

DECISION

On 23 November 2017, the National Energy Regulator of South Africa (NERSA) decided:

1. to approve the SLG (Pty) Ltd ('SLG' or 'the Applicant') base maximum Gas Energy (GE) price of R140.75/GJ for the period 1 July 2017 to 30 June 2018;
2. to approve annual adjustment of the base maximum GE price by updating the actual data using the most recent rolling preceding 12 months' averages of the price for each energy indicator;
3. to approve that discounts from these maximum prices are allowed and must be applied in accordance with the non-discrimination provisions of section 22 of the Gas Act;
4. to approve that maximum price is exclusive of VAT;
5. **not** to approve SLG's trading margin of R32.58/GJ applied for, for the period 1 July 2017 to 30 June 2018; and
6. to approve the Reasons for Decision attached as Annexure A. (**Annexure A - SLG (Pty) Ltd maximum price application for the period 1 July 2017 to 30 June 2018**).

REASONS FOR DECISION

1. APPLICABLE LAW

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

2. BACKGROUND

- 2.1 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.
- 2.2 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)'.
- 2.3 The essence of section 4(g) of the Gas Act, therefore, is that when the licensee holds a licence that contains a condition in terms of section 21(1)(p) of the Gas Act, then such licensee's maximum prices must be approved by the Energy Regulator in the prescribed manner where there is inadequate competition.
- 2.4 Regulation 4 of the Piped-Gas Regulations, 2007 (published under Government Notice No. R. 321 in *Gazette* No. 29792 on 20 April 2007) ('the Piped-Gas Regulations'), which deals with the price regulation principles and procedures, provides as follows under sub-regulation (3) and (4), respectively:
- 2.4.1 that the Energy Regulator must, when approving the maximum prices in accordance with section 21(1)(p) of the Gas Act, *inter alia* be objective based on a systematic methodology applicable on a consistent and comparable basis; and
- 2.4.2 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.

- 2.5 In line with this particular requirement, NERSA 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 NERSA website at www.nersa.org.za.

Determination of Inadequate Competition

- 2.6 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")'.
- 2.7 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.
- 2.8 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 determination of inadequate competition was approved by the Energy Regulator on 29 March 2016 and is reviewed every three years.
- 2.9 For the purposes of this application, NERSA has also considered changes and developments in the South African gas industry since its determination of inadequate competition in March 2016, and whether these developments might impact on the assessment of whether there is adequate competition in the piped-gas market.
- 2.10 To this end, NERSA notes the following developments in the industry since the determination of inadequate competition in March 2016.

Availability of gas supply and infrastructure

- 2.11 The South African gas industry has not seen significant changes in the availability of gas supply or infrastructure since the previous determination of inadequate competition.
- 2.12 Investments have been made by the Republic of Mozambique Pipeline Investment Company ('ROMPCO') to increase the supply of natural gas from Mozambique into South Africa with 7.8mGJ/a. However, Sasol Gas submits that all gas supplies available to it have been committed to customers through long-term contracts, and that it therefore has no capacity to supply additional volumes of gas to traders and end users. It further submits that this position is unlikely to change in the short to medium term. These volume constraints are likely to limit the degree of competition between Sasol Gas and other traders for the supply of

gas to end users. Traders are unlikely to be able to conclude long-term supply contracts with Sasol Gas' end user customers and *vice versa* on the basis that they do not have sufficient volumes available to do so, thus limiting the degree of competition between Sasol Gas and other gas traders for end user customers. This limited degree of competition was further confirmed by NERSA's review of the actual prices charged by Sasol Gas and other traders to end users, which revealed very limited price competition between these players for the supply of gas to end users.

