



AUSTRALIAN  
CONSTRUCTORS  
ASSOCIATION

**AUSTRALIAN CONSTRUCTORS ASSOCIATION (ACA)  
NATIONAL GREENHOUSE AND ENERGY REPORTING ACT 2007 (NGER ACT)**

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## **Industry Discussion Paper**

12 October 2009

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This Industry Discussion Paper has been prepared by the Australian Constructors Association to provide guidance to construction industry participants required to report under the National Greenhouse and Energy Reporting (NGER) Act 2007 (NGER Act).

The Discussion Paper outlines a consistent, best practice, principles-based approach to reporting, in line with the framework of the NGER Act and the National Greenhouse and Energy Reporting Guidelines.

It aims to provide structure and guidance to improve the consistency and comparability of reporting within the construction sector consistent with the NGER legislative framework.

The Industry Discussion Paper does not replace the need for an entity to determine its own reporting obligations, responsibilities and processes.

# 1.0 Introduction

The Australian Constructors Association (ACA) was formed in 1994 to advance the interests of major construction contractors.

The ACA's Mission is to make *“the construction industry safer, more efficient, more competitive and better able to contribute to the development of Australia”*.

The Association has eighteen member companies. ACA member companies have a combined annual revenue in excess of \$AUD 40 billion and collectively employ over 86,000 people in their Australian and international operations.

The Association has established four (4) key objectives:-

- (i) To require the highest standards of skill, integrity and responsibility of member companies.
- (ii) To represent the interests of major contractors to government and other decision makers.
- (iii) To enhance and promote the status of construction contractors and the industry which they serve.
- (iv) To facilitate the exchange of technical information and encourage further research.

ACA member companies are listed in Appendix A.

# 2.0 Background

The *National Greenhouse and Energy Reporting Act 2007* (the NGER Act) was passed on 29 September 2007. The NGER Act introduces a single national reporting framework for the reporting and dissemination of information about greenhouse gas emissions, greenhouse gas projects and energy use and production of corporations.

The NGER Act :

- underpins the introduction of an emissions trading scheme in the future
- informs government policy formulation and the Australian public
- helps to meet Australia's international reporting obligations, and
- assists Commonwealth, State and Territory government programs and activities to avoid the duplication of similar reporting requirements in the States and Territories.

The first annual reporting period began on 1 July 2008.

Corporations that meet an NGER threshold must report their:

- greenhouse gas emissions
- energy production
- energy consumption
- other information specified under NGER legislation

On 28 January 2009, the Australian Constructors Association hosted a forum with representatives of the Department of Climate Change to discuss a range of NGERs reporting issues identified in an ACA workshop held in December 2008.

The ACA NGERs workshop discussed the implications and challenges for members in meeting the requirements of the NGER Act. At the conclusion of the Workshop the need for greater NGER guidance for the contracting sector was highlighted by all ACA members in attendance.

Other industry sectors are experiencing similar challenges and are in the process of creating sector specific NGER Industry View Guidelines.

Noting this, ACA members have agreed to develop NGER Act 2007 Industry Discussion Paper for the construction contracting sector in consultation with the GERO.

The intention is for a NGER Act 2007 Industry Discussion Paper will assist ACA members by establishing 'agreed guidelines' on the interpretation of responsibilities under the NGER Act and maximising the collective efforts to address key areas of concern. These Guidelines will benefit the greater contracting sector including small and medium sized enterprises and provide opportunity for knowledge-sharing with other industry groups.

# 3.0 Discussion of issues

## 3.1 OVERALL CONTROL – OPERATIONAL CONTROL

'Overall control' is a concept used to identify the corporation that has operational control of activities or a series of activities.

'Operational control' is a concept used to identify which controlling corporation (or member of the controlling corporation's group) has control of the facility in question.

## 3.2 OPERATIONAL CONTROL

The NGER Act 2007 states that an organization holds operational control if it has the authority to introduce and implement any or all of the following at a facility:

- Operating policies
- Health and safety policies
- Environmental policies

Examples of Implementation and Introduction activities are included in Appendix C.

If more than one organization is able to satisfy this definition then the organization that has the greatest authority to introduce and implement the Operating and Environmental (not Health and Safety) policies is taken to have operational control.

The determination of operational control is not immediately clear in some cases, particularly where multiple parties have roles in introducing and implementing operating, environmental and health and safety policies as part of their own operations. Under these circumstances, the question of greatest authority becomes critical. See Appendix B for operational control scenarios relevant to building and civil engineering.

Subject to the above test being applied,

3.2.1. Operational control may vary depending upon the nature of some construction and refurbishment activities. Examples of this variation between projects include the following.

3.2.1.1. Integrated Refurbishment Activities eg Tenancy Fitout. A floor-by-floor commercial office re-fit which occurs whilst the building is still occupied by the tenant. This scenario typically results in an office space being upgraded with tenants being relocated to other areas of the building whilst works are undertaken. Although the construction contractor has 'overall control' of the activities that it undertakes within the defined 'fitout' construction works, these activities occur at facilities that remain under the 'operational control' of the tenant or building operator who would use the '*future use*' ANZSIC code. The construction contractor is still however responsible for reporting any emissions from fuel use to the client for inclusion in their own reporting, should these emissions occur.

3.2.1.2. Discrete Refurbishment Activities eg Shopping Centre Expansion. A new wing or major extension to an existing building eg retail shopping centre is being undertaken. All electricity supplied to the construction site is separately metered via a temporary

power supply to the site and emissions from other fuel sources accounted for by the construction contractor. During this time the new extension under construction is treated separately from the existing shopping facility and under the operational control of the construction contractor. The existing centre remains under the operational control of the client. Operational control of the new wing will transfer to the client upon practical completion of the construction works.

3.2.1.3. New Building Construction. A new mixed-use office and retail tower is being constructed. This involves the demolition of an existing building followed by the design and construction of a new building. In this instance the construction contractor has operational control of the facility from the time of site possession through to practical completion of the building.

3.2.2. If a project is construction, maintenance and/or operation of roads, rail, energy, water and other civil infrastructure, operational control may reside with either the client or the principal contractor.

- a) Projects constructed or operated under the overarching direction, approval or supervision of clients or owners in introducing and implementing operating, health and safety and environmental policies, or clients exercise greatest authority to introduce and implement operating and environmental policies. Under these circumstances, the clients or owners would be considered to have operational control.
- b) Projects where the principal contractor has the greatest authority to introduce and implement operating, health and safety and environmental policies then operational control would be considered to reside with the principal contractor.
- c) Projects where both client and principal contractor share responsibilities to introduce and implement operating, health and safety and environmental policies, then either party could take operational control. There should be a mutual agreement between the parties on who will take operational control recorded in accordance with s22 of the Act.
- d) Projects where a third party is contracted to operate and manage a facility on behalf of the client or owner, and has the authority to introduce and implement operating, health and safety and environmental policies, then the operational control rests with the third party, ie contractor. However, if the client/owner and the third party manager share responsibility to introduce and implement these policies, or the client or owner exercises greater authority by providing overarching direction and approval to introduce and implement these policies, then the client/owner could take operational control

3.2.3. If a project is the operation and management of mining projects, operational control may reside with either the facility owner or the contract miner.

- a) Where a third party is contracted to operate and manage a facility on behalf of the facility owner, and has the authority to introduce and implement operating, environmental and health and safety policies, then operational control would be considered to reside with the third party, i.e. the contract miner.
- b) Where the facility owner exercises greater authority by providing overarching direction, approval or supervision in introducing and implementing operating, health and safety and environmental policies, or exercises greatest authority to introduce and implement operating and environmental policies. Under these circumstances, the facility owner would be considered to have operational control.
- c) Where the facility owner and the third party share responsibilities to introduce and implement operating, health and safety and environmental policies, then either party could take operational control. There should be a mutual agreement between the parties on who will take operational control recorded in accordance with s22 of the Act.

