

## ANNEXURE B



### Title: Regulatory Reporting Manual Volume 6 Piped-Gas Non-Financial Information

Purpose: To prescribe and guide the regulated entities in the Energy Sector on **non-financial information (NFI)** required by the Energy Regulator, in order to achieve uniformity of content, measurement, preparation format and submission to the Energy Regulator to perform its functions.

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# 1 Introduction

## 1.1 List of Acronyms/Abbreviations

1.	ASME	American Society of Mechanical Engineers
2.	BBBEE	Broad Based Black Economic Empowerment
3.	Bbl	Barrel
4.	BEE	Black Economic Empowerment
5.	Btu	British thermal unit
6.	CBM	Coal Bed Methane
7.	CMS	Customer Meter Station
8.	CNG	Compressed Natural Gas
9.	CPF	Central processing facility
10.	CWIP	Construction Work in Progress
11.	DoE	Department of Energy
12.	DTI	Department of Trade and Industry
13.	EIA	Environmental Impact Assessment
14.	EMP	Emergency Management Plan
15.	EPCM	Engineering Procurement and Construction Management
16.	GIS	Geographic Information System
17.	GJ	Gigajoule
18.	GTL	Gas to Liquid
19.	GVC	Gross Calorific Value
20.	HDPE	High Density Polyethylene
21.	HDSA	Historically Disadvantaged South Africans
22.	HFO	Heavy Fuel Oil
23.	HPCMS	High Pressure Customer Meter Station
24.	HPRS	High Pressure Reducing Station
25.	LIS	Licensee Information System
26.	LFC	Liquid Fuels Charter
27.	LMS	Licensee Management System
28.	LFG	Land Fill Gas
29.	LNG	Liquefied Natural Gas
30.	LPG	Liquefied Petroleum Gas
31.	MBtu	Million British thermal units
32.	MFD	Mechanical Flow Diagram
33.	MGJ	Million Gigajoule
34.	MRG	Methane Rich Gas
35.	MVP	Market Value Pricing

36. NCV	Net Calorific Value
37. NEMA	National Environmental Management Act
38. NERSA	National Energy Regulator of South Africa
39. NFI	Non-Financial Information
40. NG	Natural gas
41. NGL	Natural Gas Liquid
42. Nm <sup>3</sup>	Normal Cubic Meter
43. NPV	Net Present Value
44. OH&SA	Occupational Health and Safety Act, 1993 (Act No. 85 of 1993)
45. Pa/Bar	unit of measuring pressure equal to atmospheric pressure on earth at sea level
46. Ppm	parts per million
47. PPS	Pressure Protection Station
48. PRS	Pressure Reducing Station
49. R/GJ	Rand per Gigajoule
50. RRM	Regulatory Reporting Manuals
51. SPMS	Single-point moorings
52. tcf	Trillion cubic feet
53. Toe	Ton of oil equivalent
54. TPA	Third-Party Access

## 1.2 General Glossary of Terminology and Definitions

1. Department – Department of Energy of the Republic of South Africa.
2. Energy Regulator – National Energy Regulator of South Africa (NERSA) established in terms of section 3 of the National Energy Regulator Act, 2004 (Act No. 40 of 2004).
3. Gas Act – Gas Act, 2001 (Act No. 48 of 2001).
4. Government – Government of the Republic in South Africa.
5. Historically Disadvantaged South Africans – refers to all persons and groups who have previously been discriminated against on the basis of race, gender or disability.
6. Licensee – a holder of a licence granted or deemed to have been granted by the Energy Regulator under the National Energy Regulator Act, 2004 (Act No 40 of 2004), Gas Act, 2001 (Act No. 48 of 2001). Licensee and Regulated Entity shall be used interchangeably.
7. Manual – Non-Financial Information Manual.
8. Minister – Minister of Energy.
9. Regulated Business – any licensee, service or activity that is subject to regulation by NERSA in terms of the National Energy Regulator Act, 2004 (Act No. 40 of 2004), the Gas Act, 2001 (Act No. 48 of 2001).

10. Regulated Entity – Regulated Business.
11. Registered Entity – any service or activity registered in terms of section 28 of the Gas Act.
12. Regulated facility – any licensee, service or activity that is subject to regulation by NERSA in terms of the National Energy Regulator, 2004(Act No. 40 of 2004, the Gas Act, 2001 (Act No. 48 of 2001).
13. Unregulated Business – entity, service or activity that is not subject to regulation by the Energy Regulator.

### **1.3 Piped-Gas Terminology and Definitions**

1. Capacity factor – The ratio of actual output to nameplate capacity.
2. Coal Bed Methane (CBM) – Natural gas generated and trapped in coal seams.
3. Contracted obligations – Contractual use by others (other than own use) of piped-gas facilities. Own use and contractual obligations volumes are subtracted to derive uncommitted capacity.
4. Cushion Gas or Base Gas – The gas that needs to stay in place in the storage tank to provide the pressure necessary to extract the working gas.
5. Design Capacity – The maximum capacity (volume/space) that a piped-gas facility is capable to carry/hold based on theoretical calculations and design criteria.

The volume/throughput for which a piped-gas facility is rated by the user or by the manufacturer (see also nameplate rating).

Nameplate Rating – The full load/volume/throughput continuous rating of a piped-gas facility under specified conditions as designated by the manufacturers. It is usually indicated on a nameplate attached mechanically to the individual machine or device.

6. Exchange – Delivery of gas by one party to another and the delivery of an equivalent quantity by the second party to the first. Such transactions usually involve different points of delivery and may or may not be concurrent.
7. Gas Specifications
  - 1.7.1. Energy Content (MJ/m<sup>3</sup>) [101.325 kPa(a) @15°C]
  - 1.7.2. Relative density (mg/mm<sup>3</sup>)
  - 1.7.3. Wobbe Index (MJ/m<sup>3</sup>) [101.325 kPa(a) @15°C]
  - 1.7.4. Sulphur (s) content mg/m<sup>3</sup>n
8. Licensed capacity – The combined design capacity as licensed by NERSA. Depending on the type of facility, it could be Gigajoules per annum/hour or cubic meters.

9. Line-Packing – A method used for providing short-term gas storage in which natural gas is compressed in transmission lines or distribution lines, providing additional amounts of gas to meet limited peak demands.
10. Lost/Unaccounted-for Gas – The difference between the quantity of natural gas received into a system and the quantity of gas delivered out of a system over a specific period of time.
11. Mat Modules – Movable storage facility (i.e. high pressure gas cylinders are connected together to form a bundle that are used to store natural gas).
12. Natural Gas Vehicle (NGV) – A natural gas vehicle uses conventional combustion engines modified to run on natural gas.
13. Operational/working gas capacity is typically less than design capacity due to additional practical constraints (e.g. for a storage tank it excludes the cushion gas).
14. Peak output – The maximum rate at which gas can be withdrawn from storage.
15. Period of operation - This indicates the period during which the piped-gas facility has been in operation during the reference period.
16. Planned outages (or planned maintenance down time) – Scheduled interruption of a facility for maintenance.
17. Third-party access – The contracted right of a party, who is neither owner nor co-owner, to access the facilities.
  - 1.17.1. Transmission pipeline third-party access – The ability of third parties to make use of a pipeline owned by others to transport (transmission of) piped-gas.
  - 1.17.2. Storage facility third-party access – The ability of third parties to make use of a piped-gas storage facility owned by others to store piped-gas.
18. Storage Bank – A number of seamless steel high pressure cylinders grouped together and connected through a series of pipelines.
19. Swing Gas – Gas bought on short-notice to meet unexpected daily demands not covered under long-term contracts.
20. Throughput – The total of all gas volume moved through a piped-gas facility, including sales, own use, storage, transportation and exchange.
21. Types of storage capacity:
  - 1.21.1. *depleted oil and gas fields* that are naturally capable of containing the gas and have existing installations for the injection and withdrawal of the gas;
  - 1.21.2. *aquifers* which may be used as storage reservoirs provided that they have suitable geological characteristics. The porous sedimentary layer must be overlaid by an impermeable cap rock; and
  - 1.21.3. *salt cavities* that may exist naturally or be formed by injecting water and removing the brine. They are generally smaller than the reservoirs provided by depleted oil and gas fields or aquifers, but offer very good withdrawal rates and are well suited for peak-shaving requirements.



22. Unplanned outages (or unplanned maintenance down time) – Unscheduled interruption of a system for maintenance.
23. Uncommitted capacity – Capacity determined by the Energy Regulator, in terms of Regulation 6(14) for transmission pipelines and Regulation 6(13) for storage facilities, that is not required to meet contractual obligations.
24. Working gas capacity – The total gas storage capacity minus cushion gas (cushion gas: total volume of gas required as a permanent inventory to maintain adequate underground storage reservoir pressures and deliverability rates throughout the output cycle).
25. Working Gas – Volume of gas present in a storage facility which is available for withdrawal. Not all of the working gas may be utilised in a given year due to cycle volume constraints and hence will vary over the course of the year. This volume of working gas is in addition to the cushion gas volume.
26. Long term storage

#### **1.4 Preamble**

The National Energy Regulator of South Africa (NERSA or ‘the Energy Regulator’) requires sufficient and accurate information from regulated entities in order to make well-informed decisions on issues of market supply and demand, competition development, service quality, service availability, financial health of the regulated entities and setting/approval of fair and reasonable tariffs aligned with the public interest.

To gather that information, the Energy Regulator is issuing this Non-Financial Information (NFI) Manual, in addition to the already issued Regulatory Reporting Manuals (RRM), to guide the licensees in recording and regularly submitting to the Energy Regulator its non-financial information, both in a systematic and consistent way.

The goal is to have regular, systematic, consistent, and sufficient non-financial information relevant to economic regulation, to enhance the efficiency and transparency of the regulatory process.

The NFI Manual is in three volumes, Volume 5, Volume 6 and Volume 7, with each volume being for the respective regulated industry. This Volume 6 contains piped-gas industry specific prescription, guidance, definitions, measurement/calculation approach, reporting time frames, and reporting templates.

#### **1.5 NERSA Legislative Mandate to Prescribe Reporting Requirements**

The legal basis on which NERSA requires NFI is in terms of the following:

- Gas Act, 2001 (Act No. 48 of 2001) (‘the Gas Act’).

- Regulations in Terms of the Gas Act, 2001 (Act No. 48 of 2001) ('the Regulations').
- The Regulatory Agreement Between the Minister of Minerals and Energy, the Minister of Trade and Industry and Sasol Limited in Terms of Section 36 of the Gas Bill with regard to a Project to Import Natural Gas from Mozambique ('the Regulatory Agreement').
- The Gas Regulator Levies Act, 2002 [Act No. 75 of 2002 ('the Levies Act')].

#### **1.5.1 Gas Act, 2001 (Act No. 48 of 2001) ('the Gas Act')**

Pursuant to Section 4(b) of the Gas Act, the Gas Regulator must, as appropriate, in accordance with this Act, gather information relating to the production, transmission, storage, distribution, trading, liquefaction and re-gasification of gas.

Pursuant to Section 14(e) of the Gas Act (on Reporting by the Gas Regulator), the annual report for public entities required in terms of the Public Finance Management Act, 1999 (Act No. 1 of 1999), must be accompanied by information on the position regarding health and safety in the industry.

In order for the Energy Regulator to fulfil this reporting requirement, NERSA is prescribing that the licensee submit a copy of any report made to an inspector in compliance with section 24 of the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) ('the OH&S Act').

Pursuant to Section 21 (1) (b) of the Gas Act, the Energy Regulator may impose as a licence condition that licensees must provide information to the Gas Regulator on the commercial arrangements regarding the participation of Historically Disadvantaged South Africans (HDSAs) in the licensees' activities as prescribed by regulation and other relevant legislation.

Pursuant to Section 21(1)(u) of the Gas Act, the Energy Regulator may impose as a licence condition that licensees must provide information necessary for the Energy Regulator to perform its functions .

