
GOVERNMENT NOTICE

DEPARTMENT OF ENERGY

No. R. 259

27 March 2015

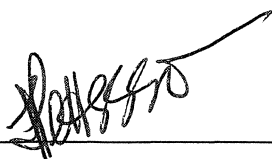
NATIONAL ENERGY ACT, 2008

PUBLISHED FOR PUBLIC COMMENTS: DRAFT REGULATIONS REGARDING REGISTRATION, REPORTING ON ENERGY MANAGEMENT AND SUBMISSION OF ENERGY MANAGEMENT PLANS

I, Tina Joemat-Pettersson, Minister of Energy, hereby, in terms of section 19(2) of the Energy Act, 2008 (Act No. 34 of 2008), publish for public comment the draft Regulations regarding Registration, Reporting on Energy Management and Submission of Energy Management Plans, to be made under section 19(1)(b) of the Act, in the Schedule.

Interested persons and organisations are invited to submit, within 60 days, written comments on the proposed regulations to the Director-General, Department of Energy, Private Bag X96, Pretoria 0001; Matimba House 192 Visagie Street, Pretoria; Fax: +27 (0) 12 323 5819 ; or email to xolile.mabusela@energy.gov.za; daniel.modise@energy.gov.za (for attention Chief Director Energy Efficiency Initiatives).

Kindly provide the name, address, telephone number, fax number and email address of the person or organisation submitting the comments. Comments on the draft regulations must be submitted not later than 60 calendar days from the date of publication of this Notice. Comments received after the closing date may not be considered.



TINA JOEMAT- PETTERSSON, MP

Minister of Energy

SCHEDULE

Definitions

1. In these Regulations any word or expression to which a meaning has been assigned in the Act, has the meaning so assigned and, unless the context indicates otherwise–

“data providers” means the data providers classified as category F under regulation 4(1)(f) of the Regulations on the Mandatory Provision of Energy Data, 2012;

“Department” means the Department of Energy;

“energy” means energy as defined in South African National Standard SANS 50001 Energy Management Systems – Requirements with Guidance for Use;

“energy baseline” means the energy baseline as defined in South African National Standard SANS 50010 Measurement and Verification of Energy Savings;

“energy consumption threshold” means–

- (a) for the purposes of registration in terms of regulation 7 or for reporting under regulation 3, a total annual energy consumption exceeding 180 Terajoules (TJ);
- (b) for the purposes of submission of an energy management plan, a total annual energy consumption exceeding 400 Terajoules (TJ);

“energy efficiency savings” means the difference between the actual amount of energy used in the carrying out of any activity or trade in a specific period, and the amount of energy that would have been used in the carrying out of the same activity, or trade during the same period, under the same conditions, if the energy savings measure was not implemented;

“energy management plan” means a plan, as contemplated in regulation 4(2), setting out the manner in which the energy performance of the data provider will be managed;

“financial year” means a year commencing on 1 March and ending on 28 February in the following year;

“independent energy auditor” means a professional trained in the identification and assessment of energy efficiency saving measures and assessment of accuracy of data collection, and who is not an employee of the data provider;

“registration” means registration in terms of regulation 7(1);

“Regulations on the Mandatory Provision of Energy Data, 2012” means the Regulations on the Mandatory Provision of Energy Data, 2012, published in Government Notice No. R142 on 24 February 2012;

“SANS 50001” means the South African National Standard, SANS 50001, for Energy Management Systems – Requirements with guidance for use;

“SANS 50010” means the South African National Standard, SANS 50010, for Measurement and verification of energy savings;

“SIC” means the Standard Industrial Classification of all Economic Activities, 5th edition, Statistics South Africa, January 1993; and

“South African National Standard” means a South African National Standard approved by the South African Bureau of Standards in terms of the Standards Act, 2008 (Act No. 8 of 2008);

“the Act” means the National Energy Act, 2008 (Act No. 34 of 2008).

Application

2. These Regulations apply to a data provider that -
- (a) operates in a sector classified in terms of the SIC in Annexure A; and
 - (b) meets the applicable energy consumption threshold.

Requirements for provision of energy data

3. (1) A data provider operating in a sector in Annexure A, whose total annual energy consumption exceeds 180 terajoules (TJ), must measure and collect the energy consumption data for the energy carriers as prescribed in Annexure B.

(2) The data contemplated in subregulation (1) shall be submitted, for the preceding financial year, to the Department within 90 days of the coming into operation of these Regulations, whereafter the data shall be submitted within 60 days of the end of each financial year.

Requirements for energy management plan

4. (1) A data provider operating in a sector in Annexure A, whose total annual energy consumption exceeds 400 terajoules (TJ) must, in addition to complying with regulation 3, submit to the Department an energy management plan in accordance with SANS 50001, within 12 months of the coming into operation of these Regulations; and thereafter at regular intervals of five years.