- 3.2.4. Where multiple partners are involved in activities under a Joint Venture or an Alliance arrangement and Operational Control is shared, the partners will nominate the reporting party for that Facility. In these cases those parties should formalise the arrangement as per the approved documentation to be provided by the GERO. The following issues should be considered:
- a) Any Joint Venture party or Alliance member, which is not nominated as the liable reporting entity, will still be required to provide data to the nominated reporting party to enable all reporting requirements for the Facility to be fulfilled in accordance with the Act.
  - b) It is not appropriate to create companies and structures solely for the purpose of vesting the operational control to avoid greenhouse and energy reporting under the Act.
  - c) In some cases a particular party to a Joint Venture or Alliance will have greater authority than the other parties due to greater representation at peak decision making level, power of veto, unilateral decision making power, or otherwise as specified in the project agreement. This enhanced decision-making ability could form the basis for determining that the party with the greater authority becomes the responsible entity.
- 3.2.5. If a project is operation and management of a landfill facility either the owner or the contractor may have operational control.
- a) If the landfill owner has greatest authority to introduce and implement operating and environmental policies and controls the weigh bridge, under these circumstances, the owner would be considered to have operational control.
  - b) In cases where the owner is a government body such as a local council the owner has currently no reporting obligations under the NGER Act as the Act is applicable only to "constitutional corporations". However the proposed Carbon Pollution Reduction Scheme (CPRS) will affect all forms of business entities, Commonwealth, State and Local Government organisations included. Since the NGER Act will underpin the CPRS by providing emissions data on which obligations under the Scheme will be based, there might occur a data gap unless
    - the government body voluntarily takes on reporting responsibilities or
    - reaches an agreement with the contractor to report on its behalf until such time when the CPRS is enacted and requires the council to report under the CPRS and NGER Act. In case the contractor is in a position to collect the required data and provide it to Government, it will be for reporting purposes ONLY and will not create a permit liability under the CPRS
  - c) In cases where the contractor or service provider has the greatest authority to introduce and implement environmental and operating policies that cannot be overridden by client's policies in these cases the contractor will be considered as the party with operational control.
- 3.2.6. If a Principal Contractor collects information relating to the NGER Act, the Principal Contractor undertakes this task to comply with the contract only. Collection of such data does not in itself constitute the Principal Contractor as having operational control or being the reporting entity. However in the interest of all parties an agreement should be in place outlining which party has operational control. See example Appendix B.
- 3.2.7. Contractors and subcontractors working in a facility should report greenhouse gas emissions and energy usage from their activities to the corporation that has operational control over that facility.

### 3.3 DEFINING A FACILITY

Section 9 of the NGER Act defines a facility as an 'activity, or a series of activities (including ancillary activities) that involve the production of greenhouse gas emissions, the production of energy or the consumption of energy...' *The National Greenhouse and Energy Reporting Regulations 2008* in Section 1.03 Definitions of the Regulations details the following:

- *'facilities of the corporation'*, in relation to a registered corporation, means the facilities under the operational control of the corporation and entities that are members of the corporation's group'
- *'single site'* means a single physical area that can include a series of geographical locations in close proximity to one another'. Examples – network of mines in "*close proximity*" or upgrades to the same highway at several locations. Close proximity is not defined in the Act and will be determined on a case by case basis.

The National Greenhouse and Energy Reporting Guidelines 2008 outlines the following four criteria to be used in determining if an activity or series of activities form a Facility under the Act:

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

The Greenhouse and Energy Data Officer (GEDO) may under certain circumstances declare an activity or a series of activities to be a facility, taking into account the provisions of the Act.

### **Applying Criteria 1 in Contract Mining and Construction**

Greenhouse gas emissions include direct emissions from the use of pumps, excavators, dozers, graders, water trucks, paving machines, generators, trucks, light vehicles, concrete batching plants, quarries etc as a result of combustion of fuels or other energy sources. These would primarily be Scope 1 emissions. Scope 2 emissions would be emissions from purchased electricity. These two categories of energy sources also need to be reported under energy consumed including any emissions from oils and greases. Energy production includes electricity generated on-site.

### **Applying Criteria 2 in Contract Mining and Construction**

An activity or a series of activities form part of a single undertaking or enterprise if it produces one or more products or services (the primary production process) at a site. For example, the primary production process might be the construction of a highway which may involve a number of activities such as land clearing, site offices, site compounds, earthworks – excavation, grading and compaction, erosion control & drainage works, concrete paving & curing, landscaping & finishing works. Other ancillary production processes such as concrete batching, pre-cast yards and quarrying may occur at the same site or different sites. In cases where such an activity exists on one site but services several sites, the ancillary test should be applied and may determine that this 'activity' is a separate facility under the Act.

### **Applying Criteria 3 in Contract Mining and Construction**

A construction or contract mining project may have activities on a number of geographical locations in close proximity to each other – eg, plant yard, fuel storage, upgrades to different locations of a highway, site accommodation, quarrying etc. These activities may be reported under the Act as a single facility if they are controlled by the same corporation.

### **Applying Criteria 4 in Contract Mining and Construction**

The corporation with operational control at a facility must attribute all the activities on that facility to the industry sector of the principal activity as per the industry classification and codes listed in the Australian New Zealand Standard Industry Classification Code 2006 (ANZSIC Code).

Example scenarios are documented in Appendix B.

## **3.4 ANCILLARY ACTIVITIES**

All ancillary activities or sub-activities may be included in the one Facility report by the controlling corporation and will be reported against the ANZSIC code of the primary activity/production process. Ancillary activities are any series of activities/sub-activities that form part of a primary production process at a site, or activities that are separate processes but form part of or contribute to the primary production process at a site, where the activity is under the control of the corporation that has Operational Control of the Facility.

For example, a quarry, concrete batching or bitumen mixing activities form part of road construction, but only where the party with Operational Control of the Facility (ie road under construction) has taken control of these activities.

The NGER Guidelines note that 'vertical integration occurs when the output of one stage of production becomes an input for the next stage and the output of the final stage is sold on the market'. It further details that the various stages of production processes could be at a single location or multiple locations, and that the outputs from an earlier stage of production can be sold on the market as long as they do not account for the highest value for that facility.

In applying this to construction, all vertically integrated activities/processes at more than one site/ location that form part of the primary production process (ie road construction, building construction, rail construction etc.) could be reported in the one facility report by the controlling corporation using the ANZSIC industry classification for the primary activity. For example, a precast facility, quarries or concrete batching plants at different locations service a major road construction facility, and service a few small facilities in the surrounding area. The road construction facility utilises over 80% of the materials produced by the other facilities. The precast facility, quarries and concrete batching plants are controlled by the same corporation that has operational control for the major road construction facility and can choose to report in two ways:

- As a group of facilities for the entire vertically integrated primary production process of road construction (concrete precast, quarries, concrete batching plants) form part of road construction. Greenhouse gas emissions and energy usage from all processes in the one state are reported as one against the one relevant ANZSIC code of road construction; or
- As separate facilities at each separate physical location, in which case it should separately apportion, estimate or report on facilities that are classified into different ANZSIC divisions. For the above example:
  - the concrete precast yard will be Division C Manufacturing – ANZSIC Code 203 – cement, lime, plaster and concrete product manufacturing
  - Quarries will be Division B Mining – ANZSIC Code 091 – construction material mining
  - Concrete batching plants will be Division E Construction – ANZSIC 329 Construction Services
  - Road construction will be Division E Construction – ANZSIC 310 – Heavy and civil engineering construction
  - The controlling corporation can group concrete batching plant and road construction as they are in the same ANZSIC division, and apportion greenhouse gas emissions and energy usage to the concrete precast yard and quarries as they are both in separate ANZSIC divisions.