Pursuant to Section 28 (2) of the Gas Act, the owner of an operation involving any of the activities of production or importation of gas, or an activity referred to in items 1 and 2 of Schedule 1, must provide the Gas Regulator with such information concerning the activities of the operation as may be prescribed.

Pursuant to Section 29(1)(a) of the Gas Act, for the purposes of this Act, any person authorised thereto in writing by the Gas Regulator, may at all reasonable times enter any property on which a licensed activity is taking place and inspect any facility, equipment, machinery, book, account or other document found thereat.

Pursuant to Section 29(1)(b), the Gas Regulator may require any person to furnish the Gas Regulator with such information as may be necessary for the proper application of this Act.

Pursuant to Section 29(2) of the Gas Act, The Gas Regulator may require that the accuracy of any information furnished in terms of subsection 29 (1) be verified on oath or by way of a solemn declaration.

Pursuant to Section 34 of the Gas Act, after consultation and duly considering public comments, the Minister may by notice in the *Gazette* make regulations regarding, among others, the rendering of any relevant information to the Energy Regulator.

## **1.5.2 Regulations in terms of the Act**

### **1.5.2.1 Trading volumes and pricing information**

Pursuant to regulation 4 (8), licensees may be required to file contracts signed with customers with the Gas Regulator.

Pursuant to Regulation 4 (11) (a), in order to promote price transparency and the prevention of discrimination, trading licensees must provide the Gas Regulator, within three months of the end of each calendar year, with the annual volume and average price for that year for each of its customers consuming less than 10 million Gigajoules per annum.

### **1.5.2.2 Information regarding Historically Disadvantaged South Africans**

Pursuant to Regulation 5(1), information regarding HDSAs provided by licensee to the Energy Regulator must include:

- (a) the number of shareholders from historically disadvantaged background and their respective shareholding in the licensee;
- (b) the number and positions of HDSAs who are members of the Board of Directors of the licensee;
- (c) the number of HDSAs who hold senior management positions in the licensee;
- (d) the quantity and percentage of subcontracted work to companies with more than 50% ownership by HDSAs;
- (e) proof of compliance with the Employment Equity Act, 1998 (Act No. 55 of 1988); and
- (f) plans for and actions taken to develop HDSAs in the gas sector through training, procurement and enterprise development.

### **1.5.2.3 Third-party access to transmission pipelines**

Pursuant to Regulation 6(11) of the Regulations, a transmission licensee must lodge with the Gas Regulator its guidelines for the use of the transmission system within the first year following implementation of these regulations.

Pursuant to Regulation 6(14) The Gas Regulator must, when determining the uncommitted capacity for transmission pipelines, consider the following elements:

- (a) contractual commitments of the transmission licensee;
- (b) variation/s in pipeline capacity from one segment to another;
- (c) potential to increase pipeline capacity by additional compression, line packing, backhauling, parallel lines, peak storage facilities;
- (d) temperature and pressure differences;
- (e) load profile and swing requirements;
- (j) gas specifications; and
- (g) whether or not capacity allocations are being used to limit access to the transmission facilities.

It is implied by Regulation 6(14) that the licensee must provide the specified information to the Energy Regulator in order for the Energy Regulator to determine uncommitted capacity for transmission pipelines.

### **1.5.2.4 Third-party access to storage facilities**

Pursuant to Regulation 7 (1), a storage facility licensee must lodge with the Gas Regulator its guidelines for the use of the system within the first year following implementation of these regulations.

The Energy Regulator must, when determining the uncommitted capacity for storage facilities, consider the following elements:

- (a) contractual commitments;
- (b) type of storage facility;
- (c) cushion gas requirements;
- (d) load profile and swing requirements;
- (e) particular range of specifications of gas; and
- (f) whether or not capacity allocations are being used to limit access to the storage facilities.

It is implied by Regulation 7(1) that the licensee is hereby mandated to provide the specified information to the Energy Regulator in order for the Energy Regulator to determine uncommitted capacity for storage facilities.

#### **1.5.2.5 Registration information**

Pursuant to Regulation 9(1), a person contemplated in section 28 (1) <sup>1</sup> of the Act must provide the following information to the Gas Regulator:

- (a) the actual and planned production quantities and specification details of gas including gas intended for own use;
- (b) the sources, specifications and quantity of imported gas; and
- (c) the gas reserves data measured in trillions of cubic feet.

The above information must be furnished to the Gas Regulator within three months of the end of each calendar year. If during a calendar year there is any substantial change in this information provided, the person/s concerned must notify the Gas Regulator in writing thereof.

#### **1.5.2.6 Rehabilitation of land**

Pursuant to Regulation 11(1), a licensee must, not later than six months prior to termination, relinquishment or abandonment of licensed activity, submit to the Gas Regulator a plan for approval for the closure, removal and disposal, as the case may be, of all installations relating to the licensed activity.

Pursuant to Regulation 11(4), licence conditions may include the provision of environmental performance bonds for rehabilitation purposes and the composition and amount of such guarantees.

Pursuant to Regulation 11(6), the Gas Regulator may require confirmation in writing from a licensee that it is in compliance with the requirements of the National Environmental Management Act, 1998 (Act No. 107 of 1998).

#### **1.5.2.7 Determination of gas specifications where gas is/is to be comingled**

Regulation 13(2), the determination of gas specifications must be governed by:

- (a) the chemical composition of the gas involved;
- (b) the calorific values;
- (c) the combustion properties including the Wobbe index;

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<sup>1</sup> An owner of an operation involving any of the following activities must register the operation with the Gas Regulator

(a) the production or importation of gas; or

(b) an activity referred to in items 1 and 2 of Schedule 1.

*Item 1.* Any person engaged in the transmission of gas for that person's exclusive.

*Item 2.* Small biogas projects in rural communities not connected to the national gas.

- (d) the pressure and temperature of the gas at point of entry to shared systems; and
- (e) the relevant additional components that may be determined by the Gas Regulator.

It is implied by Regulation 13(2) that the licensee must provide the specified information to the Energy Regulator in order for the Energy Regulator to determine gas specifications where gas is/is to be comingled.

#### **1.5.2.8 Rendering of information to the Energy Regulator**

Pursuant to Regulation 17(1) (b), a licensee must submit to the Gas Regulator an updated plan of the distribution network and details of availability for public inspection.

Also, pursuant to Regulation 17(1) (c), a licensee must submit to the Gas Regulator the annual volume, average charges and name and address for each of its customers consuming less than 10 million Gigajoules per annum for the applicable financial year of the licensee.

#### **1.5.3 The Regulatory Agreement**

The Regulatory Agreement between the Minister of Minerals and Energy, the Minister of Trade and Industry and Sasol Limited in Terms of Section 36 of the Gas Bill with regard to a Project to Import Natural Gas from Mozambique expired on 25 March 2014. The Energy Regulator will be responsible for the administration of clause 4 of the Agreement which, pursuant to clause 17, will remain valid until 25 March 2029. The National Energy Regulator will only be required to monitor the supply volumes obligations imposed on Sasol Gas in terms of clause 4 of the Agreement. It is therefore implied that the Energy Regulator must be provided with the requisite information to fulfil its functions as envisaged in this agreement.

#### **1.5.4 The Gas Regulator Levies Act**

Pursuant to Section 2 (2) of the Levies Act, the levies imposed must be based on the amount of gas, measured in gigajoules, delivered by importers and producers to inlet flanges of transmission or distribution pipelines.

#### **1.6 National Energy Regulator Act on Functions of the Energy Regulator**

In terms of section 4(a) of National Energy Regulator Act, 40 of 2004, the Energy Regulator must undertake the functions of the Gas Regulator as set out in section 4 of the Gas Act.

The powers and duties of Energy Regulator in terms of Sections 4 of the Gas Act are:

The Energy Regulator must, as appropriate, in accordance with this Act:

- (a) issue licence for:
  - (i) construction of gas transmission, storage, distribution, liquefaction and re-gasification facilities,
  - (ii) conversion of infrastructure into transmission, storage, distribution, liquefaction and re-gasification facilities,
  - (iii) operation of gas transmission, storage, distribution, liquefaction and re-gasification facilities, and
  - (iv) trading in gas;
- (b) gather information relating to the production, transmission, storage, distribution, trading, liquefaction and re-gasification of gas;
- (c) issue notices in terms of section 26(1) and, if necessary, take remedial action in terms of section 26(2);
- (d) undertake investigations and inquiries into the activities of licensees;
- (e) consult with government departments and other bodies and institutions regarding any matter contemplated in this Act;
- (f) consult with government departments and gas regulatory authorities of other countries to promote and facilitate the construction, development and functioning of gas transmission, storage, distribution, liquefaction and re-gasification facilities and services;
- (g) regulate prices in terms of section 21(l)(p) in the prescribed manner;
- (h) monitor and approve, and if necessary regulate, transmission and storage tariffs and take appropriate action when necessary to ensure that they are applied in a non-discriminatory manner as contemplated in section 22;
- (i) expropriate land or any right in, over or in respect of such land as is necessary for the performance of a licensee's functions;
- (j) promote competition in the gas industry;
- (k) promote the optimal use of available gas resources;
- (l) make decisions that are not at variance with published Government policy;
- (m) publish from time to time a list of other legislation applicable to the gas industry;
- (n) perform any activity incidental to the performance of its functions;
- (o) make rules in accordance with section 34(3); and
- (p) exercise any power or perform any duty conferred or imposed on it under any law.

To fulfil these functions, the Energy Regulator employs a range of regulatory tools, and the NFI Manual is one tool for collecting information required to perform its functions stated above.

## **1.7 Purpose of the NFI Manual**

The purpose of this Non-Financial Information (NFI) Manual is to prescribe and provide guidance to licensees in order to achieve uniformity in measurement, consistent and regular

preparation and reporting of non-financial information required by the Energy Regulator to perform its functions that are stated in Section 1.6 above.

The application of this NFI Manual will assist in bringing certainty to non-financial information regulatory reporting requirements, provide an adequate information base required by the Energy Regulator, improve transparency in the regulatory process and enhance regulatory efficiency.

### **1.8 Applicability of the NFI Manual**

NFI Manual applies to all Piped-Gas Industry entities regulated by NERSA. In this regard, the NFI is designed for use by:

- a. each regulated entity's regulatory personnel;
- b. any other person appointed by the Energy Regulator to conduct the verifications/inspections envisaged by the Act; and
- c. NERSA regulatory staff.

### **1.9 Disclaimer**

Inclusion of any item prescribed in the NFI Manual does not necessarily imply the Energy Regulator's acceptance of such information, for its decision-making, as supplied by the licensee.

Although the use of this NFI Manual is expected to lead to more complete/comprehensive submissions of the required NFI, there will still be certain well-justified circumstances when additional information would be required in order to fully clarify a specific aspect of a matter under consideration by the Energy Regulator.

## **2 NFI Categories**

The required information has been grouped in to two categories, namely static data and dynamic data.

### **2.1 Static information**

Static information is that NFI that has already been collected by NERSA (once off) from the licensees at the time of license application.

Licensees should therefore note that, after licensing, static information will not be collected again while it remains unchanged from what originally submitted.

The static information section is included in this Manual in order to amalgamate all NFI required/used or in the possession of NERSA in to one point of reference. This amalgamation



makes the Manual a complete single source of reference of NFI in order to engender regulatory efficiency for all the users of the NFI Manual identified in section 1.8 of this Manual.

## **2.2 Dynamic information**

Dynamic information will be collected from the licensees periodically such as; monthly, annually or on license anniversary date, as the case may be. The dynamic information is the core of the NFI Manual and will also be used internally by NERSA.

The dynamic information forms backbone of the performance and compliance monitoring metrics to be derived from the NFI reports submitted by the licensees. Examples of these metrics to be derived by NERSA and published are shown in section 14 of this Manual.

The following table summarises the required dynamic information that will be explained further in the ensuing sections.