- 2.13 It is also noteworthy that Reatile Gastrade has started to supply gas to another trader, namely VGN/NGV, with gas procured from Egoli Gas. However, Reatile Gastrade's ability to compete with Sasol Gas for the supply trader customers is severely limited as all of its gas supply is ultimately procured from Sasol Gas either directly, or indirectly through Egoli Gas. In any event, the volume of gas supplied by Reatile Gas to VGN remains small, accounting for less than 5% of total gas volumes supplied to traders in South Africa.
- 2.14 In respect of gas infrastructure, NERSA has approved applications for licences to construct and register gas transmission activities to two industrial gas users, namely by Nampak and SAB¹. These activities are exclusively for Nampak and SAB's own use, in order to connect them directly to Sasol Gas' transmission pipeline and to bypass Sasol Gas' distribution tariffs, therefore they do not affect the market dynamics and competition in the gas industry.
- 2.15 In addition, NERSA also approved an application by SL-CNG (a wholly owned subsidiary of SLG) for the construction and operation of CNG infrastructure, as well as a distribution pipeline to connect its operations to Sasol's distribution pipeline. However, as indicated below, SL-CNG only recently commenced with the operation of its infrastructure and trading activities, and it currently only trades in gas with one customer. As such, the firm is yet to have an impact (if any) on the market dynamics and competition in the industry.

New entrants at the time of the previous determination have commenced operations

- 2.16 New entrants at the time of the previous determination, such as Reatile Gastrade, Tetra4, Columbus Steel and NGV, have since commenced with their trading operations. NERSA has also since approved applications by some trading licensees (VGN, Reatile Gastrade, Tetra4 and SLG) to add additional areas of operation to their gas trading licences. However, the volume of gas traded by these licensees remain relatively small and account for less than 5% of the total

¹ Similarly, NERSA also approved applications for licences to construct and the registration of gas transmission and/or distribution activities for own use by Columbus, PG Glass and Petro SA. However, such applications were approved prior to March 2016. The impact of these developments on competition in the gas industry were therefore already considered in NERSA's determination of inadequate competition in March 2016.

volumes supplied to end users (both industrial and vehicular) in South Africa. As such, their entry and expansions have not yet had a material impact on the market dynamics and competition in the gas industry.

2.17 Additional new entrants granted licences to trade

2.18 Two new trading licences have also recently been granted by NERSA, namely to SL-CNG and Evraz Highveld Steel and Vanadium Limited ('Evraz') on 7 November 2016. Both firms only recently commenced with their trading activities and as such, these licensees are yet to have an impact (if any) on the market dynamics and competition in the industry ².

2.19 It is clear from the above that there has been some developments in the gas industry since NERSA's determination of inadequate competition in March 2016. However, these developments have not yet had a material impact on the market dynamics and competition in the industry. Sasol Gas remains a vertically integrated monopoly, or near monopoly, at all levels of the gas supply chain, with the current gas supply constraints in the sector entrenching this position.

2.20 Relationship to the Tariff Guidelines

2.21 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'.

2.22 In order to implement this mandate, NERSA 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 NERSA website at www.nersa.org.za.

2.23 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).

The Piped-Gas Regulations

2.24 The maximum price determination principles outlined in the Maximum Pricing Methodology are further informed by the Piped-Gas Regulations.

² [REDACTED]

- 2.25 Sub-regulation 4(3) prescribes that the Energy Regulator must, when approving the maximum price in accordance with Section 21(1)(p) of the Act:
- be objective i.e. based on a systematic methodology applicable on a consistent and comparable basis;
 - be fair;
 - be non-discriminatory;
 - be transparent;
 - be predictable; and
 - include efficiency incentives.
- 2.26 Sub-regulation 4(4) prescribes that the maximum prices referred to in sub-regulation 4(3) must enable the licensee to:
- recover all efficient and prudently incurred investment and operation costs; and
 - make a profit commensurate with risk.
- 2.27 Sub-regulation 4(6) then requires that, when gas is sold, the accompanying invoice must itemise the constituent elements of the total price reflected on the invoice, including at least the cost of gas, and transport tariffs and any other charges.
- 2.28 Annexure A of the Regulations provides the definition of the classes of customers as classified by 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		

- 2.29 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 National Energy Regulator.

Approving maximum prices of piped-gas

- 2.30 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.

