NATIONAL ENERGY REGULATOR OF SOUTH AFRICA

ESKOM'S ALTERNATIVE TARIFF APPLICATION FOR MUNICIPALITIES

28 OCTOBER 2013

Annexure 1

ESKOM'S ALTERNATIVE TARIFF APPLICATION FOR MUNICIPALITIES

ESKOM SUBMISSION TO NERSA

FOR

ALTERNATIVE MUNICIPALITY TARIFF

AUGUST 2013

Contents

1 Executive summary

This submission to NERSA is for the approval of an alternative municipality tariff called "Muniflex" which has been designed for municipalities with a predominantly residential customer base mix in their area of supply.

NERSA is requested to approve the following in terms of this submission, namely the introduction of a new tariff option for municipalities in the 2014/15 financial year, as follows:

a) An urban and rural version of a two-part, peak and off-peak Time-of-Use (TOU) tariff option with no seasonal differentiation.
b) Only energy charges have been redesigned, whereas all the other charges are the same as the Megaflex and Ruraflex tariff options.
c) Transmission zone and voltage of supply signal have to be retained.
d) The rates are in 2014/15 values as per the MYPD3 decision prior to Regulatory Clearing Account considerations and any other changes proposed in terms of the 2014/15 annual tariff adjustment.
e) The tariff will be revenue-neutral for Eskom: any revenue under- or over-recovery from the new tariffs in comparison to Megaflex and Ruraflex respectively resulting from changes in profile shall be recoverable through tariff revenue.
f) These tariffs will have the following qualification criteria:
    a. The municipality must have a predominantly residential customer base mix at municipality level – not at account or POD (point of delivery) level.
    b. The predominant residential customer base mix is regarded as being where at least 60% of the consumption is residential at the total municipal level.
    c. High-voltage and Transmission-connected supplies will not qualify for the tariff.
g) Where Eskom has funded ripple control systems within a municipality, the agreement is still valid and the municipality qualifies for the tariff, the municipality will still be required to comply with the terms of the Demand Side Management agreement.
h) The target implementation date of the tariff is 01 July 2014.

All rates contained in this submission are subject to the 2014/15 tariff adjustment approval which could result in the recalculation of the Muniflex rates contained in this submission to ensure revenue neutrality.

Upon obtaining approval of this new tariff category, Eskom will publish this tariff as part of the schedule of standard tariffs from the 2014/15 financial year.

2 Background

Eskom has developed the alternative municipality tariff options in compliance with the NERSA MYPD3 decision of 28 February 2013 which stated that "**"Eskom must ensure that alternate tariff options (other than time-of-use tariffs) are available to municipalities with a predominantly residential load mix".**

This decision was taken in response to the complaints that NERSA had been receiving from municipalities due to Eskom's high winter Time-of-Use (TOU) tariffs. These municipalities had highlighted the following concerns with regard to the current basket of tariff options available to municipality supplies:

- These municipalities were unable to respond to the TOU signal due to their customer base mix.
- These municipalities had limited ability to plan cash-flows due to the winter vs. summer tariff signal. Municipalities attributed their current inability to pay their Eskom accounts.

Eskom therefore designed the alternative municipality tariff options as mandated by NERSA to address the concerns of the municipalities that are unable to respond to the existing tariff signals due to a predominantly residential customer base mix. The tariff is designed to provide cash-flow smoothing and to retain a simple TOU signal. Eskom believes strongly that the TOU signal must be retained in order to allow for some demand management by the municipality.

NERSA is requested to approve the rates for this new tariff option in 2014/15 values as per the MYPD3 decision. Any further decisions in terms of MYPD3 that may be taken after the decision has been taken on this tariff would be considered in terms of the final rates for implementation.

3 Tariff proposal

3.1 Tariff objectives

The main objective of the tariff is to address the needs of the municipalities that are unable to respond to the current TOU signal as per the NERSA requirement outlined in the MYPD3 determination of 28 February 2013. Municipalities with a predominantly residential customer base have difficulty with responding to the TOU and seasonal tariff signals due their customer base mix.

These tariffs will be offered only as additional options to the existing basket of tariffs available to municipalities, i.e. the customers that do not qualify for conversion to this proposed tariff can still select from the other tariffs that are still available to municipalities. As the tariffs for small power users (below 100 kVA) do not have a TOU or seasonal price differentiation, these tariff options remain unchanged.

Other objectives that the tariff options will seek to address are the following:

- The tariff is designed for municipalities that have a low load factor due a high residential customer base mix. The predominant residential customer base mix is regarded as being where at least 60% of the consumption is residential at the total municipal level and this will have to be declared and substantiated by the municipality upon applying for conversion to the tariff.
- The tariff will seek to address the need to smooth cash-flows. The municipalities will be better able to plan the forecast sales volumes based on a flatter, more predictable tariff.
- Energy rates will be redesigned to provide a simpler tariff that is better aligned to the customer base mix of the targeted municipalities.

3.2 Customer segmentation analysis

Having determined the tariff objective, it is important to understand that the tariff would seek to address the tariff signals (i.e. TOU and seasonal signal) contained in the large power tariffs to municipalities. To develop clear criteria for potential municipalities that could quality to convert to the tariff, Eskom undertook a statistical research study with the main objective of seeking to understand the typical tariff response of municipalities with a high residential load mix.

The objective of the statistical research study was to perform municipality account market segmentation, specifically to determine the qualification criteria for the alternative municipal tariffs as well as which of the characteristics of the municipal accounts could be considered for an alternative tariff.