### 2.2.1 Dynamic NFI for piped-gas industry (Summary Table)

Manual Section	Required information (Dynamic)	Licensed Activity						Registered Owners of Operations*
		Transmission	Storage	Distribution	Trading	Liquefaction	Re-gasification	
3.2.1	Position regarding health and safety in the industry	Yes	Yes	Yes	Yes	Yes	Yes	
3.2.2	Information regarding HDSA participation	Yes	Yes	Yes	Yes	Yes	Yes	
3.2.3	Third (3 <sup>rd</sup> ) party access –Transmission Pipelines	Yes						
4.2.3	Third (3 <sup>rd</sup> ) party access –Storage facilities		Yes					
3.2.4	Rehabilitation of land	Yes	Yes	Yes	Yes	Yes	Yes	
3.2.5	For determination of gas specifications where gas is/will be comingled	Yes	Yes	Yes	Yes	Yes	Yes	
3.2.6	Gas volumes in terms of the Gas Regulator Levies Act	Yes		N/A				
3.2.7	Gas volume balance/variance report in terms of the Regulatory Agreement	Yes						
5.2.7	Updated Plan of Distribution Network			Yes				
5.2.8	Details of Distribution Network availability			Yes				
6.2.6	Trading volumes & pricing/charges; Contracts signed with customers				Yes			
9.1	Actual production quantities							Yes
	Planned production quantities							Yes
	Produced gas specifications							Yes
	Produced gas intended for own use							Yes
	Gas reserves data (tcf)							Yes
9.2	Sources of imported gas							Yes
	Specifications of imported gas							Yes
	Quantity of imported gas							Yes
	Gas reserves data (tcf)							Yes
10	Service quality	Yes	Yes	Yes	Yes			
11	New/Constructions Works in Progress Reports	Yes	Yes	Yes	Yes	Yes	Yes	

\*Registration applicable to owners of operations contemplated by Section 28 of the Act.

### 3 Required Transmission NFI and Submission Timeframes

#### 3.1 Static NFI for Transmission Facilities

##### 3.1.1 Licensee Identification Information (Static)

**Note:** As already stated above all static information is only to be collected at time of a license application, meaning that it will not be collected by NERSA again, unless there is a change to it.

Information Required	Purpose (NERSA use)	Reporting Frequency	Report Due Date
Licensee name	Identification	Once off – lic. app	N/A
Profile (main business / production / facility)	Compliance	N/A – NERSA lic	N/A
Contact person	Identification	Whenever changed	Licence condition
Designation	Identification	Whenever changed	Licence condition
Tel no.	Identification	Whenever changed	Licence condition
Fax no.	Identification	Whenever changed	Licence condition
Email address	Identification	Whenever changed	Licence condition
Postal address	Identification	Whenever changed	Licence condition
Physical address	Identification	Whenever changed	Licence condition

##### 3.1.2 Transmission Facility Information (Static)

Information Required	Purpose (NERSA use)	Reporting Frequency	Report Due Date
Licensed facility name	Identification	Once off-at time of licence application	N/A
Site geographic location (GIS)	Identification	Once off	N/A
Area	Identification	Once off	N/A
Licence no.	Identification	Once off	N/A
Other licences granted	Identification	Once off	N/A
Type of a licence	Identification	Once off	N/A
Licence term (issue date)	Compliance	As changed	N/A
Licence term (years)	Compliance	As changed	N/A
Licence status	Compliance	As changed	N/A
Licence amendment date/s	Compliance	As changed	N/A
Tariff start date	Compliance	As changed	N/A
Tariff end date	Compliance	As changed	N/A
Licensed capacity	Identification	Once off	N/A
Length (Kilometres/meters)	Identification &	Once off	N/A

Information Required	Purpose (NERSA use)	Reporting Frequency	Report Due Date
of Pipeline	efficiency benchmarking		
Diameter (Inches) of Pipeline (inner and outer)	Identification & efficiency benchmarking	Once off	N/A
		Once off	N/A
Number of compressor stations	Identification & efficiency benchmarking	Once off	N/A
Servitudes measured in square meters	Identification & efficiency benchmarking	Once off	N/A
Technology	Identification	Once off	N/A

### 3.1.3 Transmission Pipeline Capacity/Design capacity (Static)

Information Required	Purpose (NERSA use)	Reporting Frequency	Report Due Date
Nameplate Rating	Capacity available	Once off	N/A
Nameplate Rating-specified operating conditions	Capacity available	Once off	N/A
Design outages/ maintenance downtime	Capacity available	Once off	N/A
Theoretical capacity	Capacity available	Once off	N/A
Working Capacity/ Total safe operating capacity	Capacity available, efficiency & safety	Once off	N/A

## 3.2 Dynamic NFI for Transmission Facilities

### 3.2.1 Position Regarding Health and Safety in the Industry (Dynamic)

Information Required	Purpose (NERSA use)	Reporting Frequency	Report due date
OH&SA Section 24 events <sup>2</sup>	Operational safety	Annually	FY+4 months*
Number of incidents of damage to licensed facilities caused by 3 <sup>rd</sup>	Operational safety	Annually	FY+4 months*

<sup>2</sup> (a) Incident in which, or in consequence of which any person dies, becomes unconscious, suffers the loss of a limb or part of a limb or is otherwise injured or becomes ill to such a degree that he is likely either to die or to suffer a permanent physical defect or likely to be unable for a period of at least 14 days either to work or to continue with the activity for which he was employed or is usually employed; (b) Incident in which or in consequence of which a major incident occurred; (c)(i) Incident in which or consequence of which the health or safety of any person was endangered and where a dangerous substance was spilled; (c) (ii) Incident in which or consequence of which the health or safety of any person was endangered and where the uncontrolled release of any substance under pressure took place; (c)(iii) Incident in which or consequence of which the health or safety of any person was endangered and where machinery or any part thereof fractured or failed resulting in flying, falling or uncontrolled moving objects; (c)(iv) Incident in which or consequence of which the health or safety of any person was endangered and where machinery ran out of control, shall, within the prescribed period and in the prescribed manner, be reported to an inspector by the employer or the user of the plant or machinery concerned, as the case may be.

Information Required	Purpose (NERSA use)	Reporting Frequency	Report due date
parties			
Assessed damages resulting from damages by 3 parties (Rands)	Operational safety	Annually	FY+4 months*
Encroachment on servitudes (square metres of servitude)	Operational safety	Annually	FY+4 months*

\* within four (4) months of end of licensee's financial year

### 3.2.2 Information regarding HDSA (Dynamic)

The Regulations require that the Energy Regulator must utilise this information in such a manner so as to facilitate the addressing of historical inequalities and to broaden the country's economic base and accelerate growth, job creation and poverty alleviation. The information acquired may also be used to create a scoring schedule mechanism to promote HDSAs.

Information Required	Purpose (NERSA use)	Reporting Frequency	Report Due Date
Number of shareholders from HDSA background	Broad Based Black Economic Empowerment (BBBEE) facilitation – Ownership	Annually	FY+4 months*
Respective % shareholding (ownership) of the shareholders from HDSA background	BBBEE facilitation – Ownership & control	Annually	FY+4 months*
Number Board Members from HDSA background	BBBEE facilitation – Ownership & control	Annually	FY+4 months*
Positions of Board Members from HDSA background	BBBEE facilitation – Ownership & control	Annually	FY+4 months*
Number of HDSA holding senior management positions	BBBEE facilitation	Annually	FY+4 months*
Number of HDSA in senior management positions	BBBEE facilitation	Annually	FY+4 months*
Quantity (Value) of subcontracted work to companies with more than 50% ownership by HDSA (Rands)	BBBEE facilitation	Annually	FY+4 months*
% of value of subcontracted work to companies with more than 50% ownership by HDSA	BBBEE facilitation	Annually	FY+4 months*
Proof of compliance with the Employment Equity Act, 1998 (Act No. 55, 1998)	BBBEE facilitation – Employment Equity	Annually	FY+4 months*
Plans for/to develop HDSA <ul style="list-style-type: none"> <li>• Training</li> <li>• Procurement</li> <li>• Enterprise development</li> </ul>	BBBEE facilitation	Annually	FY+4 months*
Actions taken to develop HDSA <ul style="list-style-type: none"> <li>• Training</li> <li>• Procurement</li> <li>• Enterprise development</li> </ul>	BBBEE facilitation	Annually	FY+4 months*

\*within four (4) months of end of the licensee's financial year

\*\* The Energy Regulator will adapt the BBBEE codes Scored Card published by DTI to create a **scoring schedule** mechanism contemplated by sub-Regulation 5(3), to promote historically disadvantaged South Africans.

### 3.2.3 Third-party access to transmission pipelines (Dynamic)

Information Required	Purpose (NERSA use)	Reporting Frequency	Report Due Date
Pipeline maximum design capacity	3 <sup>rd</sup> party access, uncommitted capacity	Annual	FY+4 months*
Contracted capacity that is fully utilised diurnal load profiles (at level of weekly average of the day-to-day values)	3 <sup>rd</sup> party access, uncommitted capacity	Annual	FY+4 months*
Contracted capacity that is currently not utilised diurnal load profiles (at level of weekly average of the day-to-day values)	3 <sup>rd</sup> party access, uncommitted capacity	Annual	FY+4 months*
Capacity needed for line pack for each transmission pipeline diurnal pattern (at level of weekly average of the day-to-day values)	3 <sup>rd</sup> party access, uncommitted capacity	Annual	FY+4 months*
Operational pressure daily versus – weekly average of daily on an annual basis	3 <sup>rd</sup> party access, uncommitted capacity	Annual	FY+4 months*
Operational temperature daily weekly average of daily on an annual basis	3 <sup>rd</sup> party access, uncommitted capacity	Annual	FY+4 months*
Requests received for 3 <sup>rd</sup> party access and responses given	3 <sup>rd</sup> party access, uncommitted capacity	Annual	FY+4 months*
Guidelines for the use of the transmission system	3 <sup>rd</sup> party access, uncommitted capacity	Once off	First year following implementation of the Regulations.

\* within four (4) months of end of the licensee's financial year

### 3.2.4 Rehabilitation of Land (Dynamic)

Information Required	Purpose (NERSA use)	Reporting Frequency	Report Due Date
Environmental performance bonds for rehabilitation purposes – composition	Rehabilitation of land	Annual	FY+4 months*
Environmental performance bond – amounts of such guarantees	Rehabilitation of land	Annual	FY+4 months*
Plan	Rehabilitation of land	Once off	No later than six (6) before cessation**

\* within four (4) months of end of the licensee's financial year

\*\*not later than six months prior to termination, relinquishment or abandonment of licensed activity

### 3.2.5 Gas specifications (Dynamic)

Information Required/ Description	Purpose (NERSA use)	Reporting Frequency	Report due date
Methane (%)	Product specifications	Once off	Upon request
Carbon dioxide (%)	Product specifications	Once off	Upon request
Nitrogen (%)	Product specifications	Once off	Upon request
Hydrogen Sulphide (%)	Product specifications	Once off	Upon request
Sulphur content (ppm)	Product specifications	Once off	Upon request
Oxygen (%)	Product specifications	Once off	Upon request
Inerts	Product specifications	Once off	Upon request
Higher Heating Value (MJ/SCM)	Product specifications	Once off	Upon request
Wobbe Index (MJ/SCM)	Product specifications	Once off	Upon request
Water Content (Mg/SCM)	Product specifications	Once off	Upon request
Hydrocarbon Dew point (degrees Celsius)	Product specifications	Once off	Upon request
Temperature (degree Celsius)	Product specifications	Once off	Upon request
Pressure (Pa/Bar)	Product specifications	Once off	Upon request
Volume (MGJ)		Once off	Upon request
Moisture content (%)	Product specifications	Once off	Upon request

### 3.2.6 Gas volumes in terms of the Gas Regulator Levies Act

Information Required/ Description	Purpose (NERSA use)	Reporting Frequency	Report Due Date
Volume of gas delivered by importers to inlet flanges of the transmission system	Imposition of levies	Monthly	
Volume of gas delivered by producers to inlet flanges of the transmission system,	Imposition of levies	Monthly	

### 3.2.7 Gas volumes variance in terms of the Regulatory Agreement

Information Required/ Description	Purpose (NERSA use)	Reporting Frequency	Report Due Date
Gas ex CPF	Regulatory Agreement volumes fulfilment	Monthly	
Gas delivered in Secunda, PPS	Regulatory Agreement volumes fulfilment	Monthly	
Gas delivered in Mozambique	Regulatory Agreement volumes fulfilment	Monthly	
Gas delivered to Matola	Regulatory Agreement volumes fulfilment	Monthly	
PPS Consumption	Regulatory Agreement volumes fulfilment	Monthly	

<b>Information Required/ Description</b>	<b>Purpose (NERSA use)</b>	<b>Reporting Frequency</b>	<b>Report Due Date</b>
Komatipoort consumption	Regulatory Agreement volumes fulfilment	Monthly	
Inventory prior year month	Regulatory Agreement volumes fulfilment	Monthly	
Inventory current year month	Regulatory Agreement volumes fulfilment	Monthly	
Adjustment factor (CPF modelled pressure/CPF actual pressure)	Regulatory Agreement volumes fulfilment	Monthly	

## **4 Required Storage NFI and Submission Timeframes**

### **4.1 Static NFI for Storage Facilities**

#### **4.1.1 Licensee Identification Information (Static)**

The required information is of a similar content, preparation and submission to under transmission static information pipeline above.