- 2.31 The piped-gas maximum price application process is as follows:
- a) The Energy Regulator has requested licensees or applicants to submit their maximum piped-gas price applications based on the Methodology approved by the Energy Regulator.
 - b) To ensure consistency of applications and predictability of analysis of the applications, NERSA has specified the following:
 - i. prescribed sources of information that must be used for the input variables in the maximum price calculations;
 - ii. prescribed weights applied to energy price indicators; and
 - iii. the Methodology to determine trading margins.
 - c) Applicants must provide information regarding the assumptions, as well as the details of the calculation.
- 2.32 This application must:
- a) be provided on an annual basis, although applicants are allowed to apply for approval of maximum prices for a longer or shorter period; and
 - b) indicate the manner and frequency of price adjustments to be approved by the Energy Regulator.
- 2.33 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'.

3. THE APPLICANT

- 3.1 According to the application, Spring Lights Gas concluded a group restructuring arrangement, wherein the business and all assets and liabilities of Spring Lights Gas (Pty) Ltd were sold to the new entity called SLG (Pty) Ltd ('SLG'). SLG was therefore established for the marketing of piped-gas in KwaZulu-Natal and Gauteng. In terms of the new structure, SLG is 100% owned by Adispex, which in turn is owned 77.95% by Minolog and 22.05% by Kwande Energy.
- 3.2 On 20 February 2017, the Energy Regulator approved SLG (Pty) Ltd's application for licences to trade in gas in certain areas of the Gauteng, Free State and KwaZulu-Natal (KZN) provinces – licence numbers Gala.tr.F1/1535/2016 and Gala.tr.F1/1549/2016 – effective from 1 April 2017.
- 3.3 The new trading licence approved with effect from 1 April 2017 resulted from Spring Lights Gas (Pty) Ltd revoking its trading licence due to a group restructuring arrangement and the new entity taking over its business activities as they existed at the time of the licence revocation.

- 3.4 According to the applicant, on 4 December 2015 the shareholders of Spring Lights Gas concluded a group restructuring arrangement, wherein the business and all of the assets and liabilities of Spring Lights Gas (Pty) Ltd were sold to the new entity called SLG.
- 3.5 The licence conditions issued by NERSA allow SLG to service customers that extend from Northern KZN along the coast down to Durban South. SLG has also been granted a trading licence in the Gauteng and Free State provinces.
- 3.6 SLG purchases its gas (methane rich gas) from Sasol Gas (Pty) Ltd. The methane rich gas is pumped into the Lilly pipeline in Secunda and is delivered and sold from Northern KZN along the coast down to Durban South.

4. SLG's MAXIMUM PRICE APPLICATION

- 4.1 On 13 June 2017, NERSA received an application for a maximum price of piped-gas for the period 1 July 2017 to 30 June 2018 from SLG. This is the first maximum price application submitted by SLG after NERSA approved its application for licences to trade in gas in certain areas in the Gauteng, Free State and KwaZulu-Natal provinces on 20 February 2017. SLG's maximum price application is attached as **Annexure A (Annexure A – SLG Maximum Price application for the period 1 July 2017 to 30 June 2018)**.

Gas Energy Price Application

- 4.2 SLG's maximum price application is made in terms of the price indicators approach (as opposed to the pass-through approach). SLG is applying for a maximum Gas Energy (GE) price of R140.75/GJ for the period 1 July 2017 to 30 June 2018. This Maximum Price Application is submitted in terms of Section 21(1)(p) of the Gas Act.
- 4.3 SLG is further applying for the GE to be adjusted on a quarterly basis using the most recent preceding 12 months' rolling averages of the price for each energy indicator. For example, the next adjustment date is 1 October 2017. The GE on 1 October 2017 will be adjusted based on the most recent preceding 12 months' rolling averages for each energy price indicator.
- 4.4 The total charges of gas for SLG is the sum of the GE plus trading margin and pass-through costs.
- 4.5 SLG did not apply for discounts applicable to customers across all volume categories or classes of customers.

