

Republic of Mozambique Pipeline Investments Company (Pty) Ltd

NETWORK CODE

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1. INTRODUCTION

The governments of Mozambique and South Africa entered into a Cross Border Agreement in 2001 to facilitate the trade in natural gas between the two countries. The Republic of Mozambique Pipeline Company (ROMPCO or Transporter) signed the Pipeline Agreement with the Government of Mozambique to construct, own and operate the MSP for the transportation of natural gas from the CPF in Mozambique to markets in Mozambique and South Africa. The Pipeline Agreement constitutes ROMPCO's license in Mozambique to own and operate the MSP and to transmit Gas. The Pipeline Agreement was also incorporated into South African legislation, by reference thereto in Section 36 of the Gas Act.

In Mozambique the operation of the MSP is governed by the Petroleum Law. The Instituto Nacional de Petróleo (INP) is in the process to develop and implement a tariff methodology to regulate the transportation of piped gas in Mozambique.

In South Africa, The National Energy Regulator of South Africa (NERSA) is mandated in terms of the National Energy Regulator Act, 2004 (Act No. 40 of 2004) (NERSA Act) to regulate the piped gas industry in terms of the Gas Act.

Section 21(1)(d) of the Gas Act states that third parties must, in the prescribed manner, have access on commercially reasonable terms to uncommitted capacity in transmission pipelines. Piped Gas Regulations 6(11), promulgated in April 2007 in terms of the Gas Act, require a transmission licensee to submit guidelines for access by third party shippers to such licensee's transmission facilities to the Gas Regulator.

This document sets out the guidelines and the procedure for third parties to gain access to the MSP and capacity and to become Shippers and the subsequent operational and commercial responsibilities of ROMPCO and such Shippers (the "Code"). The purpose of this Code is to make publicly available the information which enables potential shippers to understand the procedure for obtaining access to ROMPCO's Transmission Facilities, as well as to enter into negotiations with ROMPCO for the conclusion of a GTA.

This Code includes:

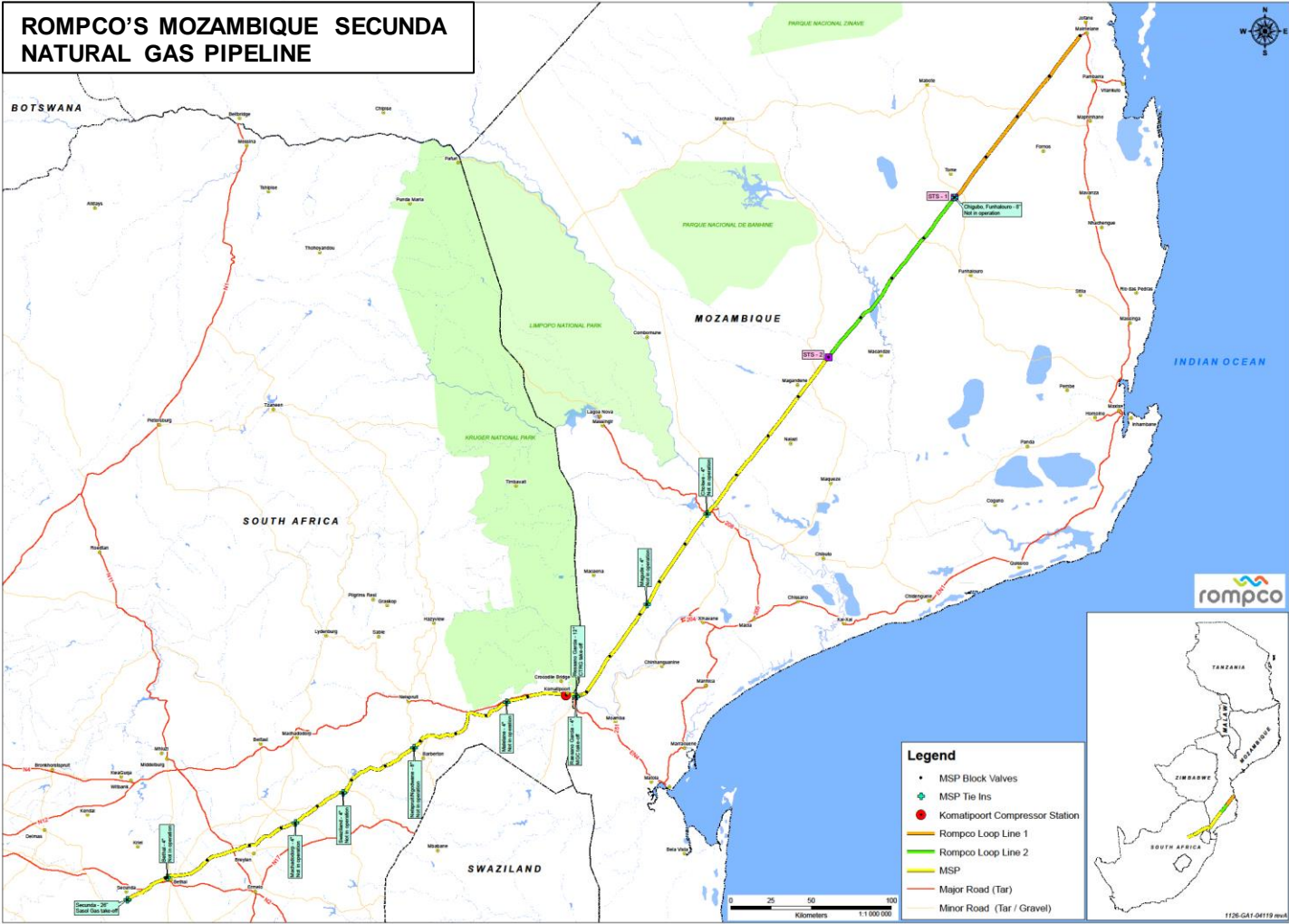
- A detailed description of the gas transmission system indicating all Entry and Exit Points;
- All ownership boundaries;
- Method by which a Shipper may request a tariff;
- Contractual terms and conditions;
- Technical requirements for access to the network; and
- The process to request access.

