Consultation Document on the Preliminary Assessment of the Application for a Maximum Price of Piped-Gas for NGV Gas (Pty) Ltd for the Period 01 July 2016 to 30 June 2017.

This preliminary assessment of the maximum price of piped-gas is based on information supplied by NGV Gas (Pty) Ltd ("NGV") in its maximum price application and NERSA's assessment is as per the Methodology to Approve Maximum Prices of Piped-Gas in South Africa.

The National Energy Regulator of South Africa ("Energy Regulator" or "NERSA") is publishing this preliminary assessment of the maximum price for public comments. In providing comments, stakeholders may consider the published Methodology to Approve Maximum Prices of Piped-Gas in South Africa and the Regulations as well as the provisions of the Gas Act, 2001 (Act No. 48 of 2001).

Members of the public wishing to submit written comments should do so before the deadline for written comments of **27 February 2017.**

Written comments are to be submitted to the Energy Regulator at the following email address: gpt@nersa.org.za or delivered to the NERSA offices at Kulawula House, 526 Madiba Street, Arcadia, Pretoria by 27 February 2017.

Post: Piped-gas Tariffs Department

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In addition, NERSA will conduct a public hearing on this application where oral representations may also be made. This public hearing is scheduled to be held on 02 March 2017 at NERSA's offices at 526 Madiba Street, Arcadia, Pretoria, South Africa.

1. INTRODUCTION

1.1 The Energy Regulator is mandated in terms of the National Energy Regulator Act, 2004 (Act No. 40 of 2004) ("NERSA Act") to regulate the electricity, piped-gas and petroleum pipeline industries in terms of the Electricity Regulation Act, 2006 (Act No. 4 of 2006), the Gas Act, 2001 (Act No. 48 of 2001) and the Petroleum Pipelines Act, 2003 (Act No. 60 of 2003).

1.2 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, 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)."

1.3 In line with this requirement, the Energy Regulator has given a notice in the media that it has made a preliminary assessment of the maximum price of piped-gas for NGV Gas for the period 01 July 2016 to 30 June 2017. This preliminary assessment is done as per The Methodology to Approve Maximum Prices of Piped-Gas in South Africa.

1.4 This consultation document provides background information and a preliminary assessment of the application for maximum price of piped-gas by NGV for the period 01 July 2016 to 30 June 2017. The NGV maximum price application is published on the NERSA website at www.nersa.org.za.

1.5 Interested parties are invited to provide written comments to the Energy Regulator, which will be considered before taking a final decision on this matter. The deadline for submitting comments is 27 February 2017.

2. APPLICABLE LAW

2.1 The legal basis for the Energy Regulator to regulate prices of piped-gas is derived from the National Energy Regulator Act, 2004 (Act No. 40 of 2004) ('the NERSA Act'), read with the Gas Act, 2001 (Act No. 48 of 2001), ("the Gas Act").

3. BACKGROUND

The Methodology to Approve Maximum Prices for Piped-Gas in South Africa (2011)

3.1 In terms of section 4(g) of the Gas Act, the Energy Regulator must, as appropriate, regulate prices in terms of section 21(1)(p) of the Gas Act in the prescribed manner.

3.2 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)'.

3.3 The essence of section 4(g), therefore, is that when the licensee holds a licence that contains a condition in terms of section 21(1)(p), then such licensee's maximum prices must be approved by the Energy Regulator in the prescribed manner where there is inadequate competition.

3.4 Regulation 4 of the Piped Gas Regulations, 2007 (published under Government Notice No. R. 321 in *Gazette* No. 29792 on 20 April 2007) ("Piped Gas Regulations") dealing with the price regulation principles and procedures provides as follows under sub regulation (3) and (4), respectively –

3.4.1 that the Energy Regulator must, when approving the maximum prices in accordance with section 21(1)(p) of the Act, *inter alia* be objective based on

a systematic methodology applicable on a consistent and comparable basis; and

3.4.2 that the maximum prices referred to in sub regulation (3) must enable the licensee to –

(a)   recover all efficient and prudently incurred investment and operational costs; and

(b)   make a profit commensurate with its risk.

3.5   In line with the above stated requirements, the Energy Regulator has developed the Methodology to Approve Maximum Prices of Piped-Gas in South Africa, 2011 ('the Maximum Pricing Methodology' or 'the Methodology'). The Methodology is available on the Energy Regulator's website at www.nersa.org.za.

Determination of Inadequate Competition

3.6   Approving maximum prices and the use of the Methodology are contingent on the Energy Regulator determining that 'there is inadequate competition as contemplated in Chapters 2 and 3 of the Competition Act, 1998 (Act No. 89 of 1998) ("Competition Act")'.

