



Australian Government
Department of Climate Change
and Energy Efficiency

2011 National Greenhouse and Energy Reporting Workshops



thinkchange

www.climatechange.gov.au

Workshop Agenda

9:00am - 10:45am	NGER Presentation and update
10:45am - 11:00am	Morning Tea
11:00am - 12:30pm	OSCAR Training
12:30pm - 13:30pm	Lunch
13:30pm - 3:00pm	OSCAR Training and Using the Uncertainty Calculator
3:00pm - 3:15pm	Afternoon Tea
3:15pm - 5:00pm	Using the Waste Calculators



Workshop Objectives

This workshop is intended to provide information relating to the National Greenhouse and Energy Reporting Scheme only

- By the end of this presentation, you will have an understanding of NGER legislation, including amendments.
- We will also explore several areas of NGER in more detail
 - Audit and Compliance
 - Calculator tools
 - Record Keeping
 - Changes to GreenPower reporting
 - Reporting Net energy consumption
 - Updates to streamlining processes



thinkchange

www.climatechange.gov.au

Overview

- NGER background
- Record keeping
- Legislative changes for 2010-11 and 2011-12
- Linkages with proposed Carbon Pricing
- Data publication and disclosure
- Energy consumption
- Report Validation
- Compliance Monitoring
- NGER Audits
- Streamlining update
- Calculator overviews
- Reporting GreenPower, RECs and adjusted scope 2 emissions



thinkchange

www.climatechange.gov.au



Australian Government

Department of Climate Change



thinkchange

National Greenhouse and Energy Reporting: Legislation Overview and Updates

www.climatechange.gov.au

National Greenhouse and Energy Reporting Act 2007 (NGER Act)

- Introduced a single national reporting framework for corporations
- Reporting of information related to:
 - greenhouse gas emissions
 - energy consumption
 - energy production



thinkchange

www.climatechange.gov.au

Purpose of legislation

- Underpin the introduction of an 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
- Avoid duplication of similar reporting requirements in the States and Territories



NGER Legislative Framework

National Greenhouse and Energy Reporting Act 2007

National Greenhouse and Energy Reporting Regulations 2008

*National Greenhouse and
Energy Reporting (Audit)
Determination
2009*

*National Greenhouse and
Energy Reporting
(Measurement) Determination
2008*

*National Greenhouse and Energy Reporting (Auditor Registration)
Instrument 2010*



thinkchange

www.climatechange.gov.au

Principles based legislation

- Legislation is **principles** based
- Section 1.13 of the Determination states principles for emissions are:
 - transparency
 - comparability
 - accuracy (95% confidence level) ‘having regard to the availability of reasonable resources...’
 - completeness
- We encourage industry to self-assess, but are available to provide general guidance