#### **4.1.2 Storage Facility License Information (Static)**

The required information is of a similar content, preparation and submission to under transmission static information pipeline above.

#### **4.1.3 Storage Facility Capacity/Design capacity (Static)**

The required information is of a similar content, preparation and submission to under transmission static information pipeline above.

### **4.2 Dynamic NFI for Storage Facilities**

#### **4.2.1 Position Regarding Health and Safety in the Industry (Dynamic)**

The required information is of a similar content, preparation and submission to that under transmission dynamic information.

#### **4.2.2 Information regarding HDSA (Dynamic)**

The required information is of a similar content, preparation and submission to that under transmission dynamic information



#### 4.2.3 Third-party access to Storage facilities (Dynamic)

Information Required	Purpose (NERSA use)	Reporting Frequency	Report Due Date
Type of storage facility	3 <sup>rd</sup> party access	Annual	FY+4 months*
Maximum design capacity	3 <sup>rd</sup> party access, uncommitted capacity	Annual	FY+4 months*
Contracted capacity that is fully utilised diurnal load profiles (at level of weekly average of the day-to-day values)	3 <sup>rd</sup> party access, uncommitted capacity	Annual	FY+4 months*
Contracted capacity that is currently not utilised diurnal load profiles (at level of weekly average of the day-to-day values)	3 <sup>rd</sup> party access, uncommitted capacity	Annual	FY+4 months*
Capacity needed for Cushion Gas/Base Gas each storage facility (diurnal pattern, at level of weekly average of the day-to-day values)	3 <sup>rd</sup> party access, uncommitted capacity	Annual	FY+4 months*
Operational pressure daily – weekly average of daily on an annual basis	3 <sup>rd</sup> party access, uncommitted capacity	Annual	FY+4 months*
Operational temperature daily weekly average of daily on an annual basis	3 <sup>rd</sup> party access, uncommitted capacity	Annual	FY+4 months*
Pressure daily versus design pressure daily on an annual basis	3 <sup>rd</sup> party access, uncommitted capacity	Annual	FY+4 months*
Requests received for 3 <sup>rd</sup> party access and responses given	3 <sup>rd</sup> party access, uncommitted capacity	Annual	FY+4 months*
Guidelines for the use of the storage system	3 <sup>rd</sup> party access, uncommitted capacity	Once off	First year following implementation of the Regulations.

\* within four (4) months of end of the licensee's financial year

#### 4.2.4 Rehabilitation of Land (Dynamic)

The required information is of a similar content, preparation and submission to that in under transmission dynamic information.

#### 4.2.5 Gas specifications (Dynamic)

The required information is of a similar content, preparation and submission to that under transmission dynamic information.

## **5 Required Distribution NFI and Submission Timeframes**

### **5.1 Static NFI for Distribution Facilities**

#### **5.1.1 Licensee Identification Information (Static)**

The required information is of a similar content, preparation and submission to under transmission static information pipeline above

#### **5.1.2 Distribution Facility Information (Static)**

The required information is of a similar content, preparation and submission to under transmission static information pipeline above

#### **5.1.3 Distribution Facility Capacity/Design capacity (Static)**

The required information is of a similar content, preparation and submission to under transmission static information pipeline above.

### **5.2 Dynamic NFI for Distribution Facilities**

#### **5.2.1 Position Regarding Health and Safety in the Industry (Dynamic)**

The required information is of a similar content, preparation and submission to under transmission dynamic information.

#### **5.2.2 Information regarding historically disadvantaged South Africans (Dynamic)**

The required information is of a similar content, preparation and submission to that under transmission dynamic information.

#### **5.2.3 Third (3rd) party access (Dynamic)**

Not applicable.

#### **5.2.4 Rehabilitation of Land (Dynamic)**

The required information is of a similar content, preparation and submission to that under transmission dynamic information.

#### **5.2.5 Gas specifications (Dynamic)**

The required information is of a similar content, preparation and submission to under transmission dynamic information.

### 5.2.6 Gas volumes in terms of the Gas Regulator Levies Act

The required information is of a similar content, preparation and submission to that under transmission dynamic information.

### 5.2.7 Updated plan of the distribution network (Dynamic)

Information Required	Purpose (NERSA use)	Reporting Frequency	Report Due Date
Updated Plan of Distribution Network	Licensed areas	Once off	N/A

### 5.2.8 Details of distribution network availability (Dynamic)

Information Required	Purpose (NERSA use)	Reporting Frequency	Report due date
		Annual	FY+4 months*
		Annual	FY+4 months*
		Annual	FY+4 months*

\* within four (4) months of end of the licensee's financial year

## 6 Required Trading NFI and Submission Timeframes

### 6.1 Static NFI for Trading Activity

#### 6.1.1 Licensee Identification Information (Static)

The required information is of a similar content, preparation and submission to under transmission static information pipeline above

#### 6.1.2 Trading Activity Facility Information (Static)

The required information is of a similar content, preparation and submission to under transmission static information pipeline above

#### 6.1.3 Trading Activity Facility Capacity/Design capacity (Static)

The required information is of a similar content, preparation and submission to under transmission static information pipeline above.

## **6.2 Dynamic NFI for Trading Activity**

### **6.2.1 Position Regarding Health and Safety in the Industry (Dynamic)**

The required information is of a similar content, preparation and submission to that under transmission dynamic information.

### **6.2.2 Information regarding historically disadvantaged South Africans (Dynamic)**

The required information is of a similar content, preparation and submission to that under transmission dynamic information.

### **6.2.3 Third (3rd) party access (Dynamic)**

Not applicable.

### **6.2.4 Rehabilitation of Land (Dynamic)**

The required information is of a similar content, preparation and submission to under transmission dynamic information.

### **6.2.5 Gas specifications (Dynamic)**

The required information is of a similar content, preparation and submission to that under transmission dynamic information.

### **6.2.6 Trading volumes and pricing information (Dynamic)**

For each of the licensee's customers consuming less than 10 million Gigajoules per annum and on a provincial basis.

<b>Information Required</b>	<b>Purpose (NERSA use)</b>	<b>Reporting Frequency</b>	<b>Report Due Date</b>
For each category of customers**	Price transparency and prevent discrimination	Annually	31 March*
Province of each customer	Price transparency and prevent discrimination	Annually	31 March*
Annual volume for each customer	Price transparency and prevent discrimination	Annually	31 March*
Average price for that year for each customer	Price transparency and prevent discrimination	Annually	31 March*
Contract signed with customers	Volumes and pricing	When required by Regulator	Case-by-case

\* within three (3) months of the end of each calendar year

\*\* categories of customers defined in Regulation 4(5)

## **7 Required Liquefaction NFI and Submission Timeframes**

### **7.1 Static NFI for Liquefaction Facilities**

### **7.1.1 Licensee Identification Information (Static)**

The required information is of a similar content, preparation and submission to under transmission static information pipeline above

### **7.1.2 Liquefaction Facility Information (Static)**

The required information is of a similar content, preparation and submission to under transmission static information pipeline above

### **7.1.3 Liquefaction Facility Capacity/Design capacity (Static)**

The required information is of a similar content, preparation and submission to under transmission static information pipeline above.

## **7.2 Dynamic NFI for Liquefaction Facilities**

### **7.2.1 Position Regarding Health and Safety in the Industry (Dynamic)**

The required information is of a similar content, preparation and submission to under transmission dynamic information.

### **7.2.2 Information regarding historically disadvantaged South Africans (Dynamic)**

The required information is of a similar content, preparation and submission to that under transmission dynamic information.

### **7.2.3 Third (3rd) party access (Dynamic)**

Not applicable.

### **7.2.4 Rehabilitation of Land (Dynamic)**

The required information is of a similar content, preparation and submission to that under transmission dynamic information.

### **7.2.5 Gas specifications (Dynamic)**

The required information is of a similar content, preparation and submission to under transmission dynamic information.

## **8 Required Re-gasification NFI and Submission Timeframes**

## **8.1 Static NFI for Re-gasification Facilities**

### **8.1.1 Licensee Identification Information (Static)**

The required information is of a similar content, preparation and submission to under transmission static information pipeline above

### **8.1.2 Re-gasification Facility Information (Static)**

The required information is of a similar content, preparation and submission to under transmission static information pipeline above

### **8.1.3 Re-gasification Facility Capacity/Design capacity (Static)**

The required information is of a similar content, preparation and submission to under transmission static information pipeline above.

## **8.2 Dynamic NFI for Re-gasification Facilities**

### **8.2.1 Position Regarding Health and Safety in the Industry (Dynamic)**

The required information is of a similar content, preparation and submission to under transmission dynamic information.

### **8.2.2 Information regarding HDSAs (Dynamic)**

The required information is of a similar content, preparation and submission to under transmission dynamic information.

### **8.2.3 Third (3rd) party access (Dynamic)**

Not applicable.

### **8.2.4 Rehabilitation of Land (Dynamic)**

The required information is of a similar content, preparation and submission to that under transmission dynamic information.

### **8.2.5 Gas specifications (Dynamic)**

The required information is of a similar content, preparation and submission to that under transmission dynamic information.

## 9 Registered Owners of Operations<sup>3</sup> in terms of S. 28 of the Gas Act

### 9.1 The Production of Gas

Information Required	Purpose (NERSA use)	Reporting Frequency	Report Due Date
Actual production quantities	Section 4(b) of the Act	Annually	31 March*
Planned production quantities	Section 4(b) of the Act	Annually	31 March*
Produced gas specifications	Section 4(b) of the Act	Annually	31 March*
Produced gas intended for own use	Section 4(b) of the Act	Annually	31 March*
Gas reserves data (tcf)	Section 4(b) of the Act	Annually	31 March*

\* within three (3) months of the end of each calendar year

### 9.2 The Importation of Gas

Information Required	Purpose (NERSA use)	Reporting Frequency	Report Due Date
Sources of imported gas		Annually	31 March*
Quantity of imported gas		Annually	31 March*
Specifications of imported gas		Annually	31 March*
Gas reserves data (tcf)		Annually	31 March*

\* within three (3) months of the end of each calendar year

## 10 Service Quality (Dynamic)

### 10.1 Service enquiries

Information Required	Purpose (NERSA use)	Reporting Frequency	Report Due Date
Number of enquiries received	Quality of service	Annually	FY+4 months*
Positive responses given	Quality of service	Annually	FY+4 months*
Negative responses given	Quality of service	Annually	FY+4 months*
Average response time	Quality of service	Annually	FY+4 months*
Shortest response time	Quality of service	Annually	FY+4 months*
Longest response time	Quality of service	Annually	FY+4 months*

### 10.2 Complaints

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<sup>3</sup> An owner of an operation involving any of the following activities must register the operation with the Gas Regulator

(a) The production or importation of gas; or

(b) an activity referred to in items 1 and 2 of Schedule 1.