3.7   Therefore, for the Energy Regulator to regulate maximum prices of piped-gas, it must be of the view that there exist market conditions or market features indicating inadequate competition in line with the provisions of Chapters 2 and 3 of the Competition Act.

3.8   The determination of inadequate competition contemplated in section 21(1) (p) of the Gas Act is made by the Energy Regulator outside of this methodology from time to time. The first determination of inadequate competition was approved by the Energy Regulator on 08 February 2012. The Energy Regulator approved second determination of inadequate competition on 29 March 2015.

Relationship to the Tariff Guidelines

3.9 According to section 4(h) of the Gas Act, the Energy Regulator has a duty to '*monitor and approve, and if necessary regulate, transmission and storage tariffs and take appropriate actions when necessary to ensure that they are applied in a non-discriminatory manner as contemplated in section 22*'.

3.10 In order to implement this mandate, the Energy Regulator developed the Guidelines for Monitoring and Approving Piped-Gas Transmission and Storage Tariffs in South Africa, 2009 ('the Tariff Guidelines'). The Tariff Guidelines are available on the Energy Regulator's website at www.nersa.org.za.

3.11 Hence, the Tariff Guidelines give guidance on tariff-related activities, which are charges for gas services and which must be added to the piped-gas energy price(s).

3.12 The Maximum Pricing Methodology also provides for the determination of a trading margin, which is referenced to the Tariff Guidelines. The components used to calculate the trading margin are similar to the components used to calculate the tariffs. Hence the Maximum Pricing Methodology has referenced the determination of the trading margins to the tariff guidelines to ensure that there is consistency in the decisions taken by the Energy Regulator.

The Piped-Gas Regulations

3.13 The maximum price determination principles outlined in the Maximum Pricing Methodology, are further informed by the Piped-Gas Regulations. The following are pertinent to this methodology.

3.14 Sub-regulation 4(4) prescribes that the maximum prices referred to in sub-regulation 4(3) must enable the licensee to:

a) recover all efficient and prudently incurred investment and operation costs; and

b) make a profit commensurate with risk.

3.15 Annexure A of the Regulations provides the different classes of customers classified in terms of their annual gas consumption in Gigajoules as follows:

CLASS	ANNUAL GAS CONSUMPTION		
Class 1	Less than 400 GJ pa		
Class 2	401 GJ pa	to	4 000 GJ pa
Class 3	4 001 GJ pa	to	40 000 GJ pa
Class 4	40 001 GJ pa	to	400000 GJ pa
Class 5	400 001 GJ pa	to	4 000 000 GJ pa
Class 6	> 4 000 000 GJ pa		

3.16 These legislative aspects, as prescribed by the Gas Act are essential in defining the scope and nature of the Maximum Pricing Methodology developed by the Energy Regulator.

Approving maximum prices of piped-gas

3.17 As the Maximum Pricing Methodology highlights, in approving maximum piped-gas prices:

- the Energy Regulator will not set prices but will review maximum piped-gas price applications prepared by licensees or applicants;

- the Energy Regulator may request licensees or applicants to amend maximum prices; and

- the Energy Regulator may approve or decide not to approve maximum prices.

3.18 The process of piped-gas maximum prices application is as follows:

- The Energy Regulator will receive maximum piped-gas price applications from licensees, based on the Methodology approved by the Energy Regulator.

- To ensure consistency of applications and predictability of analysis of the applications, the Energy Regulator has specified the following:

  a) prescribed sources of information that must be used for the input variables in the maximum price calculations;

  b) prescribed weights applied to energy price indicators; and

  c) the Methodology to determine trading margins.

- Applicants must provide information regarding the assumptions made in the price calculation, as well as the details of the calculation.

3.19 The maximum price application must:

- be provided on an annual basis, although applicants are allowed to apply for approval of maximum prices for a longer or shorter period; and

- indicate the manner and frequency of price adjustment to be approved by the Energy Regulator.

3.20 The Methodology further states that, 'NERSA will periodically conduct reviews of approved prices to assess the impact and to verify whether the prices comply with the requirements of the Act and the Regulations'.

4   THE APPLICANT

4.1 NGV Gas (Pty) Ltd is a wholly-owned subsidiary of CNG Holdings (Pty) Ltd. The table below provides a summary of information as submitted by NGV in the maximum price application.