thinkchange

www.climatechange.gov.au

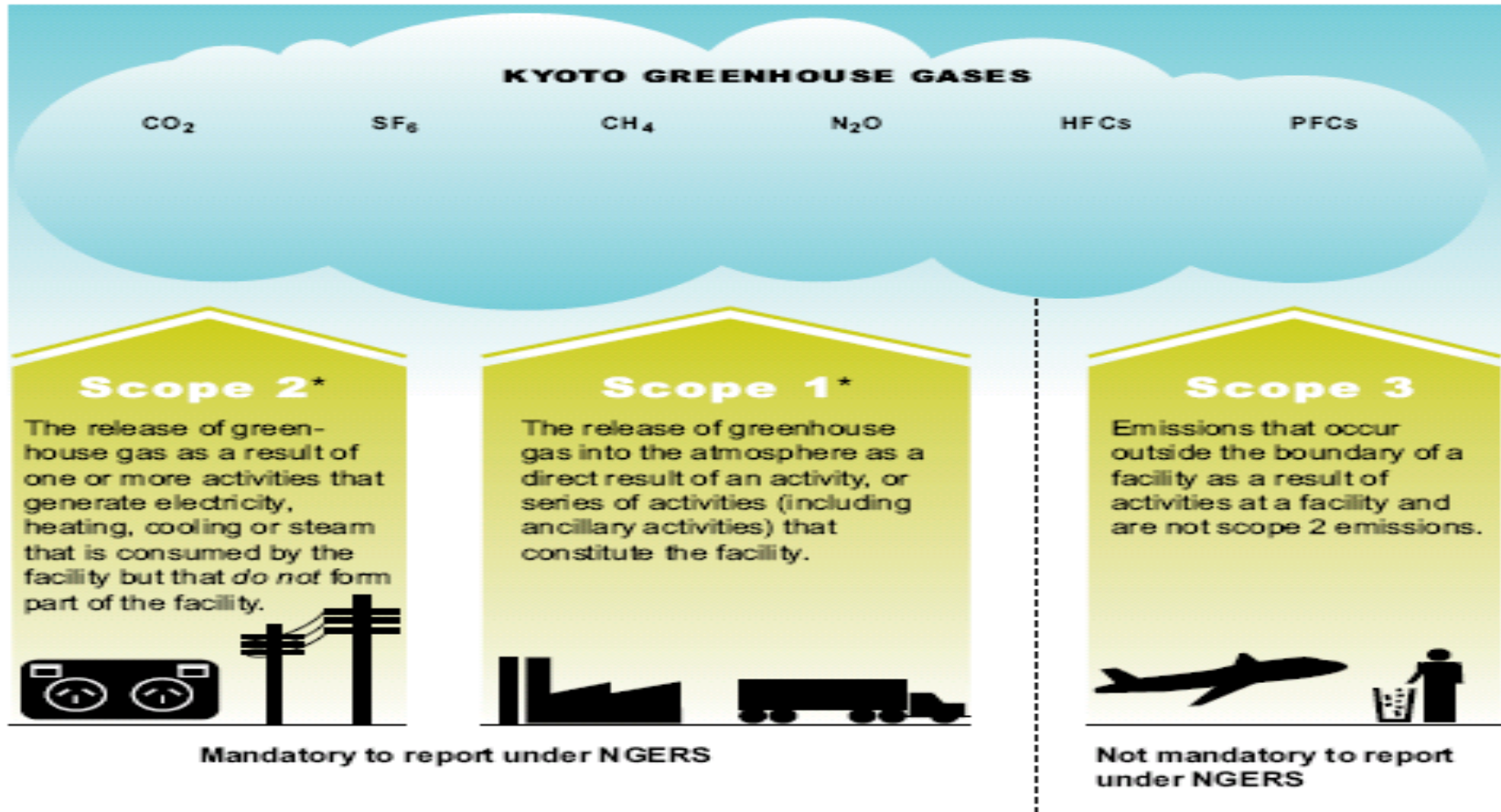
Legislative Coverage

- Provides data coverage of nearly 70% of greenhouse gas emissions in covered sectors
- Non energy greenhouse gas emissions from agriculture, land use, land use change and forestry is not currently included due to measurement immaturity
- Reporting covers the six Kyoto gases



Only scope 1 and 2 greenhouse gases reported

Figure 1.3: Scope 1, 2 and 3 greenhouse gas emissions: examples



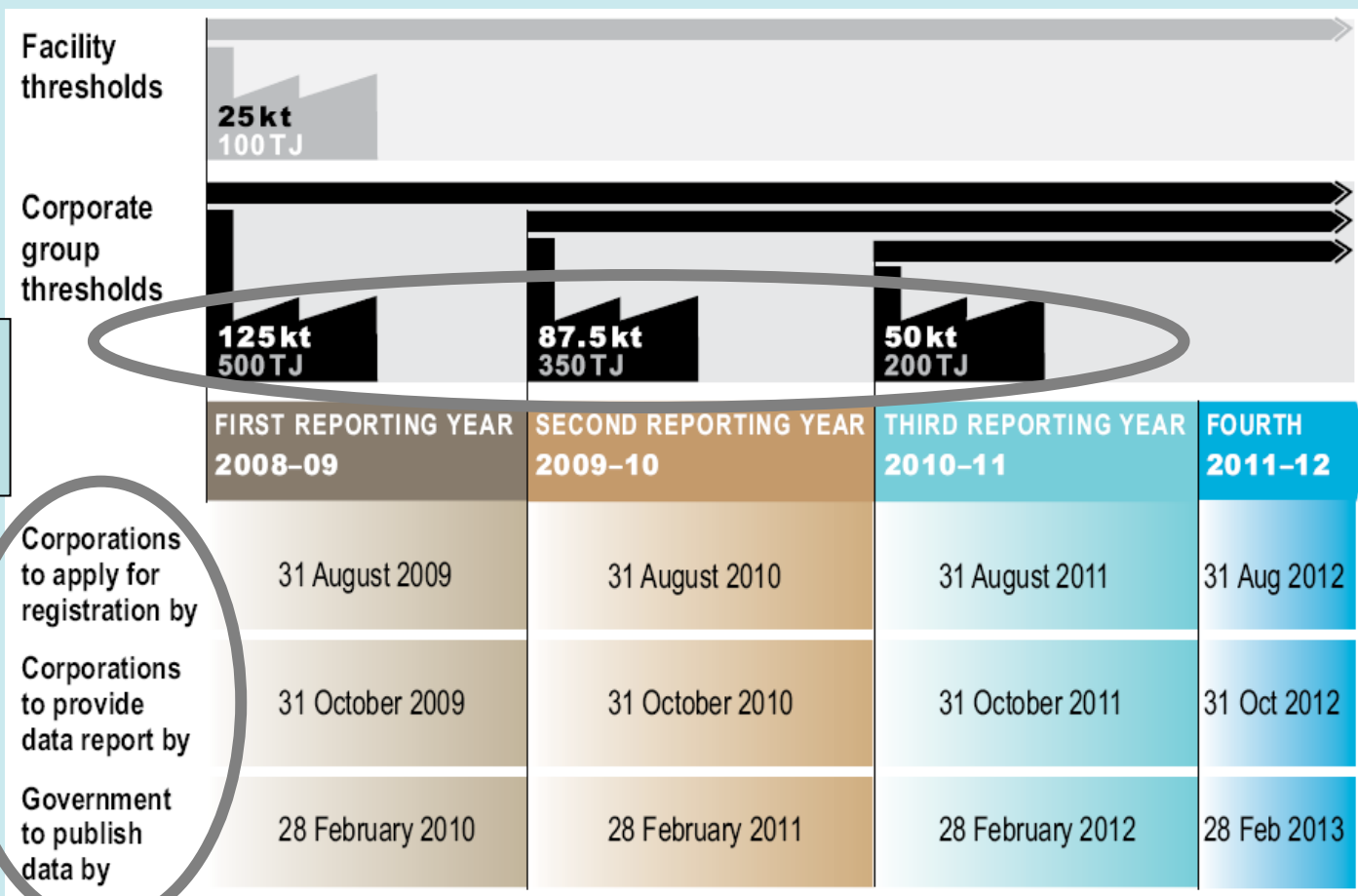
* The definitions of scope 1 and scope 2 emissions are summarised from p. 2.23.



