NATIONAL ENERGY REGULATOR OF SOUTH AFRICA

Frequently Asked Questions (FAQ):

The Methodology to Approve Maximum Prices of Piped-Gas in South Africa

April 2020

Disclaimer

This Frequently Asked Questions (FAQ) document strives to provide regulatory clarity and further guidance to stakeholders on how to interpret and use elements contained in the Methodology to Approve Maximum Prices of Piped-Gas in South Africa (‘the Maximum Pricing Methodology’). The FAQs do not replace the Maximum Pricing Methodology. An effort has been made to ensure that the FAQs provide clarity on certain elements in the Methodology, however should any conflict arise between the answers contained in this document and the information contained in the published Methodology, stakeholders are advised to use the provisions as articulated in the Maximum Pricing Methodology.

The FAQ is a living document and will be updated with questions that may arise from stakeholders in the day-to-day regulation activities of NERSA. Furthermore, should stakeholders require clarity on any item related to gas prices, queries may be sent to the Executive Manager: Piped-Gas Regulation, Mr Thulebona Nxumalo, by email at: Thulebona.nxumalo@nersa.org.za or pipedgas@nersa.org.za or made telephonically at: 012 401 4028/9.

Table of Contents

GLOSSARY OF TERMS AND ABBREVIATIONS

Gas Act	Gas Act, 2001 (Act No. 48 of 2001)
HH	Henry Hub
JKM	Japan/Korea Marker
LNG	Liquefied Natural Gas
NBP	National Balancing Point
NCG	NetConnect Germany
NERSA Act	National Energy Regulator of South Africa Act, 2004 (Act No. 40 of 2004)
Gas	All hydrocarbon gases transported by pipeline, including natural gas, artificial gas, hydrogen rich gas, methane rich gas, synthetic gas, coal bed methane gas, liquefied natural gas, compressed natural gas, re-gasified liquefied natural gas, liquefied petroleum gas or any combination thereof
Tariff Guidelines	Guidelines for Monitoring and Approving Piped-Gas Transmission and Storage Tariffs in South Africa, NERSA, 30 March 2017
OFGEM	The United Kingdom Office of Gas and Electricity Markets
Price	The charge for gas to a distributor, reticulator or final customer
Regulations	Piped-Gas Regulations, promulgated in terms of the Gas Act, 2001 (Act No. 48 of 2001), gazette No. 29792, 20 April 2007
RRM	Regulatory Reporting Manuals
Service	Any service relating to the transmission, distribution, storage, trading, liquefaction or re-gasification of gas
Tariff	The charge for gas services to any customer

Trading	The purchase and sale of gas as a commodity by any person and any services associated therewith, excluding the construction and operation of transmission, storage and distribution systems; ‘trading services’ has a corresponding meaning
Transmission	The bulk transportation of gas by pipeline supplied between a source of supply and a distributor, reticulator, storage company or eligible customer, or any other activity incidental thereto; ‘transmit’ and ‘transmitting’ have corresponding meanings
TTF	Title Transfer Facility
WACC	Weighted Average Cost of Capital

INTRODUCTION

The National Energy Regulator of South Africa (NERSA) derives its mandate regarding piped-gas tariffs and maximum prices from the Gas Act, 2001 (Act No. 48 of 2001) ('the Gas Act'). In terms of section 4(g) of the Gas Act, the Energy Regulator must, as appropriate, in accordance with this Act, regulate prices in terms of section 21(1)(p) in the prescribed manner. Section 21(1) (p) of the Gas Act prescribes that the Energy Regulator may impose licence conditions within the following framework of requirements and limitations: 'maximum prices for distributors, reticulators and all classes of consumers must be approved by the Gas Regulator where there is inadequate competition as contemplated in Chapters 2 and 3 of the Competition Act, 1998 (Act No. 89 of 1998)'.