Table 1: Summary of NGV maximum price application

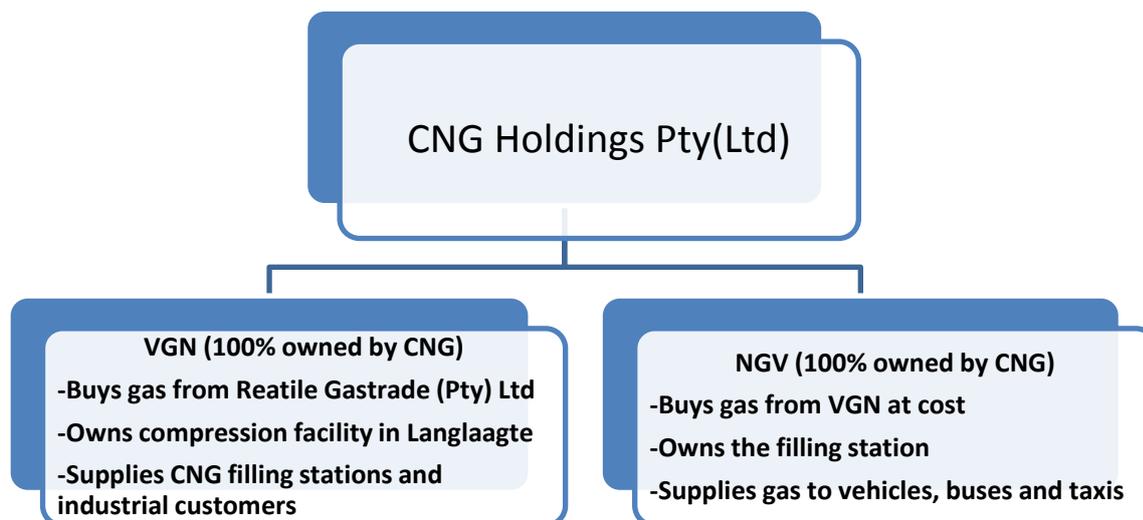| Type of Application	Application for maximum price of gas
Licence Number	Gala.tr.F1/1445/2009

Licence Area	Filling stations in Langlaagte and Dobsonville, Johannesburg and in Vanderbijlpark. NGV is permitted to trade in 20 geographic areas as set out in the licence.
Type of Activity	Operation of filling stations and trading in gas as set out in the licence
Type of Gas	Compressed Natural Gas
Approach Used in Application	The Pass-through approach is used in this application

NGV Business Model

4.2 NGV started operating commercially in March 2014. NGV is currently operating compressed natural gas filling stations in Langlaagte, a retrofit station in Dobsonville and a satellite station in Vanderbijlpark. In the current application, NGV indicated that it will commission a filling station in Pretoria.

4.3 NGV's trading activities involve procuring compressed natural gas from Virtual Gas Network (Pty) Ltd (VGN), its sister company at cost and selling it to passenger vehicles, minibus taxis, and buses at filling stations.

4.4 The shareholding structure of CNG Holdings is as follows:

    IDC   38.64%
    Sakhikusasa   29.78%
    Reatile Energy   25.01%
    Lee Jane Trust   6.57%

4.5 Below is a pictorial depiction of the CNG business model. The maximum price is for the NGV business arm. CNG is the holding company of NGV and VGN. VGN is supplied by Reatile Gastrade directly from the Sasol Gas transmission pipeline in Langlaagte and owns a compression facility at the premise. VGN then supplies NGV and other industrial customers. NGV owns compressed natural gas filling stations.

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                    ┌─────────────────────────────┐
                    │     CNG Holdings Pty(Ltd)    │
                    └─────────────────────────────┘
                         │                    │
        ┌────────────────┴──────┐      ┌──────┴─────────────────┐
        │ VGN (100% owned by    │      │ NGV (100% owned by     │
        │ CNG)                  │      │ CNG)                   │
        │ -Buys gas from Reatile│      │ -Buys gas from VGN at  │
        │  Gastrade (Pty) Ltd   │      │  cost                  │
        │ -Owns compression     │      │ -Owns the filling      │
        │  facility in Langlaagte│     │  station               │
        │ -Supplies CNG filling │      │ -Supplies gas to       │
        │  stations and         │      │  vehicles, buses and   │
        │  industrial customers │      │  taxis                 │
        └───────────────────────┘      └────────────────────────┘
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5   NGV APPLICATION FOR A MAXIMUM PRICE

5.1   On 21 November 2016, NGV submitted to the Energy Regulator its application for a maximum price for the period 01 July 2016 to 30 June 2017.

5.2   This is the first application submitted to the Energy Regulator by NGV as a standalone licensee. On 29 July 2013 the Energy Regulator approved the VGN maximum price. However, the financial information submitted in this application contained information pertaining to both VGN and NGV. NGV had not yet started commercial operations.

5.3   This application was not submitted 4 months before implementation as required in the Maximum Pricing Methodology given that it is a first NGV application and the licensee is battling to apply the Methodology.