thinkchange

www.climatechange.gov.au

Thresholds and key dates



■ Major NGER deadlines

Corporations to apply for registration by

Corporations to provide data report by

Government to publish data by



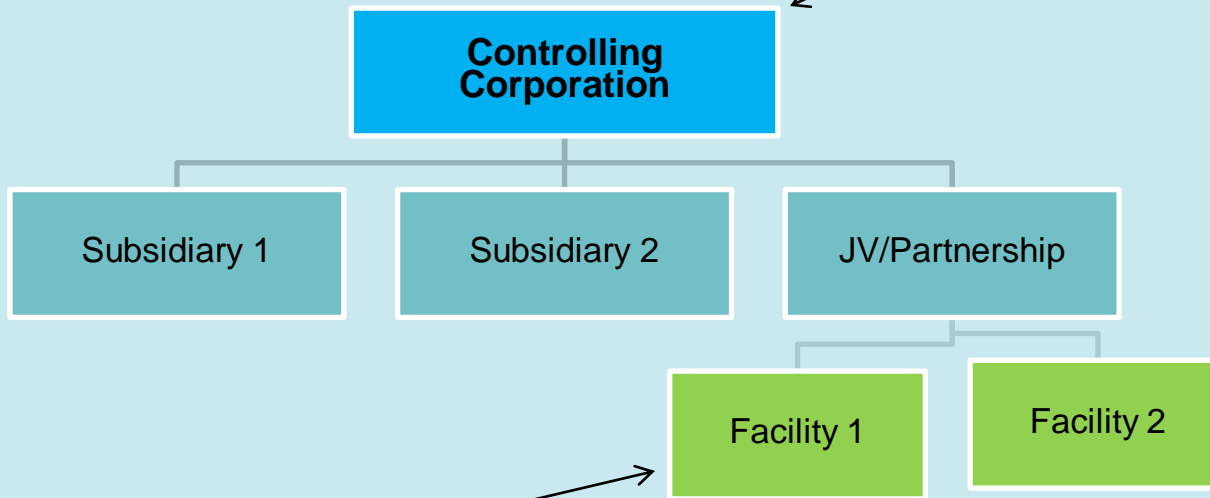
thinkchange

www.climatechange.gov.au

NGER conceptual corporation structure

Controlling corporation reports for its group

Registers and reports



Activity data is entered at the facility level



thinkchange

www.climatechange.gov.au

Operational Control

- A corporation is considered to have operational control over a facility if it has the authority to introduce and implement the following policies:
 1. operating
 2. health and safety
 3. environmental
- Where more than one corporation or member of the group can do the above, the one with the greatest authority has operational control for NGER purposes



Operational control scorecard

- Reporting under NGER ultimately lies with the controlling corporation whose group members have operational control of facilities when thresholds are triggered
- The operational control scorecard tool can be used as:
 - a guide to help corporations decide which facilities they need to report on
 - part of a corporation's reporting methodology and records for audit and compliance
- Fact sheet and template at www.climatechange.gov.au/reporting



Operational control tool

Part 2:

	POLICY	Policy Score	Corporate Score A	Corporate Score B
OPERATING POLICIES	Provides fuels for vehicles*	30	0	30
	Maintenance of vehicles	10	0	10
	Determines route and delivery time and place	5	1	4
	Ability to influence asset purchase	20	1	19
	Branding and colours	0	0	0
	Driver Employer	10	0	10
	TOTAL	75	2	73
	ENVIRO. POLICIES	Fuel type	20	0
Minimum emissions standards/fuel consumption vehicles		10	0	10
TOTAL		30	0	30
OH&S POLICIES	Fatigue management	10	1	9
	Safety Equipment – Personnel Protective Equipment	5	0	5
	Safety requirements at P/UP point	5	4	1
	Safety requirements at transport depot	5	0	5
	Safety requirements at delivery point	5	4	1
	TOTAL	30	9	21
	OPERATIONAL CONTROL TOTAL	135	11	124

**This is based on the corporation who acquits Fuel Tax Credits*



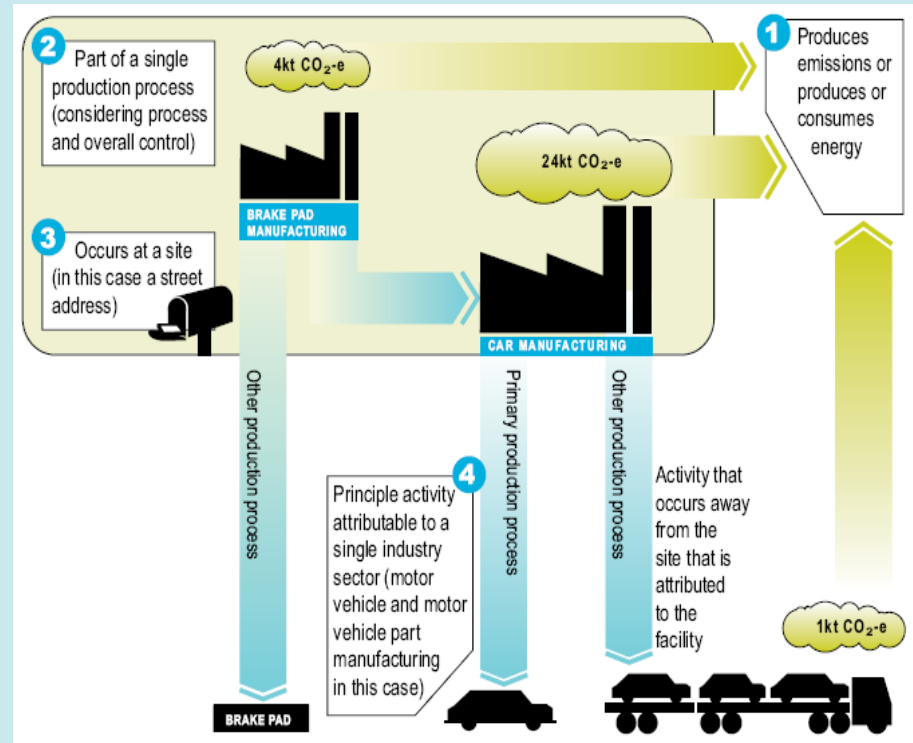
thinkchange

www.climatechange.gov.au

Facility criteria

Activities may form a facility if they:

1. produce greenhouse gas emissions or produce or consume energy
2. are part of a production process
3. occur at a 'single site'
4. are attributable to a single industry sector



thinkchange

www.climatechange.gov.au

Record keeping obligations

In addition to **registration** and **reporting**:

- A registered corporation is required to keep records for seven years that:
 - allow it to accurately report
 - enable the GEDO to ascertain whether it has complied
- Should include calculations of greenhouse gas emissions, documentation and methods used for estimations and decisions relating to identifying facilities to report and operational control.





Australian Government

Department of Climate Change



thinkchange

**National Greenhouse and Energy Reporting:
Regulation and Measurement Determination
Updates**

www.climatechange.gov.au

Key NGER Regulation Changes

- For the 2011 – 2012 reporting year:
 - Updates to ensure consistency with the NGER (Measurement) Determination
 - Clarification of requirements for reporting network/pipelines
 - Updating Matters to be Identified for soda ash production, waste incineration
 - Adding Method 4 for waste incineration
 - Clarification of requirements for Section 20 applications
 - Clarification of Audit and auditor requirements



thinkchange

www.climatechange.gov.au

Key NGER Regulation Changes (cont'd)

- For the 2011 – 2012 reporting year:
 - Clarification of requirements for Section 20 applications
 - Clarification of Audit and auditor requirements
 - Specific exclusion of bitumen consumed without combustion
- For the 2012 – 2013 reporting year:
 - Redefinition of reportable coal types
 - Updating Matters to be Identified in production of metals



thinkchange

www.climatechange.gov.au

Key NGER (Measurement) Determination Changes

- For the 2010-11 reporting year:
 - Assessment of uncertainty of Scope 1 emissions mandatory
 - Further definition of requirements in relation to carbon capture and storage
 - Align stationary and transport energy reporting for gaseous fuels with liquid fuel reporting
 - Clarification of methods for fugitive emissions from deliberate releases and “general leaks”
 - Clarification of soda ash use and production
 - Clarification of ferroalloys production
 - Inclusion of default factors for new vehicle control standards (e.g. Euro standard)



thinkchange

www.climatechange.gov.au

Key NGER (Measurement) Determination Changes

- For the 2011-12 reporting year:
 - Exclusion of bitumen
 - Revised Scope 2 emissions factors
 - Provision of Carbon Mass Balance approach for emissions from certain sources/industries
 - Threshold established to exclude smaller generators from requirement to use higher order methods
 - Alternative sampling methodologies for fly ash
 - Remove 'other stationary' restriction on petroleum based oils and greases
 - Revised method for measuring CO₂ separate to CH₄

