarily comply with their obligations under the NGER Act.[104]

**4.5** This statement recognises that the onus for compliance rests primarily with registered corporations. The role of DCCEE is to manage the risks of non-compliance through the implementation of a structured compliance framework. The NGER Act also allows the department to take further actions should a registered corporation fail to provide their emissions data in line with legislative requirements. Figure 4.1 outlines the framework within which DCCEE encourages, or where necessary, enforces compliance.

**Figure 4.1**

**NGERS compliance and enforcement framework**




Source: ANAO based on DCCEE information.

## Education, Compliance and Enforcement Policy

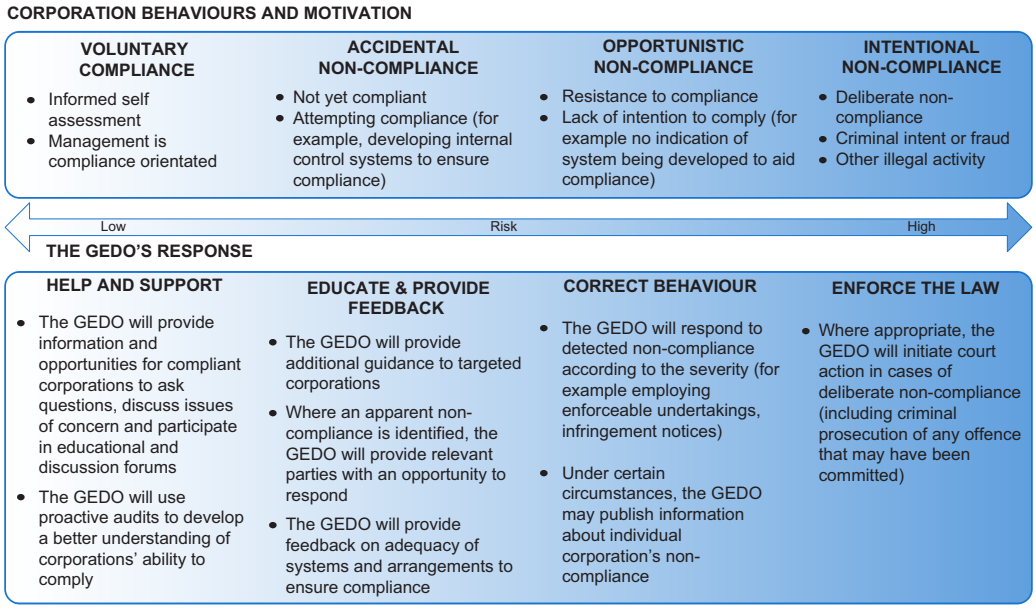
**4.6** The NGERS Education, Compliance and Enforcement Policy (the compliance policy) sets out DCCEE's approach to monitoring compliance and the department's powers to enforce the provisions of the NGER Act. The compliance policy was introduced in June 2009 and covers those corporations (and associated persons) that have registration and reporting obligations under NGERS.

[104] DCCEE, *NGER Education, Compliance and Enforcement Policy*, May 2010, p.4.

**4.7** In determining appropriate responses to non-compliance, DCCEE has documented an approach that takes into account registered corporations' behaviours and motivations. The Compliance Model at Figure 4.2 illustrates the continuum of behaviours and motivations and the corresponding levels of response anticipated by the department and the GEDO.

## Figure 4.2

### NGER Compliance Model




Source: DCCEE, *NGER Education, Compliance and Enforcement Policy*, May 2010, p.8.

**4.8** In the first two years of implementation, compliance activities have focused on 'encouraging corporations to voluntarily comply' rather than taking punitive actions to deal with contraventions. This approach is also consistent with the then Government's position which was outlined in the second reading speech for the NGER Bill 2007:

> The emphasis of the compliance and enforcement regime in the initial years of the scheme will accordingly be on encouraging compliance, rather than punitive measures. As the scheme matures, a more stringent approach will be appropriate, particularly with regard to data that will inform emissions trading.[105]

[105] Second reading speech, National Greenhouse and Energy Reporting Bill 2007, p.14.

## NGER Audit Framework

**4.9** Greenhouse and energy audits are a key compliance process under the Education, Compliance and Enforcement Policy and the NGER Act. In 2009, the Act was specifically amended to establish a register of auditors, strengthen privacy provisions relating to audit information and provide the Minister with decision-making authority over the audit guidelines.[106]

**4.10** The audit function is one of the primary and most comprehensive tools available to DCCEE to monitor compliance[107] with key obligations, such as recordkeeping practices and to test the integrity of the self assessed data submitted by corporations.

**4.11** The purpose of greenhouse and energy audits is to determine the extent to which corporations that are required to register and report under the Act have, or have not, complied with their statutory obligations. As noted in DCCEE's compliance model (see Figure 4.2); 'proactive audits were also to be used to develop a better understanding of corporations' ability to comply'. Sections 73–74 of the NGER Act empowers the GEDO to initiate a greenhouse and energy audit where:

- there are reasonable grounds to suspect that a corporation that is required to register and report under the NGER Act has contravened, is contravening, or is proposing to contravene either the Act or the Regulations; or
- it is determined that, for another reason, an audit of a corporation's compliance with one or more aspects of the Act or the Regulations is necessary.[108]

**4.12** Greenhouse and energy audits are conducted under the following instruments:

- *the NGER Act (s73–s75A);*

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[106] Senate Standing Committee on Finance and Public Administration, National Greenhouse and Energy Reporting Amendment Bill 2009, p.3.

[107] Although audit is a key tool available to the GEDO to monitor compliance with aspects of the NGER Act, other mechanisms include stakeholder engagement, information gathering powers and other compliance and enforcement mechanisms available under the Act.

[108] DCCEE website, *Greenhouse and Energy Audit Framework*. Available from: <http://www.climatechange.gov.au/en/government/initiatives/national-greenhouse-energy-reporting/audit/framework.aspx> [accessed 12 August 2011].

- the *National Greenhouse and Energy Reporting Regulations 2008* (the NGER Regulations), Divisions 6.3–6.7, which specifies eligibility requirements for registered greenhouse and energy auditors and standards of professional conduct for auditors;
- the *National Greenhouse and Energy Reporting (Audit) Determination 2009*, (the Audit Determination), which specifies requirements to be met by audit team leaders in preparing for, and carrying out, greenhouse and energy audits and in preparing an assurance engagement report and a verification engagement report; and
- the *National Greenhouse and Energy (Auditor Registration) Instrument 2010*, (the Auditor Registration Instrument), which sets out in detail, the qualifications, knowledge and experience required for individuals registered by DCCEE as greenhouse and energy auditors.

**4.13** These instruments were developed following consultation with industry, the financial and greenhouse gas accounting professions and the environmental audit sector. In developing the framework, DCCEE reviewed existing international and national standards for verification and assurance and draws from these standards.[109] The framework was not designed to set a new national standard, but rather sets out specific requirements for registered greenhouse and energy auditors to follow under the NGER Act.