*Item 1.* Any person engaged in the transmission of gas for that person's exclusive

*Item 2.* Small biogas projects in rural communities not connected to the national gas

Information Required	Purpose (NERSA use)	Reporting Frequency	Report Due Date
Total number of complaints	Quality of service	Annually	FY+4 months*
Type of complaints <ul style="list-style-type: none"> <li>Pricing errors</li> <li>Invoice errors</li> <li>Service disruptions</li> </ul>	Quality of service	Annually	FY+4 months*
Service disruptions <ul style="list-style-type: none"> <li>Number of disruptions reported</li> <li>Total of customers affected</li> <li>Shortest duration of disruption</li> <li>Longest duration of disruption</li> <li>Average duration of disruptions</li> <li>Total duration (hrs/days)</li> </ul>	Quality of service	Annually	FY+4 months*
Average time taken to resolve complaints/disputes <ul style="list-style-type: none"> <li>For each type of complaint</li> <li>Total</li> </ul>	Quality of service	Annually	FY+4 months*

### 10.3 Non-compliance notices

Information Required	Purpose (NERSA use)	Reporting Frequency	Report Due Date
Number sent out	Quality of service	Annually	FY+4 months*
Number resolved	Quality of service	Annually	FY+4 months*

### 10.4 Disputes

Information Required	Purpose (NERSA use)	Reporting Frequency	Report Due Date
Number declared	Quality of service	Annually	FY+4 months*
Number resolved	Quality of service	Annually	FY+4 months*
Number outstanding	Quality of service	Annually	FY+4 months*
Number under arbitration	Quality of service	Annually	FY+4 months*

## 11 Construction Work in Progress (CWIP) Reporting

### 11.1 Key Milestones and Latest/Updated Forecast Final Cost (FFC)

Information Required	Purpose (NERSA use)	Reporting Frequency	Report Due Date
Construction status	CWIP monitoring	Licence condition	Bi-annually*
Deviations from licence conditions	CWIP monitoring	Licence condition	Bi-annually*
EPCM details	CWIP monitoring	Licence condition	Bi-annually*
Engineering construction status	CWIP monitoring	Licence condition	Bi-annually*
Construction period allowed	CWIP monitoring	Licence condition	Bi-annually*
Construction period elapsed	CWIP monitoring	Licence condition	Bi-annually*
Commissioning date	CWIP monitoring	Licence condition	Bi-annually*
Approved project cost/value	CWIP monitoring	Licence condition	Bi-annually*



Information Required	Purpose (NERSA use)	Reporting Frequency	Report Due Date
Actual expenditure to date	CWIP monitoring	Licence condition	Bi-annually*
Forecast Final Cost (FFC)	CWIP monitoring	Licence condition	Bi-annually*
% of completion (Forecast Vs Act.)	CWIP monitoring	Licence condition	Bi-annually*

\*or as specified in the respective construction licence conditions.

## 12 Measurement/Calculation

### 12.1 Units of measurement

The units of measurement shall be in both metric and non-metric (**refer to Annexure C for detailed information**)

### 12.2 Measurements and calculations

This section defines those items which are subject to different interpretations of measurement approaches to aid NERSA and the regulated industries in adopting a standard measure.

The items to be defined here are drawn from those required to be reported as per Section 0 of this Manual. These items and standard measurement approach to be adopted are as follows:

#### 12.3 Capacity – Pipelines

12.3.1 Design capacity = Nameplate Rating

12.3.2 Operational Capacity

12.3.3 Committed capacity –

12.3.4 Available uncommitted capacity = the difference between the estimated capacity of each line section as denoted on the system maps contained in this licence and the amount of capacity that has been reserved by shippers in each such line section.

12.3.5 Unutilised committed capacity =

#### 12.4 Capacity – Storage facility

12.4.1 Design capacity = Nameplate Rating

12.4.2 Operational Capacity

12.4.3 Committed capacity –

12.4.4 Available uncommitted capacity = the difference between the estimated capacity of each licensed storage facility and the amount of capacity that has been reserved by customers in each such storage facility.

12.4.5 Unutilised committed capacity =

#### 12.5 System availability

- 12.6 Diurnal load profile averaged weekly =
- 12.7 Daily ambient temperature averaged weekly =
- 12.8 Daily pressure average weekly =
  
- 12.9 Volume balance/variance error report calculations
  
- 12.10 HDSA Control – Percentage HDSA in directorship positions (both executive & non-executive) as a percentage of total directorship positions of the licensed entity.
- 12.11 Percentage of subcontracted work to companies with more than 50% ownership by HDSA – procurement spend on 50% HDSA-owned sub-contractors as a percentage of total procurement spend by the licensed entity.
- 12.12 Plans for and actions taken to develop HDSA.
  - 12.12.1 Training (capacity building) – Rands spent on skilling of black employees against licensed entity total; number of learnership opportunities for black employees against licensed entity total; number of training opportunities for black employees against licensed entity total.
  - 12.12.2 Procurement – HDSA spend and quantified effective benefit of preferential payment terms to BEE suppliers; credit terms of HDSA versus others; preferred supplier status.
  - 12.12.3 Enterprise development – financing; strategic partnerships; supportive & enabling environment created for business success.
  - 12.12.4 Compliance with Employment Equity Act – Employment Equity reports submitted to the Department of Labour for: focus on HDSAs when identifying candidates for overseas placement and training; identifying a talent pool and fast tracking it; ensuring inclusiveness of gender; implementing mentorship programmes and setting and publishing demanding targets.

## **13 Administrative Matters**

### **13.1 Responsibility for NFI Submission and Solemn Declarations**

The NFI must be submitted to the Energy Regulator by a responsible official appointed from time to time and duly authorised by the licensee to submit this information to the Energy Regulator. The Energy Regulator may require that this duly authorised responsible official verify the accuracy of the NFI information being submitted by way of oath/solemn declaration.

The NFI must be submitted electronically, and in the format prescribed in this NFI Manual, to the Energy Regulator. In exceptional circumstances, the Energy Regulator may provide for

non-electronic submissions, allowed by the Regulations, to cater for a licensee without electronic submission capabilities or when original hardcopies are required by the Energy Regulator.

### 13.2 Reporting Timeframes

The following is a summary, from the tables in sections 2.2.1, of the required reporting time frames for the various types of dynamic information to be submitted to the Energy Regulator:

Required information	Report due date
Position regarding health and safety in the industry	FY+4 months*
Information regarding HDSA participation	FY+4 months*
Third (3 <sup>rd</sup> ) party access – Transmission Pipelines uncommitted capacity Third (3 <sup>rd</sup> ) party access – Storage facilities uncommitted capacity	FY+4 months*
Rehabilitation of land	>=6 month prior to termination
For determination of gas specifications where gas is/will be comingled	ad hoc***
Gas volumes in terms of the Gas Regulator Levies Act	Financial Year end (March 31)
Gas volume balance/variance report in terms of the Regulatory Agreement	Monthly
Updated Plan of Distribution Network	FY+ 4 months
Details of Distribution Network availability	FY+4 months**
Trading volumes & pricing/charges; Contracts signed with customers	31 March*
Registered Owners of Operations <sup>4</sup> in terms of Section 28 of the Act	31 March*
Service quality	FY+4 months**
New Constructions Progress Reports	Respective licence conditions

\* within three (3) months of the end of each calendar year

\*\* within four (4) months of end of the licensee's financial year

\*\*\* only to be provided if/when comingling is expected to happen for that specific event only

### 13.3 Records

Each regulated entity must keep records supported by detailed information as will permit ready identification, examination, analysis and verification of all facts thereto.

The records shall be filed in such a manner as to be readily accessible for examination by authorised representatives of the Energy Regulator.

<sup>4</sup> An owner of an operation involving any of the following activities must register the operation with the Gas Regulator

(a) The production or importation of gas; or

(b) an activity referred to in items 1 and 2 of Schedule 1.

*Item 1.* Any person engaged in the transmission of gas for that person's exclusive

*Item 2.* Small biogas projects in rural communities not connected to the national gas

These records must be retained by the licensee for at least five (5) years.

#### **13.4 Publication and Confidentiality**

Section 8(9)(a) and Section 10(2) of the National Energy Regulator Act and Section 29(4) of Gas Act contain specific provisions on confidentiality of information.

The Energy Regulator will publish the non-financial information submitted by the licensees on its (the Energy Regulator's) website, but will exclude certain information contemplated in Sections 8(9) (a) and 10(2) of the National Energy Regulator Act and Section 29(4) of the Gas Act, determined to be confidential by the Energy Regulator. It is the responsibility of the regulated entity to promptly notify the Energy Regulator of information that should not be in the public domain by clearly marking the relevant information as such. Regulated entities are also encouraged to publish the non-confidential NFI on their respective websites.

#### **13.5 Effective Date and Implementation Costs of the NFI Manual**

The implementation phase will be for a period of at least three years starting from 01 April 2016. This 3 (three) year period is to enable the licensees to prepare, transition and start reporting according to this NFI Manual for all non-financial information submitted to NERSA.

The Energy Regulator may also approve a phased implementation to provide for any other justifiable circumstances that may warrant such an approach. Licensees are required to make appropriate arrangements to comply with the prescript and guidance contained in this NFI Manual.

Costs related to reporting in accordance with this NFI Manual should be treated in a similar manner and recovered in similar way as the licensee's other operating and maintenance expenses for the licensed activity.

Licensees are allowed to report on the NFI using Ms Excel spreadsheet for a period of at least 3 years (implementation phase) and thereafter the ER may consider using an automated system.

### **13.6 Review and Modification of the NFI Manual**

The Energy Regulator will conduct an initial review of the NFI Manual after 3 years from the effective date (1 April 2016).

Subsequent reviews will be done every five years to ensure that the contents of the NFI Manual reflect the legislative and regulatory circumstances existing at the time of the review.

The Energy Regulator also recognises that special circumstances may arise that may necessitate ongoing changes, perhaps more frequently than the envisaged five-year formal review cycle. This provision would therefore not preclude on-going incorporation by the Energy Regulator of justifiable changes that are considered necessary to immediately capture clarity, transparency and regulatory efficiency benefits.

The Energy Regulator will provide decisions on the interpretation of the various clauses of NFI, but any party will be entitled at any stage to take decisions of the Energy Regulator on review or appeal as contemplated in the enabling legislations.

## 14 Appendix A: Sample of Statistics/Metrics

The Energy Regulator will perform various analyses of the information submitted in accordance with this NFI Manual to perform its functions.

In addition, there are areas where the Regulations require that this information so submitted by licensees be published by the Energy Regulator. The following information requires publication according to the Regulations. The Energy Regulator will only publish this information in aggregated form as appropriate and as explained in this section of the Manual.

Required information	Publication obligated or Implied by Regulations	NERSA Intends Publication
Position regarding health and safety in the industry	Yes <sup>5</sup>	Yes
Information regarding HDSA participation	Yes <sup>6</sup>	Yes
Third (3 <sup>rd</sup> ) party access –Transmission Pipelines uncommitted capacity Third (3 <sup>rd</sup> ) party access –Storage facilities uncommitted capacity	Yes <sup>7</sup>	Yes
Rehabilitation of land		Yes
For determination of gas specifications where gas is/will be comingled		Yes
Gas volumes in terms of the Gas Regulator Levies Act		Yes
Gas volume balance/variance report to the Regulatory Agreement		Yes
Updated Plan of Distribution Network		Yes
Details of Distribution Network availability		Yes
Trading volumes & pricing/charges; Contracts signed with customers	Yes <sup>8</sup>	Yes
Registered Owners of Operations <sup>9</sup> in terms of Section 28 of the Act		Yes <sup>10</sup>

<sup>5</sup> The Energy Regulator Annual Report required in terms of PFMA must be accompanied by information regarding health and safety in the industry. The Energy Regulator's Annual Report is a public document.