- 4.6 It must be noted that while the customer volume categories are prescribed in the Regulations, the percentage discounts are not. This is entirely at the discretion of the licensee. However, the licensee must ensure that discounts are applied in a non-discriminatory manner as contemplated in section 22 of the Gas Act.

Trading margin

- 4.7 In addition to the GE price and as stipulated in Regulation 4(4) of the Piped-Gas Regulations, a trader is allowed to charge a trading margin to recover its trading expenses and earn a reasonable return on its trading assets. In light of this, SLG applied for the following trading margin for the period 1 July 2017 to 30 June 2018.

Table 1: SLG Trading Margin calculation for the Period 1 July 2017 to June 2018

	TRADING MARGIN	SLG
a	Working capital	
b	Cost of Sales	
c	Total assets	
d	RAB (a+b+c)	
e	WACC	
f	Return on Investment (d*e)	
g	Expenses	
h	Depreciation	
i	Taxation	
j	Trading Margin = (f+g+h+i)	
k	Volume	
l	Margin (R/GJ) =J/k	R32.58

Source: SLG Application 2017

5. NERSA ANALYSIS OF THE APPLICATION

- 5.1 To review SLG’s application for a maximum price of piped-gas, the Price Indicators Approach as outlined in the Methodology was used, since this is the same approach followed by SLG in its application.

The Methodology (using the price indicators approach)

- 5.2 According to section 3.1 of the Methodology, the maximum price for gas (at the point of its first entry into the transmission/distribution system) is referenced to price indicators of certain relevant energy sources as detailed below.

$$GE = w_1 CL + w_2 DE + w_3 EL + w_4 HFO + w_5 LPG$$

Where:

GE = Maximum price for gas energy (ZAR/GJ) price at the point of its first entry into the piped-gas transmission/distribution system;

CL = indicator of equivalent price of coal;

DE = indicator of equivalent price of diesel;

EL = indicator of equivalent price of electricity;

HFO = indicator of equivalent price of heavy fuel oil;

LPG = indicator of equivalent price of liquefied petroleum gas;

W_n = weighting of the 'nth' indicator in the basket (where, $W_1+W_2+W_3+W_4+W_5=100\%$);

5.3 The formula above is used exclusively for the GE price and does not include trading margins, distribution tariffs, transmission tariffs, storage tariffs and levies.

5.4 Section 3.1 of the Methodology further states that once the GE price is derived, all other charges (margins, tariffs and levies) mentioned above shall be included to arrive at the total gas charge, inclusive of charges to be invoiced.

5.5 The Energy Regulator assessed the GE price using the price indicators of certain relevant energy sources and yielded a price of R140.37/GJ. Below are tables illustrating the GE calculation of NERSA and SLG:

Table 2 : SLG GE Calculation for the Period July 2017 to June 2018

Indicator Energy Form		Average Market Price	Energy Value	Average Exchange rate	Energy price	Weights	Gas Energy Price
			Conversion Factor	Rands/US\$ & GBP	Rands/GJ	%	R/GJ
		a	b	d	e = c x d	f	g = e*f
1	Thermal Coal	73.24	27	13.95	37.84	37.2%	14.08
2	HFO	269.83	43	18.26	115.59	1.10%	1.27
3	Electricity	87.55	0.0036		243.18	36.50%	88.76
4	Diesel	553.49	0.0381		145.27	24.40%	35.44
5	LPG	397.38	0.0267		148.83	0.80%	1.19
Gas Energy Price						100%	140.75

Source: SLG Application 2017

Table 3 : NERSA GE Calculation for the Period July 2017 to June 2018

Indicator Energy Form		Average Market Price	Energy Value	Average Exchange rate	Energy price	Weights	Gas Energy Price
			Conversion Factor	Rands/US\$ & GBP	Rands/GJ	%	R/GJ
		a	b	d	e = c x d	f	g = e*f
1	Thermal Coal	73.57	27	13.96	38.04	37.2%	14.15
2	HFO	243.85	43	18.26	103.57	1.10%	1.14
3	Electricity	87.23	0.0036		242.31	36.50%	88.44
4	Diesel	553.46	0.0381		145.27	24.40%	35.44
5	LPG	397.38	0.0267		148.83	0.80%	1.19
Gas Energy Price						100%	140.37

5.6 In assessing the GE price applied for by SLG, NERSA used the same period for data source used by SLG. The difference between the NERSA and SLG calculations is 0.38 cent and is due to rounding off in calculations on thermal coal, Heavy Fuel Oil (HFO) and electricity data sources. The difference between NERSA's and SLG's calculations is negligible and is below the 10% range. Therefore, NERSA made a decision to accept SLG's calculation of the GE price.