### **3.5 CONSTRUCTION SUBCONTRACTOR ACTIVITY**

Subcontractors reporting in accordance with the Act over 25 ktCO<sub>2</sub>-e or 100 terajoules must be separately reported.

It is understood that there are no exclusions for reporting subcontractors if the corporate or facility level thresholds are met or exceeded. For further information, refer Section 3.8 Materiality Threshold.

### **3.6 INCIDENTAL EMISSIONS**

The definition of 'source' in relation to determining the total emissions from a Facility can refer to an item of equipment.

The Incidental Emissions threshold (i.e. that where the emissions from a piece of equipment total less than 0.5% of the emissions from a Facility, the item may be reported as incidental emissions except where total emissions in this category exceed 2% of the total emissions for the Facility) will be applied to individual items of equipment. Table A below provides a summary of the upper limits for amounts of greenhouse gas emissions or energy that may be considered incidental under the Act.

**Table A: Incidental Emission Source Thresholds**

Emissions and Energy from an individual source	Emissions CO2-e	Energy Consumed	Energy Produced
Actual amount from an individual source	3 kt	15 TJ	15 TJ
Percentage of facility totals from an individual source	0.50%	0.50%	0.50%
Actual amount from sources that can be aggregated	12 kt	60 TJ	60 TJ
Percentage of facility totals that can be aggregated	2%	2%	2%

### 3.7 SMALL SCALE MOBILE CONCRETE EQUIPMENT

Based on initial research many items of small plant particularly those used in concrete placing such as concrete vibrators, helicopter rotors and mechanical screeds are likely to represent <0.5% of all 'facility' or typical construction site emissions. Often this plant may be refuelled off-site and or used across multiple jobs limiting the ability to isolate and identify the actual quantity of fuel used at any one facility.

A common estimation technique for small mobile concrete placing equipment deemed to be an incidental source of emissions can be applied based on a factor applied to m<sup>3</sup> of concrete poured. This methodology would apply to commonly used items such as concrete vibrators, trowel machines and mechanical screeds.

Equipment Type	Factor (a)	Equipment number onsite (b)	m <sup>3</sup> poured (c)	Est. Litres of fuel consumed
Vibrator	0.02	(b)	(c)	=axbxc
Trowel Machine	0.08	(b)	(c)	=axbxc
Motor Screed	0.01	(b)	(c)	=axbxc

### 3.8 MATERIALITY THRESHOLD

The NGER Guidelines note that 'In the context of greenhouse reporting, 'materiality' refers to material impact of greenhouse gas emissions measurements on the overall greenhouse gas emissions inventory of a facility or corporation'.

This definition can be applied in the construction sector on the greenhouse gas emissions inventory at a facility level and greenhouse gas emissions from small facilities at a corporate level.

A controlling corporation could use the following criteria for materiality at a facility level to estimate emissions:

- emissions account for less than 2% of the individual facility's total greenhouse emissions or energy inventory.

A controlling corporation could make an estimate of emissions from small facilities based on the following criteria:

- each facility accounts for less than 2 per cent of the corporate group's total greenhouse gas emissions or energy inventory
- each small facility emits 3 kilotonnes CO2-e or less of greenhouse gases
- produce or consume 15 terajoules or less of energy
- all small facilities for which estimation is used account for 5 per cent or less of the corporate group's greenhouse gas emissions or energy inventory.

### **3.9 TRANSIENT VEHICLES**

Depending on the stage of the project, deliveries to and pick-up from the site can vary significantly. Notably, during site excavation works, a significant number of trucks may enter the site to collect excavated materials for off-site re-use or disposal. The trucks may enter the site and drive some 50m (less in the case of most commercial office sites due to site space constraints) before loading, turning around and leaving the site. This is the same for deliveries of construction related materials.

As road freight transport is addressed separately under the Act and these delivery / collection vehicles do not remain and/ or are not based on the construction site, Entities will not be reporting transient vehicles entering project sites to perform a collection of delivery function. This also includes mobile concrete pumping vehicles which are refuelled offsite and typically stationed on-site or adjacent to the site on a daily basis.

### **3.10 REPORTING OF TEMPORARY ONSITE GENERATION**

For the 2009/10 reporting period only on-site generators with a capacity of 0.5MW (ie 500 kVA) or above will be required to be reported. Contractors may chose to use this methodology to report in the current year acknowledging the Act currently requires all on-site power generation to be reported in kWh used.

Where a generator is not metered it may not be possible to determine the kWh used based on the variation in load applied to the generator. Generator output is governed by the load applied, not the capacity of the generator itself, and may therefore vary significantly.

### **3.11 FUTURE ACTIVITY**

In cases where the principal activity and the future activity are under the overall control of one corporation then NGER Reg. 2.22 applies and the future activity will determine the ANZSIC code.

A greenfield project where company A has overall control of the Design and Construct (D&C) phase but a different company will have overall control of the Operations and Maintenance (O&M) phase will require that during the handover from the D&C to the O&M phase the overall control for the project will change and therewith the ANZSIC codes.

### **3.12 PRO-RATA CALCULATIONS**

Under the Regulation, we consider that where a 'facility' such as a construction site exists for less than a whole year we are not required to calculate pro-rata energy use and emissions for application of the threshold such as facility-level points of obligation, or materiality thresholds.

A good example of this is small refurbishment projects or construction projects which run for a matter of weeks or months (e.g. a new signage roll-out). As these projects only extend for a limited amount of time (less than a year) and facility operations post construction or refurbishment would be captured under a different ANZIC classification, any attempt to pro-rata calculations of these refurbishment/construction sites would be incorrect and highly inaccurate.

In addition to this, where the 'Future Use' clause is also applied and data for a 'facility' includes both construction energy use and building operation both reported under the same ANZSIC classification (per 'Future Use') it is considered that the pro rata calculation would be based on a combination of both construction phase and operational energy use.

### **3.13 SUBCONTRACTOR CONTROL**

ACA members have amended or will amend their standard subcontract form to expressly require subcontractors to provide NGERs data to the contractor on a regular (normally monthly) basis to enable the contractor to meet its obligations under the NGERs legislation.

Subcontractors that are still operating under the previous standard subcontract form of each of the ACA Members (i.e. without this express obligation) have been or will be formally requested by the ACA Members to provide the NGERs data and to maintain supporting data for audit purposes. Appendix D provides a template for this purpose.

However, the ability of the ACA Members to enforce compliance is limited and members will have to rely on the cooperation and goodwill of the individual subcontractors.

### **3.14 SALARY PACKAGED MOTOR VEHICLES**

Determining operational control over company and leased vehicle fleets particularly where there may be a private vs business use component has the potential to make accounting for fuel / emissions from these sources very complex.

Novated lease vehicles will be excluded from reporting as these are wholly within the control of the lease holder and may in many cases not be used for business purposes. Only company car fuel use where this is attributable to business activities will be accounted for. Application of the standard Fringe Benefits Tax (FBT) business use proportion will be applied to determine quantities of fuel to be reported from company vehicles where relevant.

### **3.15 FUELS**

#### **3.15.1 LIQUID FUELS CONSUMED WITHOUT COMBUSTION EXCEPT PETROLEUM BASED OILS AND GREASES**

A fuel is consumed without combustion when it is used as a solvent or a flocculent, or as an ingredient in the manufacture of products such as paints, solvents or the diesel component used in explosives.