Three methods for investigation were undertaken, namely:

a) Investigation of peak to non-peak ratios for the municipalities;
b) Investigating the TOU profile modification capabilities (e.g. ripple systems); and
c) The "percentage of residential load".

The investigation was done at account level and TOU data was collected over a five-year period. The final outcome was a list of statistically segmented accounts, ranked from low eligibility to qualify for the tariff to high eligibility for qualifying for the tariff, based on the final ranking in terms of the three methods above. The final ranking is based only on the profile modification capability and the percentage of residential load, whereas the TOU peak to non-peak ratio method is used as a supporting indicator.

The study is indicative and informed the initial tariff design. It should noted, however, that once the tariff is available for implementation, each application will be evaluated on an individual basis and an informative tariff comparison analysis will be provided to the customer prior to making a decision on converting to the tariff.

3.2.1 Investigation of peak to non-peak ratios for the municipalities

The purpose of this investigation was to perform a numerical analysis to determine which municipal accounts display better and poorer TOU performance. This analysis was undertaken using the registered billing values over a five-year period and is based on an investigation of the ratio of peak energy to non-peak energy at account level over this period. The final outcome was a list of municipalities with better ratios, average ratios and poorer ratios.

The evaluation was completed only where information was available about the municipalities, but serves as a good indicator of the type of customer that ought to be targeted.

The customer segmentation study also revealed that certain municipalities had employed profile modification techniques in the past but were no longer utilising these measures. Upon application for conversion to the proposed alternative tariff, it is proposed that each individual case should be evaluated on merit.

3.2.2 Investigating the TOU profile modification capabilities (e.g. ripple systems)

As a second part of the study, the shapes of the half-hourly profiles, during the high season of 2012, were investigated to study the different levels of TOU performance based on the hourly movements of individual hours in the profile. This part of the study therefore reports on an algorithm to detect whether an account has a modified shape because of the TOU tariff signal.

The diagrams below are examples of the typical profiles of accounts displaying best and worst profile modification.

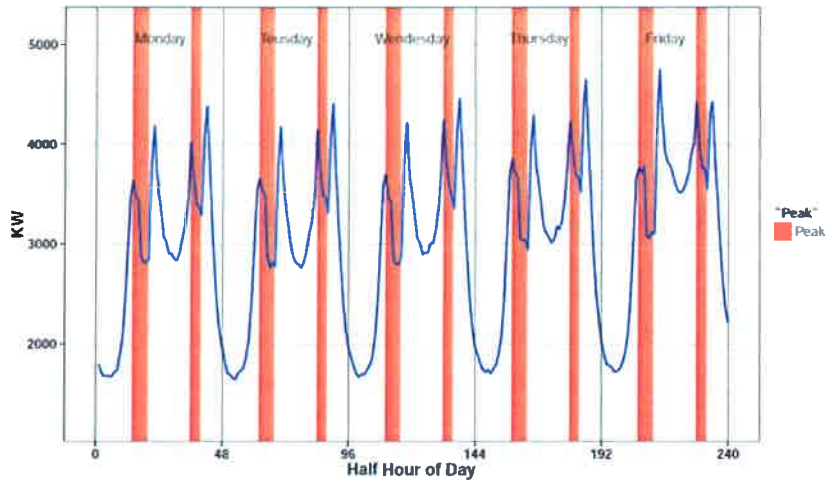


Figure 1: Best-profile-modifying customer account profile shape

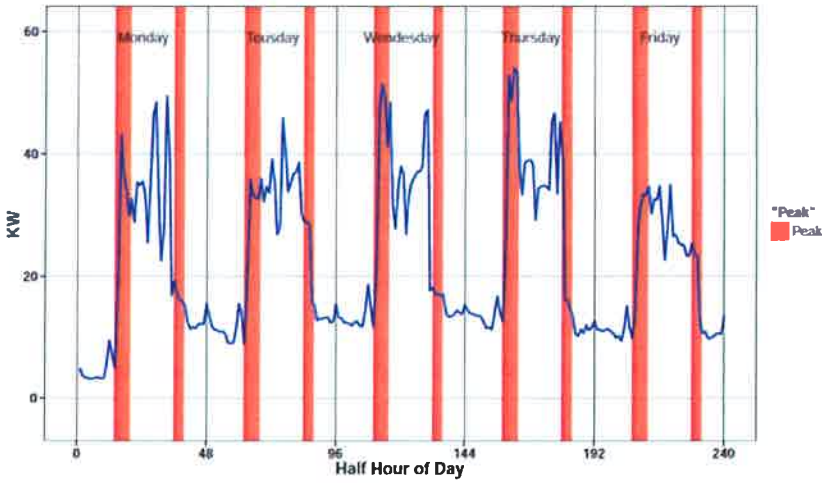


Figure 2: Worst-profile-modifying customer account profile shape

With a worst-profile-modifying customer, the load declines before the start of the peak period, increases during the peak period, and reduces after the peak period. The opposite behaviour is shown for the best-profile-modifying customers. It can be concluded that the profile-modifying customers do not to respond to a TOU signal for any number of reasons, including the fact that these municipalities may have a high residential customer base that does not allow for much flexibility in terms of the modifying the profile to avoid the high peak prices.

3.2.3 The "percentage of residential load"

The objective of the study was to determine the percentage of the municipality account energy (measured over an average winter week) that can be ascribed to residential customers. The results were to be categorised according to three ranges, i.e. low residential energy component, medium residential energy component and high residential energy component.

In order to complete this study, the following sources of data were used:

- Metering data
- Data from a previous domestic load research study completed by Eskom
- The Afriscope LSM data set

3.2.3.1 Residential energy component is LOW

It is proposed that this class of municipalities has a lower residential component on their total sales in comparison to the other municipalities. This means that a higher proportion of sales can be ascribed to commercial and industrial customers.