<sup>6</sup> Sub-regulations 5(2), 5(3), and 5(4) prescribe the manner in which the Energy Regulator should use this information. Publication engenders the transparency in the way the information is used by the Regulator as contemplated by the Regulations.

<sup>7</sup> Implied from Sub-regulation 6(12)

<sup>8</sup> In terms of sub-regulations 4(11)(b), 4(11)(c) and 4(11)(d)

<sup>9</sup> An owner of an operation involving any of the following activities must register the operation with the Gas Regulator

(a) The production or importation of gas; or

(b) an activity referred to in items 1 and 2 of Schedule 1.

*Item 1.* Any person engaged in the transmission of gas for that person's exclusive.

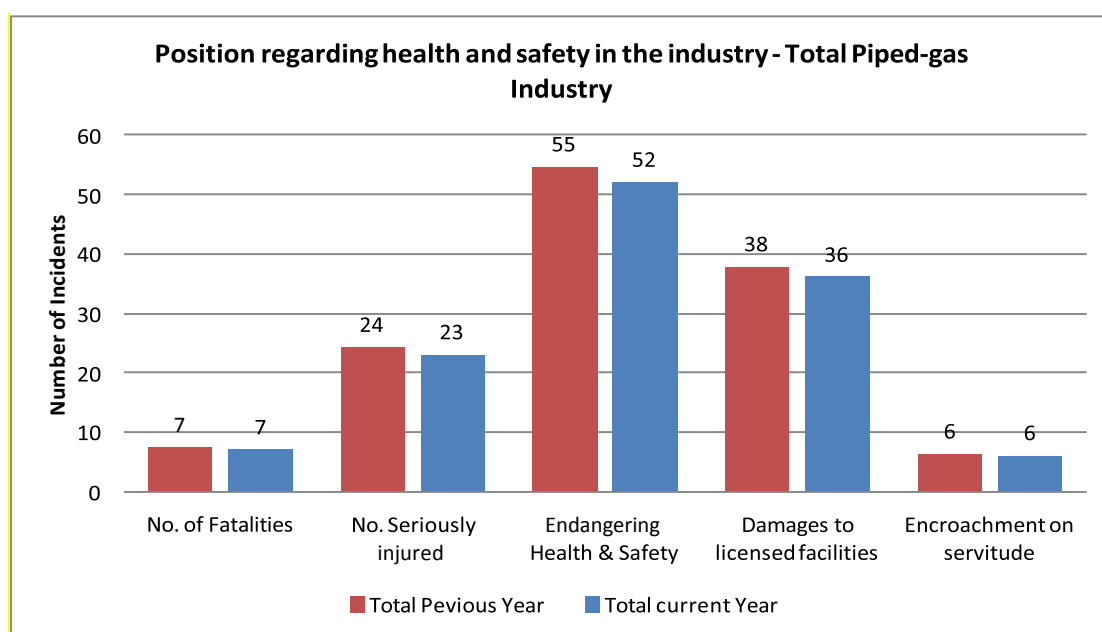
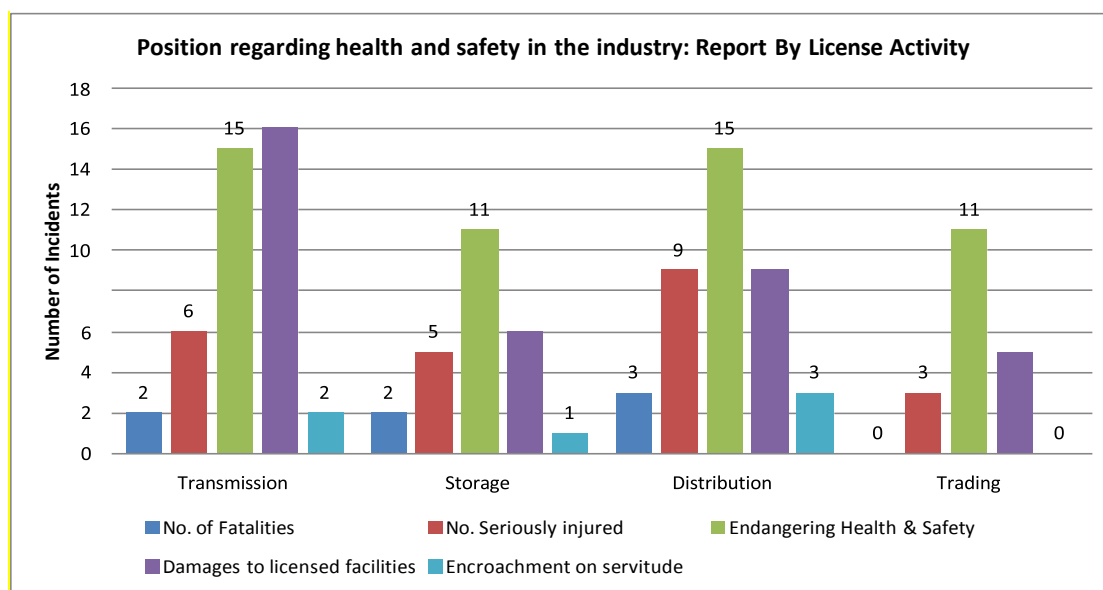
*Item 2.* Small biogas projects in rural communities not connected to the national gas.

<sup>10</sup> For purposes of tallying and input to the National Energy Flow Statistics of the Department of Energy.

Required information	Publication obligated or Implied by Regulations	NERSA Intends Publication
Service quality		Yes
New Constructions Work in Progress Reports		Yes

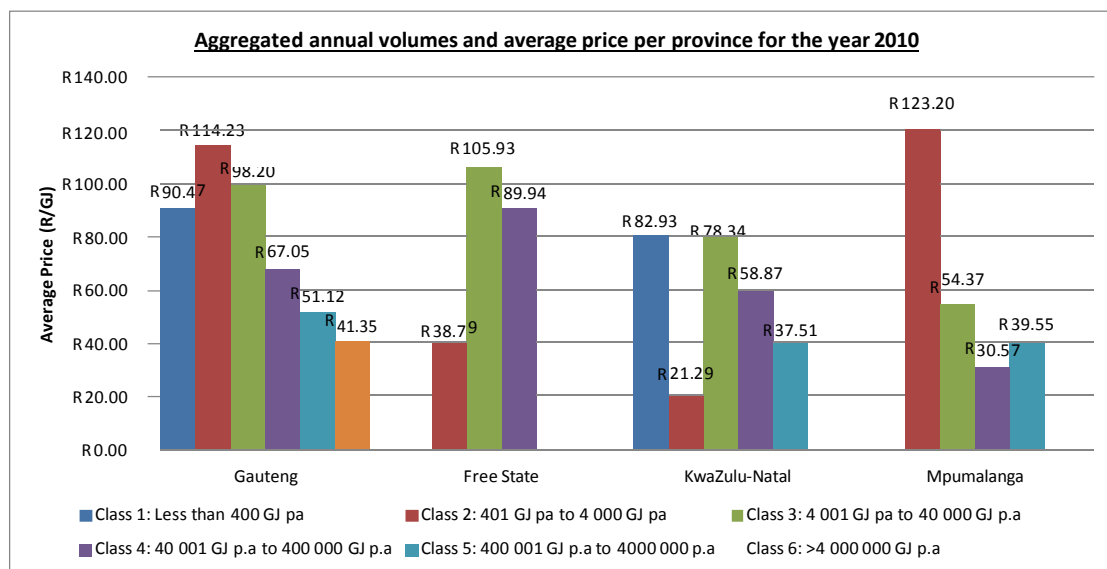
#### 14.1 Position regarding health and safety in the industry

The following is an example of aggregated information, by licensed activity, and year to year totals for the industry to be published:



## 14.2 Aggregated annual volumes average price per province

In order to promote price transparency and the prevention of discrimination, the Energy Regulator will publish aggregated results for categories of customers defined in Regulation 4 Sub-regulation 5 on a provincial basis in the following format (note that if there are less than three customers in a given category for a price, the Energy Regulator will only publish a price range for that category):



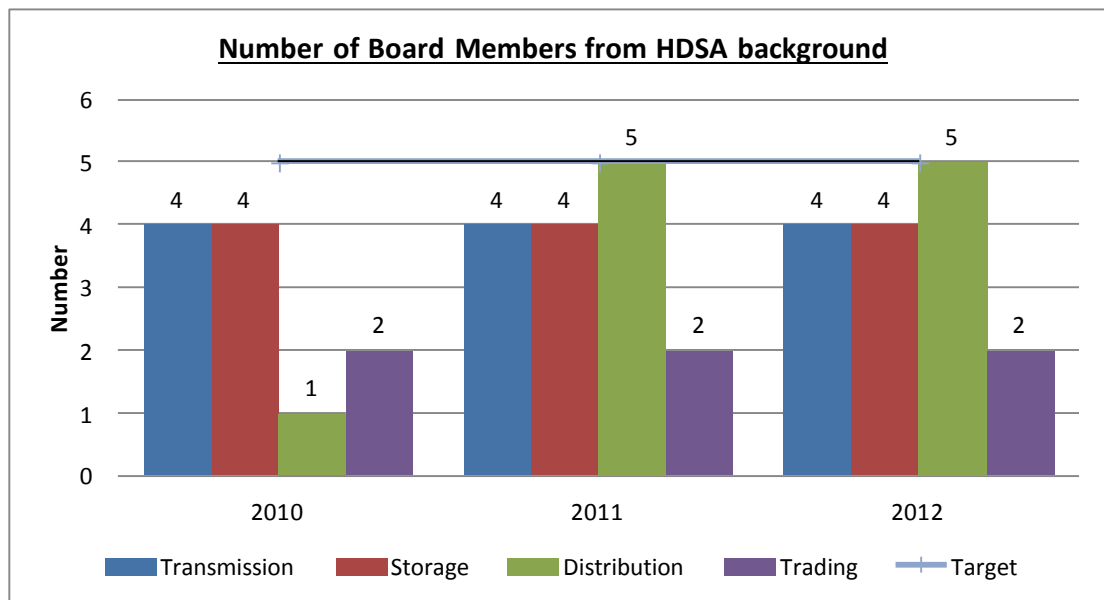
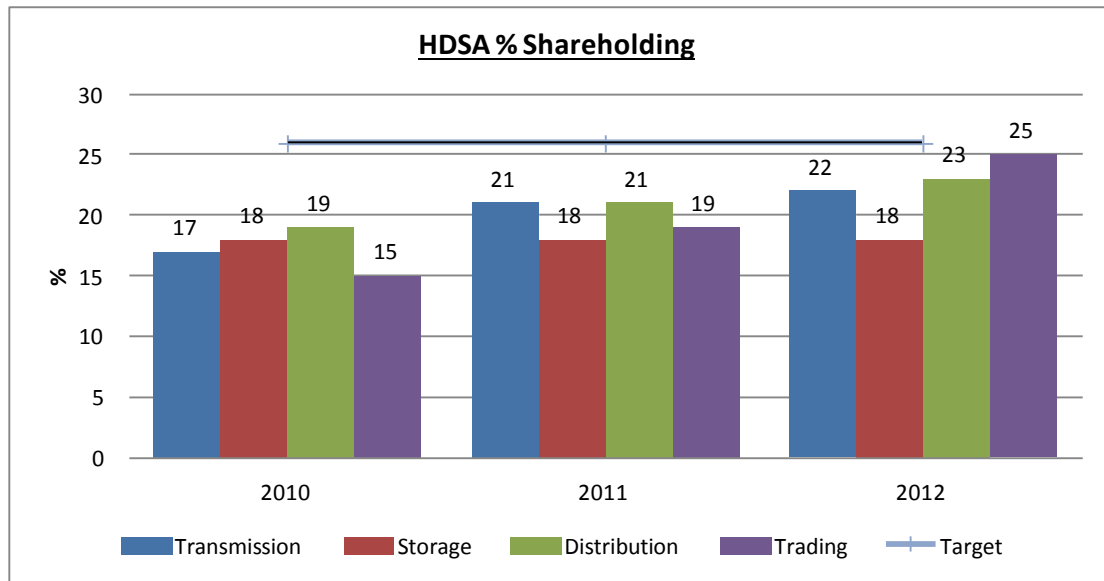
## 14.3 Information regarding Historically Disadvantaged South Africans