5.4   The current application only pertains to the NGV operation.

Gas Energy Price (GE Price)

5.5   NGV is applying for a pass through GE price of ▮▮▮▮▮/GJ being the NGV cost of gas paid to VGN. Table 2 below shows the GE prices for all the volume categories for the period 01 July 2016 to 30 June 2017:

Table 2: NGV GE price for 2016/17

Class 1 <400GJ/p.a	Class 2 401-4 000 GJ/pa.	Class 3 4 001 - 40 000 GJ/p.a	Class 4 40 001 - 400 000 GJ/p.a	Class 5 400 001 - 4m GJ/p.a	Class 6 >4m GJ p.a
R/GJ	R/GJ	R/GJ	R/GJ	R/GJ	R/GJ
███	███	███	███	███	███

5.6 The NGV GE price is its actual cost of gas that is charged by Reatile Gastrade to VGN. NGV will not offer discounts on the GE price but will offer discounts on the Trading Margin. The GE price will be adjusted once a year when it is reviewed by the gas supplier.

5.7 NGV is applying for a Trading Margin of ███████/GJ for the period 01 July 2016 to 30 June 2017. Below is Table 3 that summarises the NGV application as it appears in the application.

Table 3: NGV Trading Margin calculation Summary

(AR = (RAB*WACC) + E +D +T±C)			NGV
(RAB = assets+CoS +net working capital) Trading assets Working Capital Cost of Sales			████ ████ █████
Total Trading RAB WACC	Rands (R)	RAB WACC	████ ███
Rab x WACC= *(a*b)* Operating Expenses Depreciation and Amortization Tax Distribution costs	R R R R R	**RAB *WACC** E D T Dx	████ █████ ████ ████ ████
Allowable Revenue (AR) = *(c+d+e+f+g)* Volume	R GJ	AR V	████ ███
Trading Margin	**R/GJ**	**AR/V**	███

Total Gas Charges

5.8 Table 4 below shows the total gas charges applied for by NGV for the period 01 July 2016 to 30 June 2017.

Table 4: Total Gas Charges

	Component	R/GJ
a	GE Price	■■■■
b	Trading Margin	■■■■
c=a+b	**Total Gas Charges**	**360.21**

6. NERSA Analysis of the application

6.1 To review the NGV application for a maximum price of gas, the Energy Regulator used the pass through approach as outlined in the Methodology since this is the same approach followed by NGV.

The Pass-Through Approach

6.2 According to section 3.5 of the Methodology, the "Pass Through of Cost" approach requires a cost based price build up including at the least the cost of the procured gas, any transportation cost or regasification costs to justify the GE price applied for.

6.3 NGV applied for ■■■■/GJ as the pass through GE price. This is the projected cost of gas procured from VGN (passed through from Reatile Gastrade which is the supplier of gas). NGV plans to supply filling stations in Langlaagte, Dobsonville, Vanderbiljpark and Pretoria. According to the Methodology, the pass-through GE should include any transportation costs therefore NGV is supposed to add the transport cost to the actual cost paid to its gas supplier to come with the GE price. Instead, NGV included the transport cost in the trading margin. NERSA noted that mathematically this will produce the same result.

6.4 In assessing the GE price, the Energy Regulator used the Maximum Pricing Methodology, but instead of adding the transport cost to the GE price, NERSA added the transport cost to the trading margin to enable a like for like comparison with the NGV application. NERSA used the projected cost of gas from VGN of ■■■■/GJ as the pass through cost of gas.

DETERMINATION OF THE ELEMENTS OF THE TRADING MARGIN OF THE METHODOLOGY

6.5   Section 3.6.3 of The Methodology states that:

"The trader's return (as a percentage) will be calculated in nominal terms. The nominal Weighted Average Cost of Capital (WACC) of the trader will be the traders return (%), since all other expenses are allowed to the licensee as a pass-through. In so doing, the Energy Regulator will ensure the return on investment as derived in the cost of capital calculation explained below is achieved.

Gas trading margin (WACC) will be applied to the sum of 'Cost of Sales' plus 'Trading RAB' of that trader plus 'Working Capital'.

Cost of Sales and operating expenses that are allowable in the piped-gas trading business are those determined in terms of the prescribed Volume 1 and Volume 3 of the Regulatory Reporting Manuals for the piped-gas industry."