2. GAS REGULATION

The Parties acknowledge that this Code is subject to the Petroleum Law of Mozambique and the Gas Act of South Africa and all Parties shall with respect to this Code comply fully with the applicable provisions and the Regulations promulgated respectively under the said Petroleum Law and the Gas Act.

3. DESCRIPTION OF TRANSPORTER TRANSMISSION FACILITY

ROMPCO's assets consist of a 26 inch, 865 km high-pressure cross border gas transmission pipeline from near Temane in Mozambique to Secunda in South Africa, a high pressure customer meter station at Ressano Garcia, a compressor station at Komatipoort, a pressure protection station situated in Secunda, office buildings in Nelspruit and Matola and 2 loop lines. Loop Line 1 (LL1) is from the CPF that connects back into the MSP at scraper trap station one (STS1), 128 km south of the CPF, and Loop Line 2 is from STS1, where LL1 ends to scraper trap station two (STS2) 127 km south of STS1.



4. DEFINITIONS

- 4.1 **"ASQ" or "Annual Shipment Quantity"** means, in respect of a Contract Year, an agreed quantity of Shipper Gas in MGJ (pro-rated in respect of any Contract Year which is more or less than one calendar year), provided that the ASQ in respect of the first Contract Year shall be agreed by the Transporter and the Shipper;
- 4.2 **"Bar" or "Barg"** is as defined in ISO 80000-1: 2009/Cor 1:2011;
- 4.3 **"Business Day"** means any day of the week other than a Saturday, Sunday or public holiday as gazetted by the government of the Republic of South Africa from time to time;
- 4.4 **"Contract Year"** means a period of time commencing at 0:00 on the first Day of July of one contract year and expiring at 23:59 on the last Day of June of that contract year (if not specified differently in the individual agreements);
- 4.5 **"Code" or "Network Code"** means this document and all the Annexures hereto;
- 4.6 **"Cubic Metre"** means with respect to Gas a quantity of one (1) standard cubic meter of gaseous hydrocarbons at a temperature of 15° Celsius (15°C) and at a pressure of one point zero one three two five (1.01325) Bar absolute and dry;
- 4.7 **"CPF"** means the central processing facility situated near Temane and consisting of the gathering lines and processing facilities required to gather and process Gas that is owned and operated by the Field Contractor;
- 4.8 **"Day"** means a period of time commencing at 0:00 on any calendar day and ending at 23:59 on the same calendar Day and "Daily" shall be construed accordingly;
- 4.9 **"Deliver"** means delivery of Gas at the Exit Points as reflected in **Annexure "B"**;
- 4.10 **"Delivery Facility"** means such equipment, piping, gas treatment facilities and compressors as may be necessary to enable Gas to be delivered into the MSP that will be owned and operated by the Field Contractor;
- 4.11 **"Distribution System"** means all equipment, piping and facilities immediately downstream of the HPCMS that will be owned and operated by the Shipper;