See Tools and resources @
www.climatechange.gov.au/reporting



thinkchange

www.climatechange.gov.au



Australian Government

Department of Climate Change

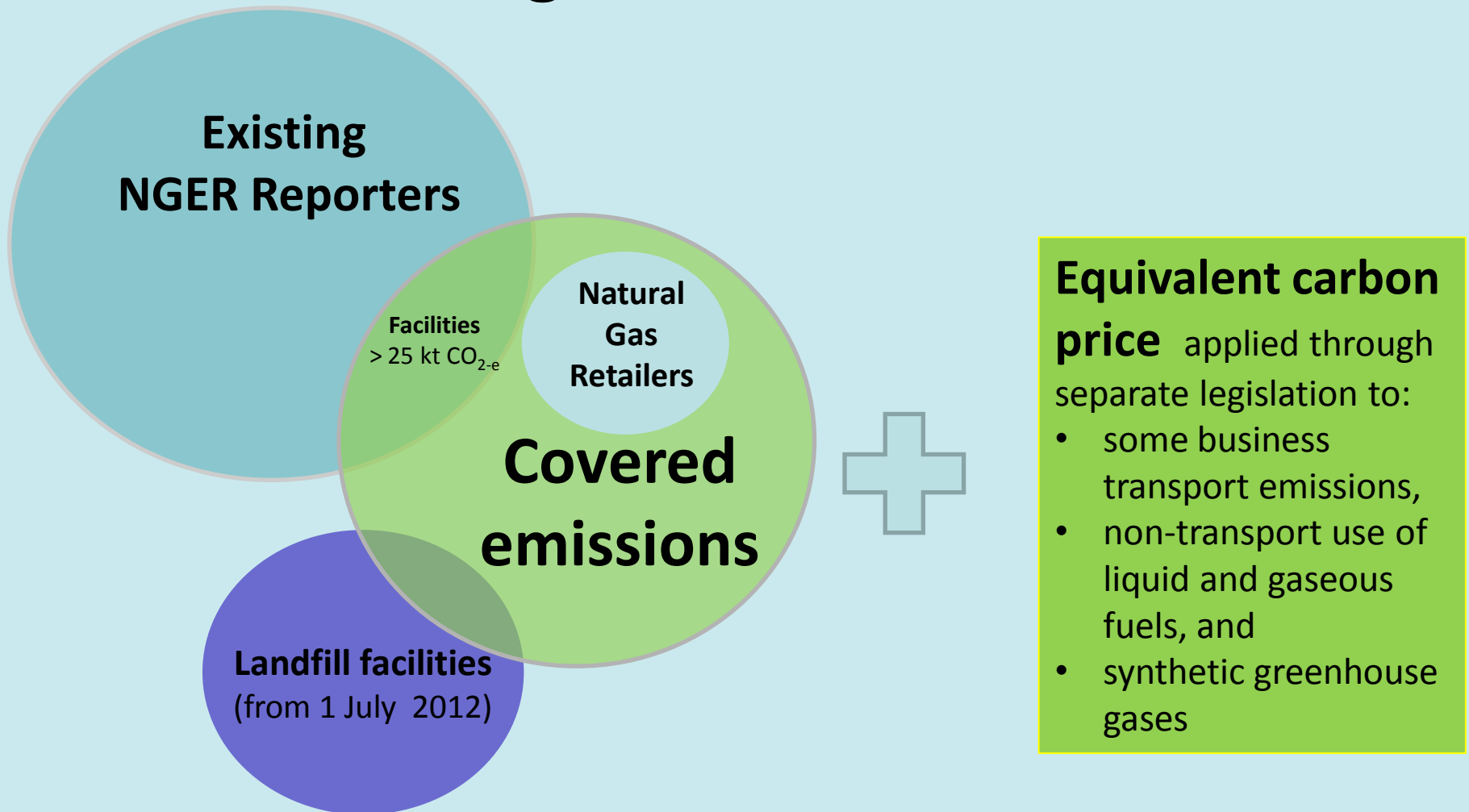


thinkchange

National Greenhouse and Energy Reporting: Links with the proposed Carbon Pricing

www.climatechange.gov.au

Coverage and Liable Entities



Source: Securing a clean energy future, The Australian Government's Climate Change Plan, Appendix A: Carbon pricing mechanism, Table 4, page 104



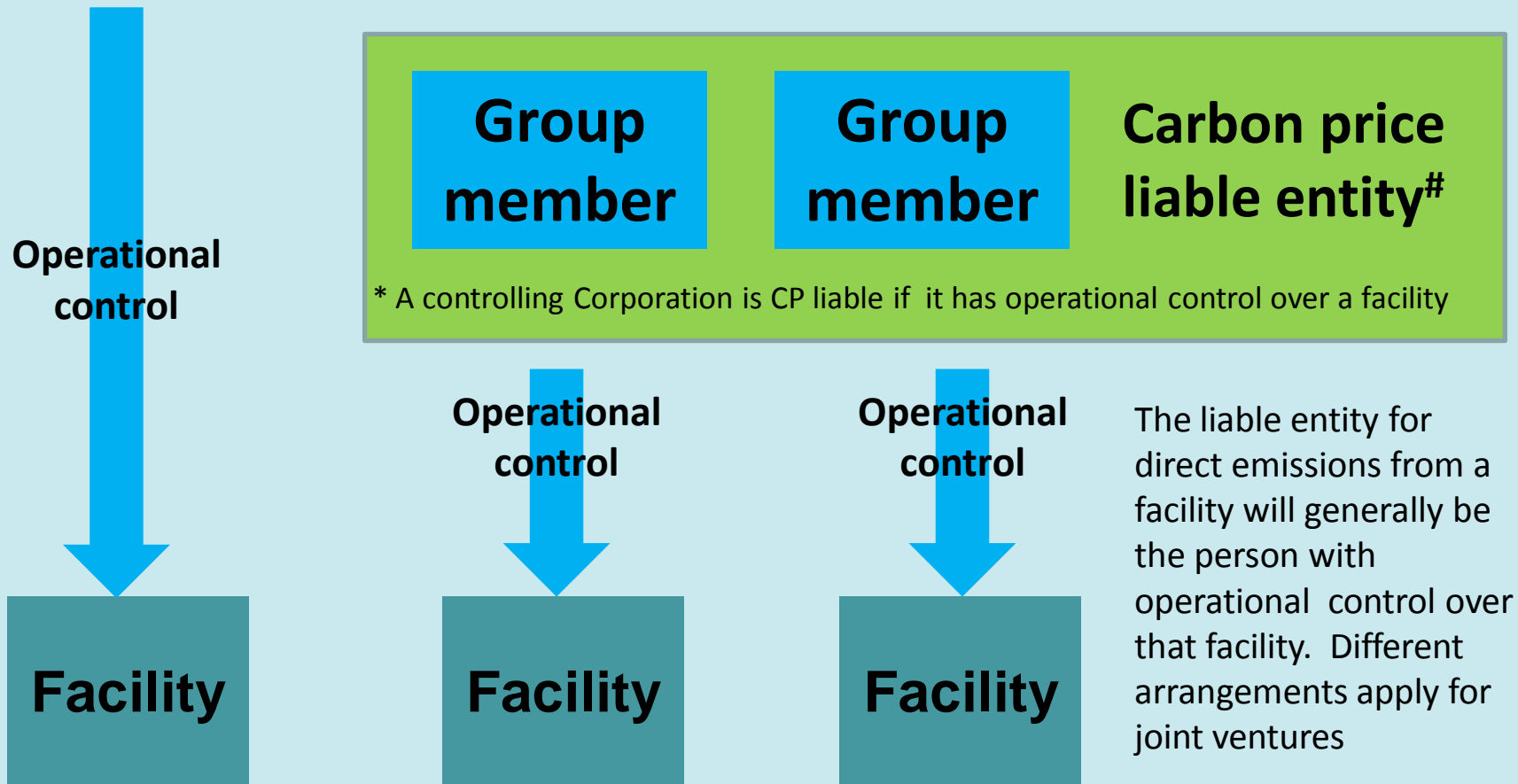
thinkchange

www.climatechange.gov.au

Liable Entity

Controlling Corporation*

← Maintains NGER Reporting obligation#



Reporting and liability obligations can be transferred between a group member and their controlling corporation.