(2) The energy management plan contemplated in subregulation (1) must be applicable for a period of five years from the date of submission to the Department and must include—

- (a) an energy baseline prepared in accordance with SANS 50010;
- (b) the areas of energy efficiency savings potential;
- (c) energy performance indicators for monitoring and measuring energy performance;
- (d) a list of measures to achieve the energy efficiency savings potential, which are technically viable, cost effective and within the financial

means of the data provider, and are to be implemented over the five year period;

- (e) timelines for the implementation of the measures in paragraph (d), and the period for the review of the energy management plan.

(3) The data provider contemplated in subregulation (1) must report to the Department within 30 days of the end of each financial year on the implementation of the energy management plan, and the report must at least include—

- (a) annual energy efficiency savings achieved;
- (b) energy efficiency measures implemented; and
- (c) any barriers encountered in trying to achieve the performance improvement anticipated.

Verification of information

5. If the Department reasonably believes that the data or information submitted by a data provider in terms of these Regulations is incorrect or misleading, the Department may, after written notice to that data provider, request an independent energy auditor to verify the accuracy of the information that has been submitted to the Department.

Compulsory registration for submission of information and data

6. (1) A data provider operating in a sector in Annexure A, whose total annual energy consumption exceeds 180 terajoules (TJ), must apply to the Department within 90 days of the coming into operation of these Regulations in the form attached as Annexure B through its web-portal at www.eems.co.za, to be registered on the energy efficiency monitoring system for the electronic submission of information and data in terms of these Regulations.

(2) A data provider commencing operations in a sector in Annexure A and whose total annual energy consumption exceeds 180 terajoules (TJ) after the promulgation of these Regulations, must apply to be registered on the energy

efficiency monitoring system as contemplated in subregulation (1) within 30 days after the commencement of such operations.

Short title and commencement

7. These Regulations are called the Regulations regarding the Registration, Reporting on Energy Management and Submission of Energy Management Plans and come into operation on the date of promulgation in the *Gazette*.

Annexure A

Standard Industrial Classification (SIC) Codes for use by Data Providers

21: Mining of coal and lignite
22: Extraction of crude petroleum and natural gas, service activities incidental to oil and gas extraction, excluding surveying
23: Mining of gold and uranium ore
24: Mining of metal ores, except gold and uranium
25: Other mining and quarrying
30: Manufacture of food products, beverages and tobacco products
31: Manufacture of textiles, clothing and leather goods
32: Manufacture of wood and products cork, excluding furniture, manufacture of articles of straw and plaiting materials, manufacture of paper and paper products, publication, print and repro. Record media
33: manufacture of coke, refined petroleum products and nuclear fuel, manufacture of chemicals and chemical products, manufacture of rubber and plastic products
34: Manufacture of other non-metallic mineral products
35: Manufacture of basic metals, machinery and equipment and of office and computing machinery.
36: Manufacture of electrical machinery and apparatus
37: Manufacture of radio, television and communication equipment and apparatus and of medical, precision and optical instruments, watches and clocks
38: Manufacture of transport equipment
39: Manufacture of furniture, manufacturing , recycling
41: Electricity, gas steam and hot water supply

ANNEXURE B

REPORTING ON ENERGY USE AND CONSUMPTION DATA

INTRODUCTION

The Department of Energy (DoE) is currently developing an Energy Efficiency Monitoring System (EEMS) to track energy efficiency trends in South Africa. Although EEMS will report only on trends occurring at an aggregate level, in order to correctly identify and separate out the effects of energy efficiency changes from other changes (for example, structural effects) it is necessary to collect detailed data on energy consumption and activity levels for the main energy-consuming activities in the South African economy. In order to ensure that the EEMS is populated by reliable, high-quality data, the DoE therefore requests all facilities exceeding the threshold as defined in section 1 of the regulations that you submit data of the nature and format described in this annexure.

WHO IS REQUIRED TO PROVIDE ENERGY MANAGEMENT PLAN AND ENERGY DATA

- All legal entities that consume energy are required to develop an Energy Management Plan in accordance with regulations on MANDATORY PROVISION OF ENERGY DATA - No. R 142 of February 24, 2012.
- All **legal entities** that are requested by the Department of Energy to provide data

DEADLINE SUBMISSION DATE

The data contemplated shall be submitted, for the preceding financial year, to the Department within 90 days of the coming into operation of these Regulations, whereafter the data shall be submitted within 60 days of the end of each financial year.