Facilities are required to report if more than 15 kilolitres of any single liquid fuel is consumed without combustion at the Facility in any reporting year.

Reporting is not required if the combined total of liquid fuels consumed without combustion exceeds 15 kilolitres, but the quantities consumed of individual liquid fuels does not exceed the threshold.

#### **3.15.2 BITUMEN REPORTING**

Where Bitumen is used as an ingredient in the manufacture of products such as Asphalt and bitumen based emulsions, Section 4.22 (1)(a)(iv) b of the NGERs Regulation considers Bitumen as a "fuel consumed without combustion". Facilities are required to report if the threshold of 20 tons of Bitumen use is exceeded in any reporting year. (Note: DCC has confirmed that there will be no permit liability for "fuels consumed without combustion".

#### **3.15.3 LUBRICATING OILS AND GREASES**

As per NGER Reg 1.03:

**petroleum based greases** means:

- (a) petroleum based greases and their synthetic equivalents; or
- (b) oils (including lubricants, fluids and greases) derived from petroleum and their synthetic equivalents, if recycled for use as greases.

**petroleum based oils** means any of the following:

- (a) oils (including lubricants or fluids but not greases) derived from petroleum and their synthetic equivalents;
- (b) oils (including lubricants, fluids and greases) derived from petroleum and their synthetic equivalents, if recycled for use as oils.

Lubricants, oils and greases need to be reported as a total figure. Energy factors are provided in the determinations. Note: there will be updated figures in the amended determinations to be released and applied for FY 09/10. For FY 08/09 the existing ones will be used.

## 3.16 WASTE

### 3.16.1 ON-SITE WASTE TREATMENT

The NGER technical guidelines provide three estimating methods for methane emissions released from the operation of landfill facilities. The DCC and the waste industry recommend entities use Method 1 under section 5.4, the Tier 2 First Order Decay (FOD) model provided and used by the Intergovernmental Panel on Climate Change (IPCC). That model requires site specific data on waste volumes and type buried in the landfill. Default degradable organic carbon content factors, decomposition rates and methane generation rates are provided within NGER determinations.

Facilities need to report on the following for waste deposited in a landfill:

- the location of the landfill site by State or Territory;
- the number of years in operation;
- the tonnes of average annual amount of disposal of solid waste over the lifetime of the facility prior to the first year of reporting;
- the total tonnes of waste entering the landfill; and
- the break down of the source of the waste (e.g municipal, commercial and industrial or construction).

In case biological treatment of solid waste occurs onsite method 1 under section 5.22 will be used to estimate emissions from this process

Additionally a facility is required to report on methane flared from the operation of the landfill using one of the methods provided in the NGER guidelines for each gas type released:

- (i) method 1 under section 5.19;
- (ii) method 2 under section 5.20;
- (iii) method 3 under section 5.21;

However at regular construction and or mining sites this might not be an issue.

The above mentioned regulations will apply for organic waste deposited in an onsite landfill. Stockpiles of wood and woodchips stored onsite for further usage will not be reported.

The DCC solid waste calculator provides a good tool to calculate the emissions from a single site <http://www.climatechange.gov.au/reporting/calculator/index.html>

Waste treated on-site at a mining or construction project is considered an auxiliary activity and needs to be reported if the controlling corporation of the entity with operational control of the facility has reporting obligations under the Act. The reporting thresholds for landfill sites of 10 or 25KTCO<sub>2</sub>-e are not applicable in this case.

Waste transported off-site does not have to be recorded under the NGER Act.

### 3.16.2 ONSITE WASTEWATER TREATMENT

#### General reporting on wastewater treatment

Greenhouse gas emissions from domestic and commercial wastewater are the sum of emissions from wastewater treatment and sludge treatment. The total quantity of wastewater treated depends on the size of the population that is generating wastewater.

Section 5.25 of the NGER regulations sets out Method 1 for wastewater handling – domestic and commercial. Method 1 provides a method for estimating emissions in the absence of data on Chemical Oxygen Demand (COD) or Biochemical Oxygen Demand (BOD) estimates of on-site wastewater and sludge.

The following processes will generate emissions and need to be reported:

- collection and transfer of wastewater (methane);
- primary and secondary treatment of wastewater (methane and nitrous oxide);
- biosolid / biogas processing (methane and nitrous oxide); and
- discharge into the aquatic and terrestrial receiving environments (methane and nitrous oxide).

Methane is produced in wastewater systems by anaerobic (without oxygen) metabolism of organic material by microorganisms. Biological nitrogen removal processes convert organic nitrogen and ammonium from waste into nitrogen gas, via nitrification and denitrification. Nitrous oxide is produced as a by-product of these waste treatment processes.

Wastewater from temporary wastewater facilities (including septic tanks) will not be recorded under the NGER Act. Wastewater that is discharged through a sewer system will not be reported under the NGER Act. Other wastewater will be reported using the ANZSIC code 281 - Water supply, sewerage and drainage service.

### 3.16.3 ANZSIC CLASSIFICATION IN THE WASTE INDUSTRY

In case a company's 'single undertaking' can be classified as 'waste management' all activities, such as landfill operations, remediation, maintenance, operating recycling facilities and waste collection will fall under the ANZSIC classification 292. Waste collection is considered as an ancillary activity and hence is part of the waste management activity.

If a company's single undertaking is waste collection only then the different ANZSIC code for waste collection applies and the company is considered a transport business and treated on a state-to-state basis.

## 3.17 SYNTHETIC GASES

The following thresholds apply to the reporting of synthetic gases.

Item	Provision in Determination	Threshold
1	Subparagraph 4.100 (1) (a) (ii)	100 kilograms for each unit (hydrofluorocarbons)
2	Subsection 4.100 (2)	Any emission (sulphur hexafluoride)

Default emission factors and measurement methods are outlined in the measurement determination. Default loss factors may be applied to any equipment containing these gases where the above mentioned threshold is met. Furthermore any loss of these gases during commissioning of systems should be reported in accordance with the methods outlined in Part 4.5 subsection 4.100 of the measurement determination.

## 4.0 OTHER IMPORTANT CONSIDERATIONS

### 4.1 CAPACITY BUILDING

Malcolm Turnbull, the Minister for the Environment in the second reading speech for the NGER Bill in August 2007 stated the following:

*'It is anticipated that corporations will improve their reporting processes over time. The emphasis of the compliance and enforcement regime in the initial years of the scheme will accordingly be on encouraging compliance, rather than on punitive measures. As the scheme matures, a more stringent approach will be appropriate, particularly with regard to data that will inform emissions trading.'*

A transcript of the speech is available here:

<http://www.malcolmturnbull.com.au/Pages/article.aspx?ID=920>

The initial emphasis on building reporting capacity within registered corporations to achieve compliance, rather than enforcement - that is, trying to get robust data by educating registered entities about the scope of reporting - has also been reiterated by the GERO in correspondence received, and in direct conversation. As such it is envisaged that in the initial reporting period some use of estimates to fill in missing data may be accepted where the methodology is clearly stated along with the reasons for not obtaining actuals. However, since this emphasis will change in future reporting periods it is essential that all avenues be exhausted to obtain actual data before resorting to the use of interim measures.

### 4.2 RETROSPECTIVE DECISIONS

As per advice from the GERO (13 August 2008), in situations where the GERO has made a determination regarding facility 'boundaries' or related matters corporations should act to implement the necessary changes to reporting but will not be expected to retrospectively include data which is no longer available.