In line with the legislative requirements, NERSA developed a methodology for approving/regulating the maximum prices for gas in the piped-gas industry in October 2011. This methodology was reviewed in April 2020. This document contains some explanations on the approved Maximum Pricing Methodology.

THE METHODOLOGY

The Maximum Pricing Methodology contains two approaches to determine the maximum price of gas:

1. the Formula for determining maximum prices that uses hub prices; and
2. the Pass-Through Approach.

How the two approaches will be used is clarified and explained in this document.

MAXIMUM PRICE DETERMINATION FORMULA

The formula that is used to approve maximum prices contains the hub prices of natural gas. The Dutch Title Transfer Facility (TTF), Britain's National Balancing Point (NBP) and the United States' Henry Hub (HH) are currently the only gas trading hubs that are classified as liquid in the world.[1] As such, gas prices in these trading hubs are largely determined by the interplay between supply and demand (gas-on-gas competition). In this regard, the Dutch TTF, Britain's NBP and United States' HH are suitable benchmark hubs against which a gas price that seeks to mimic competition can be determined.

[1] See, Shi, X., & Variam, H. M. (2018). Key elements for functioning gas hubs: A case study of East Asia. *Natural Gas Industry B*, *5*(2), 167-176.

The maximum price of piped-gas proposed by an applicant or licensee shall be reviewed for the purposes of approval by the Energy Regulator based on the following formula:

$$\text{Max Price} = 0.4\ (HH) + 0.5\ (TTF) + 0.1\ (NBP)$$

where:

Maximum Price of Gas =	Maximum price for gas energy (ZAR/GJ)
Henry Hub (HH) =	Twelve months' simple average of the Henry Hub monthly prices with a 40% weight in the energy basket
Transfer Title Facility (TTF) =	Twelve months' simple average of the TTF monthly prices with a 50% weight in the energy basket
National Balancing Point (NBP) =	Twelve months' simple average of the NBP monthly prices with a 10% weight in the energy basket

QUESTION 1:
Is the maximum price calculation a simple matter of plugging numbers into the formula?

Answer

1.1 No. The maximum price determination will not be a matter of simply plugging numbers into a formula. It will instead be a two-pronged approach. The first involves the calculation of a price using the above formula. The other is establishing the applicant's costs to acquire the gas, and the costs of trading the gas. The Energy Regulator will then compare these costs and the new maximum price.

1.2 An example of how the Maximum Price is calculated is included in the Methodology. The Energy Regulator will also publish an example of the calculation of the maximum price in Excel on its website at www.nersa.org.za.

1.3 The Energy Regulator will also make available the data sources and the conversion factors used in the calculations.

1.4 The new maximum price would therefore be an objective way of providing a profit to the licensee. This also means that the Energy Regulator will decide on the profit or surplus that accrues to the licensee. It also provides an opportunity for the Energy Regulator to approve a maximum price that enables the licensee to recover its costs, in the unlikely event that the cost becomes more than the maximum price.

QUESTION 2:
What information is expected to be submitted in a maximum price application?

Answer

2.1 The applicant should submit its calculation of a maximum price using the formula listed in question 1 above. The applicant should provide all the data and assumptions used in the calculation.

2.2 The applicant must also submit the costs of acquiring their gas, as well as the costs of trading the molecule. This is in line with the guidance provided by the Constitutional Court, which stated that NERSA must know the marginal costs of the gas trader.

QUESTION 3:
What are the sources for the information for the data that will be used to compute the maximum price?

Answer

3.1 The sources of information used to calculate the above maximum price are publicly available. The links to the websites are provided below. The Energy Regulator will also publish the data that it obtains from these websites.