3.2.3.2 Residential energy component is MEDIUM

It is proposed that this class of municipalities has a medium residential component in their sales in comparison to the other municipalities. This means a lower proportion of their sales can be ascribed to commercial and industrial customers.

3.2.3.3 Residential energy component is HIGH

In these cases, the proportion of residential energy sales is significantly higher than that of the other municipalities.

3.2.4 Final segmentation

In conclusion, the study derived the following conclusions:

a) Some municipalities will have **low eligibility** to qualify for the tariff. These municipalities are proposed to have high proportions of commercial and industrial energy usage by their customer base and have a high-profile modification score. A case-by-case investigation is warranted in each case but it is proposed that they generally should not be considered for the modified TOU tariffs.
b) Other municipalities will have **medium eligibility** to qualify for the tariff. Accounts that rank in this group are proposed to have lower proportions of commercial and industrial energy usage by their customer base and have a lower profile modification score. A case-by-case investigation is warranted in each case but it is proposed that they generally should be considered for the modified TOU tariffs, based on substantiating evidence which would have to be provided by the municipality for the alternative municipality tariff.
c) Some of the other municipalities will have **high eligibility** to qualify for the tariff. These municipalities are proposed to have almost no proportions of commercial and industrial energy usage by their customer base and have a low-profile modification score. A case-by-case investigation is warranted in each case but it is proposed that they generally should be considered for the modified TOU tariffs.

3.3 Criteria for the alternative municipality tariff

This paragraph is divided into two sections: (a) the assessment criteria employed to design the most optimal tariff solution; and (b) the criteria for the allocation of customers to the tariff.

3.3.1 Assessment criteria for an optimal tariff solution

The tariff design alternatives considered had to determine how to achieve a balance between the different stakeholder objectives and needs. The key stakeholders identified in terms of the tariff development were NERSA, municipalities (i.e. the customers for which the tariff is designed), the other customers as well as Eskom. The following decision table was used for evaluating the optimal tariff solution.

Tariff Objective	**Which stakeholder has this requirement (NERSA, Eskom, Customer)**	**Priority**
Alternative tariff option	NERSA, Municipalities	High
TOU tariff signal	Eskom	High
Seasonal tariff signal	Eskom	High
Cash-flow smoothing	NERSA, Municipalities	High
Revenue neutrality	Eskom	High
Tariff Simplicity	NERSA, Municipalities	High
Most cost-reflective	Eskom	High
Urban/Rural classification	Eskom	Medium
Transmission and voltage signal differentiation	Eskom	Medium
Lower risk to Eskom due to non-seasonal/TOU signal	Eskom	High
Optional conversion to tariff	Eskom	Medium
Satisfies NERSA requirement the most	NERSA	High

3.3.2 Criteria for the allocation of customers to the tariff

It is proposed that these alternative tariffs are not available to all municipalities. Only the municipalities that qualify in terms of the criteria below as well as in terms of the characteristics observed in the customer segmentation study should be allowed these tariffs. Although the customer segmentation analysis serves only as a guideline in developing these alternate tariff options, it provides a good indicator of which characteristics could lead to a customer qualifying for the tariff. In addition, favourable consideration of customer applications would depend strongly on the mandatory qualification in terms of the following criteria:

- The municipality must have a predominately residential profile.
    - Predominately residential profile at municipality level – not at account or POD (point of delivery) level.
    - Predominantly residential load profile is equivalent to 60% of consumption being attributable to residential customers.
    - HV and Transmission-connected supplies would not qualify.

- Where Eskom has funded ripple control systems in a municipality, the agreement is still valid and the municipality qualifies for the tariff, the municipality will still be required to comply with the terms of the Demand Side Management agreement. It would constitute breach of agreement if the customer does not comply with the agreement and could lead to the termination of the electricity supply agreement.

3.4 Tariff design principles

The tariff design principles set out the parameters employed in the tariff design. These principles were set to ensure revenue recovery, the fairness of the tariff to qualifying customers and the rest of the customer base, while at the same time ensuring that the tariff would not result in an infringement of the existing policies and procedures.

The paragraph on customer segmentation analysis and the criteria for the allocation of customers to the tariff provides a guideline on the customers that were considered for the purposes of tariff segmentation data. The tariff segmentation data for the tariff design included the following:

a) All small power use points were eliminated for the purpose of tariff design
b) All metro accounts and the HV-connected accounts were excluded from the data for tariff design
c) All low-eligibility accounts were eliminated from the list
d) All high and medium eligibility customers were included in the list
e) All accounts in the large power, small and medium power category, i.e. up to 500 kVA, were included in the data for tariff design as these were the accounts for which there was difficulty with obtaining representative data to achieve conclusive results in terms of the statistical segmentation.

Only the energy charges were to be designed for the alternative municipality tariff. The tariff design principles are as follows:

Alignment to pricing objectives

- The alternative municipality tariff is designed to recover the same revenue that would have been recovered on the current tariffs if the customer had remained on its tariffs. The segmentation analysis and the criteria are the input into the tariff that had to be designed
- The objective was not to design a cheap tariff, but instead a tariff that would provide cash-flow smoothing to give certainty about cash outflows throughout the year for municipalities with a high residential customer base. This is the intended benefit of the tariff.