## Implementing the compliance policy

**4.14** The Compliance Policy was first released in June 2009, 12 months after the regulatory role was established. It was reviewed and updated in May 2010.

**4.15** In addition to the Compliance Policy, DCCEE has used intelligence analysis, outreach, data validation and risk assessment with the intent of maximising the number of corporations that voluntarily comply with their obligations under the NGER Act. The core elements of this approach are to:

- assist corporations to understand their rights and obligations, such as through workshops, newsletters and information dissemination;

[109] These include the Standard of Assurance Engagements issued by the Auditing and Assurance Standards Board (AUASB) ASAE 3000 *Assurance Engagements other than Audits or Reviews of Historical Financial Information*, Auditing Standard AUS 904 *Engagements to Perform Agreed-Upon Procedures* and ISO 14064–3:2006 *Greenhouse gases specification with guidance for the validation and verification of greenhouse gas assertions* issued by the International Organization for Standardization (ISO).

- make it as easy as possible for registered corporations to meet their obligations, such as through determinations under the legislation and published guidelines;
- support registered corporations that are seeking to 'do the right thing' through advice and technical support;
- monitor compliance through a range of methods, including the use of targeted audits; and
- actively pursue those corporations that opportunistically or deliberately contravene the law.[110]

**4.16** To date, these two latter elements have been a lesser priority, with the majority of resources and focus directed towards review, guidance, public awareness, industry outreach, training and site visits.

**4.17** While DCCEE also has considerable powers under the Act to enforce compliance, the department has not initiated any warrants, undertakings or court orders to date. DCCEE has placed initial emphasis on engaging with stakeholders to encourage voluntary compliance. Accordingly, the department's response has been to help, support, educate and provide feedback to registered corporations.

## Draft compliance and enforcement strategy

**4.18** DCCEE's Compliance and Enforcement Strategy, which underpins the Compliance policy, has also been slow to complete—taking some four years after the legislation came into effect. The strategy outlines the importance of a: 'hierarchy of compliance monitoring and enforcement responses with potential escalation points to determine the most appropriate response to bring a corporation into compliance'.[111] Significant priorities identified within the strategy that have yet to be implemented include developing:

- a risk-based internal case referral process and protocols for a case management panel to consider possible breaches of the legislation;
- a communication strategy to support compliance and enforcement;
- training and performance development processes for staff;

[110] DCCEE, *NGER Education, Compliance and Enforcement Policy*, May 2010, p.4.

[111] DCCEE, *Draft Compliance and Enforcement Strategy*, 2011, p.5.

- coordination arrangements with other government bodies;
- compliance monitoring strategies;
- standard operating procedures for regulatory activity; and
- processes and systems for measuring and reviewing performance.

**4.19** These elements are critical to the further development of an effective compliance framework for NGERS, particularly given the change in risk profile with the introduction of a carbon pricing mechanism from July 2012. The early introduction and trialling of these elements would better place the department to respond to the risk of deliberate or accidental non-compliance, as well as fraud, following the Government's introduction of a carbon price. [112]

## Progress in implementing the audit program

**4.20** The initial development of the audit program started in October 2007 shortly after the NGER Act was passed. It was envisaged that the program would be operational by August 2009, which would allow for audits to be undertaken in time for the first reporting year.

**4.21** The Audit Determination was required to underpin the remainder of the program's development. While work on the Audit Determination started immediately following the passing of the NGER Act by Parliament in 2007, it was not finalised until December 2009—taking in excess of 21 months to complete.

**4.22** Further work continued and, on 9 March 2010, the online system, which allowed individuals to apply for registration as a greenhouse and energy auditor was made available on the department's website. A brief to the then Minister for Climate Change and Water stated: 'it is important that these auditors are registered as soon as possible so they can be engaged by the GEDO to monitor compliance with the Act, and so that corporations can also access auditors to check their NGER data before it is submitted for the 2009–10 year.' The department has advised that to date, 143 auditors have been registered by the department, but no formal audits have been completed.

[112] DCCEE advised that while the Compliance and Enforcement Strategy has yet to be published, a range of internal processes have been developed. The NGERS Compliance and Enforcement Committee was also established in February 2010 to provide high level support to the GEDO on policies, strategies and activities directed at assuring compliance with the NGER Act. The divisional Compliance and Enforcement Committee functions were subsequently taken up by a departmental-wide committee with individual cases handled through the divisional RDEx.

**4.23** However, in mid 2011, DCCEE commenced a pilot process to: 'trial the audit methodology and examine the accuracy of data reported'. The pilot process comprised a total of 22 audits: ten reasonable assurance; seven limited assurance; and five verification only.

**4.24** The findings from the pilot on the accuracy of data reported by corporations showed that, of the 17 limited and reasonable assurance audits conducted, four (24 per cent) received a qualified conclusion.[113] A further four (24 per cent) audits received an adverse conclusion.[114] Of the corporations that had reasonable and limited audits conducted, 52 per cent were considered to adhere to requirements under the Audit Determination.

**4.25** Overall, DCCEE concluded that the current pilot audit process and methodology is not an unreasonable way to continue delivering a full audit program.[115] Nevertheless, DCCEE has acknowledged that there are opportunities for further development and improvement, particularly around efficiency and data integrity.

**4.26** DCCEE originally intended to have the audit framework completed by August 2009 with the first formal audits commencing in September 2009. The completion of the NGERS pilot audit process has occurred two years after this planned completion date. This delay has meant that the department has not been able to obtain a reasonable level of assurance over compliance with certain requirements of the NGER Act or the integrity of NGER data behind the reports submitted by registered corporations.

**4.27** The ANAO survey results indicated that 65 registered corporations surveyed (36 per cent) did not have accurate records to cover all emission sources. This indicates potential compliance issues that an effective audit function would help to identify and remedy.

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[113] In accordance with the Audit Determination, a qualified conclusion is where the auditor identified misstatements in the matter being audited that are material but not pervasive enough to effect the matter being audited as a whole; or there is insufficient evidence in relation to one or more aspects of the matter being audited, which may be material but not pervasive enough to affect the matter being audited as a whole.

[114] In accordance with the Audit Determination, an adverse conclusion is given when the audit team leader is attesting that there are misstatements that are material and pervasive enough to affect the matter being audited as a whole.

[115] DCCEE, *NGERS 2010–11 Draft Pilot Audit Program Evaluation*, September 2011.

### Conclusion

**4.28** Implementation of the NGERS compliance and audit functions has been slower than planned and constrained by limited resources and the low priority afforded to this work within the first three years of NGERS. Substantial work is required to put in place a functional compliance and audit framework. The consequential redistribution of resources following the delayed implementation of an emissions trading scheme partially explains the capacity constraints of DCCEE in progressing the compliance and audit functions. The finalisation and implementation of the audit work program will better position the department to monitor and manage non-compliance for the 2011–12 reporting year.