6.6   The formula for trading services provided to customers of a trading licensee is:

Allowable Revenue (trading)   =

{Expenses + ((Cost of Sales + RAB + Working Capital)* Margin + T $\pm$ C}

Where:

RAB = approved historical trading services RAB less accumulated depreciation

Working Capital = approved 45-day-average trading working capital

Expenses = approved efficient trading operating expenses including depreciation

Cost of Sales = Opening inventory of gas held for sale + Purchases of gas for sale - Closing inventory of gas held for sale

Margin = Trader's return (%) determined in nominal WACC terms

T = Corporate tax expense for the period

C = Claw back (+/-) on volumes

6.7 The paragraphs below provide an analysis of each component of the trading allowable revenue formula.

Regulatory Asset Base (RAB)

6.8 In terms of section 3.6.1 of the Methodology, "*trading licensees would not have piped-gas network assets, and if they do it would be insignificant [such assets are referred to as the 'Piped-gas trading plant in service' in the Regulatory Reporting Manuals (RMM)]. There may also be limited amounts of non-network assets (referred to as the 'Piped-gas general plant' in the RRM). The sum of the two will form the regulatory asset base (RAB) of a trading licensee.*"

6.9 The return on investments in such limited and trading-specific piped-gas network assets, which are ordinarily required in the normal course of a piped-gas trading business (plus the general plant used for piped-gas trading), will be earned through a nominal return.

6.10 The asset value is a historical amount which is not trended. The formula for this is as follows:

Regulatory Asset Base = Original Cost of Property, Plant & Equipment (v) - Accumulated Depreciation (d)

6.11 NGV submitted regulatory assets of ▮▮▮▮▮▮▮ comprising of land, buildings, equipment, installation including civils and piping, office furniture and equipment for the Langlaagte filling station. NGV also submitted gas dispensing equipment for filling stations in Dobsonville, Pretoria and Vanderbiljpark. Included in the asset value is the full year cost of equipment that will be commissioned in January 2017, March 2017 and April 2017. NGV also included the cost of converting vehicles from diesel to gas of ▮▮▮▮▮▮

6.12 NERSA assessed the regulatory assets and included a proportion of the assets that correspond to the period they will be used. Table 5 below shows the assets used by NERSA in the assessment:

Table 5: RAB for maximum price	
Useful Life Langlaagte	██
Useful life others	██
Assets to be used in RAB	FY17
	R'm
Langlaagte	██████
Dobsonville	██████
Vanderbijlpark	██████
Filling station – Pretoria	-
Retrofit 1	-
Retrofit 2	-
Workshop and kits	█████
additional Capex	
Langlaagte	██████
Dobsonville	██████
Vanderbijlpark	██████
Filling station – Pretoria	██████
Retrofit 1	██████
Retrofit 2	██████
Workshop and kits	██████
Total Capex	██████
Depreciation	██████
Net Asset	██████

6.13 NERSA also noted the low capacity of the filling stations that will be used in the maximum price period of 01 July 2016 to 30 June 2017. On average, NGV will only use ██ of the capacity of the filling stations. The capacity of the additional filling stations (to be added during the period January to April 2017) that will be utilized is below ██ NERSA added the cost of the new assets according to the period they will be used. For instance, Retrofit 2 station will be added to the RAB in April 2017 and will be used for 3 months. Hence to calculate the cost of Retrofit 2 NERSA calculated it as follows: (████████ x (3months of use/ 12 months)) and this equals ██████████. Retrofit 2 has a capacity of █████ GJ but in the

period under review only ▮▮▮▮ GJ is projected to be used translating to capacity utilization of ▮▮▮

Depreciation (d)

6.14 The cost of the capital invested in acquiring the RAB will be recovered as part of the cost of providing the trading service as depreciation.

6.15 In accordance with section 2.2 of the Methodology, reference was made to the Tariff Guidelines which provide that accumulated depreciation (d) is the cumulative depreciation against plant property, vehicles and equipment in service and it should be calculated on a straight line basis over the economic life of the asset.

6.16 Since the original cost and the remaining economic life of assets could be determined, NERSA used the original/historical value to calculate the straight line depreciation cost. NGV applied for ▮▮▮▮▮▮▮. NERSA prorated some assets which meant that a smaller asset figure was added to the RAB when compared to NGV which led to a depreciation figure of ▮▮▮▮▮ that is 7% less than the NGV figure.

Cost of Sales (CoS)

6.17 Section 3.6.3 of The Methodology states that Cost of Sales that are allowable in the piped-gas trading business are those determined in terms of the prescribed Volume 1 and Volume 3 of the Regulatory Reporting Manuals for the piped-gas industry.

6.18 In terms of the methodology, the cost of sales are determined according to the formula below:

Cost of Sales = Opening inventory of gas held for sale + Purchases of gas for sale – Closing inventory of gas held for sale

6.19 NGV applied for cost of sales of ███████ being the cost of procured gas of ██████ multiplied by the volume to be purchased of ████████. NERSA used the same figure that was provided by the applicant.