FREQUENCY

Annually

PERIOD COVERED BY DATA

1st January to 31st December of relevant year

DATA SUBMISSION MECHANISM

Data should be submitted through the Energy Efficiency Monitoring System web portal at <http://www.eems.co.za/>

SCHEDULE OF SECTORS AND DESCRIPTION OF DATA REQUIRED

Data is to be provided by legal entities where a facility exceeds the above- threshold contained in the Regulations and operating in the following sub-sectors: all ferrous and non-ferrous metals, cement, lime and plaster, mining, iron & steel, paper & pulp, basic chemicals, other industrial

enterprises.

Types of data required are:

1. Details of the responding legal entity, site & contact information.
2. The period over which the energy consumption and activity data (3-5) have been incurred (must be between 1st January and 31st December of any given year).
3. Annual energy consumption per carrier.
4. Quantities of physical output (in the case of manufacturing) of the given entity
5. Main energy consuming activities undertaken on the site.

For all sub-sectors, one (or more) of the following questionnaires will be completed via the online portal. For each facility that exceeds the threshold, a separate questionnaire must be submitted. For those sub-sectors for which a specific questionnaire does not exist, please use the “Other” questionnaire (Q19-999999).

QUESTIONNAIRES

QUESTIONNAIRE 1-35202			
Sub-Sector	MANUFACTURE OF ALUMINIUM		
SIC Code	35202	Version	Nov-2013-v1

1. RESPONDENT DETAILS

Please provide details in the table below of the facility for which this response is being made:

Name of Company	
Name of facility	
Contact details	Name:
	E-mail:
	Telephone:

2. REPORTING PERIOD

Please specify which twelve-month period this response relates to:

Calendar Year

3. ENERGY CONSUMPTION

Please enter the total energy consumption of the facility, over the time period specified in Question 2, for each of the energy carriers in the table below:

Energy carrier	Consumption	Units
Electricity		kWh/ MWh/ GWh
Coal		Tonnes
Natural gas		m3
Off-grid renewable		please specify units
Petroleum products:		
Diesel		Thousands litres
Petrol/gasoline		Thousands litres
Paraffin/kerosene		Thousands litres
LPG		Thousands litres
Light fuel oil		Thousands litres
Heavy fuel oil		Thousands litres
Other		Thousands litres
Total Energy Consumption		TJ

4. PHYSICAL OUTPUT

Please indicate in the table below the production level of the facility over the time period specified in Question 2: with respective activities covered by the response during the reporting period.

Product	Quantity	Units
All aluminium products		thousand tonnes

5. ACTIVITIES

Please indicate which of the activities listed below took place at the site covered by this response during the reporting period:

Primary smelting	
Secondary smelting / alloying	
Casting	

All Aluminium Products		
Activities	Quantity	Units(thousand tonnes)
Primary Smelting		
Secondary smelting/alloying		
Casting		
Total aluminium products		

QUESTIONNAIRE 2-34241			
Sub-Sector	MANUFACTURE OF CEMENT, LIME AND PLASTER		
SIC Code	34241	Version	Nov-2013-v1

1. RESPONDENT DETAILS

Please provide details in the table below of the facility for which this response is being made:

Name of firm	
Name of facility	
Contact details	Name: E-mail: Telephone:

2. REPORTING PERIOD

Please specify which twelve-month period this response relates to:

Calendar Year

3. ENERGY CONSUMPTION IN PRODUCTION OF CLINKER & LIME (Refer to section 5 for blending of cement)

Please enter the total energy consumption of the facility, over the time period specified in Question 2, for each of the energy carriers in the table below:

Energy carrier	Consumption	Units
Electricity		kWh/ MWh/ GWh
Coal		Tonnes
Natural gas		m3
Off-grid renewable		please specify units
Petroleum products:		
Diesel		Thousands litres
Petrol/gasoline		Thousands litres
Paraffin/kerosene		Thousands litres
LPG		Thousands litres
Light fuel oil		Thousands litres
Heavy fuel oil		Thousands litres
Other		Thousands litres
Total Energy Consumption		TJ

4. PHYSICAL OUTPUT

Please indicate in the table below the production level of the facility over the time period specified in Question 2:

Product	Quantity	Units
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Clinker		thousand tonnes
Lime		thousand tonnes

5. ENERGY CONSUMPTION IN BLENDING OF CEMENT

Please enter the total energy consumption of the facility, over the time period specified in Question 2, for each of the energy carriers in the table below:

Energy carrier	Consumption	Units
Electricity		kWh/ MWh/ GWh
Coal		Tonnes
Natural gas		m3
Off-grid renewable		please specify units
Petroleum products:		
Diesel		Thousands litres
Petrol/gasoline		Thousands litres
Paraffin/kerosene		Thousands litres
LPG		Thousands litres
Light fuel oil		Thousands litres
Heavy fuel oil		Thousands litres
Other		Thousands litres
Total Energy Consumption		TJ