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- 4.12 **"DSQ" or "Daily Shipment Quantity"** means the daily quantities of Shipper Gas based on ASQ in respect of a given Contract year divided by the number of Days comprising that Contract year;
- 4.13 **"Effective Date"** means the Effective Date of the GTA to which this Code shall be annexed;
- 4.14 **"Energy Content"** shall be measured "real" and shall mean that number of megajoules produced by the complete combustion at a constant pressure of 1.01325 Bar absolute of 1 cubic metre of gas at 15° C with excess air at the same temperature and pressure as the gas when the products of combustion are cooled at 15° C and when the water formed by combustion is condensed to the liquid state and the products of combustion contain the same total mass of water vapour as the gas and air before combustion;
- 4.15 **"Entry Specifications"** means the quality and pressure specifications set out in **Annexure "A"** attached hereto;
- 4.16 **"Entry Point"** means an inlet flange on the MSP connecting the Delivery Facility to the MSP;
- 4.17 **"Exit Point" or "Supply Point"** means the outlet flange(s) of the MSP which is owned and operated by the Transporter to which the HPCMS is connected;
- 4.18 **"Field Contractor"** means the party managing the Delivery Facility that supplies gas into the MSP;
- 4.19 **"Gas"** means a hydrocarbon substance in a gaseous phase Delivered by Shippers which conforms to the Specification;
- 4.20 **"Gas Act"** means the Gas Act Number 48 of 2001;
- 4.21 **"Gas Sampling Point"** means the gas sampling point which shall be installed, commissioned, operated, maintained, repaired and if applicable, replaced from time to time by the Shipper, at its cost;
- 4.22 **"Gas Transportation Agreement" or "GTA"** means the agreement between the Transporter and Shippers for the transportation of gas through the MSP;
- 4.23 **"Giga Joule" and "GJ"** means one billion (1,000,000,000) joules, as defined in ISO 80000-1: 2009/Cor 1:2011;

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- 4.24 **High Pressure Customer Meter Station” or “HPCMS”** means all the equipment after the Supply Point, which is required to deliver Shipper Gas at the appropriate pressure and amongst others includes Metering Equipment, filtering equipment, pressure reduction and regulating equipment and Gas heating equipment that is operated by the Transporter unless agreed otherwise and has an inlet pressure above 15 Barg;
- 4.25 **"Inlet Pressure"** means a maximum pressure of 124 Bar gauge at the Entry Point;
- 4.26 **"INP"** means Instituto Nacional de Petróleo in Mozambique (the National Petroleum Institute);
- 4.27 **“Interruptible Capacity”** means uncommitted capacity in the MSP in respect of which the Transporter, using reasonable endeavours, will seek to provide Transportation Services to all Shippers on an interruptible basis in accordance with the terms of their GTA's with the Transporter as determined with reference to their respective daily and weekly nominations;
- 4.28 **"Line pack"** means that quantity of Gas which a Reasonable and Prudent Operator would at any one time maintain in the MSP to enable Gas to be transported from the Entry Point(s) to the Exit Point(s);
- 4.29 **"Maximum Capacity of MSP"** means the maximum quantity of Gas that is capable of being transported on a guaranteed basis by means of the MSP after the provision of necessary compression, having regard to the design capacity of the MSP and the safe operation thereof in accordance with the standard of a Reasonable and Prudent Operator and for purposes of this Code such maximum design capacity of the MSP is currently 212 million gigajoule per annum on basis of the installed assets as indicated in paragraph 3;
- 4.30 **“MDSQ” or “Maximum Daily shipping Quantity”** means 110% of the ASQ or as defined in individual GTA's;
- 4.31 **"Mega Joule"** and **"MJ"** means one million (1,000,000) joules, as defined in ISO 80000-1: 2009/Cor 1:2011;
- 4.32 **“Measuring Equipment”** means measuring, testing and verification equipment, housings, devices and materials (together with all related equipment, appliances and buildings) which are required to measure, test and verify the quality or composition of Gas;
- 4.33 **“Metering Equipment”** means the equipment and infrastructure required to

continuously measure and record the quantity of gas flows to the Shippers;

- 4.34 **MGJ** or **"Million Giga Joule"** means one million billion (1,000,000,000,000,000) joules, as defined in ISO 80000-1: 2009/Cor 1:2011
- 4.35 **"Month"** means a period of time that starts on the 1st Day of any calendar month and ends on the last Day of the calendar month in question;
- 4.36 **"MSP"** or **"Mozambique Secunda Pipeline"** means the natural gas Transmission Pipeline and all the associated equipment and facilities that is owned and operated by the Transporter as described in clause 3 above;
- 4.37 **"NERSA"** means the National Energy Regulator of South Africa;
- 4.38 **"Off-Specification Gas"** means gas that does not conform to Specification;
- 4.39 **"Operator"** means the operator of the MSP which is Sasol Gas Limited in accordance with an operating and maintenance agreement with the Transporter;
- 4.40 **"Outlet Pressure"** means the pressure at the outlet of the HPCMS as defined in the individual GTA's;
- 4.41 **"Parties"** means either Shippers or Transporter as the context dictates and "Parties" means both Shippers and Transporter;
- 4.42 **"Properly Nominated Quantities"** means a quantity of Shipper Gas nominated by Shipper in accordance with agreed quantities and within agreed time limits as specified in the GTA;
- 4.43 **"Reasonable and Prudent Operator"** means a person seeking in good faith to perform its contractual obligations with that degree of skill, diligence, prudence and foresight as reasonably and ordinarily exercised by experienced operators engaged in the same line of business under the same or similar circumstances and conditions and in accordance with good operating practice including without limitation the applicable portions of ASME B31.8 (the operating standard for gas pipelines under pressure as published by the American Society for Mechanical Engineers) as it applies to the MSP;
- 4.44 **"ROMPCO"** means the Republic of Mozambique Investments Company (Pty) Ltd.;
- 4.45 **"Shipper"** means any party that enters into a Gas Transportation Agreement with the Transporter to convey Gas in the MSP;