Selection of tariff-modelling data

- The tariffs are modelled using large power data for the segmented customers only.
- The reason for this was that the seasonal and TOU tariff signals are only apparent in these large power tariffs while all the other tariffs do not have this signal.
- Though the customer will qualify at municipal level, only the large power accounts will be converted to the alternative municipality tariff. The small power accounts will remain on their existing tariffs

Urban/rural classification:

- As urban and rural customers have different cost drivers, the urban/ rural classification of customers will be retained in the alternative municipality tariffs.
- Rural supplies usually receive substantial capital allowances when connecting, in order to make connections more affordable. This connection cost is usually recovered through the tariff and through the rural tariff subsidies. Removing the rural tariff options would be contrary to the existing tariff design principles and

result in increases in the tariff subsidies as well as increasing the urban large power tariffs.

Transmission zone and voltage signal

- The Transmission zone and supply voltage signal will be retained in the energy charges of the alternative municipality tariff.

3.5 Charges

The resulting charges will be based on an urban or rural version of the alternative municipality tariff. All the charges are derived from the Megaflex tariff (for the urban version of the tariff) and Ruraflex (for the rural version of the tariff).

3.5.1 Energy charges for electricity consumed

The energy charges were based on the municipalities identified by means of the segmentation exercise. The energy rates were calculated as follows:

- These municipalities are currently on the full selection of LPU tariffs and their consumption on a TOU basis was used to derive the energy rates.
- The non-TOU tariff (Nightsave) consumption was combined with the TOU tariff (Miniflex, Megaflex and Ruraflex) consumption of all these municipalities.
- The revenue from the identified municipalities was calculated on their existing tariffs, and the energy rates were calculated to ensure that the same revenue was received.
- Since Nightsave Rural is more expensive than Ruraflex, the alternate rural tariff option for rural customers is more expensive than Ruraflex, but cheaper than Nightsave.
- The peak and standard consumption for the full financial year was combined to calculate the peak rate, resulting in no seasonal differentiation in the rate.
- The off-peak rate was calculated by using the off-peak consumption for the full financial year, resulting in no seasonal differentiation in the rate.
- The voltage and Transmission zone differentiation of the energy rates was retained.

The energy charges therefore shall be peak/off-peak charges with no seasonal differentiation (see rates in Annexure A).

The energy charge includes the losses at the applicable standard loss factors to reflect the cost of losses at the voltage levels and in the Transmission zones.

3.5.1.1 Benefits of an peak/off-peak energy charge

This tariff proposal strives to achieve a balance between the needs of stakeholders i.e. NERSA, Municipalities, other customers as well as Eskom.

- It is a balanced approach, providing for the cash-flow smoothing required by municipalities while also allowing Eskom to retain the TOU signal.
- It meets Electricity Pricing Policy position 33 which states that all supplies greater than 100 kVA have to be on TOU and should reflect the structure of WEPS.
- It mitigates the risk to the system operator since a modified TOU signal is still retained.

3.5.2 Network charges

The network charges applicable will be based on the Megaflex and Ruraflex network charges, depending on urban/rural classification.

3.5.3 Contribution to subsidies by Urban tariffs

The electrification and rural network subsidy charge remains payable on all energy consumed. The urban low-voltage subsidy charge is payable by customers taking supply at ≥ 66 kV.

3.5.4 Excess NAC charge

The excess NAC charges will apply in terms of the principles of the NMD rules, as applicable to all customers that exceed their NMD.

3.5.5 Reliability service charge

The reliability service charge will be payable on all energy consumed.

3.5.6 Reactive energy charge

The reactive energy charge will be charged for all reactive energy on the electricity consumed in the high-demand season.

3.5.7 Service and administration charges

A service charge will be payable at the account level, and an administration charge will be payable on each transaction/service agreement loaded.

3.5.8 Summary of charges payable for the alternative municipality tariff

A summary of the types of charges that would apply to both the urban and the rural version of the proposed tariff is as follows:

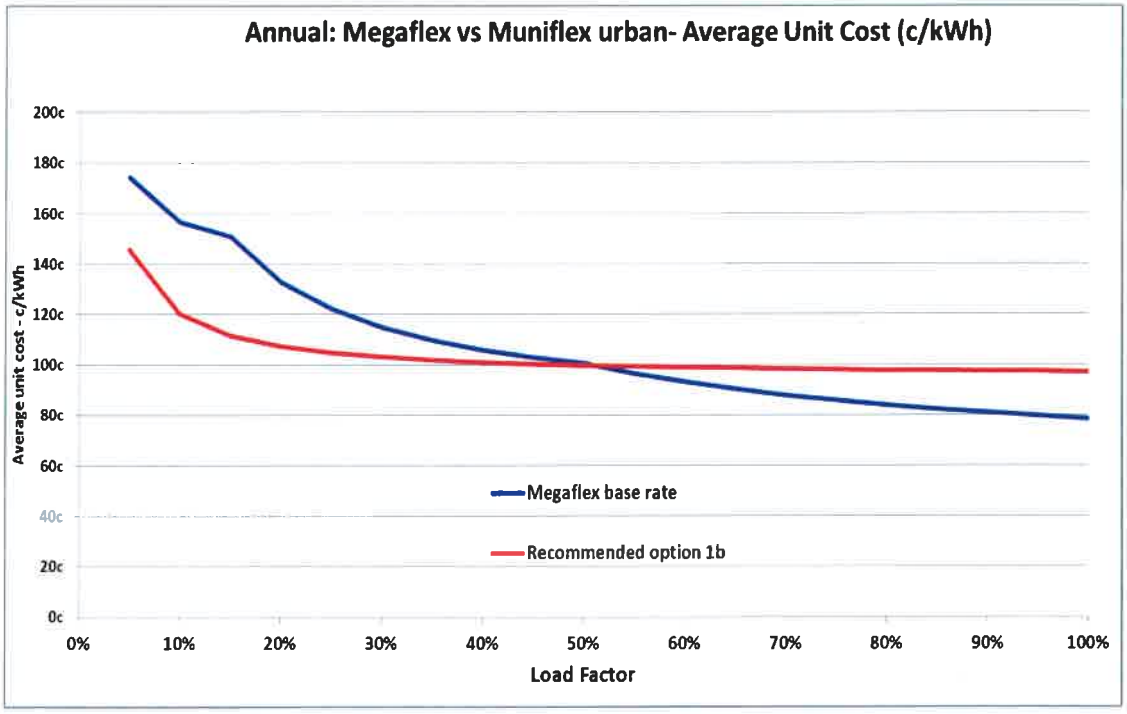
Tariff component	Urban	Rural
Peak and off-peak charges: no seasonal differentiation	✓	✓
Transmission network charges	✓	
Network access charge	✓	✓
Network demand charge	✓	✓
Urban low-voltage subsidy	✓	
Reliability service charge	✓	✓
Service charge	✓	✓
Administration charge	✓	✓
Electrification and network subsidy charge	✓	
Reactive energy charge	✓	✓