Variable Element	Source of data
a) Prices of Henry Hub; b) TTF; and c) Japan Gas Prices	World Bank Commodity Prices Publication 'Pink Data' sheet: https://www.worldbank.org/en/research/commodity-markets
d) NBP	OFGEM https://www.ofgem.gov.uk/data-portal/wholesale-market-indicators
e) JKM	Platts, Australian Competition and Consumer Commission https://www.accc.gov.au/regulated-infrastructure/energy/gas-inquiry-2017-2025/lng-netback-price-series

Variable Element	Source of data
f) Inputs for Weighted Average Cost of Capital (WACC) for Trading cost	Approved data sources for Tariff Guidelines published on NERSA website
g) Financial information to determine piped-gas trading service costs	As prescribed by the Regulatory Reporting Manuals Vol. 3
h) Exchange rates	South African Reserve Bank https://www.resbank.co.za/Research/Statistics/Pages /MonthlyReleaseOfSelectedData.aspx

QUESTION 4:
How will the trading costs be calculated?

Answer

4.1 The formula for the trading cost calculation will be as follows:

Allowable Revenue =
(Trading Assets + Working Capital) * WACC + OPEX + TAX <u>+ C</u>

It is to be billed to customers as a trading cost per gigajoule as follows:
Trading Cost in ZAR Gigajoule = Allowable Revenue/Volume.

4.2 The above formula will ensure that the licensee recovers its costs to trade the molecule. The costs will be reported to the Regulator in the Regulatory Reporting Manuals (RRMs).

4.3 The trading assets will not be trended. This means that inflation will not be added and the Weighted Average Cost of Capital (WACC) used will be a nominal WACC.

4.4 The other elements of the above formula are the same as those used in the Tariff Guidelines. Therefore, NERSA will not discuss these components here as they have already been discussed in the Guidelines to approve storage and transmission tariffs in South Africa and the FAQs associated with these guidelines.

QUESTION 5:
Will the trading costs be added on top of the maximum price?

Answer

5.1 No. The trading costs are part of the marginal costs of the licensee. Therefore, there is no need to separately add the trading costs to the maximum price.

5.2 However, if a licensee uses a pass-through approach, the trading costs may be shown separately on top of the molecule price. An example of this calculation will be provided.

QUESTION 6:
How will NERSA ensure that the information submitted by licensees as their trading costs is consistent and reliable?

Answer

6.1 NERSA has developed Regulatory Reporting Manuals that prescribe the format in which financial data, facilitated by a cost allocation manual, must be submitted to the Energy Regulator. Key aspects of appropriate accounting separations are that only the cost related to the specific activity are attributed to that activity, and that vertically managed businesses must be managed separately with separate accounts and data, with no cross subsidisation between activities/facilities.

6.2 The regulatory reporting data and projections are required by NERSA for monitoring tariffs and trading margins regardless of the methodology adopted by the licensee.

QUESTION 7:

Who will use the pass through of costs methodology?

Answer

7.1 The pass through of costs methodology will be used by third-party traders and by importers of Liquefied Natural Gas (LNG).

7.2 The pricing of traders that purchase gas from other traders will take into account regulation 4(13) of the Piped-Gas Regulations. This regulation states that when ownership of gas changes, the price of gas in the new owner's hands refers to the price of gas from the seller, plus any pass-through costs already levied.

7.3 Therefore the acquisition cost of third-party traders that buy their gas from other traders already includes the margins of the sellers of gas. To avoid a scenario where there could be margin squeeze, the Energy Regulator will separately account and add the trading costs of the second generation traders (namely those traders that buy from other traders).

QUESTION 8:

How will the pass through of costs methodology be presented?

Answer

8.1 The pass through of costs methodology will be presented as shown below:
- The costs include:
  - the acquisition cost of gas;
  - the trading costs calculation;
  - an appropriate margin (benchmarked to a competitive market such as LNG import cost); and
  - any re-gasification costs or transportation costs.

8.2 The Energy Regulator will ensure that there is no double counting in the costs claimed.

QUESTION 9:
How will the maximum price be reviewed and adjusted?

Answer

9.1 The maximum price will be adjusted using the same formula as the maximum price formula.

9.2 In all instances, the maximum price will be adjusted or reviewed using the 12-month weighted average of the HH, TTF and NBP hub prices. The use of 12-month average prices will minimise the volatility that may rise from the use of a shorter period.