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- 4.46 **“Shipper Gas”** means the Gas that the Shipper delivers or causes to be delivered at the Entry Point for transportation by the Transporter to the Supply Point in accordance with the terms of the GTA;
- 4.47 **“Shipper’s Receiving Facilities”** means the receiving facilities located at the Shipper’s site, constructed at Shipper’s cost and is owned and operated by the Shipper which connect to the HPCMS;
- 4.48 **“Specification”** means the specification of Gas as set out in Annexure A;
- 4.49 **“Strategic Line Pack”** means, at any given time, the volume of gas contained in the MSP, which is in excess of the Line Pack and the aggregate of all properly nominated quantities of Gas (including, if applicable, all Properly Nominated quantities of Shipper Gas), and which is required by the Operator at any given time to enable the Operator to transport properly nominated quantities of Gas as well as such additional quantity of Gas which may be required by the Operator to make reasonable provision for anticipated shutdowns and possible permitted short-deliveries by the Field Contractor, over-draws and possible upset conditions and other interruptions, as determined by the Operator in accordance with the operating philosophy of the MSP, and which volume of gas the Shipper shall have access to in accordance with the detailed provisions of the GTA regarding Access to Strategic Line Pack;
- 4.50 **“Supply”** means the making available of Gas for off take at an Exit Point;
- 4.51 **“Supply Pressure”** in respect of each Exit Point shall be the pressure determined in accordance the individual GTA’s;
- 4.52 **“Transportation Services”** means the Gas transportation services to be performed by or on behalf of the Transporter in accordance with the provisions of the GTA (including receipt of Properly Nominated Shipper Gas delivered by or on behalf of the Shipper at the Entry Point and delivery thereof at the Supply Point) it being agreed and recorded that where such transportation services are provided by the Transporter in respect of Interruptible Capacity, the transportation services shall be provided on an uncommitted and interruptible basis, it being agreed that failure by the Transporter to provide such transportation services shall not constitute a breach by the Transporter of the terms of the GTA where the Transporter has used reasonable endeavours to provide transportation services;
- 4.53 **“Transportation Tariff”** means the tariff payable by the Shipper to the Transporter expressed in Rand/GJ or any other currency as specified in the GTA for the transportation of Gas in terms of this Code;

4.54 “**Transporter**” means ROMPCO (Pty) Ltd.;

4.55 “**Uncommitted capacity**” means such capacity determined by the Transporter in the MSP that is not required to meet contractual obligations.

4.56 In this Code, unless the context otherwise requires:

- when any number of Days is prescribed in this Code, same shall be reckoned exclusively of the first and inclusively of the last Day unless the last Day falls on a Saturday, Sunday or public holiday, in which case the last Day shall be the next succeeding Day which is not a Saturday, Sunday or public holiday;
- reference to any statute, by-law, regulation, rule, delegated legislation or order will also include any amendments, modifications or replacements from time to time as well as any by-law, regulation, rule, delegated legislation or order made thereunder.
- Access to uncommitted capacity of transmission pipelines will be provided on a commercially reasonable basis. As per regulations 6(2), the allocation mechanism to be used, will comply with the following principles.
 - i. use-it-or-lose-it;
 - ii. non-discrimination; and
 - iii. defined time periods.

5 TRANSPORTATION OF GAS

The Field Contractor shall Supply Gas to the Transporter at the Entry Point at the CPF for transportation in and through the MSP and the Transporter shall transport to and deliver at the relevant Exit Points such Gas in accordance with the terms herein contained.

6 FACILITIES OBLIGATIONS

- 6.1 The Transporter shall at its cost provide transmission capacity in the MSP for the transportation of Gas and comply with and maintain the structural requirements of high pressure transmission pipelines.
- 6.2 The Transporter shall, at the Exit Points, supply, own and operate all piping, adaptors, and equipment necessary between the MSP and the inlet flange(s) of the HPCMS in order to connect such systems to the MSP, at the cost of the Transporter.