4 Financial implications of tariff for customers

The tariff has been designed to achieve revenue neutrality for Eskom in terms of the revenue approved as per the MYPD3 decision. This means that the tariff will not be cheaper but will seek to derive the same revenues that Eskom would have received had the customers eligible for this alternative municipality tariff remained on their current tariffs. No additional subsidies will be recovered from the rate base, as all revenue shortfall resulting from the alternative municipality tariff will be recovered through revenue balancing (intra-tariff subsidies).

In terms of the rates calculated, the break-even point for the urban alternative municipality tariff is at a load factor of about 50%. For load factors above this level, the tariff becomes more expensive than one of the existing TOU tariffs for urban customers, namely the Megaflex tariff. It would, therefore, be advisable for customers above these load factors to remain with their customer tariffs or consider converting to the existing tariff.

Assumptions	
NMD (kVa)	5000
Voltage	11kV
PF	1
Transmission zone	300km



The target market for these alternative municipality tariff options are the municipalities with a predominantly residential customer base mix: where the average load factor of a residential customer is about 25%, the tariff level is appropriate to target the municipalities that are unable to respond to the tariff signal due to a high residential customer base mix.

A case-by-case analysis will be done for each customer to determine the impact of tariff conversion, as well as to determine whether the customer will meet the required criteria prior to conversion to the tariff.

5 Implementation issues

5.1.1 Implementation date

Eskom requests that NERSA should approve the implementation of the alternative municipality tariff from 01 July 2014. Once NERSA has approved the tariff, Eskom proposes that tariff conversions be completed in the 2013/14 financial year to enable implementation on 01 July 2014.

5.1.2 Conversion to the tariff

- Conversion fees shall be payable for all tariff conversions. A tariff impact analysis shall be completed for each customer that considers converting to the alternative municipality tariff so as to provide an indication of whether the tariff conversion will be beneficial to the customer.
- Only one tariff conversion will be allowed per annum.
- Eskom will only convert customers to the tariff that have settled any outstanding debt in full.

5.1.3 Contracting

- Upon meeting the criteria for tariff conversion, the customer will be required to conclude a new supply agreement with Eskom, in which the latest terms and conditions shall be incorporated.

5.1.4 Compliance with existing policies and rules

- All customers converted to the alternative municipality tariff shall be subject to the existing policies in terms of demand management requirements and any other applicable policies for similar-size customers.

6 Conclusion

NERSA is requested to approve the following in terms of this submission, namely the introduction of a new tariff option for municipalities in the 2014/15 financial year, as follows:

a) An urban and rural version of a two-part, peak and off-peak tariff option with no seasonal differentiation.
b) Subject to obtaining approval of the trademark, the tariff shall be called Muniflex (Urban) and Muniflex (Rural)
c) Only energy charges have been redesigned, whereas all the other charges are same as the Megaflex and Ruraflex tariff options.
d) Transmission zone and voltage of supply signal will be retained.
e) The rates are in 2014/15 values as per the MYPD3 decision prior to Regulatory Clearing Account considerations and any other changes proposed in terms of the 2014/15 annual tariff adjustment.
f) The tariff will be revenue neutral for Eskom – any revenue under- or over-recovery from the new tariffs in comparison to Megaflex and Ruraflex respectively resulting from changes in profile shall be recoverable through tariff revenue.
g) This tariff will have the following qualification criteria:
    a. The municipality must have a predominantly residential customer base mix at municipal level – not at an account or POD (point of delivery) level.

b. The predominant residential customer base mix is regarded as being where at least 60% of the consumption is residential at the total municipal level. High-voltage and Transmission-connected supplies will not qualify for the tariff.

h) Where Eskom has funded ripple control systems in a municipality, the agreement is still valid and the municipality qualifies for the tariff, the municipality will still be required to comply with the terms of the Demand Side Management agreement.

i) The target implementation date of the tariff is 01 July 2014.

All rates contained in this submission are subject to the 2014/15 tariff adjustment approval which could result in the recalculation of the Muniflex rates contained in this submission to ensure revenue neutrality.

Appendix A: Muniflex

MUNIFLEX SCHEDULE OF STANDARD PRICES FOR LOCAL AUTHORITY SUPPLIES – 1 JULY 2014 TO 30 JUNE 2015

1. STANDARD PRICES

The standard prices contained in this schedule to be charged by Eskom for electricity supplied or made available by Eskom to customers, shall, subject to the provisions of the Electricity Regulation Act (Act No 4 of 2006), or its successor-in-title, be as set out hereunder.