GE ADJUSTMENT

5.7 SLG is further applying for the GE to be adjusted on a quarterly basis using the most recent rolling preceding 12 months' averages of the price for each energy indicator. For example, the next adjustment date is 1 October 2017. The GE on 1 October 2017 will be adjusted based on the most recent preceding 12 months' rolling averages for each energy price indicator.

5.8 NERSA assessed GE adjustment guided by the following principles;

- a) *Price certainty* – In terms of the certainty of prices, it seems a yearly adjustment of the GE price is more appropriate as it ensures a more stable price over a period of a year, which makes the price more predictable to enable customers to plan properly.
- b) *Minimised price volatility* – Adjusting the GE price quarterly results in volatile price fluctuations, which present price shocks in certain circumstances where increases are experienced. Adjusting the GE price annually or bi-annually ensures a smooth adjustment of the GE price.
- c) *Predictability of Prices* – In order to ensure that the Energy Regulator approves prices that are predictable, it is important that they are adjusted in a manner that allows customers to plan for their operations. Using an annual adjustment will ensure that customers plan their production budgets properly.

5.9 In light of the above, NERSA has approved that SLG adjust its actual GE price on an annual basis using the most recent 12 months' averages price for each energy indicator in line with the SLG suppliers' price adjustment, which is approved on an annual basis.

5.10 NERSA assessed the impact of adjusting the GE price quarterly and compared it with the impact of an annual adjustment using SLG's current maximum price as shown in Table 4 below. In the previous twelve months, the GE quarterly adjustment yielded an over 9% increase; being an increase of 1% in Q₁; 3% Q₂, 4% in Q₃ and 1% Q₄. The annual adjustment yielded an increase of 9.4% on a year-on-year basis. It must be noted that although there is a difference between the quarterly and the annual GE adjustment, NERSA considered the principles outlined in paragraph 5.1 above for the GE annual adjustment.

Table 4: GE Adjustment Annual vs quarterly

Approved Price FY 17	R128.99/GJ			
Annual Adjustment	R141.11/GJ			
Quarterly Adjustment	Q ₁	Q ₂	Q ₃	Q ₄
R/GJ	R129.48/GJ	R131.42/GJ	R135.32/GJ	R139.82/GJ

Determination of the Elements of the Trading Margin

5.11 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.

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

$$\text{Allowable Revenue}_{\text{(trading)}} = \{((\text{TRAB} + \text{Cost of Sales} + \text{Working Capital}) * \text{Margin}) + \text{Expenses} + \text{T} \pm \text{C}\}$$

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

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

Regulatory Asset Base (RAB)

5.14 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.'

5.15 The return on investments in such limited and trading-specific piped-gas 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. The RRM provides guidance on how the piped gas plant should be recorded, its definition, what it is comprised of among other uses.

5.16 The RAB 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)**

5.17 SLG applied for Trading Regulatory Asset Base (TRAB) to the value of [REDACTED]
[REDACTED] being the book value of [REDACTED]
[REDACTED]
[REDACTED] Included in the RAB are the [REDACTED]
[REDACTED]
[REDACTED]

5.18 As a trader, SLG does not own any pipeline infrastructure assets (i.e. transmission and distribution assets); it is reliant on both Sasol Gas and

Transnet Pipelines for the provision of the network infrastructure for the supply of gas.