Working Capital

6.20 According to the Methodology, the net working capital refers to the various regulatory asset base funding requirements other than utility plant in service. This is determined using the below formula and it should be on a 45 day basis:

Net working capital = inventory + receivables + operating cash + minimum cash balance – trade payables.

6.21 Operating cash refers to investor supplied funds needed to bridge the gap between the time expenditures are made to provide a service and the time collections are received for that service. Measurement of required operating cash must be based on licensee's standard practice subject to a maximum 45 days' operating expenses excluding depreciation and deferred taxes.

6.22 NGV used the above formula to calculate a Working Capital figure of ██████ ███. NERSA assessed and calculated a working capital figure of ████████. NERSA accepted the method applied by NGV and used the estimate as provided by the applicant in the assessment.

Operating Costs (E)

6.23 According to section 3.6.2 of the Methodology, all operating costs, including depreciation for the application year, that are efficient and prudently incurred by the piped-gas trading licensee shall be allowed as a pass-through in the trading margin. The operating expenses shall be grouped and reported to the Energy Regulator in accordance with the RRMs. In considering the NGV expenses, NERSA also referred to the tariff guidelines section 4.3 that stipulate that each

expenses item should be assessed using principles such as whether the expense was "prudently incurred", its controllability and efficiency.

6.24 NGV applied for operating expenses of ███████████ in its application but when requested for additional information the compressed natural gas trader then changed some figures. Table 6 below shows the expenses submitted by NGV.

Table 6: Expense estimates submitted by NGV			
	Average Exp for 2015/16	Submitted with application	Difference
Administration costs	███████	██████	82%
Salaries and Wages	███████	██████	136%
Operational Expenses	███████	██████	5%
Distribution costs	███████	████████	611%
Total	███████	████████	112%

6.25 Table 6 above shows that NGV submitted projections of expenses that were above inflation when compared with the NGV expenses for the previous year. After assessing the expenses and requesting additional information on such items as salaries and wages that are increasing by 136% and distribution costs that are projected to increase by 611% NGV then submitted new figures for expenses. The new figures are listed in table 7 below:

Table 7: Expense estimates submitted by NGV			
	Submited with application Rands	Provided as additional information Rands	Difference %
Administration costs	██████	██████	58%
Salaries and Wages	███████	██████	-54%
Operational Expenses	███████	██████	206%
Distribution costs	███████	██████	0%
Total	████████	███████	

6.26 Table 7 above shows that the total expenses figure did not change but rather the individual expense items were increased or decreased by the NGV management. Such changing of figures questions the integrity and reliability of the information

that is submitted by NGV. No justification was provided by the applicant for the changes in the other expenses items.

6.27 For purposes of assessing the maximum price NERSA only changed the salaries and wages figure and kept the other original expense estimates as provided by NGV.

6.28 Pertaining distribution costs, NGV submitted ▮▮▮▮▮ being the total distribution costs of ▮▮▮▮ GJ at a cost of ▮▮/GJ. NGV stated that its distribution costs are determined per GJ and are not determined on a rands per GJ per kilometre. As such, NERSA subtracted the volumes supplied to Langlaagte as these are supplied directly from the pipeline and do not occur any distribution cost. Thus NERSA multiplied the distribution cost of ▮▮/GJ and the volumes excluding Langlaagte as shown in table 8 below:

Table 8: Distribution Costs

Distribution costs	Rands
Total Forecast Volume	▮▮▮▮▮
less Langlaagte Volumes	▮▮▮▮▮
Volumes to be distributed	▮▮▮▮▮
Cost of distributing per GJ	▮
Total Distribution cost	▮▮▮▮▮

6.29 The total expenses being applied for by NGV is ▮▮▮▮▮ whilst NERSA used ▮▮▮▮▮ after taking into account the differences in the operating expenses provided by NGV. Table 9 below provides a summary of the expenses used by the Energy Regulator compared to the expenses submitted by NGV as additional information.

Table 9: Expenses Used by NERSA vs NGV expenses submitted as additional information

	NERSA	NGV	Difference
	Rands	Rands	%
Administration costs	████	████	58%
Salaries and Wages	████	████	0%
Operational Expenses	████	████	206%
Distribution costs	████	████	65%
Total	████	████	

Tax (T)

6.30 In estimating tax, reference was made to section 4.4 of the Tariff Guidelines that provides that the flow-through tax approach is the Energy Regulator's preferred tax methodology. Under this approach, only the current taxes payable are factored into the allowable revenue and recovered during the period under review. To estimate tax, NERSA used the following formula:

Taxation = {(NPBT)/(1-tax rate)} * tax rate

6.31 NGV applied for ████████, as the estimated flow through taxation expense for 2017. NERSA used the above formula and calculated the flow-through tax expense as ████████. The difference is due to RAB, expenses and WACC calculations.