## APPENDIX A

### AUSTRALIAN CONSTRUCTORS ASSOCIATION LIMITED MEMBER COMPANIES

Abigroup Limited  
Boulderstone Pty Ltd  
BGC Contracting Pty Ltd  
Bilfinger Berger Australia Pty Ltd  
Bovis Lend Lease Pty Ltd  
Brookfield Multiplex Constructions Pty Ltd  
CH2M Hill Australia Pty Ltd  
Clough Limited  
Downer EDI Limited  
Fulton Hogan Pty Ltd  
John Holland Group Pty Ltd  
Laing O'Rourke Australia Construction Pty Limited  
Leighton Contractors Pty Limited  
Leighton Holdings Limited  
Macmahon Holdings Limited  
McConnell Dowell Corporation Limited  
Thiess Pty Ltd  
United Group Limited

## APPENDIX B

### Example 1: Integrated Refurbishment Activities e.g. Tenancy Fitout

In this example a commercial building is undergoing a floor-by-floor minor refurbishment to a tenancy space, while the building is still occupied by the tenant. Works involve equipment upgrades, fixtures, construction of internal walls and partitions and installation of furnishings.

<b>Principal Activity</b>	Bank Head Office - Tenancy within a commercial office building.
<b>Secondary &amp; Ancillary Activities</b>	Refurbishment 'Re-fit' works to the Bank Head Office tenanted space.
<b>Facility Boundary</b>	The Tenancy Space occupied by the Bank Head Office constitutes a facility in its own right with only various, discrete spaces coming under overall control of the construction contractor as works are undertaken or progress throughout the Tenancy.
<b>Parties involved in the operation of the Facility</b>	<p><b>Building Owner</b> – Responsible for reporting any Base Building and common light and power data.</p> <p><b>Landlord</b> – manages the building and collects NGERs data on behalf of the owner, all major decisions must be approved by the building owner.</p> <p><b>Client (Bank)</b> – Tenant occupying part of the building and funding 'Re-fit' works. Responsible for reporting tenancy electricity use under NGERs if corporate threshold is triggered.</p> <p><b>Principal Construction Contractor</b> – Collect and report any fuel use data (direct Scope 1 emissions) to the Client.</p> <p><b>Subcontractor</b> – Collect and provide any fuel use data (direct Scope 1 emissions) to the Principal contractor.</p>
<b>Possible sources of emissions and energy consumption</b>	Tenant light and power, data centres, office equipment, electrical hand held tools, fugitive emissions from refrigerants in HVAC systems.
<b>ANZSIC Code</b>	622: Depository financial intermediation
<b>Operational Control</b>	<p>In this scenario the tenant remains in operational control of the tenancy which is undergoing minor works. For the duration of those works any existing facility boundaries remain unchanged. Equipment operated by the contractor is captured as part of the tenant's (Client's) power.</p> <p>As such the construction contractor for the minor works has no direct NGERs reporting responsibilities other than providing data to the client for any direct Scope 1 emissions should they arise.</p>

## Example 2: Discrete Refurbishment Activities e.g. Shopping Centre Expansion

In this example a retail shopping centre is undergoing a major expansion which involves the construction of a new wing to the existing centre.

<b>Principal Activity</b>	New Build Construction Works
<b>Secondary &amp; Ancillary Activities</b>	N/A
<b>Facility Boundary</b>	All areas under the operational control of the Construction Contractor. Typically includes areas which are secured behind hoardings or site security fencing.
<b>Parties involved in the operation of the Facility</b>	<p><b>Client</b> – Maintains operational control over the existing centre. Will take operational control over the new wing at practical completion.</p> <p><b>Principal Construction Contractor</b> – Takes operational control of the extension works and is responsible for reporting energy use and emissions data from construction activities under NGERs until practical completion.</p> <p><b>Subcontractor(s)</b> - Collect and provide all NGERs related data to the Principal contractor.</p>
<b>Possible sources of emissions and energy consumption</b>	Hoists, cranes, light and power, concrete pumps, earthmoving plant, any light and power from tenancies or common areas that have not yet achieved practical completion where the construction manager is deemed to have operational control.
<b>ANZSIC Code</b>	302: Non residential building construction
<b>Operational Control</b>	In this scenario the facility boundary for the construction site temporarily intersects with the existing boundary of the supermarket tenancy within the centre. For the duration of the construction project the facility boundaries are redefined such that the construction manager has operational control of the areas within the construction site until practical completion. The tenant and client retain operational control of the unaffected areas of the existing facilities.

### Example 3: New Build Construction

In this example a new mixed-use office and retail tower is being constructed. The site is currently occupied by a building which is to be demolished by a demolition contractor prior to excavation and construction works being undertaken by a construction contractor.

<b>Principal Activity</b>	New Build Construction Works
<b>Secondary &amp; Ancillary Activities</b>	N/A
<b>Facility Boundary</b>	All areas under the operational control of the Construction Contractor. Typically includes areas which are secured behind hoardings or site security fencing.
<b>Parties involved in the operation of the Facility</b>	<p><b>Client</b> – Resumes operational control of existing facility at handover to demolition contractor. Client will resume operational control over the building at practical completion.</p> <p><b>Principal Construction Contractor</b> – Takes operational control of the extension works and is responsible for reporting energy use and emissions data from construction activities under NGERs until practical completion.</p> <p><b>Subcontractor(s)</b> - Collect and report all NGERs related data to the Principal contractor.</p>
<b>Possible sources of emissions and energy consumption</b>	Hoists, cranes, light and power, concrete pumps, earthmoving plant, any light and power from tenancies or common areas that have not yet achieved practical completion or are being commissioned, where the construction manager is deemed to have operational control.
<b>ANZSIC Code</b>	302: Non residential building construction
<b>Operational Control</b>	<p>In this scenario the facility has a clearly defined boundary. The client hands over operational control to the demolition contractor who in this instance is a separate entity to the Principal Construction Contractor who will be responsible for construction of the new building.</p> <p>The construction contractor maintains operational control over the facility during construction activities until practical completion.</p> <p>(It is noted that some activities such as civil and or demolition works may occur as part of the Principal Contract or as separately contracted activities. Where this is the case the Operational Control test applies).</p>

**Example 4: Major civil infrastructure construction project (eg tollway, desalination plant) being undertaken for a Government department, Government-controlled entity as a Public Private Partnership (PPP) or Build-Own-Operate-Transfer project.**

In this example, the project is to be initially operated for profit for a number of years by a party which is not a Government department or Government-controlled entity. At the end of this initial period the project is to be handed back to Government to own and operate. The Government has employed one or more consortia (could be JV's, Alliances, single head contractors or a Special Purpose Vehicle) to undertake the Design, Construction, Operation & Maintenance of the project. The project has triggered the facility threshold and all emissions and energy from the project are reportable.

For the purposes of this example a tollway project will be used.