5.19 In the analyses of the RAB, NERSA disallowed [REDACTED] [REDACTED] to the total of value of [REDACTED] as shown in Table 4 below. The [REDACTED] project is still under construction and distribution assets are not regulated by the Energy Regulator. The [REDACTED] is owned by Sasol Gas to supply [REDACTED] and Sasol Gas currently recovers costs under the distribution tariff.

Table 5: [REDACTED]

Item	Rand Value
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]

Depreciation (d)

5.20 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.

5.21 SLG applied for a depreciation of [REDACTED]; being the depreciation on [REDACTED] CNG [REDACTED] [REDACTED]. NERSA adjusted the amount to [REDACTED] by disallowing the depreciation of [REDACTED], being depreciation on asset additions, which have been disallowed in the above paragraphs. The depreciation expense will be verified during the audit of the regulatory financial reports (RFRs) during the audit procedure at year end.

Operating Costs (E)

5.22 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 RRM. In considering the SLG expenses, NERSA also referred to section 4.3 of the Tariff Guidelines, which stipulate that each expenses item should be assessed using principles such as whether the expense was 'prudently incurred', and its controllability and efficiency.

- 5.23 In assessing the operating costs submitted by SLG, NERSA used the principles as articulated in the Methodology on whether the expenses were prudently and efficiently incurred. The analysis of operating expenses was conducted to ensure that there is no duplication of expenses or cross-subsidisation between the trading and CNG businesses of the SLG Group.
- 5.24 An amount of [REDACTED] in operating expenses has been allowed, which is made up of general business operating expenses such as insurance fees, labour costs, utilities, rent paid, computer costs, travel and sundry expenses.
- 5.25 The operating costs will be verified through the audit of the RRM at year end when the audit of the regulatory financial reports are done. Any over and under recoveries between the allowed and the actual expenses will be corrected through the claw back mechanism prescribed in the Tariff Guideline.

Working Capital

- 5.26 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 – trade payables.

- 5.27 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 as per the Tariff Guidelines.
- 5.28 SLG's working capital value of [REDACTED] consists of trade receivables of [REDACTED], operating cash of [REDACTED] based on 45 days operating expenses less trade payables of [REDACTED]. NERSA accepted the method applied by SLG and used the estimate as provided by the applicant. The figure will be audited at the end of the trading period.

Tax (T)

- 5.29 Section 4.3 of the Tariff Guidelines states that NERSA allows the licensee a choice between the flow-through and normalised tax approaches. However, once a licensee has chosen an approach, it is not permitted to change. The flow-through tax approach is the Energy Regulator's preferred tax methodology.
- 5.30 According to the applicant, in determining the tax expense, SLG has applied for its budgeted FY18 current tax expense to be allowed as a pass-through. The

current tax expense is exclusive of deferred taxation and disallowed amortisation allowances of [REDACTED]. The amount of tax expense applied for is [REDACTED], which according to the applicant is reflective of the likely taxation payments to the South African Revenue Services (SARS).

5.31 It must be noted that the tax amount allowed is an estimate and will be audited and is subject to +/- claw-back in subsequent trading margin period as per the Methodology.

Cost of Sales (CoS)

5.32 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 RRM for the piped-gas industry.

5.33 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

5.34 SLG applied for cost of sales (CoS) of [REDACTED]. The CoS amount consists of the projected purchase price of gas excluding tariffs (as these are pass-through costs). As part of the CoS application, SLG included amortisation of customer contributions that SLG has made/budgeted to convert customers to gas. These contributions are written off over the term of the contract. In the previous decisions for Spring Lights Gas applications for maximum price, NERSA accepted contributions costs on condition that these costs must not be included in the Sasol Gas and Transnet RAB. NERSA verified that these costs are not included in the RAB for Sasol Gas and Transnet as part of the RRM audits. Below is a summary of SLG’s cost of sales.

Table 6: SLG Cost of Sales Summary

Total GE Costs	[REDACTED]
Amortisation of customer contributions	[REDACTED]
Total Cost of Sales	[REDACTED]

5.35 NERSA considered the amount applied for and will verify the amortisation of customer contracts during the audit process and if necessary, will clawback the amount in the next maximum price application.