## Compliance with registration and reporting requirements

**4.29** While there have been delays in establishing a comprehensive audit function for NGERS, the department has undertaken activities to monitor:

- compliance with registration requirements; and
- compliance with reporting obligations.

These are important activities critical to the functioning of the legislation and the objectives of the NGER Act.

### Compliance with registration requirements

**4.30** Under s12 of the NGER Act, corporations are required to apply for registration with DCCEE if they are a constitutional corporation[116] and meet a specified reporting threshold for greenhouse gases, energy use or production for a reporting year. Generally, corporations are expected to register and report their greenhouse gas emissions, energy use and production for each year they meet the threshold under s13 of the Act. There are two types of thresholds that corporations must consider; facility thresholds and corporate group thresholds. Both types of thresholds have three components where

[116] A constitutional corporation is a body incorporated under an Australian law and engaged in, or substantially engaged in, trading or financial activities. A constitutional corporation must be either, a foreign corporation, a financial corporation formed in Australia, a trading corporation formed in Australia, a body corporate that is incorporated in a Territory or an Australian Government authority.
The term is defined in section 12 of the *Fair Work Act 2009* and paragraph 51(xx) of the Australian Government Constitution. Available from: <www.austlii.edu.au/au/legis/cth/consol_act/.../s6.html> [accessed 3 August 2011].

corporations meeting a reporting threshold must register and report their:

- greenhouse gas emissions threshold;
- energy production threshold; and
- energy consumption threshold.[117]

Corporations must consider each of these thresholds when determining their obligations under the NGER Act. If a corporation meets or exceeds any one or more of the thresholds for a reporting year, it must register and report for the year that threshold is reached. Corporations must then report for each subsequent year that they remain registered. The thresholds for corporations are shown in Table 4.1.

### Table 4.1

**Thresholds for companies reporting under NGERS**

| | | Year 1 | Year 2 | Year 3 |
|---|---|---|---|---|
| **Reporting year ended** | | **30 June 2009** | **30 June 2010** | **30 June 2011** |
| **Threshold** | **Facility** | | | |
| | Carbon emissions | 25 000 tonnes | 25 000 tonnes | 25 000 tonnes |
| | Energy production and consumption | 100 terajoules | 100 terajoules | 100 terajoules |
| | **Corporation** | | | |
| | Carbon emissions | 125 000 tonnes | 87 500 tonnes | 50 000 tonnes |
| | Energy production and consumption | 500 terajoules | 350 terajoules | 200 terajoules |
| Reporting due date for 30 June year-end | | 31 Oct 2009 | 31 Oct 2010 | 31 Oct 2011 |

Source: *National Greenhouse and Energy Reporting Act 1997.*

**4.31** DCCEE's experience to date indicates that it is difficult to accurately determine the number of corporations that must register under NGERS on the basis of broad proxies or comparisons between corporations using broad proxies. There are a wide range of reasons why corporations may not meet reporting thresholds, such as complex corporate structures (including the use

[117] DCCEE website—Does NGER apply to my business? Available from: <http://www.climatechange.gov.au/en/government/initiatives/national-greenhouse-energy-reporting/does-nger-apply.aspx> [accessed 19 October 2011].

of joint ventures or being a subsidiary of another corporation) and the operation of the facility definition and operational control tests.

**4.32** The department has advised that, to date, actions to address non-registration has primarily focused on contacting corporations to provide information on the provisions of the NGER Act and outlining their 'possible' obligation to register and report. A registrant identification methodology was developed to inform this work. The department has also invited 'potential registrants' to workshops on NGERS reporting. DCCEE contacted 160 identified corporations in relation to NGER workshops held in April 2010, and subsequently 39 of these corporations registered. The reasons other corporations have given for not attending workshops or registering, included being below the reporting threshold or considering they were not a constitutional corporation.

**4.33** In practice, it is difficult to be overly precise in terms of registration requirements for corporations. This is because at any point in time a percentage of corporations will be engaged in mergers, takeovers, joint venture arrangements, receivership or other legal or corporate circumstances affecting the operational control of facilities who reach energy production and consumption thresholds. Given this situation, DCCEE has taken reasonable action to determine whether corporations that should be registered are registered. The actions taken by the department to encourage compliance with registration obligations under the NGER Act have improved compliance with the legislation and have reduced non-compliance from the potential level of 270 identified through the registrant identification methodology in February 2010 to approximately 20 by July 2011. DCCEE informed the ANAO that these corporations accounted for less than one per cent of total greenhouse gas emissions.

## Compliance with reporting obligations

**4.34** Once a corporation has registered, it has a legal obligation under s19 of the NGER Act to report by the statutory deadline of four months after the end of the financial year (generally by 31 October each year).

**4.35** In the 2008–09 reporting year, 711 registered corporations were required to report, 498 corporations (70 per cent of registered corporations) submitted their report by the statutory deadline. These corporations accounted for some 88 per cent of direct (Scope 1) emissions. A comprehensive communications campaign was undertaken by DCCEE to inform corporations

of their NGERS obligations. Outreach activities were subsequently undertaken to encourage corporations with late reports to fulfil their obligations. As at 30 June 2010, 95 per cent of registered corporations had reported from the first NGERS reporting year. The department has continued to work with corporations to enable them to fulfil their NGERS reporting obligations and the per cent of corporations reporting on time has improved over the reporting years.[118] Some of the reasons for late reporting included:

- late registration (corporations not registering until after the reporting deadline for the year had closed);
- corporations that are resolving issues around the 'operational control' of a facility;
- turnover of key personnel;
- corporations considered they were under the threshold for NGERS reporting, and that this meant they did not have to report;
- corporations that were in receivership; and
- corporations that have been acquired by an un-registered corporation.

**4.36** In the second reporting year, 2009–10, late reporting remained prevalent, with almost one quarter (23 per cent) of registered corporations submitting late reports. At the beginning of June 2011, a total of 43 corporations had not reported for either or both of the 2008–09 and/or 2009–10. Of these, 14 corporations had not reported for either 2008–09 or 2009–10 reporting years. Four corporations had not reported for 2008–09, and 25 had not reported for 2009–10. DCCEE contacted all non-reporters, except those in receivership, by 10 June 2011. As at 20 September 2011, three reports remained outstanding for 2008–09 and nine for 2009–10.

**4.37** The reason for late reporting was generally considered by the department to be 'accidental non-compliance'. Corporations have been encouraged to report through departmental contact, guidance and support. DCCEE advised that, given most corporations are now approaching their third year of reporting, future non-compliance will be dealt with using a more stringent approach. Actions, such as enforceable undertakings and infringement notices where necessary and appropriate, are planned to be

[118] Since the commencement of NGERS, the number of registered corporations reporting by the statutory deadline has increased from 69.7 per cent in 2008–09 to 83.9 per cent in 2010–11 reporting years.

introduced. As NGERS involves the introduction of new and novel regulatory requirements for corporations, an initial focus on education assists to build voluntary compliance. However, the introduction of a price on carbon will require the development and testing of the full range of powers available to the department in the future to manage compliance.