<b>Principal Activity</b>	Construction (D&C phase), Road Operations (O&M phase)
<b>Secondary &amp; Ancillary Activities</b>	<ul style="list-style-type: none"> <li>■ Design</li> <li>■ Precast plant</li> <li>■ Concrete &amp; asphalt batching plant</li> <li>■ Structural &amp; mechanical fabrication</li> <li>■ Road construction</li> <li>■ Drilling &amp; blasting</li> <li>■ Tunnelling</li> <li>■ Landscaping</li> <li>■ Equipment maintenance</li> <li>■ Water treatment</li> </ul>
<b>Facility Boundary</b>	The project once constructed will be connected to an existing network under the control of one party (ie water distribution network operated by Water Authority, road network operated by Roads Corporation), however the project will be operated privately for profit by another corporate entity and therefore constitutes greenfield construction rather than an addition to an existing network. Consequently, the project constitutes a facility in its own right and the boundary of the facility is the project boundary, plus any ancillary activities at satellite sites such as dedicated concrete and precast plant. The boundary of the facility will change once the D&C phase is completed as some ancillary activities will conclude (eg precast) whilst others will commence (eg customer service outlet in shopping centre)
<b>Parties involved in the operation of the Facility</b>	<ul style="list-style-type: none"> <li>■ Government entity that has contracted one or more parties to Design, Construct, Operate &amp; Maintain the project. This entity retains certain responsibilities for review of performance during the D&amp;C phase.</li> <li>■ Special Purpose Vehicle such as a publicly listed entity created to deliver the project under the PPP/BOOT model.</li> <li>■ D&amp;C JV, Alliance or Contractor employed to deliver all design &amp; construction in accordance with Government &amp; project requirements.</li> <li>■ O&amp;M JV, Alliance or Contractor employed to deliver all design &amp; construction in accordance with Government &amp; project requirements.</li> <li>■ Major contractors that have a major role on site and operate under the direction of the D&amp;C or O&amp;M party, depending on project phase.</li> <li>■ Minor contractors that have a minor role on site and operate under the direction of the D&amp;C party or O&amp;M party, depending on project phase.</li> </ul>
<b>Possible sources of emissions and energy consumption</b>	<ul style="list-style-type: none"> <li>■ Electricity used by site facilities (ie offices, workshops), coal preparation plant &amp; draglines</li> <li>■ Petrol and/or diesel used in light &amp; heavy vehicle transport</li> <li>■ Diesel oil used in plant and equipment, i.e. lighting, pumps, dump trucks, excavators, dozers, graders, water trucks and light vehicles</li> <li>■ Diesel oil used for stationary energy (generators) and blasting (explosives)</li> <li>■ Lubricating oils and greases</li> <li>■ Waste treatment (i.e. onsite septic tanks)</li> <li>■ Liquid fuels consumed without combustion (i.e. flocculants)</li> </ul>
<b>ANZSIC Code</b>	The Principal Activity is Construction during the D&C phase, therefore the correct ANZSIC Code is '31: Heavy and civil engineering construction'. At handover, the O&M phase commences and the Principal Activity changes to Road Operations therefore the ANZSIC Code changes. If the same corporation that has operational control of the D&C phase then proceeds to operate and maintain the asset, then the two components should be reported under the O&M [Refer NGER Reg 2.22(3)] If different corporations have have operational control during the D&C phase and O&M phase, then it should be reported as two different facilities from the change over date.

<b>Operational Control</b>	Whilst the Government entity and/or an umbrella Special Purpose Vehicle (eg publicly listed entity) has oversight of the project through all phases, this does not translate to Operational Control during either the D&C or O&M phases unless these entities enforce the implementation of their policies day-to-day over those of the D&C and/or O&M parties. Otherwise, during the D&C phase, the D&C party retains Operational Control, and during the O&M phase the O&M party retains Operational Control. The other (minor & major) contractors perform various activities, none of which constitute 'whole of project' operation, therefore they cannot be deemed to have Operational Control of the Facility.
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**Example 5: D&C Civil Project which is adding to or upgrading part of a Client's existing network ( e.g. new road construction, rail duplication, trunk sewer replacement, new HV powerline, telecommunications exchange upgrade, etc)**

In this example, the Client is the operator (and possibly also the owner) of an existing network that constitutes a Facility in its own right (eg road network, rail network, water distribution network, electricity distribution network, etc). The Client has retained the D&C contractor to extend or upgrade a portion of the existing network, and has prescribed standards that the works are to be conducted in accordance with (eg Sector-specific legislation, Client's standards, power easement, etc). The Client will operate the project as part of its overall Facility once the D&C phase is completed. The overall Facility (ie the network) has triggered the Facility threshold and all emissions and energy from the Facility are reportable.

For the purposes of this example a rail project will be used.

<b>Principal Activity</b>	Rail Freight Operations
<b>Secondary &amp; Ancillary Activities</b>	<ul style="list-style-type: none"> <li>■ Bulk earthworks</li> <li>■ Road construction</li> <li>■ Drilling &amp; blasting</li> <li>■ Track laying</li> <li>■ Vegetation clearing</li> </ul>
<b>Facility Boundary</b>	The rail network operated by the Client constitutes a facility in its own right, therefore the boundary of the facility is the boundary of the rail network easement
<b>Parties involved in the operation of the Facility</b>	<ul style="list-style-type: none"> <li>■ Operator of the rail network (ie Client) has contracted the D&amp;C contractor to upgrade and/or extend a portion of the existing rail network (which remains in operation) and therefore has a major role on site.</li> <li>■ D&amp;C JV, Alliance or Contractor employed to deliver all design &amp; construction in accordance with Government &amp; project requirements.</li> <li>■ Other contractors that have a minor role on site and operate under the direction of the D&amp;C party.</li> </ul>
<b>Possible sources of emissions and energy consumption</b>	<ul style="list-style-type: none"> <li>■ Electricity used by site facilities (ie offices, workshops)</li> <li>■ Petrol and/or diesel used in light &amp; heavy vehicle transport</li> <li>■ Diesel oil used in plant and equipment, i.e. rail grinders, tampers, lighting, pumps, dump trucks, excavators, dozers, graders, water trucks and light vehicles</li> <li>■ Diesel oil used for stationary energy (generators) and blasting (explosives)</li> <li>■ Lubricating oils and greases</li> <li>■ Waste treatment (i.e. onsite septic tanks)</li> <li>■ Liquid fuels consumed without combustion (i.e. flocculants)</li> </ul>
<b>ANZSIC Code</b>	The Principal Activity conducted at the overall Facility is Rail Operations, therefore the correct ANZSIC Code is '471: Rail Freight Transport'
<b>Operational Control</b>	<p>The D&amp;C contractor performs the design and construction tasks, however this relates to only a portion of the overall Facility and is performed in accordance with the standards specified by the Facility operator. Therefore, the Client retains Operational Control due to having control of the overall Facility, and must report on behalf of the Facility.</p> <p>The other (minor) contractors perform various activities, none of which constitute 'whole of Facility' operation, therefore they cannot be deemed to have Operational Control.</p>

**Example 6: D&C project carried out by a JV, Alliance or other partnership where the Client is a member of the partnership and the Partnership Agreement contains a clause giving enhanced decision making power to the Client over that of the Non-Owner Participants**

In this example, the Client is the future operator (and possibly also the owner) of a construction project that constitutes a Facility in its own right. The client has entered into a partnership agreement with various Non-Owner Participants (NOP's ie a designer, a construction contractor, etc) to design and construct the project. All members of the partnership are represented on the project's peak decision making body that has direct responsibility for day-to-day management of the project, however the partnership agreement contains a clause giving the Client power of veto, unilateral decision making, or other enhanced decision making power over the NOP's. Whilst the project itself will not trigger the facilities threshold, various members of the partnership trigger the threshold for corporations.

For the purposes of this example a building project will be used.