6.32 This is an estimate of the taxation figure for 2017 and will be subject to +/- claw-back in subsequent period as per the methodology.

Weighted Average Cost of Capital (WACC)

6.33 The Methodology requires that the trader's margin (as a percentage) be calculated in nominal terms. The nominal Weighted Average Cost of Capital ("WACC") of the trader will be the trading margin (%). Appendix 1 of The Methodology (*Appendix 1 – Determination of WACC*) illustrates the preferred NERSA method of determining the WACC.

6.34 The formula to determine the WACC is as follows:

$$WACC_{(nominal)} = \left[\left(\frac{E}{Dt + E} \right) * Ke_{(nominal)} \right] + \left[\left(\frac{Dt}{Dt + E} \right) * Kd_{(nominal)} \right]$$

Where:

E = equity

Dt = debt

Ke $_{(nominal)}$ = nominal cost of equity derived from the Capital Asset Pricing Model (CAPM)

Kd $_{(nominal)}$ = the post tax nominal cost of debt

6.35 The risk free rate represents the return an investor can achieve on the least risky asset in the market. Generally the spot prices of selected 5 to 10 year government of South Africa bonds are used for the expected risk free return when estimating the cost of equity capital. This yielded a nominal risk free rate of 10.62% calculated over 25 years as required by the sources of information approved and published by NERSA.

6.36 The Market Risk Premium ("MRP") was calculated using the JSE ALL Share Index for the previous 25 years up to April 2015 and this yielded a nominal MRP of 5.25%.

6.37 The beta (β) is determined by proxy. As a proxy, the average of six gas pipeline companies chosen by the Energy Regulator and listed on stock exchanges must

be used as per the Methodology. The following US companies were used by the NERSA as proxies:

- Southern Co Gas
- UGI Corporation
- South Jersey Industries
- WGL Holdings Inc.
- The Laclede Group
- Piedmont Natural Gas Company Inc.

6.38 NGV applied for a WACC of ▮▮▮▮ which according to the applicant is determined by:

6.38.1 the cost of capital of ▮19.34%▮ and a SSP rate of ▮2.54%▮ market to market risk free rate of selected 5 to 10 year government of South Africa bonds were used for the expected risk free return (Rf) in the estimation of cost of equity. This yielded nominal risk free rate of 10.62% calculated over 25 years as required by sources of information approved and published by NERSA.

6.38.2 The equity beta is the covariance between return on the firm's equity and the returns from the Tradeable Indices JSE Resource 20 Index.

6.38.3 The market risk premium is the additional expected return investors require to invest in equity rather than risk free instruments. The market return converted from a nominal to real value for the period to July 2016 (25years) and the average month CPI over the same period yields a real market risk of 5.25% per NERSA sources.

NERSA's calculation of WACC

6.39 In assessing the WACC using the methodology, NERSA computed the nominal WACC of ▮▮▮▮ based on after tax Kd of ▮▮% and Ke of ▮▮▮▮ applied on the NGV structure of ▮▮ debt and ▮% equity. The main difference in the NERSA and NGV figure is in the treatment as well as the value of the Small

Stock Premium (SSP). To determine value of the SSP, NERSA used the 2014/15 PWC valuation methodology survey and used ███ as the SSP for NGV. NGV on the other hand included the small stock premium of 2.54%. NGV then added the SSP to the total WACC instead of adding it to the cost of equity in line with PWC report. The other difference is between the NERSA and NGV beta figures of 1.66 instead of 1.65. The difference emanates from rounding off errors.

6.40 The other difference is between the NERSA and NGV beta figures of 1.66 instead of 1.65. The difference emanates from rounding off errors.

6.41 NERSA and NGV's comparative calculation of WACC is summarised in table 10 below.

Table 10: Summary of NERSA WACC Calculation

	COMPONENT	NERSA	NGV
A	**Cost of Equity (Ke=Rf+(MRP*beta) + SSP** Nominal Market Risk Premium (MRP)	5.25%	5.25%
B	Nominal Risk free rate (Rf)	10.62%	10.62%
C	Beta	███	███
D	SSP	███	███
E	*Nominal Cost of Equity (Ke) =(b+(a*c))*	███	███
	Nominal Cost of Debt	███	███
F	Taxation	28%	28%
G	**Post tax nominal cost of debt (kd)**	███	███
H	Debt ratio	███	███
I	Equity ratio	███	███
J	*Nominal WACC = ((d*h)+(f*g))*	███	███
	Small stock premium	███	███
	WACC	███	███

NGV WACC as per the application

Trading Margin

6.42 Table 10 below illustrates the calculation of the trading margin taking into account all the elements as prescribed by the Maximum Pricing Methodology and the Tariff Guidelines.