### Conclusion

**4.38** The actions taken by DCCEE to encourage corporations to conform have been effective and have achieved a relatively high level of compliance with registration and reporting requirements. However, late reporting has been a challenge and will need to be addressed more firmly—particularly given the importance of greenhouse and energy data in underpinning the price on carbon.

## Cost and impact of compliance on registered corporations

**4.39** An ongoing challenge for regulators is the delivery of effective and efficient regulation—that is effective in addressing an identified problem and efficient in terms of maximising the benefits to the community and taking account of the costs involved. Ideally, compliance costs should broadly align with the estimates made when the legislation was introduced into Parliament. Otherwise, the value of these original estimates and the consultation process is significantly diminished.

### Regulatory Impact Statement (RIS)

**4.40** A RIS is intended to achieve better regulation by supporting sound analysis, informed decision making, and transparency.[119] A RIS formalises and provides evidence of the key steps taken during the development of the proposed regulation and includes an assessment of the costs and benefits of each regulatory option. Preparation of a RIS ensures that all relevant information is documented, and that the decision-making processes are made explicit and transparent. [120]

**4.41** In 2006, a RIS for NGERS was published for stakeholder consultation and finalised as a part of the Explanatory Memorandum for the National

[119] Department of Finance and Deregulation, *Best Practice Regulation Handbook*, 2010, Canberra, p.4.

[120] ibid., p.4.

Greenhouse and Energy Reporting Bill 2007. As part of the RIS, the estimated cost of complying with the NGER regulation was:

- **annual 'entity costs'**: representing the fixed cost to the business of participating in the scheme and of collecting and submitting data, irrespective of the number of sites—ranging from $1000 to $10 000; and
- **site costs:** recordkeeping costs per site—ranging from $200 to $2000.

**4.42** The cost estimates were considered and endorsed by COAG. They were also considered by Parliament during an inquiry into the Bill by the Standing Committee on Environment, Communications, Information Technology and the Arts.

## Calculating compliance costs

**4.43** Calculating the cost of compliance with NGERS is not a simple task, as some costs will be borne for a variety of reporting obligations. These can be mandatory, such as for taxation purposes or annual reporting purposes for listed corporations. It could also be voluntary for reporting under international schemes such as the Carbon Disclosure Project. For some corporations, costs can also be spread across related Australian Government reporting requirements, such as for the National Pollutant Inventory. The primary costs associated with complying with NGERS are incurred by corporations in the following ways:

- **equipment costs**—purchase of machinery and possibly software necessary to measure emissions and energy in accordance with the Act;
- **human resource costs**—costs associated with the staff required to manage the reporting process, and possibly the engagement of specialist consultants or service providers;
- **training costs**—costs associated with training staff so that they can effectively meet the requirements of the Act;
- **information system costs**—costs associated with development or purchase of software for energy or emissions data management;
- **verification costs**—costs associated with the engagement of auditors to verify energy and emissions data; and
- **legal costs**—costs incurred from gaining professional advice on the interpretation of legislation.

**4.44** To determine a reasonable estimate of the cost of compliance with NGERS obligations, the ANAO sought information from registered corporations to indicate their entity costs disaggregated into capital and recurrent costs.[121] Most registered corporations surveyed indicated that they were not in a position to accurately determine their entity costs. Only eight corporations reported that they had firm data to support their response. Nevertheless, a sample of corporations provided estimates of their capital (22 corporations) and recurrent costs (68 corporations)—see Table 4.2.[122]

**Table 4.2**

**ANAO Survey: Reported entity cost estimates for NGERS compliance**

| Entity Costs | No. of Registered Corporations | Lowest Cost ($) | Highest Cost ($) |
|---|---|---|---|
| Capital cost | 22 (50 per cent of respondents) | 5000 | 3 000 000 |
| Recurrent cost | 68 (68.7 per cent of respondents) | 1500 | 1 500 000 |

Source: ANAO analysis of survey results.[123]

**4.45** These reported estimates significantly exceed the original cost estimate of $10 000 for annual entity costs stated in the RIS. Even if the data is used for multiple reporting purposes, the costs do not align with the 'cost-neutral' position assumed by the RIS for larger corporations. In the case of the corporation with compliance costs of $3 million, no additional benefits were reported as being obtained by the corporation's participation in NGERS. The survey also sought information from registered corporations on the level of difficulty in complying with NGERS. The survey found 133 corporations out of 181 respondents (73.4 per cent) considered the degree of difficulty in complying with the legislation as 'significant' to 'very significant' (see Figure 4.3).

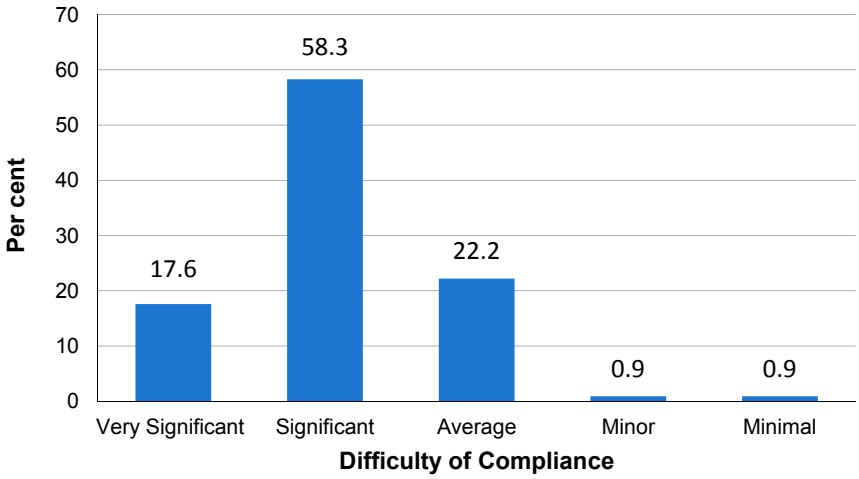
[121] This was done as it became evident to the ANAO from discussions with registered corporations that some had invested significantly in capital intensive information management systems to meet their reporting requirements.

[122] These corporations remained after the ANAO removed outlier estimates and those corporations that indicated that they did not have adequate records to provide an estimate of the costs of their compliance.

[123] Forty four corporations provided an estimate of their capital costs while 99 provided an estimate of their recurrent costs. However the ANAO responses were restricted to those that had retained records or could substantiate their estimates.

## Figure 4.3

**ANAO Survey: Effort required to comply with reporting obligations**




Source: ANAO analysis of survey results. 181 responses were received on this question.