6. PHYSICAL OUTPUT

Please indicate in the table below the production level of the facility over the time period specified in Question 2:

Product	Quantity	Units
Final cement products		thousand tonnes

5. ACTIVITIES

Please indicate which of the activities listed below took place at the site covered by this response during the reporting period:

Mining	
Milling	
Blending	

Final cement products		
Activities	Quantity	Units(thousand tonnes)
Mining		
Milling		
Blending		
Total final cement product		

QUESTIONNAIRE 3-21			
Sub-Sector	MINING OF COAL		
SIC Code	21	Version	Nov-2013-v1

1. RESPONDENT DETAILS

Please provide details in the table below of the facility for which this response is being made:

Name of firm	
Name of facility	
Contact details	Name: E-mail: Telephone:

2. REPORTING PERIOD

Please specify which twelve-month period this response relates to:

Calendar Year

3. ENERGY CONSUMPTION

Please enter the total energy consumption of the facility, over the time period specified in Question 2, for each of the energy carriers in the table below:

Energy carrier	Consumption	Units
Electricity		kWh/ MWh/ GWh
Coal		Tonnes
Natural gas		m3
Off-grid renewable		please specify units
Petroleum products:		
Diesel		Thousands litres
Petrol/gasoline		Thousands litres
Paraffin/kerosene		Thousands litres
LPG		Thousands litres
Light fuel oil		Thousands litres
Heavy fuel oil		Thousands litres
Other		Thousands litres
Total Energy Consumption		TJ

4. PHYSICAL OUTPUT

Please indicate in the table below the production level of the facility over the time period specified in Question 2:

Product	Quantity	Units
All coal products		thousand tonnes

5. ACTIVITIES

Please indicate which of the activities listed below took place at the site covered by this response during the reporting period:

Surface mining	
Deep mining	

QUESTIONNAIRE 4-23			
Sub-Sector	MINING OF GOLD		
SIC Code	23	Version	Nov-2013-v1

1. RESPONDENT DETAILS

Please provide details in the table below of the facility for which this response is being made:

Name of firm	
Name of facility	
Contact details	Name: E-mail: Telephone:

2. REPORTING PERIOD

Please specify which twelve-month period this response relates to:

Calendar Year

3. ENERGY CONSUMPTION

Please enter the total energy consumption of the facility, over the time period specified in Question 2, for each of the energy carriers in the table below:

Energy carrier	Consumption	Units
Electricity		kWh/ MWh/ GWh
Coal		Tonnes
Natural gas		m3
Off-grid renewable		please specify units
Petroleum products:		
Diesel		Thousands litres
Petrol/gasoline		Thousands litres
Paraffin/kerosene		Thousands litres
LPG		Thousands litres
Light fuel oil		Thousands litres
Heavy fuel oil		Thousands litres
Other		Thousands litres
Total Energy Consumption		TJ

4. PHYSICAL OUTPUT

Please indicate in the table below the production level of the facility over the time period specified in Question 2:

Product	Quantity	Units
Ore mined		thousand tonnes
Final product		kg

QUESTIONNAIRE 5-252			
Sub-Sector	MINING OF DIAMONDS		
SIC Code	252	Version	Nov-2013-v1

1. RESPONDENT DETAILS

Please provide details in the table below of the facility for which this response is being made:

Name of firm	
Name of facility	
Contact details	Name: E-mail: Telephone:

2. REPORTING PERIOD

Please specify which twelve-month period this response relates to:

Calendar Year

3. ENERGY CONSUMPTION

Please enter the total energy consumption of the facility, over the time period specified in Question 2, for each of the energy carriers in the table below:

Energy carrier	Consumption	Units
Electricity		kWh/ MWh/ GWh
Coal		Tonnes
Natural gas		m3
Off-grid renewable		please specify units
Petroleum products:		
Diesel		Thousands litres
Petrol/gasoline		Thousands litres
Paraffin/kerosene		Thousands litres
LPG		Thousands litres
Light fuel oil		Thousands litres
Heavy fuel oil		Thousands litres
Other		Thousands litres
Total Energy Consumption		TJ

4. PHYSICAL OUTPUT

Please indicate in the table below the production level of the facility over the time period specified in Question 2:

Product	Quantity	Units
Material processed		thousand tonnes
Final product		carats

5. ACTIVITIES

Please indicate which of the activities listed below took place at the site covered by this response during the reporting period:

Surface mining	
Deep mining	

Product	Activities	Quantity
Material processed	Surface mining	
	Deep mining	
Total(thousand tonnes)		
Final product	Surface mining	
	Deep mining	
Total(carrats)		