Weighted Average Cost of Capital (WACC)

5.36 The Methodology requires that the trader’s margin (as a percentage) be calculated in nominal terms. The nominal 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. 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

5.37 Below is a table showing SLG’s WACC as well as NERSA’s calculations.

Table 7: WACC Calculation Summary for the Period 1 July 2017 to June 2018

Component		NERSA	SLG
Cost of Equity (Ke=Rf+(MRP*beta)+SSP)			
a Nominal Market Risk Premium	MRP	4.64%	4.60%
b Nominal Risk free rate	Rf	11.24%	11.24%
c Beta	β	█	█
d Small stock premium	SSP	█	
e <i>Nominal Cost of Equity (Ke)=(b+(a*c)+d)</i>	Ke	█	█
f Nominal Cost of Debt (kd)	Kd	█	█
g Post tax nominal cost of debt	kd	█	█
h Debt ratio		█	█
i Equity ratio		█	█
j <i>Nominal WACC = ((d*h)+(f*g))</i>	WACC	█	█
SSP		█	█
SRP		█	█
		█	█

5.38 In its application, SLG determined its WACC to be █ based on a nominal pre-tax cost of debt (Kd) of █ and nominal cost of equity (Ke) of █

█
 █ SLG used the minimum █
 █

5.39 In calculating the WACC, SLG applied for additional risks to be added on the WACC such as the small stock premium (SSP) of █ and Specific Risk Premium (SRP) of █ SLG calculated the SSP based on the PWC Valuation methodology survey 2016/17 for companies whose value is between █

5.40 Included in the WACC calculation is the SRP of [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

5.41 NERSA has allowed the SSP of [REDACTED] applied for by SLG as per the Tariff Guidelines. According to the Tariff Guidelines, a small stock premium is an adjustment to the CAPM to account for the other risks associated with small companies that the model does not address. This premium is allowed for all companies that fall into the size bands for which small stock premiums are allowed by practitioners as noted in the latest available PWC Valuation Methodology.

5.42 NERSA has disallowed the SRP of [REDACTED] on the basis that the Tariff Guidelines do not recognise this form of risk in calculating WACC.

5.43 To calculate the Risk Free Rate (Rf) and the Market Risk Premium (MRP), SLG used 30-year average data for the period February 1987 to March 2017. SLG applied for an Rf of 11.24% and MRP of 4.60% and calculated a Beta (β) of [REDACTED].

5.44 In assessing the reasonableness of the WACC, NERSA used the Methodology and came up with a nominal post-tax WACC of [REDACTED] NERSA used the same [REDACTED] as SLG.

5.45 The yield on loan stock traded on the stock exchange of government bonds with a maturity of 10 years and over were used for the expected risk free return in the estimation of cost of equity. This yielded a nominal risk free rate of 11.24% calculated over 30 years as required by the sources of information approved and published by NERSA.

5.46 The MRP was calculated using the JSE ALL Share Index for the previous 30 years up to February 2017. This yielded a nominal MRP of 4.64%.

5.47 The beta was 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 SLG and NERSA as proxies:

- a) New Jersey Resources Inc.
- b) UGI Corporation
- c) South Jersey Industries
- d) WGL Holdings Inc.
- e) The Laclede Group
- f) Piedmont Natural Gas Company Inc.

5.48 In line with the Methodology, the beta was calculated using the Hamada formula and yielded a beta of [REDACTED]

5.49 A cost of debt (Kd) of [REDACTED] applied for by SLG was used to calculate the nominal post-tax cost of debt of [REDACTED]

5.50 Table 7 below illustrates the summary of the trading margin calculations taking into account all the required elements discussed above.