**4.46** The ANAO also sought information from registered corporations to determine whether measuring and reporting on greenhouse gas emissions have resulted in tangible benefits. Ninety-three corporations out of 176 respondents (52.8 per cent) indicated that measuring and reporting had brought tangible benefits to their organisation. For example, one large corporation had indicated improved cost controls over electricity use, with savings of some $2 million per annum as a consequence. Mining companies reported improved controls over fuel use at remote sites that had produced significant financial savings. NGERS has also had wider impacts with one corporation reporting that:

> We have reported two years now. Our recordkeeping has improved and the necessity for reporting here in Australia has been the catalyst for driving a push for greater accuracy in the collection of data within the company globally.

**4.47** These findings highlight the benefits of measuring and reporting energy use and greenhouse gas emissions for many corporations. Notwithstanding these benefits, the reported gross costs for registered corporations with large direct (Scope 1) emissions are significantly higher than originally documented during the development of the legislative framework. Eighty-three registered corporations (47.2 per cent) indicated no tangible benefit from measuring and reporting energy use and greenhouse gas

emissions and were concerned about the significant regulatory burden. This is particularly important as the NGER Act was introduced to: 'reduce the red-tape on industry.' The RIS also stated that: 'for the cohort of largest sites (that is, greater than 125 kt $CO_2$-e) the effect of mandating participation is more or less cost-neutral'. Based on reported information from registered corporations, this has proved to be a significant underestimate of the impact of the legislation on reporting corporations.

**4.48** To reduce the costs associated with reporting under the NGER Act, there would be merit in DCCEE considering measures that can reduce the time and cost of reporting. In particular, some of the initiatives discussed elsewhere in this report, such as:

- progressing the implementation of the Streamlining Protocol to reduce duplication and standardise the approach to collecting greenhouse and energy data by the states, territories and the Australian Government;
- improving the functionality of OSCAR (such as through an upload facility); and
- considering the introduction of a materiality threshold for registered corporations to reduce the data collection requirements for minor or incidental emissions or energy use.

**4.49** These measures, if implemented, have the potential to reduce the cost of compliance to a material extent. Ongoing monitoring of compliance costs for registered corporations collecting NGERS data would provide DCCEE with insights into the effort involved for corporations and a basis for better balancing the public good outcomes of the legislation against the regulatory burden on industry.

## Conclusion

**4.50** While difficult to accurately calculate, the reported indicative cost of compliance for corporations has varied from the estimates produced for the Regulatory Impact Statement in 2006. While some variation could be expected from new legislation and a new regulatory regime, the reported indicative cost for registered corporations with larger facilities and higher levels of greenhouse gas emissions is significantly greater than the anticipated maximum recurrent cost estimate of $10 000.

# 5. Streamlining Greenhouse and Energy Reporting

*This chapter examines the implementation of the Streamlining Protocol, agreed by the Council of Australian Governments, to ensure a standard approach to collecting greenhouse and energy information through separate Australian, state and territory reporting obligations.*

## Introduction

**5.1** At the time of the introduction of the NGER legislation in 2007, there were estimated to be fifteen separate Australian, state and territory government obligations requiring corporations and other relevant bodies to report their emissions data. Nine of these required mandatory reporting of emissions data.[124] In order to address concerns about the administrative burden placed on corporations to report greenhouse and energy data, and to give effect to one of the objects of the NGER Act, the Australian, State and Territory governments agreed to a National Greenhouse and Energy Reporting Streamlining Protocol (2009).

**5.2** The Streamlining Protocol (the Protocol) was designed to: reinforce the objective of the NGER Act to reduce duplication of reporting requirements and create a single national reporting framework for existing and future greenhouse and energy programs. It recognised that there were a number of issues concerning the utility and consistency of data that needed to be addressed. In particular:

- programs had developed unique reporting obligations to meet specific objectives, significantly increasing the complexity of reporting and costs for industry;
- programs had published specific guidance explaining similar concepts using different terminology. Consequently, industry has been required to re-interpret the terms and obligations for each program;

[124] The Parliament of the Australian Government of Australia, *National Greenhouse and Energy Reporting Bill 2007 Revised Explanatory Memorandum (2007).* Also cited by E de Wit and E Coonan (2008) Australian Resources and Energy Law Journal Vol. 27.

- IT systems had been developed independently to meet the data collection needs of specific initiatives, requiring industry to become familiar with different IT systems and protocols; and
- confidentiality protocols to protect corporate data had prevented the sharing of information between programs and governments.[125]

**5.3** The Protocol was designed to reduce the 'red tape' created by multiple and varying reporting requirements. Implementation of the Protocol was agreed through COAG.

**5.4** The ANAO reviewed the development and implementation of the Streamlining Protocol by DCCEE and its progress in achieving the streamlining objectives.

## Developing the Streamlining Protocol

**5.5** Work to streamline corporate greenhouse gas and energy reporting across jurisdictions began in 2005 following recommendations in the then Australian Government's 2004 Energy White Paper. Work was initially progressed under the Ministerial Council on Energy and the Environment Protection and Heritage Council. Recommendations from these Councils on streamlining, reporting and mandatory data collection were made to COAG in July 2006, following consultation with stakeholders and the release of an options paper in April 2006.

**5.6** In October 2006, a draft RIS was published by the Australian Government on behalf of the COAG Greenhouse and Energy Reporting Group. Public release of the statement was designed to facilitate further input by stakeholders and inform the report of Australian governments in December 2006. The statement identified fifteen Australian Government, State and Territory programs at that time that had greenhouse and/or energy reporting requirements. In December 2006, COAG agreed that:

> a single streamlined system that imposes the least cost and red tape burden is the preferable course of action. The reporting system will be based on national

[125] DCCEE, *National Greenhouse and Energy Reporting Streamlining Protocol*, February 2009, Canberra, p.1.

purpose-built legislation to provide for cost-effective mandatory reporting and disclosure at the company level.[126]

**5.7** In December 2007, COAG established the Working Group on Climate Change and Water to progress climate change issues. Under the Working Group, five sub-groups were formed, including one on complementary measures to pursue a nationally consistent set of climate change measures to support a CPRS. An experts group on streamlining greenhouse and energy reporting (the Experts Group) was established on 26 February 2008, to consider options available to streamline reporting. The Protocol was endorsed by COAG and released publicly in July 2009.

**5.8** The protocol focused streamlining actions on specific requirements for programs, particularly using OSCAR. Priority was given to creating a more efficient data collection process and further developing OSCAR to allow for these streamlined reports to be submitted. The intention was that the work to modify OSCAR was to be completed for all related programs for the 2009–10 reporting year—that is, October 2010.

## Implementing the Streamlining Protocol

**5.9** Implementation of the Protocol was guided by a comprehensive implementation plan for streamlining greenhouse and energy reporting (the plan). The overarching objective of the streamlining process was to gather the greenhouse and energy data required by governments in a consistent and cost effective manner to registered corporations. The plan included immediate actions to be undertaken prior to July 2009 to: 'ensure corporations can begin streamlined reporting in the 2009–10 financial year'.[127] The three priorities outlined in the plan were:

- phasing out duplicative reporting arrangements;
- amending reporting requirements to streamline data collections; and
- developing technical solutions through OSCAR.