QUESTIONNAIRE 6 -2410			
Sub-Sector	MINING OF IRON ORE		
SIC Code	2410	Version	Nov-2013-v1

1. RESPONDENT DETAILS

Please provide details in the table below of the facility for which this response is being made:

Name of firm	
Name of facility	
Contact details	Name: E-mail: Telephone:

2. REPORTING PERIOD

Please specify which twelve-month period this response relates to:

Calendar Year

3. ENERGY CONSUMPTION

Please enter the total energy consumption of the facility, over the time period specified in Question 2, for each of the energy carriers in the table below:

Energy carrier	Consumption	Units
Electricity		kWh/ MWh/ GWh
Coal		Tonnes
Natural gas		m3
Off-grid renewable		please specify units
Petroleum products:		
Diesel		Thousands litres
Petrol/gasoline		Thousands litres
Paraffin/kerosene		Thousands litres
LPG		Thousands litres
Light fuel oil		Thousands litres
Heavy fuel oil		Thousands litres
Other		Thousands litres
Total Energy Consumption		TJ

4. PHYSICAL OUTPUT

Please indicate in the table below the production level of the facility over the time period specified in Question 2:

Product	Quantity	Units
Iron ore mined		thousand tonnes

5. ACTIVITIES

Please indicate which of the activities listed below took place at the site covered by this response during the reporting period:

Surface mining	
Deep mining	

QUESTIONNAIRE 7-2421			
Sub-Sector	MINING & SMELTING OF CHROMITE		
SIC Code	2421	Version	Nov-2013-v1

1. RESPONDENT DETAILS

Please provide details in the table below of the facility for which this response is being made:

Name of firm	
Name of facility	
Contact details	Name: E-mail: Telephone:

2. REPORTING PERIOD

Please specify which twelve-month period this response relates to:

Calendar Year

3. ENERGY CONSUMPTION IN MINING OF CHROMITE (see section 5 below for smelting)

Please enter the total energy consumption of the facility, over the time period specified in Question 2, for each of the energy carriers in the table below:

Energy carrier	Consumption	Units
Electricity		kWh/ MWh/ GWh
Coal		Tonnes
Natural gas		m3
Off-grid renewable		please specify units
Petroleum products:		
Diesel		Thousands litres
Petrol/gasoline		Thousands litres
Paraffin/kerosene		Thousands litres
LPG		Thousands litres
Light fuel oil		Thousands litres
Heavy fuel oil		Thousands litres
Other		Thousands litres
Total Energy Consumption		TJ

4. PHYSICAL OUTPUT

Please indicate in the table below the production level of the facility over the time period specified in Question 2:

Product	Quantity	Units
Chromite		thousand tonnes

5. ACTIVITIES

Please indicate which of the activities listed below took place at the site covered by this response during the reporting period:

Surface mining	
Deep mining	

6. ENERGY CONSUMPTION IN SMELTING CHROMITE

Please enter the total energy consumption of the facility, over the time period specified in Question 2, for each of the energy carriers in the table below:

Energy carrier	Consumption	Units
Electricity		kWh/ MWh/ GWh
Coal		Tonnes
Natural gas		m ³
Off-grid renewable		please specify units
Petroleum products:		
Diesel		Thousands litres
Petrol/gasoline		Thousands litres
Paraffin/kerosene		Thousands litres
LPG		Thousands litres
Light fuel oil		Thousands litres
Heavy fuel oil		Thousands litres
Other		Thousands litres
Total Energy Consumption		TJ

7. PHYSICAL OUTPUT (SMELTING)

Please indicate in the table below the production level of the facility over the time period specified in Question 2:

Product	Quantity	Units
Ferrochrome		thousand tonnes

QUESTIONNAIRE 8-2423			
Sub-Sector	MINING & SMELTING OF MANGANESE		
SIC Code	2423	Version	Nov-2013-v1

1. RESPONDENT DETAILS

Please provide details in the table below of the facility for which this response is being made:

Name of firm	
Name of facility	
Contact details	Name: E-mail: Telephone:

2. REPORTING PERIOD

Please specify which twelve-month period this response relates to:

Calendar Year

3. ENERGY CONSUMPTION IN MINING MANGANESE ORE (refer to section 5 for smelting)

Please enter the total energy consumption of the facility, over the time period specified in Question 2, for each of the energy carriers in the table below:

Energy carrier	Consumption	Units
Electricity		kWh/ MWh/ GWh
Coal		Tonnes
Natural gas		m3
Off-grid renewable		please specify units
Petroleum products:		
Diesel		Thousands litres
Petrol/gasoline		Thousands litres
Paraffin/kerosene		Thousands litres
LPG		Thousands litres
Light fuel oil		Thousands litres
Heavy fuel oil		Thousands litres
Other		Thousands litres
Total Energy Consumption		TJ