The terms, conditions and prices contained in this schedule are approved by NERSA and are valid until Eskom's next price increase or tariff changes as approved by NERSA from time to time.

2. DEFINITIONS

Account means the invoice received by a customer for a single point of delivery or if consolidated, multiple points of delivery for electricity supplied and/or use of the system.

Active energy charge or energy charge means the charge for each unit of energy consumed, typically charged for as c/kWh.

Administration charge means the fixed charge payable per point of delivery/premise to recover administration-related costs such as meter reading, billing and meter capital. It is based on the monthly utilised capacity or maximum export capacity of each point of delivery/premise.

Annual utilised capacity means the higher of the customer's **notified maximum demand** (**NMD**) or **maximum demand** (MD), measured in kVA, and registered during a rolling 12-month period.

Distribution means the regulated business unit through which Eskom constructs, owns, operates and maintains Eskom's Distribution System in accordance with its licence and the Code.

Distribution network access charge means the R/kVA or R/POD fixed network charge raised to recover Distribution network costs and depending on the tariff is charged on the annual utilised capacity or maximum export capacity where maximum demand is measured or the NMD where maximum demand is not measured.

Distribution use-of-system charges (DUOS) mean the network tariffs charged for making capacity available, connecting to and for the use of the Distribution system. The DUOS charges are the source of the Distribution network charge components in the retail tariff structures.

High-demand season means the TOU Period from 1 June to 31 August of each year.

Local authority tariffs means tariffs applicable to municipal bulk points.

Load customer means a customer that is provided a supply for the purposes of electricity consumption.

Loss factors mean the factor indicating the cost or benefit of technical energy losses on the Transmission and Distribution systems. The Distribution loss factors differ per voltage category and per rural and urban categories. The Transmission loss factors differ for generators and loads and are based on Transmission zone.

Off-peak period means the TOU periods of relatively low system demands.

Premise or point of delivery means either a single point of supply or a specific group of points of supply located within a single substation, at which electricity is supplied to the customer at the same declared voltage and tariff. Note: this can be a metering or summation point.

Peak period means the TOU periods of relatively high system demands.

Public holidays mean the treatment of charges on public holidays as specified by Eskom.

Reliability service charge means the charge that recovers the cost of providing ancillary services by the System Operator.

$Rural_p$ means areas classified as rural by Eskom for the purposes of tariff design and classification.

Service charge means the fixed charge payable per account to recover service-related costs and is based on the sum of the monthly utilised capacity or maximum export capacity of all premises linked to an account.

System means the Transmission and Distribution network infrastructure consisting of all lines and substation equipment.

TOU periods mean the time blocks based on the volume of electricity demand during high, mid and low demand periods and may differ per tariff. The TOU periods typically are peak, standard and off-peak, and

differ during high and low demand seasons and are further described in Section 4. For the alternative municipality tariffs, the time-of-use period shall be peak and off-peak periods with no seasonal differentiation.

Transmission zone means the geographic differentiation applicable to transmission network charges and loss factors as indicated in paragraph 3, to indicate the costs associated with the delivery and transmission of energy.

Transmission means the regulated business unit through which Eskom constructs, owns, operates and maintains Eskom's Transmission System in accordance with its licence and the Code.

Transmission System means Eskom's electricity system consisting of all lines and substation equipment where the nominal voltage is above 132 kV or where the nominal voltage is lower than or equal to 132 kV and there are no Distribution system assets.

Transmission use-of-system charges (TUOS) mean the network tariffs charged for making capacity available, connecting to and for the use of the Transmission system. The TUOS charges are the source of the ETUoS and the Transmission network charge components in the retail tariff structures.

Transmission network charge means the network-related TUoS charge.

Transmission zone means the geographic differentiation applicable to transmission network charges and loss factors as indicated in paragraph 3, to indicate the costs associated with the delivery and transmission of energy.

Urban$_p$ areas mean the areas classified by Eskom for the purposes of tariff design and classification.

3. TRANSMISSION ZONES

3.1. Transmission zones for loads

≤ 300 km	0%
> 300 km and ≤ 600 km	1%
> 600 km and ≤ 900 km	2%
> 900 km	3%

4. NMD RULES AND CHARGES PAYABLE IN THE EVENT OF AN NMD EXCEEDANCE

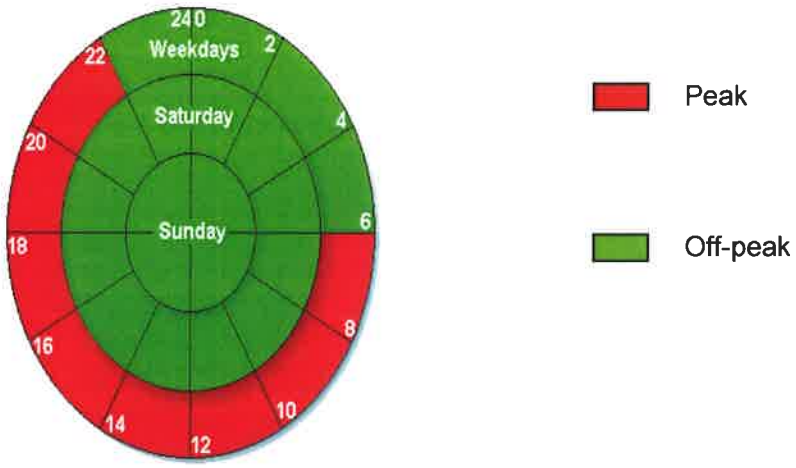
As set out in the NMD rules (as amended from time to time with the approval of NERSA), an exceedance of the NMD will impact the Distribution and Transmission network access charges and the low-voltage subsidy charge as applicable for the Ruraflex, Nightsave Rural, Megaflex, Genflex, Nightsave Urban Small, Nightsave Urban Large, Muniflex urban and Muniflex rural tariffs.