**5.10** Twenty-one programs or reporting requirements were included within the scope of the Experts Group for initial streamlining consideration. The plan

[126] Standing Committee on Environment, Communications, Information Technology and the Arts *National Greenhouse and Energy reporting Bill 2007 [Provisions], September 2007*, p.5.

[127] Other actions identified in the plan were to be developed over longer timeframes.

identified specific standards and approaches and included detailed work plans for each affected program. Eleven phase 1 programs were to be initially included in the Protocol (see Table 5.1).

**Table 5.1**

**Programs initially included in the Streamlining Protocol**

| Program Name | Jurisdiction |
|---|---|
| ABARE Fuel and Electricity Survey | Australian Government (ABARE) |
| Energy Efficiency Opportunities | Australian Government (DRET) |
| Greenhouse Friendly | Australian Government (DCCEE) |
| Generator Efficiency Standards | Australian Government (DRET) |
| National Greenhouse Gas Inventory | Australian Government (DCCEE) |
| Energy Savings Action Plans | New South Wales |
| Ecobiz | Queensland |
| Smart Energy Savings Program | Queensland |
| South Australian Greenhouse Strategy | South Australia |
| Environment & Resource Efficiency Plans | Victoria |
| Industry Greenhouse Program | Victoria |

Source: DCCEE information.

**5.11** Ten specific actions were outlined in the plan covering matters such as: making amendments to guidelines and/or legislation to align with the NGER Act; standardising all greenhouse and energy data collected; updating program guidelines and communications to reflect agreed approaches; updating information technology (particularly within OSCAR); and data sharing arrangements.

**5.12** The intention was to work to a timetable that involved a single national online reporting tool being in place for the 11 phase 1 programs by December 2009. All reporting requirements for phase 1 programs proposed for streamlining were to be available through OSCAR, and managed by DCCEE. The department also agreed to monitor and evaluate the implementation of streamlining to: 'ensure objectives on streamlining are met'.[128] A review of streamlining was planned for 2012 to assess the outcomes of the

[128] Experts Group on Streamlining Greenhouse and Energy Reporting for the Working Group on Climate Change and Water and COAG, *Implementation Plan for Streamlining Greenhouse and Energy Reporting*, November 2008.

implementation plan, including whether streamlining had been successfully implemented and maintained.

## Implementation actions

**5.13** At the national level, the Australian Government has discontinued the ABARE Fuel and Electricity Survey and amended the EEO legislation (including responsibility for energy use, energy types, methodologies and reporting periods) to allow entities to align the EEO and NGERS reports. This was completed before the Protocol was finalised in July 2009. DCCEE has also ceased a number of voluntary company surveys previously conducted to support the National Greenhouse Gas Inventory.[129] These voluntary surveys were conducted to collect data to support estimates of emissions from electricity generation, petroleum refining and chemical product manufacture, as well as from the calcination of carbonates, such as limestone for the manufacture of cement clinker and similar products.[130] DCCEE advised that surveys were used to estimate around 40 per cent of the national inventory emissions have been discontinued due to the introduction of NGERS.

**5.14** National programs such as the Greenhouse Challenge Plus, Greenhouse Friendly[131] and Generator Efficiency Standards were also ceased in 2009–10. From 2009, DCCEE developed technical solutions to support streamlining of greenhouse and energy reporting. Initial actions included:

- ongoing refinement of OSCAR to align it to both the NGER legislation and the Protocol;
- consulting with Australian Government, state and territory stakeholders to identify additional requirements to be incorporated into OSCAR or the development of alternative technical solutions; and
- developing a database to deliver NGERS data to other Australian Government, state and territory government stakeholders.

[129] Australia's National Greenhouse Gas Inventory is required under the United Nations Framework Convention on Climate Change. The Inventory provides a national baseline of aggregate emission levels and allows emission levels to be tracked over time as well as Australia's progress towards emission targets.

[130] DCCEE, *National Greenhouse gas Inventory Report 2009*, Volume 3, p.52.

[131] Greenhouse Friendly was replaced by the National Carbon Offset Standard (NCOS). The Australian Government introduced the NCOS on 1 July 2010 to provide national consistency and consumer confidence in the voluntary carbon market. The standard serves two primary functions—it provides guidance on what is a genuine voluntary offset and sets minimum requirements for calculating, auditing and offsetting the carbon footprint of an organisation or product to achieve 'carbon neutrality'.

**5.15** Despite this progress, there have been a number of challenges and constraints in achieving the streamlining objectives.

### *NGERS Disclosure Tool*

**5.16** The NGERS Disclosure Tool (NDT) was designed to enable DCCEE to disclose greenhouse and energy information, electronically, to specified persons and bodies within the Australian Government as well as the states and territories. DCCEE also used the NDT for internal data analysis which underpins NGER report validation procedures and some policy decisions.

**5.17** The ANAO's discussions with Australian Government departments that utilise NGER data (data users) indicated significant technical problems with the NDT for the 12 months following implementation. Examples noted in the Data Users Group[132] included: 'timing out' of the query function (before queries are completed); inability to run ad hoc reports; and a low confidence in NDT data results requiring cross checking against original data sources. This impacted on DCCEE's ability to share information with other Australian Government agencies and has resulted in the continued duplication of reporting requirements. As a consequence, there is the potential for higher reporting costs for industry, which is inconsistent with the objective of the Protocol. In addition to problems surrounding system access, data users have also reported significant functionality problems with the NDT, creating further difficulties for those required to access data and create reports.

**5.18** DCCEE has experienced particular difficulties in simultaneously developing OSCAR and the NDT to meet the competing demands of data users and reporting corporations. The deferral of the CPRS also had a considerable impact on the implementation of the NDT, with funds required to develop the system reallocated. This placed pressure on the DCCEE's ability to implement a system with significantly reduced financial resources.

**5.19** Notwithstanding the reallocation of resources, the NDT was required to enable data sharing among entities that were part of the Protocol. Delays in producing an adequate disclosure tool have hampered the capacity of data users to benefit from the data provided under NGERS. There have also been difficulties for data users in terms of obtaining the information in the form they require at the time they require it.

[132] The Data Users Group was established by DCCEE in March 2011 to resolve data sharing issues.

*Memoranda of Understanding to protect sensitive information*

**5.20** MOUs with data users are intended to describe how the data will be provided, as well as to specify safeguards for maintaining confidentiality. MOUs have been signed between DCCEE and other Australian Government entities that require access to NGER data. Similar MOUs were intended to be signed between DCCEE and each of the states and territories. MOUs were signed in 2011 by the Queensland, Northern Territory and Australian Capital Territory Governments. However, no agreement has been reached with other state governments, two and a half years after the Protocol was agreed (July 2009).

**5.21** There are ongoing tensions with data users over matters, such as: potential conflicts between Australian Government and state legislation; controls over the release of sensitive, commercial-in-confidence information; warranties over the quality of the data and the costs involved for state agencies in meeting Australian Government confidentiality and disclosure standards.

