



<b>Policy Hierarchy link</b>	National Greenhouse and Energy Reporting Act 2007 National Greenhouse & Energy Reporting Regulations 2008 National Greenhouse & Energy Reporting (Measurement) Determination 2008 National Greenhouse & Energy Reporting (Audit) Determination 2009		
<b>Responsible Officer</b>	Executive Director University Services		
<b>Contact Officer</b>	UNSW Sustainability Director		
<b>Superseded Documents</b>	NA – New Procedure		
<b>File Number</b>	Trim File: 2009/3416		
<b>Associated Documents</b>	Environmental Law Compliance Manual UNSW Environment Policy UNSW Energy Saving Action Plan Plans & Reports		
<b>Version</b>	<b>Authorised by</b>	<b>Approval Date</b>	<b>Effective Date</b>
1.0	Level 1 OHS&E Committee	10 August 2011	10 August 2011

1. Purpose and Scope.....	1
2. Background .....	1
3. Definitions.....	1
4. Procedure.....	2
5. Governance.....	2
6. Review.....	2
Annexure A: History.....	2
Annexure B: UNSW National Greenhouse Energy Report Methodology and Tasks.....	3
Annexure C: Schedule 1 National Greenhouse and Energy Reporting Regulations 2008.....	6

## 1. Purpose and Scope

This procedure sets out UNSW’s Greenhouse and Energy Reporting compliance and assurance methodology.

## 2. Background

Under the *National Greenhouse and Energy Reporting Act 2007* (the NGER Act), the University of New South Wales is required to provide the Commonwealth Government’s Greenhouse and Energy Data Officer an annual report detailing our greenhouse gas emissions, including carbon emissions as well as energy use.

UNSW is registered under the NGER Act and has reported emissions and energy use at the Kensington Campus since the first reporting year in 2008/2009. From 2010/2011 NGERs emission reporting thresholds decreased and UNSW must now report on emissions and energy use across all Facilities where the University exercises Operational Control.

## 3. Definitions and Shortened Forms

**CO<sub>2</sub>-e:** carbon dioxide equivalent.

**DCCEE:** Department of Climate Change and Energy Efficiency (NGER Regulator).

**Facility:** An activity, or a series of activities that involve the production of greenhouse gas emissions, the production of energy or the consumption of energy and that form a single undertaking or enterprise and meet the requirements of the NGER Regulations.

**kWh:** kilowatt-hour (1,000 watt hours).

**MWh:** megawatt (1,000,000 watt hours).

**NGERS:** National Greenhouse and Energy Reporting System.

**NGER Regulator:** Department of Climate Change and Energy Efficiency.

**Operational Control:** Authority to introduce or implement operating, health and safety and/or environmental policies for a Facility.

**OSCAR:** Online System for Comprehensive Activity Reporting.

## 4. Procedure

### 4.1 NGERs Report submission deadline

The NGER reporting year is from 1 July to 30 June. The NGERs Report is due on or before 31 October every year.

### 4.2 Preparation of UNSW's annual NGERs Report

The UNSW NGERs Compliance Management Committee has have management responsibility for preparing UNSW's annual NGERs Report.

The Executive Director University Services has executive responsibility for preparing UNSW's annual NGERs Report.

The Vice Chancellor, UNSW's CEO equivalent, is required under the NGER Act to sign the University's annual NGER Report and has liabilities under the NGER Act to take reasonable steps to guard against contraventions.

### 4.3 Record Keeping and document management

Under the NGER Act documents must be kept for a minimum of seven years from the end of the reporting period. The UNSW Sustainability Office is responsible for record keeping and document management (including raw data) used in the preparation of UNSW's annual NGERs Report. As far as possible data collection and document management shall align NGERs recording keeping practices with the University's existing document retention and management policies.

## 5. Governance

Detailed responsibilities and timelines for the collection and verification of data to be used in the preparation of the NGER Report are set out at Appendix B to this Procedure and include multiple governance controls.

The UNSW NGERs Compliance Management Committee shall also regularly review and update the UNSW National Greenhouse Energy Report Methodology and Tasks in consultation with an accredited NGER auditor.

Where possible UNSW will undertake a third party audit of the NGERs Report each year prior to signature by the Vice Chancellor and submission to the NGERs Regulator.

## 6. Review

This procedure will be reviewed prior to 1 November 2012 and upon any amendments to the *National Greenhouse and Energy Reporting Act 2007*, other relevant Commonwealth legislation or advice from the relevant Commonwealth Department.

### Appendix A: History

Version	Author	Authorised by	Approval Date	Effective Date	Sections modified
1.0	UNSW Sustainability Director	Level 1 OHS&E Committee	10 August 2011	10 August 2011	New Procedure

## Appendix B

### UNSW National Greenhouse Energy Report Methodology and Tasks

This table summarises UNSW's emissions and energy roles and responsibilities under the NGER legislative framework.