9.3 Licensees that require shorter period adjustments must apply to the Energy Regulator. However, the inclination is to approve annual maximum prices. The licensee may adjust its actual prices, as long as they do not exceed the maximum price.

QUESTION 10: **How will actual prices be determined?**

Answer

10.1 In terms of the wording of section 21(1)(p) of the Gas Act, read with regulation 4, NERSA does not have the mandate to approve or set actual gas prices, but approves the maximum prices from which discounts are allowed and should be applied in compliance with section 22 of the Gas Act and section 9 of the Competition Act No. 89 of 1998 (as amended) ('the Competition Act').

10.2 Section 22 of the Gas Act states that licensees may not discriminate between customers or classes of customers regarding access, tariffs, prices, conditions of service, except for objectively justifiable and identifiable differences regarding such matters as quantity, transmission distance, length of contract, load profile, interruptible supply or other distinguishing features approved by the Energy Regulator.

10.3 The Competition Act has been amended to incorporate a new price discrimination provision under section 9, namely subsection (1)(a)(ii). In terms of this subsection, a dominant firm, as the seller of goods or services, is prohibited price discrimination, if it is likely to have the effect of impeding the ability of small and medium businesses or firms controlled or owned by historically disadvantaged persons (collectively referred to as 'the designated class') to participate effectively. It is also notable that, unlike the rest of the provisions of section 9 of the Competition Act, dominant firms cannot rely on what is referred to as the 'quantity defence' in relation to contraventions of section 9(1)(a)(ii) of the Competition Act to justify differentials between firms that fall within and outside the designated class in respect of sales price, any discount, allowance, rebate or credit; the provision of services in respect of the sale; or payment for such services.[2]

10.4 This means that licensees must develop an actual pricing framework that is objective and applied in compliance with the relevant legislation. Licensees must also charge actual prices that are lower than the maximum price.

[2] See https://www.gov.za/documents/competition-amendment-act-18-2018-englishafrikaans-14-feb-2019-0000 for the relevant amendments to the Competition Act. See also https://www.gov.za/documents/competition-act-regulations-price-discrimination-13-feb-2020-0000 for the Minister of the Department of Trade and Industry's regulations regarding the application of section 9(1)(a)(ii) of the Competition Act.

QUESTION 11:
Does NERSA prescribe discounts to be applied on the maximum price of gas?

Answer

11.1 No. NERSA does not prescribe discounts to be applied. Voluntary discounts may be applied to the abovementioned maximum price according to the different volume customer classes prescribed by the Piped-Gas Regulations. Discounts to be applied must comply with section 22 of the Gas Act and section 9 of the Competition Act.

QUESTION 12:
How will NERSA exercise its regulatory function when it comes to gas prices?

Answer

12.1 NERSA:

- will review maximum prices prepared by licensees or applicants;
- may request licensees or applicants to amend maximum prices;
- may approve or decide not to approve maximum prices; and
- may eventually determine a maximum price for an applicant that is not able or who is unwilling to alter its maximum price application.

12.2 NERSA's maximum price regulation function is therefore not confined to only 'approving' but also extends to 'controlling or governing', 'determining' or 'setting' in line with the wider meaning of the word 'regulate' used in section 4(g) of the Gas Act.

QUESTION 13:
After this new maximum pricing methodology is published, can I still use the old methodology that was approved in 2011?

Answer

13.1 No. The new methodology replaces the old methodology and there are no exemptions from implementing the new methodology. The Energy Regulator may approve a transitional period to allow licensees time to negotiate new contracts with their customers, to apply for new maximum prices and to reconfigure their systems.

13.2 A licensee may apply for a transitional period by requesting such a period in writing from NERSA, accompanied by the reasons for the request. Licensee can contact NERSA’s Executive Manager for Piped-Gas Regulation at the contact details provided in this document to obtain further details on how to apply for such a transitional period.