**5.22** The approach adopted by DCCEE to date has focused on the protection of confidential NGERS information. However, delays in reaching agreement with state jurisdictions have hampered the progression of the Streamlining Protocol objectives. DCCEE advised that negotiations with state agencies have been difficult but are continuing with a view to finalising all MOUs in 2012. Streamlining activity has also been made a priority deliverable within the Regulatory Division's 2011–12 Business Plan.

## Comments from corporations reporting under NGERS

**5.23** To determine progress towards the objectives of the Streamlining Protocol, the ANAO sought responses from corporations reporting under NGERS regarding progress to date through a structured survey along with specific discussions with individual corporations and industry associations. The majority of corporations surveyed, 63 from 108 respondents (58.3 per cent), considered that there had been no progress while only a small number (6.5 per cent) considered that there had been a reasonable or high degree of progress. Details of the responses are outlined in Table 5.2.

## Table 5.2

**ANAO Survey: Has there been a reduction in the level of duplication of the same or similar information/data across different government programs since 2009?**

| Rating | No. of Corporations | Valid Responses (%) |
|---|---|---|
| To a high degree | 1 | 0.9 |
| To a reasonable extent | 6 | 5.6 |
| To some extent | 32 | 29.6 |
| Not at all | 63 | 58.3 |
| Not sure/don't know | 6 | 5.6 |
| **Total responses** | **108** | **100** |

Source: ANAO survey.

**5.24** Problems with duplication in reporting and the waste of resources were frequently cited by respondents.[133] Comments indicated that corporations also had greenhouse gas and/or energy reporting requirements under Australian Government programs as well as state reporting requirements which were not covered in the initial Streamlining Protocol. These comments suggest that an opportunity exists for a second phase of streamlining efforts by the Australian Government, state and territory agencies.

**5.25** Survey responses indicate that new programs have also been introduced by some states since 2009. A peak industry body commented to the ANAO and to DCCEE that:

> key agencies are now using NGERS data, including at least one of the states. However, [our] members are concerned that streamlining of reporting (one of the principal aims of the NGERS legislation) is not occurring quickly enough and that certain states, and state agencies in particular, are demanding and obtaining separately reported greenhouse gas emissions and energy data, contrary to the Inter-Governmental Agreement. [Our] members provide large amounts of data to numerous institutions and are very concerned that

[133] Corporations surveyed by the ANAO cited up to ten reporting obligations for different state, territory and/or Australian Government programs as well as voluntary international commitments, such as the Global Reporting Initiative. Apart from NGERS, corporations cited reporting obligations under initiatives such as the Energy Efficiency Opportunities Program, Renewable Energy Certificates and the National Pollutant Inventory (Australian Government), the Environment and Resource Efficiency Plans (Victoria), New South Wales (NSW) Greenhouse Gas Abatement Scheme, Energy Savings Action Plan, NSW Greenhouse Abatement Certificates, Operating Licence reporting (NSW and other states) and QFLEET (Queensland).

compliance costs are being inflated by this double dipping. Members wish to see this issue resolved to ensure that reporting requirements are truly minimised and fully integrated.[134]

**5.26** The ANAO survey in conjunction with consultation with industry bodies and registered corporations indicates that there is support for further action to implement and expand the Protocol. Peak industry groups have commented to the ANAO or to DCCEE on the need for:

- rationalisation of sustainability reporting schemes;
- further streamlining and simplification; and
- the prioritisation of an electronic one stop shop for greenhouse gas and energy reporting schemes.

**5.27** If the objectives of the agreed Protocol are to be realised, DCCEE will need to give priority to working with jurisdictions to streamline current reporting requirements.

## Conclusion

**5.28** The Protocol was designed to reinforce the objective of the NGER Act, to reduce duplication of reporting requirements and create a single national reporting framework for existing and future greenhouse and energy programs. Implementation of the Protocol was guided by a comprehensive implementation plan for streamlining greenhouse and energy reporting. The plan included immediate actions to be undertaken prior to July 2009 to: 'ensure corporations could begin streamlined reporting in the 2009–10 financial year'. The intention was to work to a timetable that involved a single national online reporting tool implemented for all programs by October 2010.

**5.29** At the national level some streamlining of greenhouse gas reporting has occurred. DCCEE has ceased a number of national programs as well as voluntary company surveys previously conducted to support the National Greenhouse Gas Inventory.

**5.30** However, despite these initial results, further progress in realising the objectives of the Streamlining Protocol has been limited. The NDT was designed to enable DCCEE to disclose greenhouse and energy information, electronically, to specified persons and bodies within the Australian

[134] Correspondence from a Peak Industry body to DCCEE on 19 April 2011.

Government as well as the states and territories. However, DCCEE has experienced particular difficulties in simultaneously developing OSCAR and the NDT to meet the competing demands of data users and reporting corporations. Delays in producing an adequate disclosure tool have hampered the capacity of data users to benefit from the data provided under NGERS. There have also been difficulties for data users in terms of obtaining the information in the form they require at the time they require it.

## Recommendation No.2

**5.31** Given the importance of data sharing among agencies and jurisdictions, the ANAO recommends that the Department of Climate Change and Energy Efficiency:

(a) address NGERS data sharing and access issues through an appropriate forum of relevant stakeholders; and

(b) complete outstanding memoranda of understanding with respective NGERS data users as soon as practicable.

***DCCEE response:*** Agreed. Efforts to complete memoranda of understanding with those states not currently accessing NGER data continue to be a priority. A forum of Commonwealth data users, which meets on a regular basis to discuss understanding of the data and to identify opportunities for the alignment of Commonwealth data needs, will be used as a model in the design of appropriate fora for relevant stakeholders to raise and address existing, new and emerging issues. This activity will become a responsibility of the Clean Energy Regulator from 2 April 2012.

**5.32** Two and a half years after the Protocol was implemented only three jurisdictions have agreed to streamline their operations and problems remain even with data sharing across Australian Government agencies. Given the priority for streamlining and the commitments made by governments within the Protocol, there remains a strong case for progressing a single streamlined system that imposes the least cost and red tape burden on industry. If a multilateral approach through COAG is not achievable, bilateral discussions should be instituted with respective state jurisdictions.

## Recommendation No.3

**5.33** To meet the objectives of the Streamlining Protocol, the ANAO recommends that the Department of Climate Change and Energy Efficiency:

(a) involve relevant state and territory jurisdictions in progressing the agreed objective; and

(b) consult with industry representatives to implement streamlining initiatives and to identify further streamlining opportunities.

***DCCEE response***: Agreed. The Department of Climate Change and Energy Efficiency, in consultation with the Clean Energy Regulator, will pursue the streamlining objective in alignment with the Council of Australian Government's review into complementary measures commencing in 2012. The Department will also consult with jurisdictions and stakeholders on possible additional streamlining opportunities.