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- 6.3 All costs incurred to install a new HPCMS shall be for the Shipper's account. The HPCMS shall be operated by the Transporter, unless agreed otherwise.
 - 6.4 Shippers shall, to the standard of a Reasonable and Prudent Operator, operate and maintain their Receiving Facilities to enable them to meet their obligations in terms of this Code.
 - 6.5 Should the Parties need to undertake any maintenance in respect of their respective facilities which would disrupt or prevent the Delivery, Entry or Exit of Gas, they shall meet to discuss such maintenance and endeavour to coordinate it with the requirements of the Shippers' customers as defined in the individual GTA's.
 - 6.6 Should either of the Parties need to undertake any construction activities in respect of their respective facilities as provided for in this Clause 6 which would affect any Delivery, Entry or Exit of Gas, they shall meet to discuss such construction and the scheduling thereof and endeavor to coordinate it with the requirements of the Shippers' customers.
 - 6.7 During the duration of the GTA the Transporter shall, at its own cost:
 - 6.7.1 Provide, at the standard of a Reasonable and Prudent Operator, the MSP and related facilities to meet the Transporter's delivery obligations under the Code;
 - 6.7.2 Reserve in favour of Shippers such capacity within the MSP as may be necessary to enable Shippers to exercise their rights, and for the Transporter to fulfill its obligation in terms of this Code in respect of the transportation of Gas up to the current Maximum Capacity of MSP;
 - 6.7.3 Operate the MSP in accordance with the standard of a Reasonable and Prudent Operator;
 - 6.7.4 Operate a manned control room on a 24 (twenty-four) hour and 7 (seven) Days per week basis in respect of the MSP and provide Shippers with reasonable access to such information generated in the control room; The information requirements of the Shipper will be specified in the GTA;
 - 6.7.5 Maintain and repair the Transmission Facilities and all installations and replacements thereto in accordance with the standard of a Reasonable and Prudent Operator and all applicable laws and regulations (including

without limitation any and all applicable occupational health and safety and environmental legislation) and in such manner as shall keep the MSP in good working order and condition so as to ensure the efficient transportation of all contracted quantities of Gas.

7 EXIT POINTS (SUPPLY POINTS)

- 7.1 The Exit Points at which the Transporter shall Deliver and the Shipper shall off-take Gas for the duration of the relevant GTA are reflected in **Annexure “B”**.
- 7.2 Shippers may nominate the use of Exit Points in accordance with **Annexure “B”** at which the Transporter shall be obliged to Deliver by giving the Transporter not less than 18 (eighteen months) Months written notice prior to the date on which Shippers require to off-take Gas at such nominated Exit Point.
- 7.3 Shippers shall be responsible for and shall bear all associated costs, including but not limited to costs in respect of design, engineering and obtaining the applicable environmental approvals for the construction of the HPCMS which will be necessary to take delivery of Shipper Gas at any of the Supply Points. The project regarding the planning, development and construction of the HPCMS will be jointly managed by the Shipper and the Transporter and the design of the HPCMS must comply with the specifications of the Transporter. The HPCMS shall be operated by the Transporter, unless agreed otherwise, in terms of an operating and maintenance agreement, the terms and conditions of which will be agreed during the commercial negotiations between the Transporter and the Shipper.
- 7.4 The Shipper shall bear all associated costs, including but not limited to costs in respect of design, engineering and applicable environmental approvals associated with installing additional Supply Point(s), required by the Shipper, that is/are not included in **Annexure “B”**. The Shipper shall be required to provide a guarantee acceptable to and for the benefit of the Transporter prior to installation of an additional Supply Point.
- 7.5 The Transporter may only refuse the use of the MSP as proposed by Shippers if:
(a) the Maximum Capacity of MSP has been reached, or, (b) if the anticipated volumes do not justify extensions to the MSP where such extensions are to be undertaken at the cost of the Transporter, or, (c) if the proposed volume would cause the Maximum Capacity of MSP to be exceeded, or, (d) if the remaining downstream portion of the MSP will be rendered incapable of performing at the required operating levels, or, (e) where it may pose a safety risk.

8 LINE PACK / STRATEGIC LINE PACK

- 8.1 The Shipper shall be required to deliver and pay for a *pro-rata* share of the Strategic Line Pack at the commencement of the Transportation Services.
- 8.2 The Transporter shall deliver at the Supply Point a corresponding quantity of Shipper Gas equal to its *pro-rata* portion of the Strategic Line Pack during the last Month of the Contract Period.
- 8.3 The Transporter shall, prior to the Start Date, determine the quantity of the Shipper's *pro-rata* share of Strategic Line Pack and shall notify the Shipper of the amount due in respect of its *pro rata* share of Strategic Line Pack within a period of not less than 30 (thirty) Days before the Start Date.
- 8.4 The Shipper shall deliver to the Entry Point, at least 5 days prior to it requesting gas to be delivered at any exit point for the first time, the *pro rata pro rata* share of Strategic Line Pack referred to in 8.3 above.

9 OBLIGATIONS TO DELIVER AND SUPPLY

- 9.1 The Transporter shall operate the MSP at its own cost in accordance with the standard of a Reasonable and Prudent Operator;
- 9.2 The Transporter shall repair and maintain the MSP and undertake all replacements thereto at its own cost;
- 9.3 The Transporter shall obtain, and thereafter maintain, renew and/or replace, or take all reasonable steps to obtain and thereafter to procure the maintenance, renewal or procurement of all such licenses, permits, approvals and consents as may be required from any applicable regulatory authority in order to comply with its obligations under this Code.
- 9.4 The Transporter shall receive at the Entry Point a quantity of Shipper Gas not exceeding the Properly Nominated Quantities of Shipper Gas nominated for delivery at the Entry Point by the Shipper for that Day, provided that such Shipper Gas complies with the Entry Specifications of the Shipper Gas;
- 9.5 The Transporter shall transport the Shipper Gas through the MSP; and
- 9.6 The Transporter shall deliver to the Shipper at the Supply Point the Shipper's Gas.