<b>Principal Activity</b>	Construction (D&C phase), Accommodation (future activity)
<b>Secondary &amp; Ancillary Activities</b>	<ul style="list-style-type: none"> <li>■ Vegetation clearing</li> <li>■ Bulk earthworks</li> <li>■ Building construction</li> <li>■ Mechanical &amp; electrical services</li> </ul>
<b>Facility Boundary</b>	The building once completed will be operated by the Client and will constitute a facility in its own right, therefore the boundary of the facility is the boundary of the building site.
<b>Parties involved in the operation of the Facility</b>	<ul style="list-style-type: none"> <li>■ Client as member of partnership.</li> <li>■ D&amp;C contractors as members of partnership.</li> <li>■ Other contractors that have a minor role on site and operate under the direction of the partnership.</li> </ul>
<b>Possible sources of emissions and energy consumption</b>	<ul style="list-style-type: none"> <li>■ Electricity used by site facilities (ie offices, workshops)</li> <li>■ Petrol and/or diesel used in light &amp; heavy vehicle transport</li> <li>■ Diesel oil used in plant and equipment, i.e. rail grinders, tampers, lighting, pumps, dump trucks, excavators, dozers, graders, water trucks and light vehicles</li> <li>■ Diesel oil used for stationary energy (generators) and blasting (explosives)</li> <li>■ Lubricating oils and greases</li> <li>■ Waste treatment (i.e. onsite septic tanks)</li> <li>■ Liquid fuels consumed without combustion (i.e. flocculants)</li> </ul>
<b>ANZSIC Code</b>	The Principal Activity conducted at the overall Facility during the D&C phase is Construction, however the Client is involved in the D&C phase therefore the correct ANZSIC Code for the future activity (retail) should used, which is '440: Accommodation'
<b>Operational Control</b>	All members of the partnership are involved in the day to day operation of the Facility during the D&C phase, however the clause in the partnership agreement giving the Client enhanced decision making power at peak decision making level over the NOP's gives the Client the greatest authority to introduce and implement policies. Based on the above, the Client has Operational Control and must report on behalf of the Facility. However, being a partnership, an NOP can accept Operational Control in place of the Client if agreed by all parties to the partnership. The other (minor) contractors perform various activities, none of which constitute 'whole of Facility' operation, therefore they cannot be deemed to have Operational Control. Once the D&C phase is complete, Operational Control will revert to the Client as the operator of the completed Facility (the NOP's have exited the project at this point).

## Example 7: Rail Duplication – Mining Sector

In this example an existing rail line servicing major mining operations is expanded with two additional tracks, upgrades to existing bridges and new overhead wiring. This is a Joint Venture contract consisting of 2 parties - 2 principal contractors. The Client has engaged an EPCM contractor to manage this JV and other contracts the client has entered into (port development, dredging, and other infrastructure). The EPCM contractor is an alliance between a design consultant and an engineering firm. In this instance the Client and the EPCM contractor manage all planning and approvals, specify operating and environmental policies and undertake regular audits and inspections of activities undertaken by the JV and other alliances.

<b>Principal Activity</b>	Heavy and civil engineering construction
<b>Secondary &amp; Ancillary Activities</b>	<ul style="list-style-type: none"> <li>■ Bulk earthworks</li> <li>■ Road construction</li> <li>■ Drilling &amp; blasting</li> <li>■ Track laying</li> <li>■ Vegetation clearing</li> </ul>
<b>Facility Boundary</b>	The rail network operated by the Client constitutes a facility in its own right, therefore the boundary of the facility is the boundary of the rail network easement
<b>Parties involved in the operation of the Facility</b>	<ul style="list-style-type: none"> <li>■ Client – Mining Company (owner) plays a major role by actively managing all planning and approvals, participating in all decisions and overseeing implementation of all activities along with EPCM</li> <li>■ The Managing Contractor (EPCM) is responsible for managing a number of project packages subject to JVs, Alliances etc. EPCM plays a major role on site by actively managing planning and approvals, participating in all decisions and overseeing the implementation through inspections, audits and reviews.</li> <li>■ The Principal Contractors (JV) manage specific construction activities on site that form part of the overall package of works.</li> <li>■ Rail track specialist contractor and subcontractors.</li> </ul>
<b>Possible sources of emissions and energy consumption</b>	<p>Electricity used by site facilities (ie offices, workshops)</p> <p>Petrol and/or diesel used in light &amp; heavy mobile equipment</p> <p>Diesel oil used in plant and equipment, i.e. rail grinders, tampers, lighting, pumps, dump trucks, excavators, dozers, graders, water trucks and light vehicles</p> <p>Diesel oil used for stationary energy (generators) and blasting (explosives)</p> <p>Lubricating oils and greases</p> <p>Waste treatment (i.e. onsite septic tanks, wastewater treatment plants)</p> <p>Liquid fuels consumed without combustion (i.e. flocculants)</p>
<b>ANZSIC Code</b>	The Principal Activity conducted at the overall Facility is Heavy and civil engineering construction therefore the correct ANZSIC Code is 310
<b>Operational Control</b>	<p>Since the client and the EPCM contractor both play a major role by managing planning and policy approvals, operational control will sit with either party. The principal contractors (JV) will need to report their and their subcontractors' emissions and energy use to the party with operational control. However the JV partners need to nominate a reporting party and will need to have an internal agreement in place to share the emerging compliance costs.</p> <p>Specialist Contractor to report directly to EPCM/Client or to the Principal Contractor to collate the report.</p>

## APPENDIX C

### APPLICATION OF OVERALL CONTROL / OPERATIONAL CONTROL

#### Application of operational control<sup>1</sup>

Under the National Greenhouse and Energy Reporting (NGER) Act 2007, corporations that meet certain thresholds for greenhouse gas emissions and energy production and consumption are required to report to the Greenhouse and Energy Data Officer (GEDO).

Reporting responsibility under the NGER Act 2007 ultimately lies with the corporation that has operational control of facilities when thresholds are triggered. Operational control lies with the corporation that has greatest authority to introduce and implement operational, environmental and OH&S policies and needs to be applied in conjunction with the facility definitions described in Section 9 of the NGER Act 2007 and Division 2.4 of the NGER Regulations 2008.

The NGER Act 2007 and the NGER Regulations 2008 can be found at [www.climatechange/reporting.gov.au](http://www.climatechange/reporting.gov.au). The National Greenhouse and Energy Reporting Guidelines is a useful tool that explains how the legislation can be applied in certain circumstances and is also available on the website.

Operational control can sometimes be difficult to determine, an example might be with a construction corporation (A) who uses sub-contractors (B) to deliver projects to a major client (C). Who needs to report the emissions and energy from the activities, A, B or C?

This tool adopts a balance scorecard type approach and should be applied on a case-by-case basis where operational control is uncertain and could lie with two or more corporations. The scorecard can be used to help corporations decide which facilities they need to report. A completed scorecard may also form part of a corporation's reporting methodology and can demonstrate due consideration of the legislation in regards to operational control and any resulting inclusions or exclusions in the report.

**The NGER legislation provides for a self-assessment process, although certain rules and compliance and enforcement provisions are applicable. The operational control tool is a somewhat subjective measure and the GEDO encourages all interested parties to be involved in and informed of outcomes.**

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<sup>1</sup> This document should be considered in conjunction with the NGER Act 2007, the NGER Regulations 2008 and the National Greenhouse and Energy (Measurement) Determination 2008. These and support material such as the National Greenhouse and Energy Reporting Guidelines can be found at [www.climatechange.gov.au/reporting](http://www.climatechange.gov.au/reporting)

## How to use the scorecard

- 1 Define the facility boundary by applying the appropriate legislation (Section 9 of the NGER Act 2007 and Division 2.4 of the NGER Regulations 2008, Chapter 1 of the NGER Guidelines).  
[www.climatechange.gov.au/reporting](http://www.climatechange.gov.au/reporting)
- 2 Fill in the corporate, facility and location details.
- 3 In the appropriate column, list the operational, environmental and OH&S policies that apply to the facility.
- 4 Assign a score to each policy, **1 – not very important** and **10 – very important (policy score)** for both the introduction and implementation of policies where applicable.
- 5 For each corporation involved in the activity, give them a score in relation to the policy score as to how much authority they have to introduce and implement the policy (corporate score). E.g. If it is a very important policy, it might have a policy score of 10. Corporation A might have a high degree of authority to introduce, B somewhat and C none. The scores might read: A – 8, B – 2, C – 0. The combined corporate scores should equal the policy score.
- 6 After the scores for the corporations are entered, the scores are added and the corporation with the highest score should be considered to have operational control of the facility and therefore reporting responsibility for the greenhouse gas emissions and energy.