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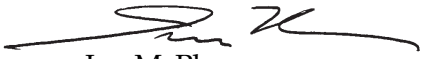

Ian McPhee

Auditor-General

Canberra ACT

7 February 2012

# Appendices

# Appendix 1: PBS performance information for NGERS

| **2008–09 PBS** | |
|---|---|
| **Output 1.1: *Reducing Australia's greenhouse gas emissions*** | |
| **Performance Indicator:** | **Target:** |
| • *Nationally consistent framework for streamlined greenhouse emissions and energy reporting by industry* | • *Framework for the national greenhouse and energy reporting system in place and fully operational*<br>• *Streamlining approach agreed through the Council of Australian Governments (COAG)* |
| **2009–10 PBS†** | |
| **Program 1.1: *Reducing Australia's greenhouse gas emissions*** | |
| **Deliverables:** | **Performance Indicators:** |
| • *Develop appropriate tools to assist Australian business to comply with the National Greenhouse and Energy Reporting System*<br>• *Streamline greenhouse emissions and energy reporting through the Council of Australian Governments (COAG)* | • *Industry national greenhouse and energy reporting deadline of 31 October 2009 met* |
| **2010–11 PBS** | |
| **Program 1.1: Reducing Australia's greenhouse gas emissions** | |
| **Deliverables:** | **Performance Indicators:** |
| *Monitor and refine National Greenhouse and Energy Reporting system (NGERS) to improve efficiency and effectiveness*<br>*Publish NGERS data and ensure access to reported information and data is provided to relevant government agencies* | *All annual NGER reports are receipted and validated, with at least 90% (of reportable emissions) validated before data is published by 28 February 2011.All applications for registration with NGERS and other statutory processes are completed within reasonable timeframes and communication with affected parties is clear* |
| **2011–12 PBS** | |
| **Program 1.1: Reducing Australia's greenhouse gas emissions** | |
| **Deliverables:** | **Performance Indicators:** |
| • *The National Greenhouse and Energy Reporting System (NGERS) that monitors corporate emissions, energy production and consumption as part of building understanding of Australia's national emissions profile and inventory* | • *Publish information collected through the NGERS in accordance with legislative requirements, and access to reported data provided to relevant government agencies* |

† Between 2008–09 and 2009–10 the performance framework changed from the outcomes and outputs framework to the outcomes and programs framework. Consequently, the structure of performance information included in PBS differs across this period.

Source: ANAO from DCCEE information.

## Appendix 2: Agency response

**Australian Government**
**Department of Climate Change and Energy Efficiency**

Ms Barbara Cass
Group Executive Director
Performance Audit Services Group
Australian National Audit Office
GPO Box 707
CANBERRA ACT 2601

Dear Ms Cass

The Department of Climate Change and Energy Efficiency (the Department) accepts the three recommendations of the 2011 ANAO audit report on the *Administration of the Greenhouse and Energy Reporting Scheme (NGERS)*.

The NGERS provides a rich and detailed data set across energy production and consumption and greenhouse gas emissions. This data set is currently meeting the majority of energy and greenhouse data needs of relevant Commonwealth agencies in advising government on policy, informing the community, and meeting international reporting obligations. The scope and granularity of NGERS data is being examined as a model by other countries. Over time, we expect the value of the data to increase, as each year of reporting establishes a longer time series and as the Department pursues continuous improvement to data quality.

The audit report acknowledges the dynamic policy and resourcing context the Department faced in implementing NGERS, the complexities of the reporting scheme, and the efforts of the Department in seeking the agreement of states and territories to use information reported under NGERS for state greenhouse gas or energy program purposes.

Regarding recommendations 2 and 3, the Department will continue to pursue achievement of the streamlining objectives, in alignment with appropriate initiatives under the Council of Australian Governments. In this regard the Department will also foster opportunities to engage with jurisdictions and stakeholders.

Following the IT findings from the 2011 ANAO audit, the Department has made significant improvements to the security of the IT system. The Department completed actions to rectify the very high and high risks identified and has made significant infrastructure improvements in light of the audit report.

As part of the Clean Energy Legislative Package, amendments to the *National Greenhouse and Energy Reporting Act 2007* build on and strengthen a comprehensive national reporting framework to support delivery of the carbon price mechanism. With the passing of the legislation by the Senate in November 2011, the Department is firmly focused on implementation activities. A Carbon Price Implementation Program is now well underway to undertake the action necessary for the implementation of the carbon price mechanism to proceed smoothly.

Finally, I would like to thank the ANAO for the professional and capable manner in which this audit was undertaken.

Yours sincerely

Anthea Harris
A/g Secretary
18 January 2012

Formal response to Recommendations 1, 2 and 3 of the performance audit report *Administration of the Greenhouse and Energy Reporting Scheme (NGERS)*

**Recommendation No 1**

**Para 3.17**

To reduce the compliance costs for industry the ANAO recommends that the Department of Climate Change and Energy Efficiency, through the Greenhouse and Energy Data Officer, assess the benefits and costs of introducing an appropriate materiality threshold/s for reporting by registered corporations.

**DCCEE response**: Agreed. The Department of Climate Change and Energy Efficiency, in consultation with the Clean Energy Regulator, will examine the variety of methods available to reduce the reporting burden while maintaining the integrity of the reported data during 2012-13.

**Recommendation No 2**

**Para 5.20**

Given the importance of data sharing among agencies and jurisdictions, the ANAO recommends that the Department of Climate Change and Energy Efficiency, through the Greenhouse and Energy Data Officer:

address NGERS data sharing and access issues through an appropriate forum, of relevant stakeholders; and

complete outstanding memoranda of understanding with respective NGERS data users as soon as practicable.

**DCCEE response**: Agreed. Efforts to complete memoranda of understanding with those states not currently accessing NGER data continue to be a priority. A forum of Commonwealth data users, which meets on a regular basis to discuss understanding of the data and to identify opportunities for the alignment of Commonwealth data needs, will be used as a model in the design of appropriate fora for relevant stakeholders to raise and address existing, new and emerging issues. This activity will become a responsibility of the Clean Energy Regulator from 2 April 2012.

Formal response to Recommendations 1, 2 and 3 of the performance audit report *Administration of the Greenhouse and Energy Reporting Scheme (NGERS)*

**Recommendation No 3**

**Para 5.29**

To meet the objective of the Streamlining Protocol, the ANAO recommends that the Department of Climate Change and Energy Efficiency, through the Greenhouse and Energy Data Officer:

involve relevant state and territory jurisdictions in progressing the agreed objective; and

consult with industry representatives to implement streamlining initiatives and to identify further streamlining opportunities.

**DCCEE response**: Agreed. The Department of Climate Change and Energy Efficiency, in consultation with the Clean Energy Regulator, will pursue the streamlining objective in alignment with the Council of Australian Government's review into complementary measures commencing in 2012. The Department will also consult with jurisdictions and stakeholders on possible additional streamlining opportunities.

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