10 CONDITIONS FOR NEW SHIPPER ACCESS

- 10.1 The Transporter and Shipper shall enter into an GTA to transport Shipper Gas from the Entry Point to the Supply Point;
- 10.2 The Shipper shall provide a guarantee acceptable to the Transporter for an amount that will be agreed to during the commercial negotiations;
- 10.3 Shipper's Receiving Facilities shall comply with the industry standard and with the Applicable Laws and shall be kept in good working order at the shippers own cost;
- 10.4 The Shipper shall have the necessary agreement in place with the seller of Gas to tender the a quantity of Shipper Gas to be transported; and
- 10.5 The Shipper shall not off-take more Gas than the Properly Nominated Quantities of Transportation Capacity in respect of a given Day and which is otherwise permitted.

11 METHOD BY WHICH A NEW SHIPPER MAY REQUEST ACCESS TO THE MSP

Requests for access to the MSP will be dealt with in accordance with this procedure. The procedure sets out the process to be followed and criteria to be observed.

- 11.1 The process is initiated whenever a request for access is received from a potential Shipper;
- 11.2 Subsequent to initial contact, any request must be reduced to writing, and must include the following minimum information within the parameters of a Non-Disclosure Agreement between the Transporter and the potential Shipper:
 - Name of the potential Shipper;
 - Evidence of Gas availability and a Gas supply agreement with the seller of Gas;
 - The annual volumes to be transported;
 - The location of the Entry and Exit Point;
 - The specification of Gas to be transported;
 - Duration of the transmission service (number of years);
 - Evidence of creditworthiness and ability to fulfil payment obligations.

11.3 On receipt of the written information, the Transporter will do the following:

- Determine if any uncommitted MSP capacity is available as per Supply Point requested;
- Determine whether new infrastructure is required;
- Determine whether the requested access is technically and economically feasible;
- Provide the Transmission Tariff to the potential Shipper.

11.4 Access to the MSP is subject to the following as determined by the Transporter:

- Availability of spare capacity in the MSP;
- Or, alternatively, that the expansion of the MSP to accommodate the additional volumes is economically and technically viable;
- That the Shipper's gas pressure, temperature, gas composition and load factor are compatible with the MSP;
- That such access will not negatively affect supply to existing users;
- That such access will not result in unsafe operation of the MSP.
- That such access will not result in increased risk to the environment;
- That such access is technically and economically feasible.

11.5 Access will be subject to normal commercial terms and practices and subject to negotiation and conclusion of a GTA and where applicable, subject to a guarantee by the Shipper acceptable to and for the benefit of the Transporter.

12 OTHER SOURCES OF GAS

12.1 The Parties confirm that any Shipper that may have access to gas from other sources may in future also become eligible for transportation through the MSP.

- The gas specification must conform to the gas specification as indicated in Appendix A.
- Should blending be required, all direct and associated costs will be for the Shipper.
- All cost of all infrastructure to supply gas, and at the appropriate pressure into the MSP will be for the shipper.

12.2 Should any Shipper at any time during the duration of this Code wish to also transport such natural gas and/or gas from other sources through the MSP, the Parties shall negotiate in good faith in respect of any of the terms of this Code necessitating amendment in consequence thereof, and any additional terms that

may be required. It is hereby recorded that the cost of any equipment necessary for the treatment of gas to conform to the specification so determined shall be for the account of the Shipper wishing to have its gas transported.

13 QUALITY

- 13.1 The Shipper shall be obliged to supply the Transporter with quantities of Shipper Gas, in order to enable the Transporter to perform the Transportation Services in respect thereof, and to deliver such quantities to the Shipper at the Supply Point.
- 13.2 The Shipper shall ensure that any and all Shipper Gas delivered at the Entry Point shall comply with the standards of purity and all other standards with respect to the properties, condition, composition and Entry Point pressure set out in the Entry Specifications.
- 13.3 In the event that the Shipper determines that Shipper Gas received at the Supply Point is Off-Specification Gas, the Shipper shall be entitled to reject further delivery of Off-Specification Gas by providing the Transporter and the Operator with written notice thereof.
- 13.4 Upon receipt of the written notification the Transporter shall within a period of 1 (one) hour cease the continued supply of Off-Specification Gas at the Supply Point and
 - 13.4.1 the Shipper and the Transporter shall each nominate a representative;
and
 - 13.4.2 the representatives shall immediately, but no later than 48 (forty eight) hours, following receipt of the written notification by the Transporter jointly commence an investigation in order to determine the cause of the Off-Specification Gas, utilising investigation and detection procedures and methodologies ordinarily applied in the Gas pipeline industry including, obtaining and analysing samples of Shipper Gas obtained from the Gas Sampling Point.
- 13.5 The remedial action as a result of the investigation shall be specified in the GTA.