Source: Securing a clean energy future, The Australian Government's Climate Change Plan, Appendix A: Carbon pricing mechanism, Table 4, page 105



thinkchange
www.climatechange.gov.au



Australian Government

Department of Climate Change



thinkchange

National Greenhouse and Energy Reporting: Publication and Provision of data

www.climatechange.gov.au

Data Publication

- The NGER Act requires the GEDO to publish data reported by registered corporations that meet a publishing threshold annually.
- Data published by the GEDO is consolidated into a document which is made available on the Department's website: www.climatechange.gov.au
- Presently only greenhouse gas emissions and energy consumption data for a registered corporation's group has been published by the GEDO.
- The GEDO may however also publish this data for each member of a corporation's group.



thinkchange

www.climatechange.gov.au

Requests for information not to be published

- Section 25 of the NGER Act permits relevant parties to apply to the GEDO requesting that information not be published
- Section 25 only applies however, if the information that is to be published by the GEDO reveals or would be capable of revealing a trade secret or any other matter having commercial value



thinkchange

www.climatechange.gov.au

Requests for information not to be published

- Section 25 of the NGER Act only operates to potentially prevent data from being published. It does not prevent data from being disclosed generally
- Applications under section 25 of the NGER Act can be made by using the application form on the Department's website
- www.climatechange.gov.au



thinkchange

www.climatechange.gov.au

Data Disclosure

- Under the NGER Act the GEDO is required to disclose reported data to specified Commonwealth agencies and to state and territory governments
- Each state and territory will only be provided with the data relating to the facilities that are located within their jurisdiction
- Each party to whom NGER data is disclosed is entitled to use that data for the purpose of administering a law of the state or territory or of the Commonwealth



Published Data

■ 2008-09:

- Approx 700 registered (233 published)
- 345,149 kt CO_{2-e} Scope 1
- 93,392 kt CO_{2-e} Scope 2
- 6,201 PJ consumed

■ 2009-10:

- Approx 770 registered (300 published)
- 342,761 kt CO_{2-e} Scope 1
- 95,213 kt CO_{2-e} Scope 2
- 7,608 PJ consumed



thinkchange

www.climatechange.gov.au



Australian Government

Department of Climate Change



thinkchange

National Greenhouse and Energy Reporting: Update on reporting Net energy consumption

www.climatechange.gov.au

Disclosure of Net Energy Consumption

- Registered corporations that meet a publication threshold for a reporting year may request that the GEDO disclose to the public their net energy consumption.
- This information will be disclosed on the Department's website in a publication that will display the energy consumption total published under section 24 of the NGER Act alongside the net energy consumption information.
- Requests should be made using the *Application for disclosure of net energy consumption* form, which is available on the Department's website.





Australian Government

Department of Climate Change



thinkchange

National Greenhouse and Energy Reporting: Report Validation

www.climatechange.gov.au

Report Validation

- What do we do?
 - Comprehensive data check to identify possible errors or discrepancies
 - Includes checks against other publicly available information
 - Check other required information



Report Validation

- Opportunities for corporations to resubmit their report
 - To correct issues based on corporation reviewing their report
 - To correct issues raised in discussions with the Department



Some reporting discrepancies

- Mis-reporting – or non-reporting – of own-use electricity production or consumption
- Missing Source validation errors related to corporations not reporting data for a specific source that the Department identified from other publicly available data



thinkchange

www.climatechange.gov.au

Some reporting discrepancies

- Conflicting source errors occur where entities reported source activities that appeared to be classified using an incorrect source category
- Facility Aggregate reporting issues included corporations not providing a list of facilities aggregated, or including facilities above the facility threshold in aggregates.



thinkchange

www.climatechange.gov.au

Some reporting discrepancies

- Some corporations may not have included some entities or parts of their corporation in their report, based on publicly available information



How do we address them?

- Supplementary guidance material:
 - *Supplementary Guideline for Acquisitions, Disposals and Mergers*
 - *Aggregated Facility Reporting, Percentage Estimates and Incidental Emissions and Energy NGER Supplementary Guidelines*
 - *Energy Production and Consumption NGER Supplementary Guidelines*
- Direct contact with corporations to address potential reporting errors
- Compliance activities



thinkchange

www.climatechange.gov.au



Australian Government

Department of Climate Change



thinkchange

National Greenhouse and Energy Reporting: Compliance Monitoring

www.climatechange.gov.au

Compliance approach

■ Breaches include

- Failure to register
- Failure to submit an on-time, compliant report
- Failure to keep adequate records (section 22 of the NGER Act)