Table 8: SLG and NERSA'S Trading Margin Calculation for the Period 1 July 2017 to June 2018

	Trading Margin	SYMBOL	NERSA	SLG	DIFF
	(TRAB = CoS + assets + net working capital)				
a	Working capital	WC	[REDACTED]	[REDACTED]	[REDACTED]
b	Cost of Sales	CoS	[REDACTED]	[REDACTED]	[REDACTED]
c	Total assets	A	[REDACTED]	[REDACTED]	[REDACTED]
d	RAB = a+b+c	TRAB	[REDACTED]	[REDACTED]	[REDACTED]
e	WACC	WACC	[REDACTED]	[REDACTED]	[REDACTED]
f	Margin = d*e		[REDACTED]	[REDACTED]	[REDACTED]
g	Operating Expenses	E	[REDACTED]	[REDACTED]	[REDACTED]
i	Depreciation	D	[REDACTED]	[REDACTED]	[REDACTED]
j	Taxation	T	[REDACTED]	[REDACTED]	[REDACTED]
k	Total Trading Margin (TTM) = sum(f;j)		[REDACTED]	[REDACTED]	[REDACTED]
l	Volume	V	[REDACTED]	[REDACTED]	[REDACTED]
m	Margin (R/GJ)		R26.73	R32.58	-18%

5.51 The difference between the NERSA and SLG trading margin calculations is 18% and it is above the 10% range. The reason for the differences in the trading margin calculation is due to differences in the RAB, WACC and depreciation as detailed in the above paragraphs. NERSA made a decision not to approve SLG's trading margin application for the period 01 July 2017 to 30 June 2018.

6. TOTAL PIPED-GAS PRICES INCLUSIVE OF TARIFFS

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

6.2 The sum total of the above elements becomes the total charges that may be invoiced by the gas trader to its piped-gas customers.

7. STAKEHOLDER CONSULTATION PROCESS

- 7.1 SLG's application and the discussion document on SLG's maximum price of gas were published on the NERSA website for public comments on 14 August 2017. The notices for comments on the application and the discussion document were published in the *Business Day, Mail & Guardian, the Star* and *Sunday Times* newspapers during the week ending 13 August 2017.
- 7.2 Stakeholders were invited to provide written comments to the Energy Regulator, which will be considered before making a final decision on this matter. The deadline for the submission of comments was 8 September 2017. NERSA received comments from NOVO Energy (Pty) Ltd ('NOVO').

Stakeholder comment

- 7.3 NOVO's main concern with SLG's maximum price application is based on the fact that the SLG maximum price application is based on the 'Price Indicators Approach' as opposed to the 'Pass-Through Approach'. NOVO believes that the use of the Price Indicators Approach as opposed to the Pass-Through Approach by traders such as SLG that are located at the end of the value chain creates an artificial maximum gas price in the market, and this allows some gas resellers to charge excessive prices that are not able to be substantiated with the input costs as required under the pass-through approach.

Response

- 7.4 The current Methodology is flexible in terms of the choice between the Price Indicators Approach and Pass-Through Approach in the determination of the gas energy price. As a result, applicants or licensees in the gas value chain are at liberty to motivate their choice between the two approaches.
- 7.5 NERSA is currently in the process of reviewing the Methodology and this is one of the areas where NERSA is soliciting stakeholder's comments. Various stakeholders have indicated that the Price Indicators approach should be utilised by importers of Gas to determine the economic value of the gas molecule at the beginning of the value chain or at point of its first entry into the transmission/distribution system.
- 7.6 NERSA agrees with this view, since the value of a gas molecule, once determined at the point of entry from outside South Africa, is the same irrespective of the location of the licensee in the country. The GE of all other traders/resellers of gas must be based on the negotiated cost of gas from the suppliers of gas who are at the point of entry into the transmission/distribution system.

7.7 The rationale behind this view is that there is no need for these traders to recalculate the unit price of the gas molecule that has already been established at the point of its first entry into the transmission/distribution system by importers of natural gas into the South African market. Traders should then add trading margins, transmission and distribution tariffs to the known and pre-determined gas molecule price to arrive at the total charge of gas in the market

8. CONCLUSION

8.1 On the conspectus of the facts and evidence, it is appropriate and in compliance with the requirements of the National Energy Regulator Act, 2004 (Act No. 40 of 2004) to make the decision set out above.