14 MEASUREMENT

- 14.1 The Transporter shall, at the Exit Point ensure that Metering Equipment is installed which shall be capable of continuously measuring the amount of Gas Delivered at the Exit Point.
- 14.2 The quantity of Gas in Gigajoules Supplied will be determined as set out in the Gas Transportation Agreement.
- 14.3 The registers of the Metering Equipment referred to in Clauses 14.1 and 14.2 shall be prima facie evidence of the volumes of Gas having passed through such Metering Equipment.
- 14.4 Transporter shall, prior to the Effective Date, have the Metering Equipment calibrated in accordance with the procedure and specification determined by agreement between the Parties. The Shipper shall, at its own cost, be entitled to be present to witness any of the calibrations.
- 14.5 The Shipper shall have access at reasonable times to the Metering Equipment referred to in Clauses 14.1 and 14.2.
- 14.6 Should the Shipper at any time believe that any of the Metering Equipment is registering inaccurately, the shipper may request that the Metering Equipment be calibrated. Should such calibration prove that the Metering Equipment was in fact registering accurately, the cost of such calibration shall be paid by the Shipper. Should the calibration prove that the Metering Equipment was in fact registering inaccurately, the cost of calibration shall be paid by the Transporter.
- 14.7 The remedial action, should it at any time be ascertained that Metering Equipment is registering inaccurately, will be addressed in the GTA.

15 NOMINATIONS

15.1 Annual Nominations

No later than 25 (twenty-five) Days before the start of each Contract Year, the Shipper shall notify the Transporter of its good faith best estimates for each Month of that Contract Year of the quantity of Shipper Gas which the Shipper:

- intends to deliver to the Entry Point; and
- requires to be delivered at each Supply Point.

15.2 Monthly Nominations

The Shipper shall notify the Transporter and the Operator, no later than 25 (twenty-five) Days before the start of every Month, of its good faith best estimates of the quantity of Shipper Gas, in respect of each Day of the following 3 (three) Months, which the Shipper:

- intends to deliver to the Entry Point; and
- requires to be delivered at the Supply Point

15.3 Weekly Nominations

No Later than 9:00 on a Saturday of each week, the shipper shall notify the Transporter and the Operator in writing of the best estimates of the quantity of Shipper Gas, in respect of each Day of the following week, which the Shipper:

- intends to deliver to the Entry Point; and
- requires to be delivered at the Supply Point

15.4 Daily Nominations

15.4.1 No later than 18 (eighteen) hours prior to the start of each Day of a given Week, the Shipper shall notify the Transporter and the Operator in writing of the quantity of Shipper Gas, for that Day, which the Shipper:

- will deliver to the Entry Point; and
- will off-take at the Supply Point;

provided that the aggregate quantity nominated at all Supply Points for the Day in question may not exceed the MDSQ as per the GTA. If the Shipper does not notify the Transporter in terms of this Clause, the quantity nominated by the shipper in respect to a given Day provided in the Weekly Nomination shall apply.

15.4.2 Provided that, the aggregate quantity nominated at the Supply Point for the Day in question may not exceed the MDSQ.

Acceptance of the nominations of quantities by the Transporter shall constitute firm and binding nominations of Properly Nominated quantities of Shipper Gas at the Entry Point.

15.5 Changes in Nominated Quantities

15.5.1 In order to accommodate unforeseen changes in Gas usage by the Shipper the Shipper may request changes in DSQ.

15.5.2 The Shipper may request that any of the quantities of Shipper Gas Properly Nominated for a Day be decreased or increased to any quantity, including zero, upon giving written notice as follows:

- for any increase or decrease not exceeding 25% (twenty-five percent) of the aggregate quantity of Shipper Gas Properly Nominated for that Day, but not exceeding the MDSQ, not less than 2 (two) hours' notice;
- for any increase or decrease greater than 25% (twenty-five percent) but not exceeding 50% (fifty percent) of the aggregate quantity of Shipper Gas Properly Nominated for that Day, but not exceeding the MDSQ, not less than 4 (four) hours' notice; and
- for any increase or decrease greater than 50% (fifty percent) of the aggregate quantity of Gas Properly Nominated for that Day, but not exceeding the MDSQ, the Shipper shall give not less than 6 (six) hours' notice.

15.5.3 The Transporter shall use reasonable endeavours to comply with a request from the Shipper to increase or decrease the nomination and will as soon as is practicable inform the Shipper if it cannot comply with such a request.

15.6 Acceptance of Nominations

At the Transporter's discretion, and subject to the safe operating limits of the MSP, Shippers may nominate different quantities at the Entry Point and Exit Points. This would allow Shippers to manage their stock of gas in the MSP.