■ Penalties

- Civil penalties for non-compliance are recorded in the NGER Act
 - Up to 2000 penalty units (~\$230,000)
- Include cumulative civil penalties (per day of non-compliance)
 - Up to 100 penalty units per day (~\$12,000)



thinkchange

www.climatechange.gov.au

Compliance approach: Potential responses

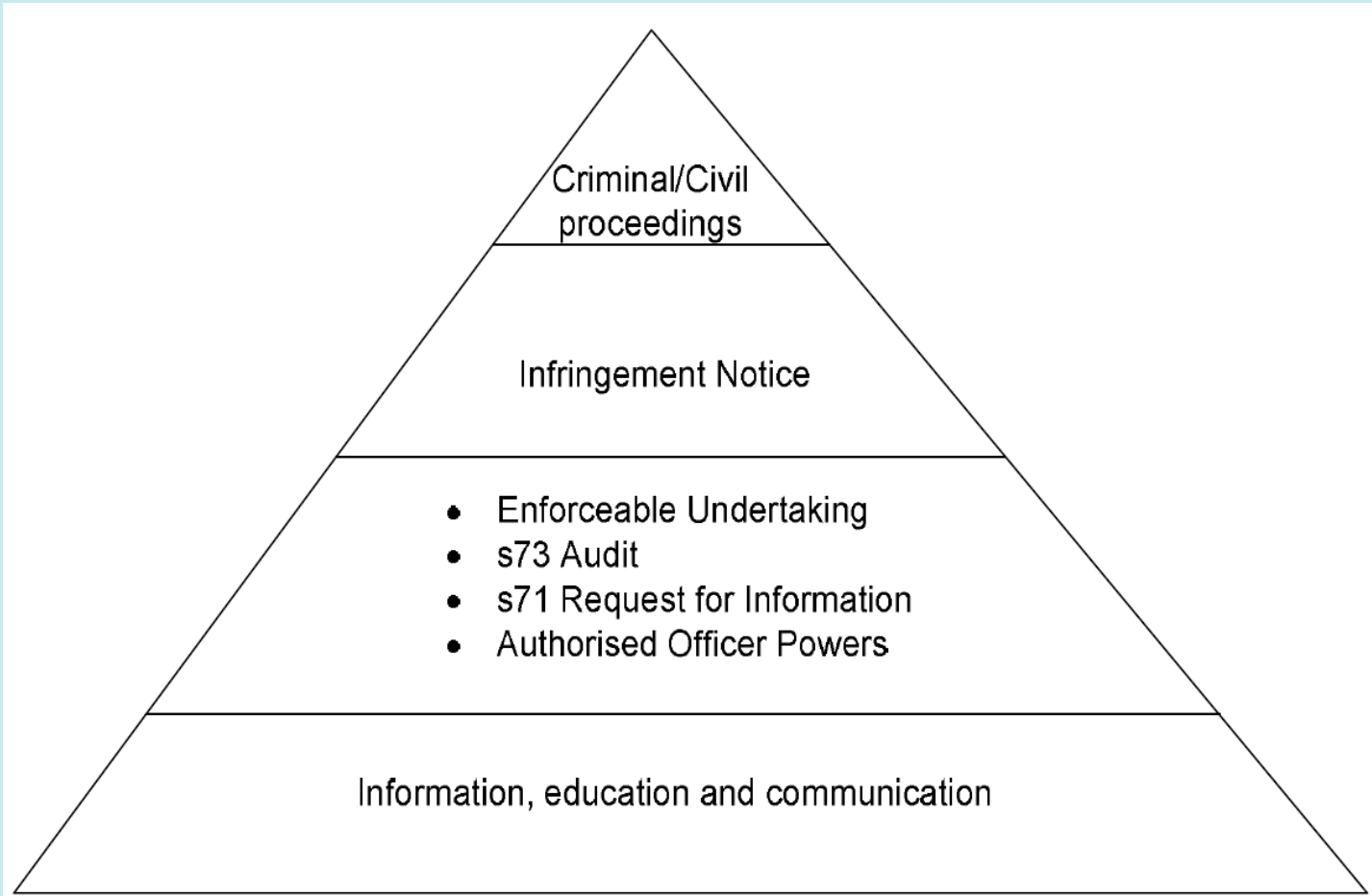
- Targeted Education
- Requesting information
- Enforceable Undertakings
- Infringement Notices
- Authorised Officer visits
- Court Cases – Civil proceedings against:
 - Controlling Corporations
 - CEO



thinkchange

www.climatechange.gov.au

Compliance Model



Adapted from Ayres, Ian and Braithwaite, John, *Responsive Regulation: Transcending the Deregulation Debate*.
New York: Oxford University Press, 1992



thinkchange

www.climatechange.gov.au

Compliance Model

CORPORATION BEHAVIOURS AND MOTIVATION

VOLUNTARY COMPLIANCE

- Informed self assessment
- Management is compliance oriented

ACCIDENTAL NON-COMPLIANCE

- Not yet compliant
- Attempting compliance (e.g. developing internal control systems to ensure compliance)

OPPORTUNISTIC NON-COMPLIANCE

- Resistance to compliance
- Lack of indication of intention to comply (e.g. no indication of system being developed to ensure compliance)

INTENTIONAL NON-COMPLIANCE

- Deliberate non-compliance
- Criminal intent or fraud
- Other illegal activity



THE GEDO'S RESPONSE

HELP AND SUPPORT

- The GEDO will provide information and opportunities for compliant corporations to ask questions, discuss issues of concern and participate in educational and discussion forums
- The GEDO will use proactive audits to develop a better understanding of corporations' ability to comply.