The amount payable through the excess network access charge in the event of an exceedance is calculated on the number of times the NMD is exceeded, multiplied by the portion of the demand exceeding the NMD, multiplied by the sum of the Distribution network access charge and the Transmission network access charge and if applicable the low-voltage subsidy charge for the respective tariffs.

For more information refer to the NMD rules – www.eskom.co.za/tariffs

5. TIME-OF-USE PERIODS

The energy rates applicable shall be the same across all seasons for the Muniflex tariff.



6. PUBLIC HOLIDAYS

The table below indicates the treatment of public holidays. The appropriate seasonally differentiated energy charges, energy demand charges and network demand charges will apply on these days. Any unexpectedly announced public holiday will be treated as the day of the week on which it falls.

The following public holidays will always be treated as a Sunday for **Nightsave (Urban), Miniflex, Megaflex, WEPS and Muniflex urban tariffs**: New Year's Day, Good Friday, Family Day, Christmas Day and Day of Goodwill.

Date	Day	Actual day of the week	TOU day treated as	
			NIGHTSAVE Urban	MEGAFLEX WEPS MINIFLEX
18 April 2014	Good Friday*	Friday	Sunday	Sunday
21 April 2014	Family Day*	Monday	Sunday	Sunday
27 April 2014	Freedom Day	Sunday	Sunday	Sunday
28 April 2014	Public Holiday	Monday	Sunday	Saturday
1 May 2014	Workers Day	Thursday	Sunday	Saturday
16 June 2014	Youth Day	Monday	Sunday	Saturday
9 August 2014	National Women's Day	Saturday	Sunday	Saturday
24 September 2014	Heritage Day	Wednesday	Sunday	Saturday
16 December 2014	Day of Reconciliation	Tuesday	Sunday	Saturday
25 December 2014	Christmas Day*	Thursday	Sunday	Sunday
26 December 2014	Day of Goodwill*	Friday	Sunday	Sunday
1 January 2015	New Year's Day*	Thursday	Sunday	Saturday
21 March 2015	Human Rights Day	Saturday	Sunday	Saturday
3 April 2015	Good Friday*	Friday	Sunday	Sunday
6 April 2015	Family Day*	Monday	Sunday	Sunday
27 April 2015	Freedom Day	Monday	Sunday	Saturday
1 May 2015	Workers Day	Friday	Sunday	Saturday
16 June 2015	Youth Day	Tuesday	Sunday	Saturday

7. DISTRIBUTION LOSS FACTORS

Distribution loss factors		
Voltage	**Urban** loss factor	**Rural** loss factor
< 500V	1.1111	1.1527
≥ 500V & < 66kV	1.0957	1.1412
≥ 66kV & ≤ 132kV	1.0611	
> 132kV / Transmission connected	1.0000	

8. VAT

All charges are subject to the prescribed VAT rate of 14%. The charges and rates shown exclude VAT. The rates (excluding VAT) are used in the monthly electricity account to calculate the individual tariff components, thereafter VAT is added. This is done for the convenience of the customer so as to facilitate the claiming of input tax where applicable and to allow for partial exemptions and zero rating.

9. CHARGES PAYABLE MONTHLY

All electricity accounts payable by a customer in terms of this Schedule shall be rendered monthly by Eskom and shall be payable monthly in accordance with the provisions of the electricity supply agreement. If, in terms of the electricity supply agreement, meter readings are made at three-monthly intervals, Eskom shall render provisional accounts for the months in which no meter reading is made, based upon the monthly consumption in the previous three-monthly period or upon an estimated amount, and a final account, incorporating an adjustment of the provisional accounts, based upon the actual consumption for the period.

If the commencing date or the termination date of any supply is such that the supply was available for a portion of a month, then the monthly charges payable in terms of this Schedule shall be calculated *pro rata* to the portion of a month of 30 (thirty) days during which the supply was available.

In addition to the charges payable in terms of this Schedule, a connection charge may be levied for costs not recovered through the tariff charges for the provision of new or additional capacity.

10. Muniflex urban$_p$ tariff

A peak and off-peak energy rate electricity tariff for municipalities with an NMD of 25 kVA or more, that have a residential customer base mix of 60% or more within their area of supply, with the following charges:

- Time-of-use differentiated (peak and off-peak) c/kWh **active energy charges** including losses, based on the voltage of supply and the **transmission zone**
- Two time-of-use periods, namely peak and off-peak, as specified in paragraph 5
- The treatment of **public holidays** for the raising of the **active energy charge** and the **network demand charge** shall be as specified in paragraph 6
- A R/kVA/month **Transmission network charge** based on the voltage of the supply, the **transmission zone** and the **annual utilised capacity** measured at the **POD** applicable during all time periods
- A R/kVA/month **Distribution network access charge** based on the voltage of the supply and the **annual utilised capacity** measured at the **POD** applicable during all time periods
- A R/kVA/month **Distribution network demand charge** based on the voltage of the supply and the **chargeable demand** measured at the **POD** applicable during peak periods
- A R/kVA **urban low-voltage subsidy charge** based on the voltage of the supply and charged on the **annual utilised capacity** measured at the **POD** applicable during all time periods
- A c/kWh **reliability service charge** based on the voltage of the supply applicable during all time periods
- A R/**account**/day **service charge** based on the **monthly utilised capacity** of each **account**
- A R/**POD**/day **administration charge** based on the **monthly utilised capacity** of each premise linked to an **account**
- A c/kvarh **reactive energy charge** supplied in excess of 30% (0,96 PF) of the kWh recorded during the peak periods. The excess reactive energy is determined per 30-minute integrating period and accumulated for the month and will only be applicable during the **high-demand season**;
- a c/kWh **electrification and rural subsidy charge**, applied to the total active energy measured at the **POD** in the month
- Charges in the event of an NMD exceedance in accordance with the **NMD rules**.