6.43 The differences between the NGV and NERSA calculated trading margins is ▮▮▮▮/GJ and translates to a difference of ▮▮▮▮ The differences are attributed to differences in expenses, WACC and RAB figures.

TABLE 10: Trading Margin calculation summary.

	Trading Margin		NERSA	NGV
	(TRAB = CoS + assets + net working capital)			
A	Working capital	WC	▮▮▮▮	▮▮▮▮
B	Cost of Sales	CoS	▮▮▮▮	▮▮▮▮
C	Total assets	A	▮▮▮▮	▮▮▮▮
d	RAB = a+b+c	**TRAB**	▮▮▮▮	▮▮▮▮
e	WACC	WACC	▮▮▮	▮▮▮
f	Margin = d*e		▮▮▮▮	▮▮▮▮
g	Operating Expenses	E	▮▮▮	▮▮▮
i	Depreciation	D	▮▮▮	▮▮▮
j	Taxation	T	▮▮▮	▮▮▮
k	Total Trading Margin (TTM) = sum(f:j)		▮▮▮▮	▮▮▮▮
l	Volume	V	▮▮▮	▮▮▮
m	**Margin (R/GJ)**		▮▮▮	▮▮▮

7 TOTAL CHARGES OF GAS

7.1 After determination of the GE price and the trading margin, the Methodology provides for the gas trader to recover the transmission tariffs, storage and the distribution tariff as a pass through.

7.2 The sum total of the above elements becomes the total charges invoiced by the gas trader to its piped-gas customers. NGV's total charge is R360.21/GJ and

NERSA calculated the total charge to be R293.65 with the difference of R66.56/GJ (18.5%) due to differences in the trading margin as summarised in table 11 below;

Table 11 below provides the calculation for the total charges of gas:

COMPONENT	NERSA R/GJ	NGV R/GJ
GE	███████████	██████████████
Trading Margin	██████	██████████████
Total Gas price	**293.65**	**360.21**

8 APPLICATION DISTINGUISHING FEATURES

NGV Application

8.1 NGV has applied that all filling stations in Gauteng will have the same prices regardless of the number of MATS and fixed cylinder transport trailers delivered per day. The distance from mother station (Langlaagte) and the capital cost required to set up the supply requirements at the customer site and the amount of MATS and trailers needed for rotation purposes and customer maximum drawdown demand. The costs provided to NERSA is an overall summery indicating the maximum price gas that will be dispensed to customers that fall in to the criteria listed above.

8.2 NGV stated that the discount amounts are still being negotiated with customers and NERSA will monitor the discounts and the final prices charged to customers to ensure that they are compliant to Section 22 of the Gas Act.

NGV Assessment

8.3 The request by NGV to charge the same gas prices to Gauteng stations in line with the business operations of NGV whereby it would want to charge the same price to all its vehicular customers. This request means that other stations such as the Langlaagte that is supplied by pipeline, may subsidize others such as the Dobsonville station that is supplied by mobile units. Section 22 of the Gas Act states that, "*Licensees may not discriminate between customers or classes of*

customers regarding access, tariffs, prices, conditions or service except for objectively identifiable differences regarding such matters as quantity, transmission distance, length of contract, load profile, interruptible supply or other distinguishing feature approved by the Energy Regulator." NGV argues that by charging the same price it is not discriminating among its customers. NERSA may consider approving this request to ensure that the gas trader achieves its strategic pricing objective and it minimizes some form of locational discrimination that may arise if the feature is not approved.

8.4   NERSA has assessed the proposed discriminating feature of volume whereby a customer who consumes more will pay less through the granting of more discounts. NGV stated that it is still negotiating with its customers hence the discounts applied for are only indicative. After it finalises its processes, NGV should clearly show the discounts that apply to each customer category and NERSA will monitor the actual charges levied to customers given that NGV business model is dispensing through filling stations.

9   CONCLUSION

9.1   The PGS approved the preliminary assessment of the NGV maximum price as follows:
- Approved the Gas Energy Price for public comment; and
- That the NGV trading margin application be amended and be in line with the NERSA calculated margin.

10 CONCLUSION

10.1 Stakeholders are requested to comment on the draft assessment. Written comments are to be submitted to the Energy Regulator on the following email address: gpt@nersa.org.za or to NERSA offices at Kulawula House, 526 Madiba Street, Acardia, Pretoria by 27 February 2017**.**