



Greenhouse Emission Reporting System Overview



Integrity



Commitment



Experience



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Executive Overview

Australian Greenhouse and Energy Reporting Act 2007

The Australian Department of Climate Change (The Department) has issued The National Greenhouse and Energy Reporting Act 2007 (The Act). The Act makes registration, and emissions reporting mandatory for corporations whose energy production, energy use or greenhouse gas emissions meet specific thresholds.

From 1st July 2008 all controlling corporations must apply for registration with the Greenhouse and Energy Data Officer if their corporate group emits greenhouse gases or produces or consumes energy at or above the specified thresholds for a financial reporting year.

Corporations need to be aware of the thresholds in the Act for both a facility and the corporate group. These are the two levels of thresholds at which corporations are required to apply for registration and provide reports. Currently for a facility this is 100TJ of energy consumed or 25kt of greenhouse gases emitted and for a corporation this is 500TJ of energy consumed or 125kt of greenhouse gases emitted.

This document describes the type of emissions that need to be included in reports to the Department of Climate Change, as well as the method applied by Ndevr Greenhouse Emission Reporting of capturing the data associated with those emissions.

Ndevr's Greenhouse Emission Reporting Solution has also been configured to the International standards as outlined by the [World Resources Institute](#) and the [World Business Council for Sustainable Development](#).



Thresholds for Facilities and Corporations

The following image demonstrates the reporting thresholds as they apply to Australia’s corporations. July 2008 marks the beginning of the first reporting year, and affects around 300 companies across all sectors in Australia. In the second reporting year the threshold is lowered and, will continue to be lowered each year.

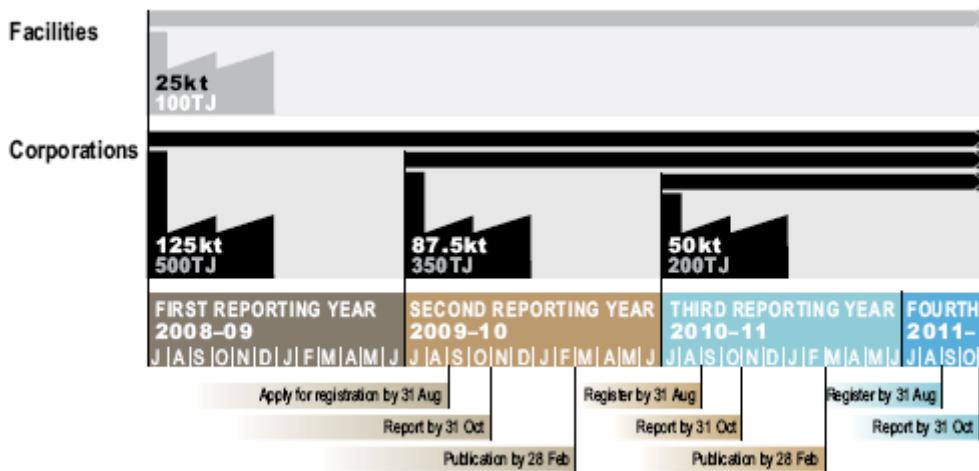


Image provided by National Greenhouse and Energy Reporting Guidelines: <http://www.climatechange.gov.au/reporting/guidelines/pubs/nger-reporting-guidelines.pdf>

Establishing Operational Boundaries

Operational control needs to be established. Currently there are issues around defining the corporate group and who has responsibility for reporting where joint ventures and partnerships are in place.

Defining a facility and determining the boundaries are important for reporting. The Controlling Corporation for a Corporation deemed to have operational control over a facility that meets a facility threshold, is responsible for reporting all Greenhouse Gas Emissions. This includes emissions produced by the activities of contractors and subcontractors.



Reporting by Industry Sectors

Industry sector refers to the industry classification and codes as defined by ANZSIC. The following table is an example of how the ANZSIC codes apply to an industry sector, and to which level an industry is affected by emissions reporting requirements.

Division	Subdivision	Group	Class
Construction	General Construction	Non – Building Construction	Road and Bridge Construction
<u>E</u>	<u>41</u>	<u>412</u>	4121

Reporting needs to be completed by industry sector only to the Group three digit level.

Greenhouse Gas Emissions – Australian Reporting Requirements

The emissions that need to be reported are those that are defined as Scope 1 and Scope 2.

- Scope 1 Emissions are produced by activities at or attributed to the facility such as an industrial process, or transport activities that are attributed to the facility. (Eg, the production of electricity.)
- Scope 2 Emissions are defined as the consumption of electricity that has not been produced on this site. (Eg the consumption of electricity by a large commercial property.)

