

**Standard****E4 - Greenhouse gas emissions**

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## Contents page

<b>Scope</b>	<b>3</b>
<b>Programme design</b>	<b>4</b>
<b>Revision history</b>	<b>5</b>

## E4 - Greenhouse gas emissions

### Scope

This standard is applicable to all Rio Tinto business units and those managed operations, including admin/corporate offices and research facilities located off site, that significantly (more than 50, 000 tonne CO<sub>2</sub>Eq or more than 500 TJ energy per annum) contribute to Rio Tinto's total GHG emissions and energy use. It covers all sources of greenhouse gas (GHG) emissions (direct and indirect) during exploration, mining, mineral processing, materials handling, smelting refining and on-site transport. Where the business unit or operation is also responsible for ancillary activities (eg power generation) or off-site transport (rail, truck and ship) those activities will be covered under the scope of this standard.

GHG issues associated with product life cycles are covered in the Product Stewardship guidance note.

**Intent:** The intent of this standard is to ensure continuous improvement in GHG emission minimisation in Rio Tinto, including through improved efficiency in energy use. This is to be accomplished by identifying GHG sources, evaluating and prioritising them according to significance, and then designing and implementing a Greenhouse gas and energy efficiency action plan containing the appropriate control, reduction and mitigation measures.

#### **Other relevant documents:**

- Rio Tinto Climate change position
- HSEQ management system (or standard E1 EMS for non ABS operations)
- Air quality control standard
- Project evaluation guidelines (for carbon and energy pricing guidance)
- Greenhouse gas emissions guidance note

## Programme design

### 1. Planning

- 1.1 Develop, document and maintain knowledge of GHG emissions and energy use. This must include an understanding of current and future GHG emission and energy use inventories and the factors that affect these inventories. It must also include comparisons of the operation's (and/or individual processes') performance against external or internal benchmarks. Internal benchmarking must be used where no data for comparative operations or processes are available.
- 1.2 Identify, document and assess GHG emission reduction and energy efficiency improvement opportunities for the business or operation. Opportunities include on-site operational and engineering controls, emissions trading and offsets.
- 1.3 Develop a Greenhouse gas and energy efficiency action plan with GHG emission reduction and/or energy efficiency targets that will lead to benchmark performance. The action plan must include suitable actions and milestones that are adequately resourced and linked to the business planning process.
- 1.4 Regularly review GHG emission reduction and energy efficiency opportunities for financial and technical viability. Ensure that carbon and energy prices that can be reasonably anticipated (including costs inferred by government imposed carbon tax schemes or CO2 emissions regulations) are used in these reviews and in all project evaluations including:
  - a) annual business plans and valuations;
  - b) new project evaluations;
  - c) capital expenditure programs; and
  - d) due diligence reviews for divestments and acquisitions.

Factor-in the reviews and changes that can reasonably be anticipated in national and international policies and measures.

### 2. Implementation and operation

- 2.1 Implement the Greenhouse and energy efficiency action plan and associated programmes for GHG emission control and reduction and energy efficiency. Upgrade the action plan as the business needs and external requirements change and as there is technological advancement and progress in GHG emission and energy efficiency management.
- 2.2 Assign clear responsibilities and accountabilities for GHG emission and energy efficiency management. Responsibilities must include those for progressing the Greenhouse and

energy efficiency action plan. Maintain access to the necessary GHG emission abatement and energy efficiency knowledge and skill.

### 3. Performance measurement

- 3.1 Ensure that the appropriate measures are in place for metering, or estimating where appropriate, GHG emissions and energy use.
- 3.2 Conduct periodic reviews to identify potential risks (threats and opportunities) associated with achieving best benchmark GHG emission performance and energy efficiency at the business or where appropriate operation. Businesses must regularly review milestones towards achieving targets.

### 4. Revision history

Version no.	Effective date	Prepared by	Authorised by	
1	June 2005	Adelino Taboada	ExCo	
Version no.	Revision date	Revised by	Authorised by	Reason for change
2	December 2008	Adrian van Tonder	Bruce Kelley	Incorporation of suggested changes from operations and alignment with HSEQ management system.