EDUCATE AND PROVIDE FEEDBACK

- The GEDO will provide additional guidance to targeted corporations
- Where an apparent non-compliance is identified, the GEDO will provide relevant parties with an opportunity to respond
- The GEDO will provide feedback on adequacy of systems and arrangements to ensure compliance

CORRECT BEHAVIOUR

- The GEDO will respond to detected non-compliance according to the severity (e.g. employing enforceable undertakings, infringement notices)
- Under certain circumstances, the GEDO may publish information about individual corporation's non-compliance

ENFORCE THE LAW

- Where appropriate, the GEDO will initiate court action in cases of deliberate non-compliance (including criminal prosecution of any offence that may have been committed)

Compliance

- Encouraging corporations to voluntarily comply, and dealing with contraventions appropriately.
- Intelligence analysis and risk assessment with the intent to maximise the number of corporations that voluntarily comply with their obligations under the NGER Act.
- The core elements are:
 - assisting corporations to understand their rights and obligations;
 - making it as easy as possible for corporations to meet their obligations;
 - supporting corporations who want to do the right thing;
 - monitoring compliance through a range of methods, including the use of targeted audits; and
 - actively pursuing those corporations that opportunistically or deliberately contravene the law.



thinkchange

www.climatechange.gov.au

Compliance approach: 2009-10

- Compliance approach for 2009-10:
 - Help and Support
 - Education and Feedback
- Corporations were encouraged to request assistance if necessary



Reporting non-compliance

- Corporations are encouraged to notify the Department of any potential breaches of the legislation
- Corporations may also anonymously report potential non-compliance



More Information about NGER Compliance Monitoring

Hotline 1800 018 831

Email compliance@climatechange.gov.au

Web www.climatechange.gov.au/reporting



thinkchange
www.climatechange.gov.au



Australian Government

Department of Climate Change



thinkchange

National Greenhouse and Energy Reporting: Audit

www.climatechange.gov.au

Legislation (audit provisions)

National Greenhouse and Energy Reporting Act 2007

National Greenhouse and Energy Reporting Regulations 2008 (Divisions 6.3 to 6.7)

National Greenhouse and Energy Reporting (Audit) Determination 2009

National Greenhouse and Energy Reporting (Auditor Registration) Instrument 2010

Supporting policy/guidelines

Greenhouse and Energy Auditor Registration Guidelines

The Audit Handbook – Guidelines for Registered Greenhouse and Energy Auditors



thinkchange

www.climatechange.gov.au

Reasons for Greenhouse and Energy audits

- **Section 73 (73A)**—reasonable grounds to suspect that a registered corporation (or a person required to provide information under section 20) has contravened, is contravening, or is proposing to contravene, the Act or the regulations
- **Section 74 (74A)**—audit of a registered corporation's (or a person required to provide information under section 20) compliance with one or more aspects of the Act or the regulations



thinkchange

www.climatechange.gov.au

Types of Greenhouse and Energy Audit

■ Assurance

- Analyse data to provide an opinion on reliability, accuracy and completeness of matters audited.
- Reasonable Assurance (most comprehensive)
- Limited Assurance (less comprehensive)

■ Verification

- Provide factual findings on agreed activities, but no opinion
 - e.g. Comparing estimation methodology with the requirements of the NGER Measurement Determination.

- Corporations may also engage auditors voluntarily to look at any aspect of their reporting obligations



thinkchange

www.climatechange.gov.au

Audit may examine any aspect of compliance

■ Examples:

- Information reported under s19 of the Act
- Definitions of corporate group and facilities through the application of overall and operational control
- Identification and measurement of emissions sources, energy consumption and production points
- Accuracy, completeness and validity of reported greenhouse and energy information



NGER Pilot Audit Program

- Trial and improve audit methodology
- Examine accuracy of reported data
- Shape ongoing comprehensive risk/intelligence-based audit program
- Auditors chosen from an existing panel
- Paid for by the Department



More Information about Greenhouse and Energy Audits

Hotline 1800 018 831

Email audit@climatechange.gov.au

Web www.climatechange.gov.au/reporting



thinkchange

www.climatechange.gov.au



Australian Government

Department of Climate Change



thinkchange

National Greenhouse and Energy Reporting: Streamlining Update

www.climatechange.gov.au

Streamlining

- The GEDO is continuing to pursue streamlining of greenhouse and energy reporting within the Australian Government and the States and Territories.
- Memoranda of Understanding (MOUs) that support disclosure of NGER information have been enacted with the Australian Bureau of Statistics (ABS), the Department of Resources, Energy and Tourism (RET) and the Australian Bureau of Agricultural and Resource Economics and Science (ABARES).
- MOUs have also been enacted with the governments of Queensland, the Northern Territory and the Australian Capital Territory. Similar agreements will soon be finalised with the remaining jurisdictions.



thinkchange

www.climatechange.gov.au



Australian Government

Department of Climate Change



thinkchange

National Greenhouse and Energy Reporting: Calculation Tools

www.climatechange.gov.au

NGER Calculator Tools

■ Solid Waste Calculator

- Estimates emissions from solid waste in line with the NGER Measurement Determination 2008

■ Wastewater Calculator

- Estimates emissions from wastewater sources in line with the NGER Measurement Determination 2008

■ Uncertainty Calculator

- Updated Calculator to streamline data entry from OSCAR reports
- Calculated statistical uncertainty in line with Chapter 8 of the NGER Measurement Determination 2008

See Tools and resources @
www.climatechange.gov.au/reporting



Australian Government

Department of Climate Change



thinkchange

National Greenhouse and Energy Reporting: Reporting GreenPower and RECs

www.climatechange.gov.au

Reporting of Adjusted Scope 2 Emissions, GreenPower and RECs

- Registered corporations that meet a publication threshold for a reporting year may voluntarily report to the GEDO information about their GreenPower purchases, surrendered RECs and an adjusted scope 2 emissions figure.
- This information will be published on the Department's website to give context to the emissions totals published under section 24 of the NGER Act.
- Corporations that wish to report this information should use the *Application for reporting of GreenPower, Renewable Energy Certificates and adjusted scope 2 emissions* form, which is available on the Department's website.



thinkchange

www.climatechange.gov.au

Further information

■ NGER

- web www.climatechange.gov.au
- email reporting@climatechange.gov.au
- hotline 1800 018 831



Q & A



thinkchange

www.climatechange.gov.au