4. PHYSICAL OUTPUT

Please indicate in the table below the production level of the facility over the time period specified in Question 2:

Product	Quantity	Units
Manganese Ore		thousand tonnes

5. ACTIVITIES

Please indicate which of the activities listed below took place at the site covered by this response during the reporting period:

Surface mining	
Deep mining	

6. ENERGY CONSUMPTION IN SMELTING MANGANESE

Please enter the total energy consumption of the facility, over the time period specified in Question 2, for each of the energy carriers in the table below:

Energy carrier	Consumption	Units
Electricity		kWh/ MWh/ GWh
Coal		Tonnes
Natural gas		m ³
Off-grid renewable		please specify units
Petroleum products:		
Diesel		Thousands litres
Petrol/gasoline		Thousands litres
Paraffin/kerosene		Thousands litres
LPG		Thousands litres
Light fuel oil		Thousands litres
Heavy fuel oil		Thousands litres
Other		Thousands litres
Total Energy Consumption		TJ

7. PHYSICAL OUTPUT (SMELTING)

Please indicate in the table below the production level of the facility over the time period specified in Question 2:

Product	Quantity	Units
Ferromanganese		thousand tonnes
Silicomanganese		thousand tonnes

QUESTIONNAIRE 9-2424			
Sub-Sector	MINING OF PLATINUM		
SIC Code	2424	Version	Nov-2013-v1

1. RESPONDENT DETAILS

Please provide details in the table below of the facility for which this response is being made:

Name of firm	
Name of facility	
Contact details	Name: E-mail: Telephone:

2. REPORTING PERIOD

Please specify which twelve-month period this response relates to:

Calendar Year

3. ENERGY CONSUMPTION

Please enter the total energy consumption of the facility, over the time period specified in Question 2, for each of the energy carriers in the table below:

Energy carrier	Consumption	Units
Electricity		kWh/ MWh/ GWh
Coal		Tonnes
Natural gas		m3
Off-grid renewable		please specify units
Petroleum products:		
Diesel		Thousands litres
Petrol/gasoline		Thousands litres
Paraffin/kerosene		Thousands litres
LPG		Thousands litres
Light fuel oil		Thousands litres
Heavy fuel oil		Thousands litres
Other		Thousands litres
Total Energy Consumption		TJ

4. PHYSICAL OUTPUT

Please indicate in the table below the production level of the facility over the time period specified in Question 2:

Product	Quantity	Units
Ore processed		thousand tonnes
Total platinum group metals		kg

5. ACTIVITIES

Please indicate which of the activities listed below took place at the site covered by this response during the reporting period:

Surface mining	
Deep mining	

QUESTIONNAIRE 10-2429			
Sub-Sector	MINING OF VANADIUM		
SIC Code	2429	Version	Nov-2013-v1

1. RESPONDENT DETAILS

Please provide details in the table below of the facility for which this response is being made:

Name of firm	
Name of facility	
Contact details	Name: E-mail: Telephone:

2. REPORTING PERIOD

Please specify which twelve-month period this response relates to:

Calendar Year

3. ENERGY CONSUMPTION IN MINING VANADIUM ORE (refer to section 5 for smelting)

Please enter the total energy consumption of the facility, over the time period specified in Question 2, for each of the energy carriers in the table below:

Energy carrier	Consumption	Units
Electricity		kWh/ MWh/ GWh
Coal		Tonnes
Natural gas		m3
Off-grid renewable		please specify units
Petroleum products:		
Diesel		Thousands litres
Petrol/gasoline		Thousands litres
Paraffin/kerosene		Thousands litres
LPG		Thousands litres
Light fuel oil		Thousands litres
Heavy fuel oil		Thousands litres
Other		Thousands litres
Total Energy Consumption		TJ

4. PHYSICAL OUTPUT

Please indicate in the table below the production level of the facility over the time period specified in Question 2:

Product	Quantity	Units
Vanadium ore		thousand tonnes

5. ACTIVITIES

Please indicate which of the activities listed below took place at the site covered by this response during the reporting period:

Surface mining	
Deep mining	

6. ENERGY CONSUMPTION IN SMELTING VANADIUM

Please enter the total energy consumption of the facility, over the time period specified in Question 2, for each of the energy carriers in the table below:

Energy carrier	Consumption	Units
Electricity		kWh/ MWh/ GWh
Coal		Tonnes
Natural gas		m3
Off-grid renewable		please specify units
Petroleum products:		
Diesel		Thousands litres
Petrol/gasoline		Thousands litres
Paraffin/kerosene		Thousands litres
LPG		Thousands litres
Light fuel oil		Thousands litres
Heavy fuel oil		Thousands litres
Other		Thousands litres
Total Energy Consumption		TJ