Scope 3 Emissions do not currently come under reporting category requirements, however - examples of these are airline flights for business travel or waste.

Examples of Scopes

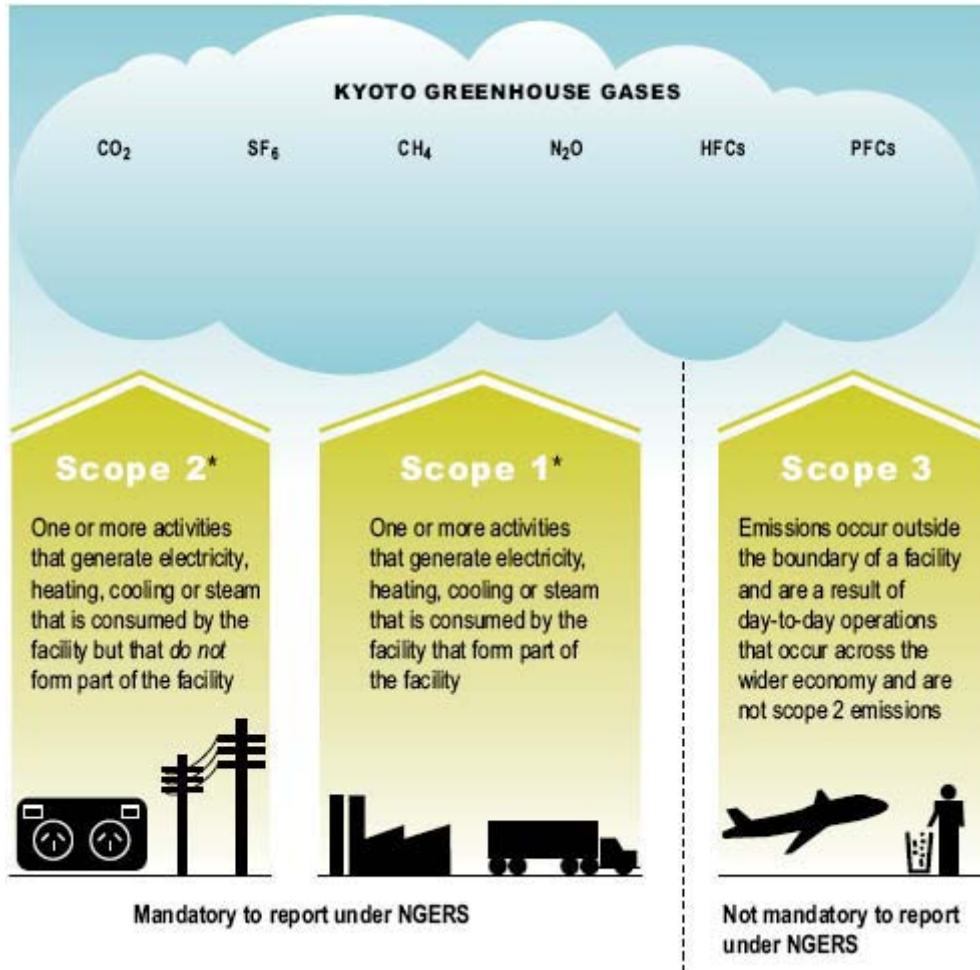


Image provided by National Greenhouse and Energy Reporting Guidelines: <http://www.climatechange.gov.au/reporting/guidelines/pubs/nger-reporting-guidelines.pdf>

Penalty

The penalty for failure to comply is currently \$220,000 at 1st July 2008



Solution

Ndevr has developed solutions specifically for Oracle's JDE & E-Business Software Suites, to capture the usage data, transform it using the published emission factors and report the greenhouse gas emissions taking into account all the relative criteria set out in the Act for reporting.

Taken into account by Ndevr's Greenhouse Emissions Reporting tool are the principles of Greenhouse Gas and Energy reporting stated in the Act as follows;

- Transparency - Emission estimates must be documented and verified
- Comparability – emission estimates must be comparable with other similar corporations in an industry sector
- Accuracy – must be accurate within a 95% confidence level
- Completeness – all identified emissions must be accounted for

By following usage according to invoicing, records are accurate, and historical information is able to be incorporated. Forecasting becomes relatively easy, and reduction targets can be set according to "known" information. For example it is known that switching all light bulbs to a lower wattage will produce a saving in electricity consumption – therefore reducing emissions.