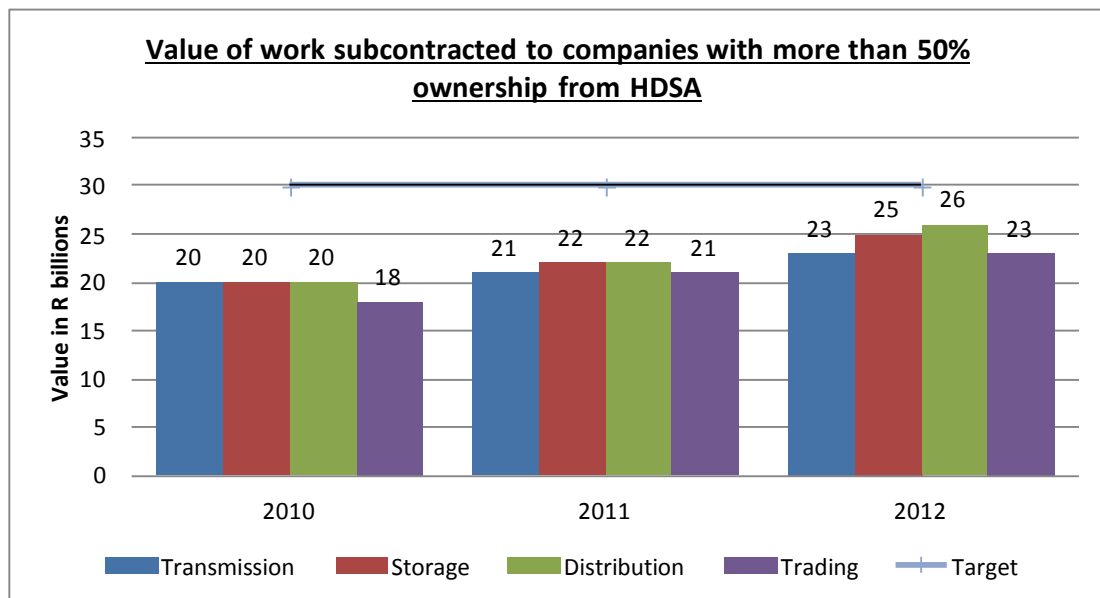
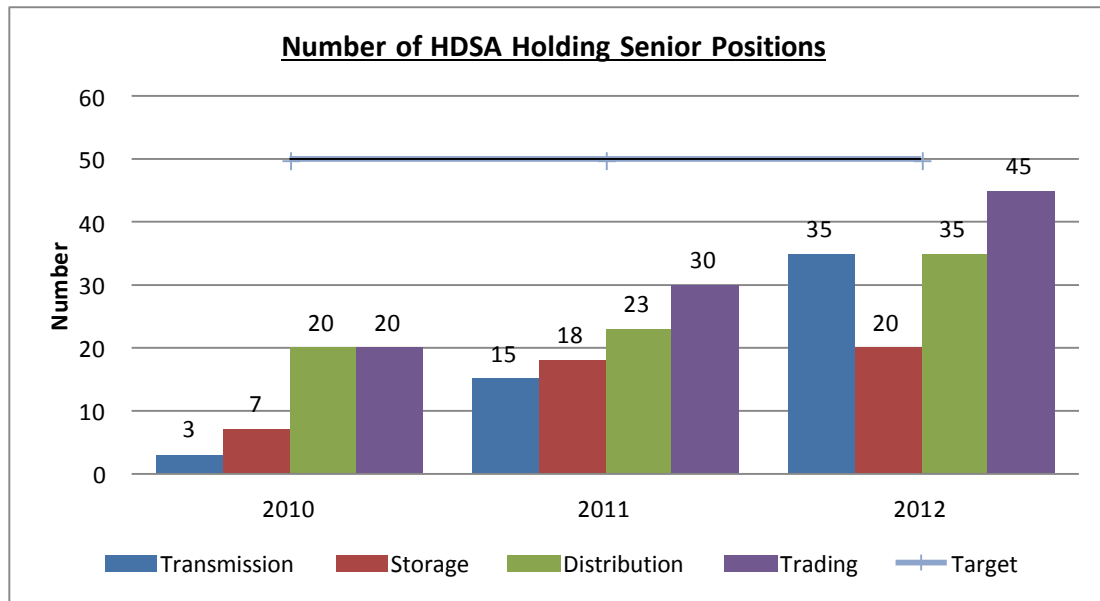
The Energy Regulator creates a scoring schedule mechanism, adapted from the Broad Based Black Economic Empowerment (BBBEE) codes published by the Department of Trade and Industry (DTI), for use to promote HDSAs. The scoring mechanism schedule must include:

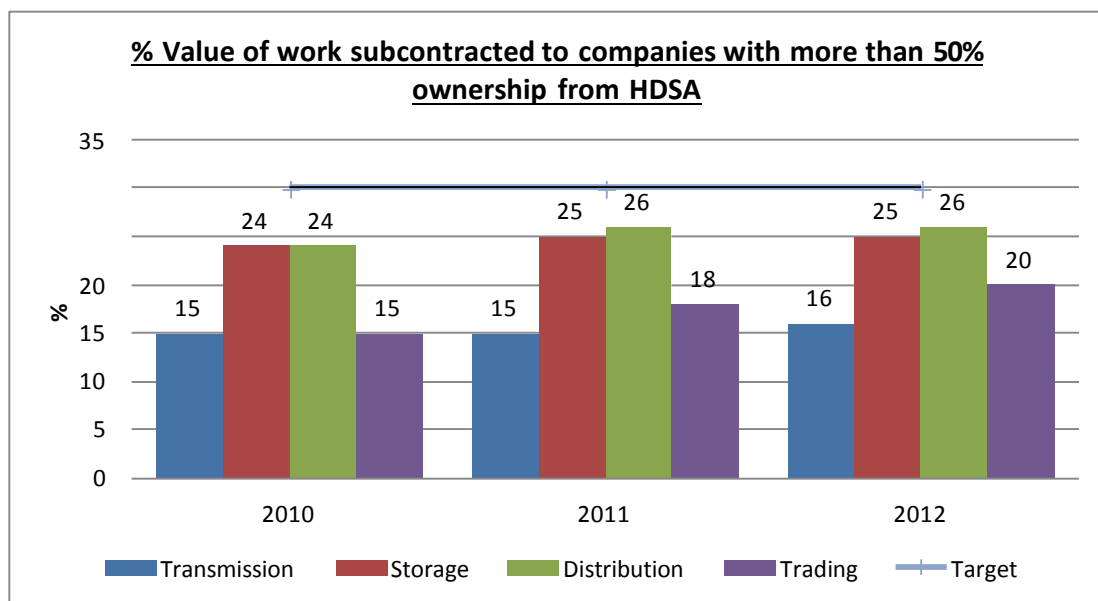
- (a) the core activities of the piped-gas industry;
- (b) HDSAs such as shareholders, directors, management and subcontractors;
- (c) target indicators;
- (d) weighting factors;
- (e) achievements; and
- (f) bonus provision for exceeding targets.

The Energy Regulator will then publish a graph (or table) showing actual performance against the scoring mechanism of the Energy Regulator. The following are examples.





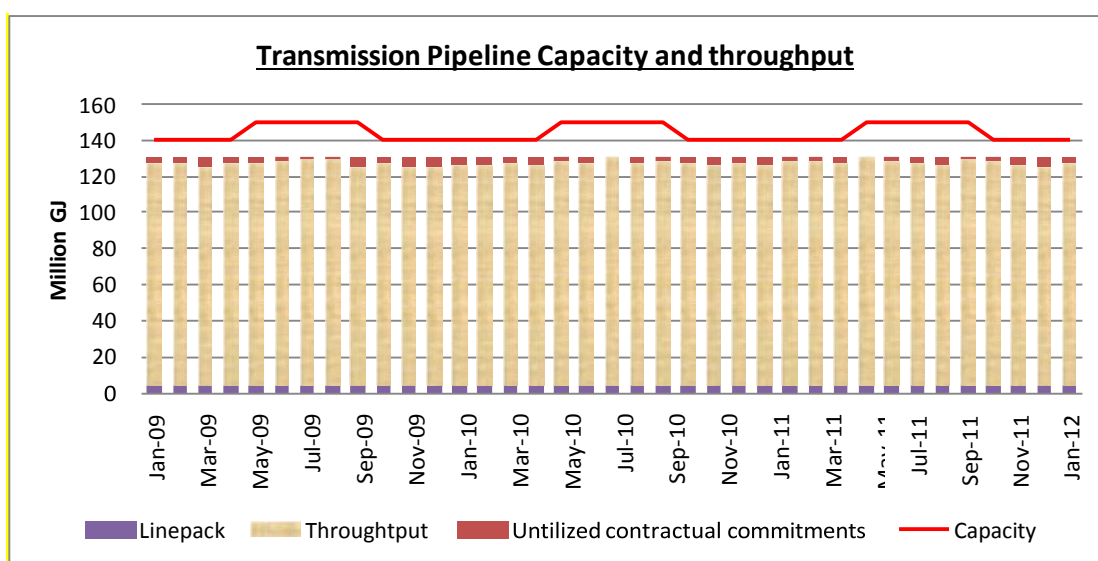




#### 14.4 Pipeline capacity and third-party access to transmission pipelines

The information contained in the guidelines referred to in sub-regulation (11) must be publicly available and be sufficient to enable potential customers to understand the procedure for obtaining access to a transmission pipeline, as well as to enter and conclude negotiations with the transmission licensee.

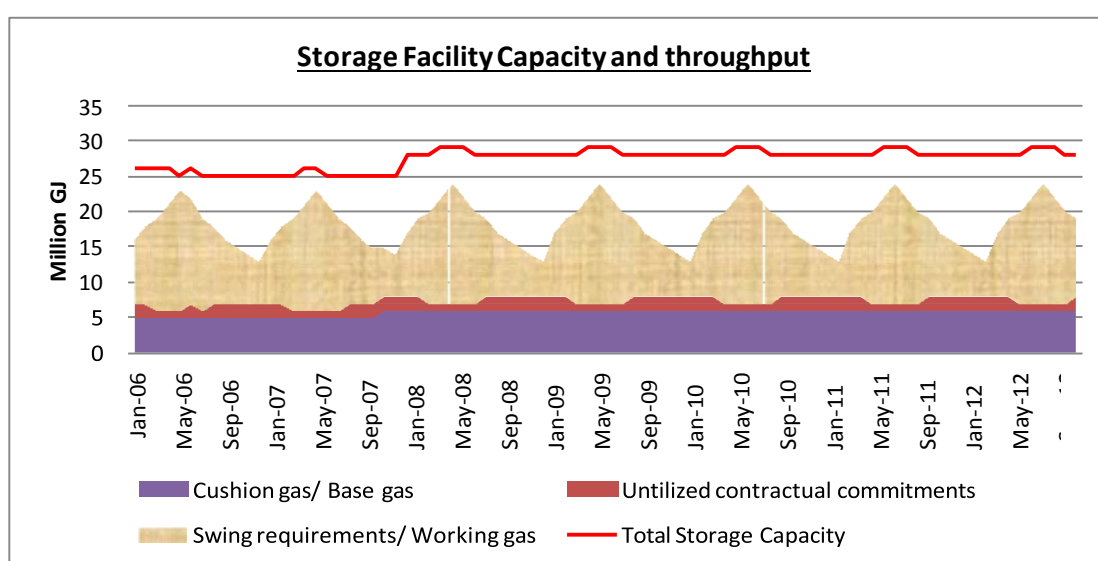
In addition, the available capacity will be determined from directly comparing the throughput or flow on a pipeline with its design/operational capacity available. The following graph(s) shows an example of how the Energy Regulator will publish this pipeline average monthly reported throughput compared with capacity for a regulated pipeline system.