7. PHYSICAL OUTPUT (SMELTING)

Please indicate in the table below the production level of the facility over the time period specified in Question 2:

Product	Quantity	Units
Ferrovanadium		thousand tonnes
Vanadium pentoxide		thousand tonnes

QUESTIONNAIRE 11-3231			
Sub-Sector	MANUFACTURE OF PULP AND PAPER PRODUCTS		
SIC Code	3231	Version	Nov-2013-v1

1. RESPONDENT DETAILS

Please provide details in the table below of the facility for which this response is being made:

Name of firm	
Name of facility	
Contact details	Name: E-mail: Telephone:

2. REPORTING PERIOD

Please specify which twelve-month period this response relates to:

Calendar Year

3. ENERGY CONSUMPTION

Please enter the total energy consumption of the facility, over the time period specified in Question 2, for each of the energy carriers in the table below:

Energy carrier	Consumption	Units
Electricity		kWh/ MWh/ GWh
Coal		Tonnes
Natural gas		m3
Off-grid renewable		please specify units
Petroleum products:		
Diesel		Thousands litres
Petrol/gasoline		Thousands litres
Paraffin/kerosene		Thousands litres
LPG		Thousands litres
Light fuel oil		Thousands litres
Heavy fuel oil		Thousands litres
Other		Thousands litres
Total Energy Consumption		TJ

4. PHYSICAL OUTPUT

Please indicate in the table below the production level of the facility over the time period specified in Question 2:

Product	Quantity	Units
Total pulp and paper products		thousand tonnes

QUESTIONNAIRE 12-351			
Sub-Sector	MANUFACTURE OF IRON AND STEEL		
SIC Code	351	Version	Nov-2013-v1

1. RESPONDENT DETAILS

Please provide details in the table below of the facility for which this response is being made:

Name of firm	
Name of facility	
Contact details	Name: E-mail: Telephone:

2. REPORTING PERIOD

Please specify which twelve-month period this response relates to:

Calendar Year

3. ENERGY CONSUMPTION

Please enter the total energy consumption of the facility, over the time period specified in Question 2, for each of the energy carriers in the table below:

Energy carrier	Consumption	Units
Electricity		kWh/ MWh/ GWh
Coal		Tonnes
Natural gas		m3
Off-grid renewable		please specify units
Petroleum products:		
Diesel		Thousands litres
Petrol/gasoline		Thousands litres
Paraffin/kerosene		Thousands litres
LPG		Thousands litres
Light fuel oil		Thousands litres
Heavy fuel oil		Thousands litres
Other		Thousands litres
Total Energy Consumption		TJ

4. PHYSICAL OUTPUT

Please indicate in the table below the production level of the facility over the time period specified in Question 2:

Product	Quantity	Units
Crude steel		thousand tonnes
Final products		thousand tonnes

5. ACTIVITIES

Please indicate which of the activities listed below took place at the site covered by this response during the reporting period:

Blast furnace	
Direct reduction iron-making (including Corex)	
Basic oxygen furnace	
Electric arc furnace	
Reheating furnace	

Product	Activities	Quantity	Units(thousand tonnes)
Crude steel	Blast furnace		
	Direct reduction iron-making (including Corex)		
	Basic oxygen furnace		
	Electric arc furnace		
	Reheating furnace		
Final product			
	Direct reduction iron-making (including Corex)		
	Basic oxygen furnace		
	Electric arc furnace		
	Reheating furnace		

QUESTIONNAIRE 13-334			
Sub-Sector	MANUFACTURE OF BASIC CHEMICALS		
SIC Code	334	Version	Nov-2013-v1

1. RESPONDENT DETAILS

Please provide details in the table below of the facility for which this response is being made:

Name of firm	
Name of facility	
Contact details	Name: E-mail: Telephone:

2. REPORTING PERIOD

Please specify which twelve-month period this response relates to:

Calendar Year

3. ENERGY CONSUMPTION

Please enter the total energy consumption of the facility, over the time period specified in Question 2, for each of the energy carriers in the table below:

Energy carrier	Consumption	Units
Electricity		kWh/ MWh/ GWh
Coal		Tonnes
Natural gas		m3
Off-grid renewable		please specify units
Petroleum products:		
Diesel		Thousands litres
Petrol/gasoline		Thousands litres
Paraffin/kerosene		Thousands litres
LPG		Thousands litres
Light fuel oil		Thousands litres
Heavy fuel oil		Thousands litres
Other		Thousands litres
Total Energy Consumption		TJ

4. PHYSICAL OUTPUT

Please indicate in the table below, for each category of product, the production level of the facility over the time period specified in Question 2:

Product category	Quantity	Units
Basic organic and inorganic chemicals, industrial		thousand tonnes

gases, except fertilizers and nitrogen compounds		
Fertilizers and Nitrogen Compounds		thousand tonnes
Primary plastics, polymers, resins, synthetic rubber		thousand tonnes

QUESTIONNAIRE 14-335			
Sub-Sector	MANUFACTURE OF OTHER CHEMICALS		
SIC Code	335	Version	Nov-2013-v1

1. RESPONDENT DETAILS

Please provide details in the table below of the facility for which this response is being made:

Name of firm	
Name of facility	
Contact details	Name: E-mail: Telephone:

2. REPORTING PERIOD

Please specify which twelve-month period this response relates to:

Calendar Year

3. ENERGY CONSUMPTION

Please enter the total energy consumption of the facility, over the time period specified in Question 2, for each of the energy carriers in the table below:

Energy carrier	Consumption	Units
Electricity		kWh/ MWh/ GWh
Coal		Tonnes
Natural gas		m ³
Off-grid renewable		please specify units
Petroleum products:		
Diesel		Thousands litres
Petrol/gasoline		Thousands litres
Paraffin/kerosene		Thousands litres
LPG		Thousands litres
Light fuel oil		Thousands litres
Heavy fuel oil		Thousands litres
Other		Thousands litres
Total Energy Consumption		TJ

4. PHYSICAL OUTPUT

Please indicate in the table below, for each category of product, the production level of the facility over the time period specified in Question 2:

Product category	Quantity	Units
Pesticides and other agro-chemical products		thousand tonnes
Paints, varnishes and similar coatings, printing ink and mastics		thousand tonnes

Pharmaceuticals, medicinal chemicals and botanical products		thousand tonnes
Soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations		thousand tonnes
Man-made fibres		thousand tonnes

QUESTIONNAIRE 15-3529999			
Sub-Sector	MANUFACTURE OF FERROALLOYS AND OTHER NON FERROUS METAL PRODUCTS		
SIC Code	3529999	Version	Nov-2013-v1

1. RESPONDENT DETAILS

Please provide details in the table below of the facility for which this response is being made:

Name of firm	
Name of facility	
Contact details	Name: E-mail: Telephone:

2. REPORTING PERIOD

Please specify which twelve-month period this response relates to:

Calendar Year

3. ENERGY CONSUMPTION

Please enter the total energy consumption of the facility, over the time period specified in Question 2, for each of the energy carriers in the table below:

Energy carrier	Consumption	Units
Electricity		kWh/ MWh/ GWh
Coal		Tonnes
Natural gas		m3
Off-grid renewable		please specify units
Petroleum products:		
Diesel		Thousands litres
Petrol/gasoline		Thousands litres
Paraffin/kerosene		Thousands litres
LPG		Thousands litres
Light fuel oil		Thousands litres
Heavy fuel oil		Thousands litres
Other		Thousands litres
Total Energy Consumption		TJ

4. PHYSICAL OUTPUT

Please indicate in the table below, for each category of product, the production level of the facility over the time period specified in Question 2:

Product category	Quantity	Units
Ferrochrome		thousand tonnes
Ferromanganese		thousand tonnes

Product category	Quantity	Units
Silicomanganese		thousand tonnes
Ferrovandium		thousand tonnes
Vanadium pentoxide		thousand tonnes

QUESTIONNAIRE 16-9999999			
Sub-Sector	OTHER		
SIC Code	9999999	Version	Nov-2013-v1

1. RESPONDENT DETAILS

Please provide details in the table below of the facility for which this response is being made:

Name of firm	
Name of facility	
Contact details	Name: E-mail: Telephone:

2. REPORTING PERIOD

Please specify which twelve-month period this response relates to:

Calendar Year

3. ENERGY CONSUMPTION

Please enter the total energy consumption of the facility, over the time period specified in Question 2, for each of the energy carriers in the table below:

Energy carrier	Consumption	Units
Electricity		kWh/ MWh/ GWh
Coal		Tonnes
Natural gas		m3
Off-grid renewable		please specify units
Petroleum products:		
Diesel		Thousands litres
Petrol/gasoline		Thousands litres
Paraffin/kerosene		Thousands litres
LPG		Thousands litres
Light fuel oil		Thousands litres
Heavy fuel oil		Thousands litres
Other		Thousands litres
Total Energy Consumption		TJ

4. PHYSICAL OUTPUT

Please indicate in the table below, for each category of product, the production level of the facility over the time period specified in Question 2:

Product category	Quantity	Units

5. ECONOMIC OUTPUT

Please indicate in the table below the economic output produced during the reporting period to which this response applies:

Quantity	Output produced	Units
Gross output		million Rand