See 'Example' for an illustration of a hypothetical facility in the construction sector and for a template of the overall control scorecard. Please note this is an example only and the weightings and relevant scores are for the purposes of the example.

## Example

Facility/Activities description: Lead contractor A is carrying out a construction project (facility) for a client C, and in doing so uses their own staff and equipment and also engage sub-contractors for specific tasks. The sub-contractors purchase their fuel on most occasions. This scorecard (below) refers to all activities carried out by all sub-contractors at this particular facility as the arrangements between the lead contractor and all sub-contractors are fundamentally the same. In most circumstances these sub-contractors work for various clients throughout the year.

**TABLE 1: Facility/Corporations/interested parties:**

Facility name/description:	Address:	Latitude and Longitude (3 decimals): <a href="http://itouchmap.com/latlong.html">http://itouchmap.com/latlong.html</a>
<b>Corporation</b>	<b>Address (head office)</b>	<b>ABN</b>
Lead contractor (A)		
Sub-contractor (B)		
Client (C)		

**TABLE2: Operational Control scorecard example:**

	POLICY	Policy Score	Corporate Score A* Lead	Corporate Score B* Sub	Corporate Score C Client
OPERATING POLICES	Design and construction plan (introduce)	10	-	-	10
	Design and construction plan (implement)	10	8	2	-
	Provides fuels for equipment*	10	-	10	-
	Maintenance of equipment	5	-	5	-
	Determines work hours (introduce)	5	5	-	-
	Determines work hours (implement)	5	3	2	-
	Ability to influence asset purchase	5	2	2	1
	Branding and colours	3	1	1	1
	Long term or short term (long term should result in lower score for the sub-contractor)	10	8	2	-
	Other				
	<b>TOTAL</b>		<b>27</b>	<b>23</b>	<b>12</b>
ENVIRONMENTAL POLICES	Contaminated site audit (introduce)	6	-	-	6
	Noise and dust suppression (introduce)	10	-	-	10
	Noise and dust suppression (implement)	10	8	2	-
	Fuel types used i.e. biodiesel (introduce and implement)	10	8	2	-
	Minimum emissions standards/fuel consumption for equipment	7	1	5	1
	Other				
<b>TOTAL</b>		<b>17</b>	<b>9</b>	<b>17</b>	
OH&S POLICES	Daily operating hours of equipment (introduce)	10	-	-	10
	Daily operating hours (implement)	10	5	5	-
	Safety requirements on site (introduce)	10	-	-	10
	Safety requirements on site –audit (implement)	10	8	2	-
	Other				
<b>TOTAL</b>		<b>13</b>	<b>7</b>	<b>20</b>	
<b>OPERATIONAL CONTROL TOTAL **</b>			<b>57</b>	<b>39</b>	<b>49</b>
For this activity it would appear Lead contractor A has operational control of this facility and is responsible for reporting the emissions and energy associated with this activity if thresholds are triggered.					

Notes: \*This is based on the corporation who acquires Fuel Tax Credits

\*\* If the scorecard is equal on completion, operating and environmental polices only should be considered as a 'count-back'. Refer NGER Act 2007 Section 11 (4).

**TEMPLATE**

**Facility/Activity description:**

**Facility/Corporations/interested parties:**

Facility name:	Address:	Latitude and longitude:
<b>Corporation</b>	<b>Address (head office)</b>	<b>ABN</b>
Trans Corp A		
Sub-contractor B		
Client C		

**Operational Control scorecard:**

	POLICY	Policy Score	Corporate Score A	Corporate Score B	Corporate Score C
OPERATING POLICES					
	TOTAL				
ENVIRONMENTAL					
	TOTAL				
OH&S POLICES					
	TOTAL				
<b>OPERATIONAL CONTROL TOTAL**</b>					
<p>For this facility it would appear XXX has operational control of this facility and is responsible for reporting the emissions and energy associated with this facility if thresholds are triggered.</p>					

## APPENDIX D

### SUBCONTRACTOR DATA FORM (sample only)

Project:	Project Location:
Subcontractor:	Main Subcontractor Activity:
Month of Usage:	Date Submitted:
Subcontractor Representative:	Signature:
Subcontractor ABN:	Intention to Report to the GERO Direct:
Subcontractor Agreement Number:	

### DO NOT INCLUDE DATA PROVIDED BY (THE HEAD CONTRACTOR) WHERE POSSIBLE PROVIDE INVOICE QUANTITIES

ENERGY TYPE	Amount used	Units
Electricity (only if metered)		
Non-renewable		kWh (kilowatt hours)
Renewable (eg Wind, Solar, Geothermal)		kWh (kilowatt hours)
Electricity Generated (Include generators with a capacity $\geq 0.5\text{MW}$ or $500\text{kVa}$ )		kWh (kilowatt hours)
Fuel, Lubricants & Solvents		
Diesel		kL (kilolitres)
Biodiesel (eg B5, B20 – include name here)		kL (kilolitres)
Unleaded Petrol		kL (kilolitres)
Jet A1 (AVTUR)		kL (kilolitres)
LPG		kg (kilograms)
CNG		
Natural Gas		cubic metres
Ethanol Blends (eg E10)		kL (kilolitres)
Oil		L (litres)
Grease		kg (kilograms)
Solvents (eg prepsol, WD40, RP7, etc)		L (litres)
EXPLOSIVES		
Diesel Component		L (litres)
Refrigerants and Insulants		
HFC-23 (CHF3)		L (litres)
HFC-152a (C2H4F2, CH3 CHF2)		L (litres)
HFC-134a (C2H2F4, CH2FCF3)		L (litres)
SF6		L (litres)
OTHER (As specified within the NGER measurement determination)		

#### Recommended minimum requirements for data

- All energy and emissions data provided by the Contractor must meet the relevant quality requirements specified in the Technical Guidelines under the Act.
- All receipts, dockets and records confirming the energy and emissions data provided by the Contractor must be retained by the Contractor in accordance with the Act.
- If the Contractor does not provide all relevant energy and emissions data under the requirements of the Act the Greenhouse and Energy Data Officer may directly seek this information and enforce penalties.
- The Contractor must advise the Principal in writing if they intend/ or are reporting separately under the Act.

## APPENDIX E

### GLOSSARY OF TERMS

NGER Act	The <i>National Greenhouse and Energy Reporting Act 2007</i> establishes the legislative framework for the National Greenhouse and Energy Reporting System.
NGER Regulations	The National Greenhouse and Energy Reporting Regulations 2008 provide the necessary details that allow compliance with, and administration of, the NGER Act.
NGER Reporting (Measurement) Determination	The National Greenhouse and Energy Reporting (Measurement) Determination 2008 (the Determination) provides methods and criteria for calculating greenhouse gas emissions and energy data under the NGER Act. The Determination is updated annually to incorporate up to date emissions factors and refinements to methods.
NGER Reporting Guidelines	The National Greenhouse and Energy Reporting Guidelines have been developed to help corporations understand their obligations under the <i>National Greenhouse and Energy Reporting Act 2007</i> (the Act).  The Reporting Guidelines are applicable across industry sectors and cover important concepts under the Act and the <i>National Greenhouse and Energy Reporting Regulations 2008</i> (the Regulations), including: <ul style="list-style-type: none"><li>■ Determining participation</li><li>■ Registration</li><li>■ Reporting obligations</li><li>■ Record keeping</li><li>■ Deregistration</li></ul>