10.1. Muniflex Urban$_p$ rates

Only the energy rates are demonstrated here, the remaining rates are as per 2014/15 tariff adjustment submission for the Megaflex tariff for local authorities.

		Active energy charge [c/kWh]					
		High demand season [Jun - Aug]			Low demand season [Sep - May]		
Transmission zone	Voltage	Peak	Standard	Off Peak	Peak	Standard	Off Peak
≤ 300km	< 500V	72.29	72.29	33.56	72.29	72.29	33.56
	≥ 500V & < 66kV	71.29	71.29	33.09	71.29	71.29	33.09
> 300km and ≤ 600km	< 500V	73.01	73.01	33.90	73.01	73.01	33.90
	≥ 500V & < 66kV	72.00	72.00	33.43	72.00	72.00	33.43
> 600km and ≤ 900km	< 500V	73.74	73.74	34.23	73.74	73.74	34.23
	≥ 500V & < 66kV	72.72	72.72	33.76	72.72	72.72	33.76
> 900km	< 500V	74.48	74.48	34.58	74.48	74.48	34.58
	≥ 500V & < 66kV	73.45	73.45	34.10	73.45	73.45	34.10

11. Muniflex Rural$_p$ tariff

A peak and off-peak energy rate electricity tariff for municipalities with an NMD of 25 kVA or more with dual and three-phase supplies with a supply voltage <22 kV (or 33 kV where designated by Eskom as rural) and that have a residential customer base mix of 60% or more within their area of supply, with the following charges:

- Time-of-use differentiated (peak and off-peak) c/kWh **active energy charges** including losses, based on the voltage of supply and the **transmission zone**
- Two time-of-use periods, namely peak and off-peak, as specified in paragraph 5
- The treatment of **public holidays** for the raising of the **active energy charge** and the **network demand charge** shall be as specified in paragraph 6
- a bundled R/kVA month (network access charge**) transmission** and **Distribution network access charge** based on the voltage of the supply, the **transmission zone** and the **annual utilised capacity** measured at the **POD** applicable during all time periods.
- a c/kWh **Distribution network demand charge** based on the voltage of the supply and the energy measured at the **POD** during the all **TOU periods**;
- A c/kWh **reliability service charge** based on the voltage of the supply applicable during all time periods
- A R/**account**/day **service charge** based on the **monthly utilised capacity** of each **account**
- A R/**POD**/day **administration charge** based on the **monthly utilised capacity** of each premise linked to an **account**
- A c/kvarh **reactive energy charge** supplied in excess of 30% (0,96 PF) of the kWh recorded during the peak periods. The excess reactive energy is determined per 30-minute integrating period and accumulated for the month and will only be applicable during the **high-demand season**
- Charges in the event of an NMD exceedance in accordance with the **NMD rules**.

11.1. Muniflex Rural$_p$ rates

Only the energy rates are demonstrated here, the remaining rates are as per 2014/15 tariff adjustment submission for the Ruraflex tariff for local authorities.

		Active energy charge [c/kWh]					
Transmission zone	**Voltage**	**High demand season** [Jun - Aug]			**Low demand season** [Sep - May]		
		Peak	**Standard**	**Off Peak**	**Peak**	**Standard**	**Off Peak**
≤ 300km	< 500V	*109.93*	*109.93*	*51.11*	*109.93*	*109.93*	*51.11*
	≥ 500V & < 66kV	*108.84*	*108.84*	*50.60*	*108.84*	*108.84*	*50.60*
> 300km and ≤ 600km	< 500V	*111.03*	*111.03*	*51.63*	*111.03*	*111.03*	*51.63*
	≥ 500V & < 66kV	*109.92*	*109.92*	*51.11*	*109.92*	*109.92*	*51.11*
> 600km and ≤ 900km	< 500V	*112.14*	*112.14*	*52.14*	*112.14*	*112.14*	*52.14*
	≥ 500V & < 66kV	*111.02*	*111.02*	*51.62*	*111.02*	*111.02*	*51.62*
> 900km	< 500V	*113.26*	*113.26*	*52.66*	*113.26*	*113.26*	*52.66*
	≥ 500V & < 66kV	*112.13*	*112.13*	*52.14*	*112.13*	*112.13*	*52.14*

Annexure 2

TIMELINES FOR THE APPROVAL PROCESS	
ACTIVITY/TASK	**DATE**
Electricity Subcommittee considered the publication of alternative municipality tariff for stakeholder consultation	28 October 2013
Publication of the alternative municipality tariff on NERSA website	28 October 2013
Closing date for stakeholder comments	28 November 2013
Public Hearing	04 December 2013
Electricity Subcommittee to consider the Draft Reasons for Decision on alternative municipality tariff application	15 January 2014
Energy Regulator's decision on alternative municipality tariff application	27 February 2014

Comments on Eskom's application should be sent to: ***Ms Porcia Makgopela by hand at the National Energy Regulator of South Africa, Kulawula House, 526 Madiba Street (formerly Vermeulen Street), Arcadia, Pretoria or via email to: ertsa@nersa.org.za***. The deadline for submission of comments is 28 November 2013.

Contact: Porcia Makgopela
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