## 14.5 Storage capacity and third-party access to piped-gas storage facilities

The information contained in the guidelines referred to in sub-regulation (10) must be publicly available and must be sufficient to enable potential customers to understand the procedure for obtaining access and to enter and conclude negotiations.

In addition, the available capacity will be determined from directly comparing the throughput on a storage facility with its design/operational capacity available. The following graph(s) shows an example of how the Energy Regulator will publish this storage facility average monthly reported throughput compared with its capacity.

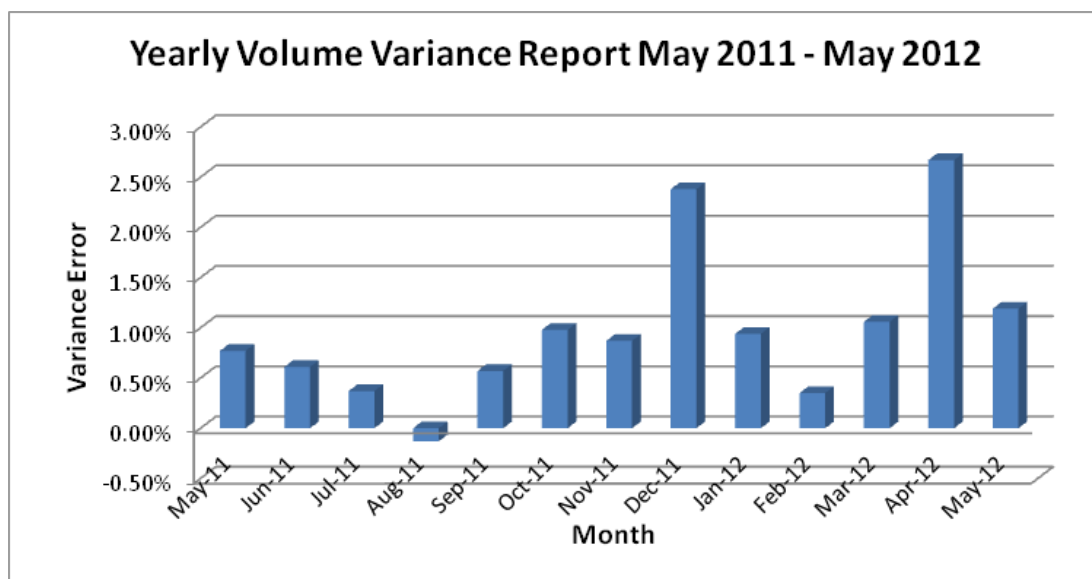


## 14.6 Determination of gas specifications for gas comingling

All the information requested and provided by the licensee will be published as provided by the licensee in the details shown in section 3.2.5. This publication will only be done on an ad hoc basis, whenever there is a new submission/changes submitted by licensees to the Energy Regulator.

## 14.7 Volume balancing error report

The same metrics as currently published under the volume balance report will be published. The following is an example of a graphical representation of the report to be published by the Energy Regulator:



## 14.8 Information from Registered owners of operations

### 14.8.1 Produced gas

The following information will be published in figures and graphical format by the Energy Regulator. The information will be aggregated for all registered persons for publication.

- The planned production quantities.
- The actual production quantities.
- The gas intended for own use.
- The gas reserves data measured in trillions of cubic feet.

In addition, the Energy Regulator will make this information available to the responsible government department for purposes of reporting the national energy flows balances statistics.

### 14.8.2 Imported gas

The following information will be published in figures and graph format by the Energy Regulator. The information will be aggregated for all registered persons for publication.

- Sources of imported gas.
- The imported gas quantities.
- The imported gas intended for own use.
- The gas reserves/inventories data measured in trillions of cubic feet.

In addition, the Energy Regulator will make this information available to the responsible government department for purposes of reporting the national energy flow balances statistics.

## 14.9 Service quality

A table will be published showing service quality standards against Energy Regulator Targets:

- Total number of complaints received.
- Type of complaints received:
  - Pricing errors
  - Invoice errors
  - Service disruption
    - Numbers of disruptions reported
    - Total number of customers affected by all disruptions reported
    - Shortest duration (hours or days) of disruption
    - Longest duration (hours or days) of disruption
    - Average time period of disruption (days or hours?) per disruption per customer
  - Total
- Average time taken to resolve complaints/disputes:
  - For each type of complaint
  - Total
- Non-compliance notices sent to licensee:
  - Number sent out
  - Number resolved
- Disputes:
  - Number declared
  - Number resolved
  - Number outstanding
  - Number under arbitration

## 14.10 Performance assessment metrics

Time series table (or graphs) showing total number of employees, average number of people employed, hours worked, etc.

The following NFI metrics use diameter of pipelines and length. The computation involves both fin and non-fin metrics:

- $OPEX / [\sum \text{Diameter} \times \text{Length (kms)}]$
- Net Plant / Length (kms)
- Capacity factor = the ratio of actual output/throughput to nameplate capacity
- Other measures that combined financial and non-financial information

### 14.11 Construction Progress

For each project:

- Capacity
- Number of facilities
- Construction Project Name/Licence Number (from static info)
- Construction period allowed (36 months standard) (from Static info)
- Construction period elapsed
- Key milestones (ROD, Construction, Commission, etc)
- Costs information
  - Approved project costs/value
  - Project costs to date
  - Forecast Final Cost (FFC)
- % of completion achieved (in bar chart format on P249) based on project GANTT chart.

Aggregates for all projects per licensee:

- Capacity
- Number of facilities
- # of completed construction
- # of construction in progress
- # of constructions not started
- # of constructions on hold
- # of construction licenses revoked

### 14.12 Consistency of Numbering and Coding Convention

The Energy Regulator already issued the Regulatory Reporting Manuals (RRM) for the collection of Financial Information. In RRM Volume 3 for the Piped-Gas Industry, the Energy Regulator prescribed the following Activity and Gas Type/Network Codes for use in the submission of financial information.

Classification by Activity Code		Gas type/Network or Product	
<u>Activity Code (AA)</u>	<u>Activity</u>	<u>Gas Code (GGG)</u>	<u>Gas type/Network or Product</u>
21	Transmission	080	Gas Pipeline Network Service
22	Storage	090	Gas product – Natural gas
23	Distribution	095	Gas Product – Methane-rich gas

24	Trading		
25	Liquefaction		
26	Re-gasification		
27	General Plant		
28	Unclassified Plant		

The Energy Regulator will ensure consistency of the numbering convention with RRM.

#### **14.12.1 Energy Flow Balances Reports**

The Energy Regulator will correlate the information reported by licensee, under the NFI, to prevailing national activity classifications used/issued by the Department of Energy to ensure harmonisation and ease of tallying of National Energy Statistics.



## **15 Appendix B: Reporting Templates**

- 15.1 Piped-gas transmission templates
- 15.2 Piped-gas storage facilities templates
- 15.3 Piped-gas distribution templates
- 15.4 Piped-gas trading templates
- 15.5 Piped-gas liquefaction templates
- 15.6 Piped-gas re-gasification templates
- 15.7 Piped-gas production/imports templates

## **16 Appendix C: Measurement/Calculation**

### **16.1 Units of measurement**

1. Bar gauge (barg) – unit of Pressure defined as a 100 kilopascals relative to the measured local pressure (effect of a force applied to a surface/an area or amount of force acting per unit area)
2. Cubic metres (m<sup>3</sup>) – A unit of volume measure to describe storage capacity. A thousand litres (1,000L) is equal to one cubic metre (1m<sup>3</sup>)
3. Density (kg/m<sup>3</sup>) – mass of the material per unit volume
4. Giga – a prefix used to denote 10<sup>9</sup> units
5. Joule – is a precise measure of energy and work, defined as the work done when a constant force of 1 Newton is exerted on a body with mass of 1 gram to move it a distance of 1 metre. 1 kilowatt-hour (KWh) = 3.6 x 10<sup>6</sup> joules
6. Kilo Pascal (kPa) – 1,000 Pascal
7. Kilo (k) – a prefix used to denote 1,000 units
8. Mega – a prefix used to denote 1,000,000 units (10<sup>6</sup>)
9. Pascal – the SI unit of measuring pressure (Newton per square meter)
10. Peta – a prefix used to denote 10<sup>15</sup> units
11. Standard Cubic feet (cf) – A unit of volume measure to describe capacity
12. Temperature – physical property of matter that quantitatively express the notion of whether it is hot or cold
13. Tera – a prefix used to denote 10<sup>12</sup> units
14. Viscosity (Pascal seconds-Pa.s/centipoise-cP) – quantity measure that describes fluid resistance to flow, and its unit of measure is Pascal second centipoises

## 16.2 Unit Conversions

	multiply by						
	cm = Nm <sup>3</sup>	cf = ft <sup>3</sup>	mmBtu	GJ	Mcal	kWh	boe
cm		35.31	0.0411	0.0433	10.35	12.03	0.0071
cf	0.0283		0.0012	0.0012	0.2930	0.3407	2.005 x 10 <sup>-4</sup>
mmBtu	24.36	860.1		1.055	252.0	293.1	0.1724
GJ	23.08	815.2	0.9478		238.8	277.8	0.1634
Mcal	0.0967	3.413	0.0040	0.0042		1.163	6.842 x 10 <sup>-4</sup>
kWh	0.0831	2.935	0.0034	0.0036	0.8598		5.883 x 10 <sup>-4</sup>
boe	141.3	4,989	5.8	6.119	1,462	1,700	

Note: 1 PetaJoule (PJ) = 1 million GigaJoule (GJ)

	multiply by				
	Joule (J) = Nm	kilowatt-hour (kWh)	kilocalorie (kcal)	horsepower hours (metric)	British thermal unit (Btu)
J		2.778 x 10 <sup>-7</sup>	2.388 x 10 <sup>-4</sup>	3.777 x 10 <sup>-7</sup>	9.478 x 10 <sup>-4</sup>
kWh	3,600,000		859.8	1.360	3,412
kcal	4,187	0.0012		0.0016	3.968
hp-h (metric)	2,647,796	0.7355	632.4		2,510
Btu	1,055	2.931 x 10 <sup>-4</sup>	0.2520	3.985 x 10 <sup>-4</sup>	

	multiply by							
	cubic metre (m <sup>3</sup> )	cubic inch (in <sup>3</sup> )	cubic foot (ft <sup>3</sup> )	cubic yard (yd <sup>3</sup> )	litre (ℓ)	Imperial gallon liquid (imp. gal.)	US gallon liquid (US gal.)	Oil barrel (US bbl)
m <sup>3</sup>		61,024	35.31	1.308	1,000	220.0	264.2	6.290
in <sup>3</sup>	1.639 x 10 <sup>-5</sup>		5.787 x 10 <sup>-4</sup>	2.143 x 10 <sup>-5</sup>	0.0164	0.0036	0.0043	1.031 x 10 <sup>-4</sup>
ft <sup>3</sup>	0.0283	1,728		0.0370	28.32	6.229	7.481	0.1781
yd <sup>3</sup>	0.7646	46,656	27		764.6	168.2	202.0	4.809
ℓ	0.001	61.02	0.0353	0.0013		0.22	0.2642	0.0063
imp. gal.	0.0045	277.4	0.1605	0.0059	4.546		1.201	0.0286
US gal.	0.0038	231	0.1337	0.005	3.785	0.8327		0.0238
US bbl	0.159	9,702	5.615	0.2079	159	34.97	42	