Nominations will not normally be accepted where insufficient capacity has been booked. Nominations above booked capacity may be accepted, at the Transporters discretion, where capacity has been freed up by other Shippers not taking up their full capacity.

The aggregate of the exit nominations may not exceed the transport capacity of MSP

16 LEAKAGES

The Transporter, or the Operator if the Transporter assigned its obligations to an Operator, shall:

- 16.1 Comply to the standard of a Reasonable and Prudent Operator and in accordance with the operating procedures, install, operate and maintain pressure monitoring equipment;
- 16.2 Upon detection of any leakage take immediate action to correct or eliminate the cause of such leakage;
- 16.3 At all times operate the MSP in such a manner as to prevent and/or limit the amount of Gas leakage.
- 16.4 Be liable to Shippers for any loss of Gas between the Entry Point and the Exit Points, which is in excess of 2% (two percent) of the quantity Delivered by Shippers at the Entry Point having regard to the standards and permissible tolerances of metering equipment as determined in the measurement and calibration procedure agreed upon between the Parties from time to time. Such liability shall be calculated at the cost of Gas to Shippers, multiplied by the loss expressed in Gigajoules.

17 EMERGENCY

- 17.1 The Transporter shall provide a continuously attended telephone service at which Shipper and Shipper's customers may report any leakages of Gas, and on receipt of such a report, the Transporter shall as soon as is reasonably practicable in consultation with Shipper make safe Shipper's facilities or Shipper's customers' facilities by such measures as may be appropriate.
- 17.2 The Transporter shall at all times during the duration of this Code ensure that an appropriate emergency plan in respect of the MSP is in place and communicated to all relevant authorities along the MSP route. The Transporter shall consult Shipper in the preparation and periodic review of such emergency plan and shall provide Shipper with a copy of the emergency plan as well as any amendments thereto.
- 17.3 Where an Emergency arises, the Transporter shall inform all Shippers of the

commencement and (so far as practicable) the nature, extent and expected duration of the Emergency by such means as is reasonably available to the Transporter at the time. The Transporter shall (so far as practicable) thereafter keep the Shippers informed of any material changes and developments in respect of the Emergency and shall notify the Shippers as soon as reasonably practicable of the time at which the Transporter considers the Emergency has ceased.

17.4 During an emergency each Shipper shall comply with the emergency steps as instructed by the Transporter and co-operate with the Transporter to the extent possible so as to enable the Transporter to take emergency steps

17.5 The Transporter shall not be liable for any costs incurred by a Shipper which arise out of an Emergency or as a result of taking any Emergency Steps or any other steps imposed by the Transporter. Each Shipper shall be liable for its own costs incurred in respect of an Emergency.

18 MODIFICATION OF THE NETWORK CODE

The Transporter, and / or any Shipper may propose modifications to the Network Code. Consultation in relation to proposed modifications will be undertaken between the Transporter and all Shippers but implementation of modifications will be in the discretion of the Transporter.

ANNEXURE A – GAS SPECIFICATION

Property	Units	Values		Notes
		Min	Max	
Energy content (HHV)	MJ/nm ³	38.1	43.5	1
Wobbe index		50.9	55.1	2
Relative density		0.55	0.70	3
Total Sulphur	mg/nm ³	-	15.0	
Methane	vol%	88.0	98.0	
Carbon dioxide	vol%	-	2.0	
Nitrogen	vol%	-	3.0	
Total inerts	vol%	-	5.0	
Hydrogen Sulphide	mg/ ³ _n	-	4.0	

1. 'NORMAL CUBIC METER' (nm³) shall mean a cubic meter, the reference conditions of measurement being 0 degrees Celsius at a pressure of 101.325 kilopascals and a free of water vapour at these conditions.
2. 'WOBBE INDEX' shall mean the index obtained when the energy content of the gas in (MJ/m³_n) is divided by the square root of the relative density of the gas.
3. 'RELATIVE DENSITY' (relative molecular weight), shall mean the ratio of the average molecular weight of gas to that of air (28.97).

ANNEXURE B – EXIT POINTS

<u>Location</u>	<u>Remarks</u>	<u>Coordinates</u>	
		Latitude	Longitude
Chigubo, Funhalouro	8" - Not in operation	-22.661689	34.311629
Chokwe	4" - Not in operation	-24.438445	32.809637
Magude	4" - Not in operation	-24.943818	32.439874
Raesano Garcia	4" - MGC take-off	-25.457303	31.999843
Ressano Garcia	12" - CTRG take-off	-25.457696	31.998267
Malelane	4" - Not in operation	-25.485090	31.568286
Nelspruit/Ngodwane	8" - Not in operation	-25.735425	30.991291
Swaziland	4" - Not in operation	-25.978862	30.547081
Machadodorp	4" - Not in operation	-26.143541	30.247522
Bethal	4" - Not in operation	-26.429510	29.442254
Secunda	26" Sasol Gas take-off	-26.548209	29.188721