Compliance Requirement	Task	Responsibility	Record/evidence	Due date	Governance control
1. Capture data from across the corporate group (all facilities)	1.1. Fuel purchased and consumed for boats – interrogate accounts payable/procurement for fuel purchases	Fleet Manager	Invoices where possible. If not copy of accounts ledgers etc.	15 October	
	1.2. Fowlers Gap bulk fuel consumed Interrogate accounts payable/procurement for fuel purchases	Fleet Manager	Invoices where possible. If not copy of accounts ledgers etc.	15 October	
	1.3. Aviation gas for Cessna aeroplane Interrogate accounts payable/procurement for fuel purchases	Fleet Manager	Invoices where possible. If not copy of accounts ledgers etc.	15 October	
	1.4. Oils and greases from fleet vehicles – interrogate Lease Plan data set. May come from Lease Plan servicing records. If data not available from Lease Plan will need to estimate	Fleet Manager	Invoices where possible	15 October	
	1.5. Electricity produced from co-generation. Record the electricity produced in kWh from the two co-generation units and PV if above thresholds below (unlikely). Must disaggregate electricity consumed internally and any sent to grid. <u>Note:</u> only units greater than 0.5MW and producing 100,000 kWh need to be reported. It is good practice to record, and may inform the Sustainability Report.	Energy Manager	Capacity of unit (regardless of whether above or beyond threshold). Location of unit and method of measure (i.e. estimate based on output & running time, metering or 'feed-ins' to grid)	15 October	
	1.6. Sulphur hexafluoride (SF6) – SF6 is found in electricity distribution equipment (insulated switch gear), usually in small amounts (<100 kg). On-site 'switch rooms'	Energy Manager	Inventory that includes location of equipment	15 October	

Compliance Requirement	Task	Responsibility	Record/evidence	Due date	Governance control
	may have SF6 containing equipment. May or may not be applicable to UNSW				
	1.7. Electricity and gas usage data from spreadsheet should be verified to ensure no gaps. If there appears to be gaps in the data double check as to why the monthly or quarterly entries are not consistently entered in some instances.	Energy Manager	Add comment fields to spreadsheet. Scanned/hard copies of invoices	15 October	
2. Gap analysis for completeness	2.1. Accredited auditor to complete 'site visits' to inspect for complete coverage of reportable sources	Accredited NGER Auditor	Auditors report	Mid August to allow for data capture of missing sources	
3. Capture missing data from Kensington campus for inclusion in the 2009/10 NGER report	3.1. Oils and greases from fleet vehicles (see 1.4)	Fleet Manager	See 1.4	15 October	
	3.2. Electricity produced from co-generation above thresholds (1.5)	Energy Manager	See 1.5	15 October	
	3.3. Electricity produced from PV if above thresholds (follow methodology at 1.5)	Energy Manager	See 1.5	15 October	
	3.4. Sulphur hexafluoride (SF6) if applicable (see 1.6)	Energy Manager	See 1.6	15 October	
	3.5. Electricity and gas usage data from spreadsheet should be verified to ensure no gaps (see 1.7)	Energy Manager and Sustainability Director	See 1.7	15 October	
4. Investigate 'operational control' of on-site retailers (food court etc.) for inclusion of exclusion in NGER report	4.1 Interrogate operating, OH&S and environmental policies as they apply to on-site retailers. Inspect lease agreements and/or operating terms and conditions. If in doubt, suggest to report their use. If these activities deemed not under operational control of UNSW, their emissions/energy will need to be netted out of NGER report. This is best achieved by completing an operational control scorecard or an operational control matrix.	Property Manager	Lease agreements, operating terms and conditions Completed and signed scorecards – approved by Sustainability Director	15 October	
5. Provide substantiating evidence (in central, auditable format) for areas of key compliance risk such as:	5.1 Provide Invoices for energy use – and or soft copies, no gaps in dates/data	Energy Manager	Invoices	15 October	
	5.2 Provide list of UNSW facilities. Double check with	Sustainability	Document, file note	End October	