Ndevr's Greenhouse Emission Reporting Solution has also been configured to the International standards as outlined by the World Resources Institute and the World Business Council for Sustainable Development.



Ndevr Greenhouse Emissions Reporting;

System in Brief

Being a provider of software that covers the financial reporting requirements of many prominent organisations, it seemed logical that Ndevr could extend the software's functionality to cover non-financial reporting requirements.

The answer was to apply modifications over many months to Oracle's Enterprise Software and combine this with Oracle Business Intelligence Tools. The result is an affordable tool that will enable businesses to track their Greenhouse Gas Emissions through their financial systems. Ongoing monitoring of an organisations energy use as well as energy generated is also able to be tracked, and subsequently broken down into the detail required by independent auditors. Ndevr's Greenhouse Emissions Reporting tool is also flexible enough to be easily modified should the reporting framework be altered or further refined in years to come.

To achieve this, Ndevr's development team needed to establish the most reliable and complete sources of data and establish emission factors that the data was to be measured against.

Therefore the first requirement was to establish exactly where the data could come from. Ndevr's Greenhouse Emissions Reporting tool enables Companies to enter usage data at Purchase Order entry and verify at accounts payable when the invoice is being processed. Or enter the usage data at accounts payable processing when the data does not come from a purchase order.

In order to enable calculation of the emissions data Ndevr's Greenhouse Emissions Reporting tool utilizes the default emission factors provided by the Department of Climate Change. There is the facility to enter a Corporations own emission factors if they have a usage that is measured as a facility specific factor.



The Department of Climate Change states that a reporting organization providing emission estimates based on default emission factors and activity data estimates using invoices do not need to develop any uncertainty estimates. This is a method with high reliability.

Ndevr's Greenhouse Emissions Reporting tool has been built specifically to enable Greenhouse Gas Emissions reporting to be incorporated into the financial reporting system, and is based around invoicing to accurately reflect consumption.

Corporations will also be able to generate long term records enabling forecasting and reduction targets to be set and managed.

Ndevr's Greenhouse Emissions Reporting tool presents data in tables and forms that are designed to capture the basic information as it is presented by a standard invoice (e.g. gas, electricity, or diesel). This data is then transformed by backend calculations into a volume of co2 emissions, which can be broken down into facilities, business units, tenancies and subsidiaries, or by item (e.g. electricity versus diesel). The information ties into the Business Intelligence reporting tools to enable not only an executive overview, but ongoing monitoring of an organisations consumption, which also enables an organisation to respond quickly to wastage or spikes in use.

The solution provides organisations simple and thorough access to the accurate information it needs to assess their current carbon footprint whilst providing the power to take action to reduce emissions. Further, this data is stored and auditable, and as it is part of the financial system, it is totally secure – with rights and access management and peace of mind due to the data being backed up nightly.



The system includes the following:

- ability to capture data at the facility level
- ability to report facility data separately and report data for all facilities under the control of the corporation
- report at the ANZSIC level
- report scope 1, 2 and 3 emissions separately or in any combination
- report individual emission types separately
- incorporates a target for emission types
- ability to easily change emission factors as they change annually
- store date related emission factors for recalculation usage
- data security
- integrity reports

Principles of the Act

The Principles of the Australian National Greenhouse Energy Reporting Act	How Ndevr's Greenhouse Emissions Reporting tool addresses these principles
Transparency - Emission estimates must be documented and verified.	As the emission usage capture is associated with an invoice this data can be audited. It is part of the corporation's base financial system and can not be changed.
Comparability – emission estimates must be comparable with other similar corporations in an industry sector.	The system is capable of recording at an industry sector level and uses the emission factors set out by the Department.
Accuracy – must be accurate within a 95% confidence level.	Using invoice data and default emission factors and using standard JDE functionality to ensure the data goes to the right place every time ensures accuracy.
Completeness – all identified emissions must be accounted for.	Ensuring an invoice cannot be processed without capture of the usage information ensures accuracy.



Benefits

Using Ndevr's Greenhouse Emissions Reporting tool means organisations benefit with:

- o Ease of implementation
- o Speed of implementation
- o Low cost of implementation
- o Reduced cost of compliance
- o Improved ease of compliance
- o Knowing they are compliant

Glossary of Terms

ANZSIC	Australia and New Zealand Standard Industry Classification
TJ	Terajoules
kt	Kilotonnes
OSCAR	Online System for Comprehensive Activity Reporting

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