Compliance Requirement	Task	Responsibility	Record/evidence	Due date	Governance control
	corporate/legal and document to ensure all facilities are included.	Director	from corporate staff		
	5.3 Provide inventory of purchased goods. Double check that no other energy sources not mentioned at 1.1 -1.8 have been consumed by UNSW	Procurement	Inventory, supplier lists	End October 2010	
	5.4 Provide substantiation of correct application of operational control legislative provisions (in particular where exclusions have been made). Ties in with 3.1	Sustainability Director	Lease agreements, terms and conditions	End October	
6. Consolidate all data sources for the 2009/10 reporting year in internal systems (Excel worksheet) for ease of comparison, internal/external audit and interrogation against thresholds.	6.1 Consolidate entire data set including data from other facilities and missing data (see 1.1-1.8).	Energy Manager	Excel worksheet	15 October	
	6.2 Complete internal audit of data from source data (i.e. invoices) to UNSW database – choose sample data set of large sources and check for accuracy. Document results. If errors >3% of total found suggest complete internal audit of all figures. (Sanity checks and variance algorithms within Excel are very good tools for automated error checks.)	Energy Manager Sustainability Director	Internal audit report – signed and dated by Sustainability Director	16 October	
	6.3 Data into the DCCEE mandatory NGER reporting tool, OSCAR	Sustainability Director	Web	17 October	
	6.4 Review UNSW draft report in OSCAR prior to lodgement with DCCEE – ensure it matches UNSW data set.	Sustainability Director	Based on all documentation above	17 October	
7. Preparation of Memo to VC	6.1 All data needs to be entered via the OSCAR web site well in advance as DCCEE require the final printed NGERS report to be signed by the VC and posted so that it is received by 30 October. Include internal audit report and Auditor Gap analysis with VC memo to provide VC the required assurance	Sustainability Director and Executive Director University Services			
	6.2 Send NGERS Report to Department and ensure it is received by 30 October.	Sustainability Director		30 October	
	6.3 Consider limited assurance voluntary third party audit by approved NGER auditor prior to lodgement of comprehensive 2010/11 NGER report.	Executive Director University Services			

The procedure above includes multiple governance controls, identified as **green blocks** in the appropriate cell.

## Appendix C

### Schedule 1 National Greenhouse and Energy Reporting Regulations 2008

Item	Fuels and other energy commodities
------	------------------------------------

***Solid fossil fuels and coal based products***

- 1 Black coal (other than that used to produce coke)
- 2 Brown coal
- 3 Coking coal
- 4 Brown coal briquettes
- 5 Coke oven coke
- 6 Coal tar
- 7 Solid fossil fuels other than those mentioned in items 1 to 5

***Fuels derived from recycled materials***

- 8 Industrial materials and tyres that are derived from fossil fuels, if recycled and combusted to produce heat or electricity
- 9 Non-biomass municipal materials, if recycled and combusted to produce heat or electricity

***Primary solid biomass fuels***

- 10 Dry wood
- 11 Green and air dried wood
- 12 Sulphite lyes
- 13 Bagasse
- 14 Biomass municipal and industrial materials, if recycled and combusted to produce heat or electricity
- 15 Charcoal
- 16 Primary solid biomass fuels other than those mentioned in items 10 to 15

***Gaseous fossil fuels***

- 17 Natural gas if distributed in a pipeline
- 18 Coal seam methane that is captured for combustion
- 19 Coal mine waste gas that is captured for combustion
- 20 Compressed natural gas
- 21 Unprocessed natural gas
- 22 Ethane
- 23 Coke oven gas
- 24 Blast furnace gas
- 25 Town gas
- 26 Liquefied natural gas
- 27 Gaseous fossil fuels other than those mentioned in items 17 to 26

***Biogas captured for combustion***

- 28 Landfill biogas that is captured for combustion
- 29 Sludge biogas that is captured for combustion
- 30 A biogas that is captured for combustion, other than those mentioned in items 28 to 29

***Petroleum based oils and petroleum based greases***

- 31 Petroleum based oils (other than petroleum based oils used as fuel)
- 32 Petroleum based greases

***Petroleum based products other than petroleum based oils and petroleum based greases***

- 33 Crude oil including crude oil condensates
- 34 Other natural gas liquids
- 35 Gasoline (other than for use as fuel in an aircraft)
- 36 Gasoline for use as fuel in an aircraft
- 37 Kerosene (other than for use as fuel in an aircraft)
- 38 Kerosene for use as fuel in an aircraft
- 39 Heating oil
- 40 Diesel oil
- 41 Fuel oil
- 42 Liquefied aromatic hydrocarbons
- 43 Solvents if mineral turpentine or white spirits
- 44 Liquefied petroleum gas
- 45 Naphtha
- 46 Petroleum coke
- 47 Refinery gas and liquids
- 48 Refinery coke
- 49 Bitumen
- 50 Waxes
- 51 Petroleum based products other than:
  - (a) petroleum based oils and petroleum based greases mentioned in items 31 to 32
  - (b) petroleum based products mentioned in items 33 to 50

***Biofuels***

- 52 Biodiesel
- 53 Ethanol for use as a fuel in an internal combustion engine
- 54 Biofuels other than those mentioned in items 52 to 53

***Petrochemical feedstock***

- 55 Carbon black if used as a petrochemical feedstock
- 56 Ethylene if used as a petrochemical feedstock
- 57 Petrochemical feedstock other than those mentioned in items 55 to 56

***Energy commodities***

- 58 Sulphur
  - 59 Solar energy for electricity generation
  - 60 Wind energy for electricity generation
  - 61 Water energy for electricity generation
  - 62 Geothermal energy for electricity generation
  - 63 Uranium
  - 64 Hydrogen
  - 65 Electricity
  - 66 Energy commodities other than those mentioned in items 58 to 65 and in the form of steam, compressed air or waste gas acquired either to produce heat or for another purpose
-