



Summary of the Retail Tariff Plan



1. Overview

Eskom last revised its tariff structures in 2012 and is proposing structural changes to the Eskom tariffs, based on an updated cost-of-supply (or cost-to-serve/CTS) study. Some tariffs will see increases and others will reduce, but the overall Eskom revenue will be the same.

There are various reasons why Eskom is proposing changes to its tariffs:

- The different tariff rates no longer reflect the different services being provided (that is, the tariffs are not aligned with energy, network and retail costs) due to the application of average price increases,
- The unbundling of Eskom into Eskom Holdings, Distribution, Transmission and Generation requires that the charges are more reflective of the costs per division,
- The energy industry is evolving, and tariff structures also need to evolve to protect all customer interests and to ensure adequate recovery of National Energy Regulator of South Africa (NERSA) approved revenue by Eskom.

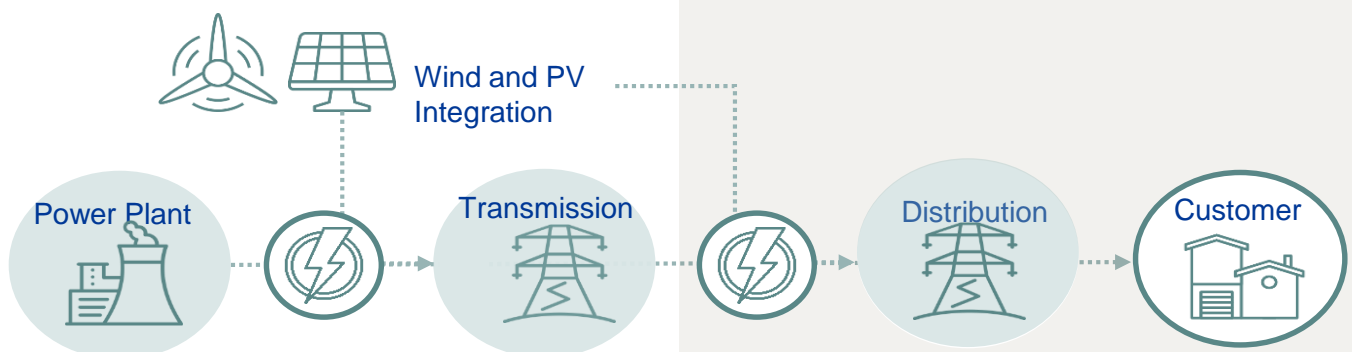
The consequences of applying average increases to rates is that there is currently no link between the charges raised and the NERSA-approved cost per division. The overall sum of all charges recovered by Eskom is based on the approved MYPD revenue decision. Tariffs therefore need to be updated to accurately reflect current Eskom divisional costs to avoid volume and trading

risk, to reflect cost drivers more accurately, to avoid unintended and unwarranted cross-subsidies, and to ensure that tariff charges cater for the unbundling of Eskom.

Currently Eskom Distribution sets the standard retail tariffs for all customers. The retail tariffs recover the approved MYPD revenue for the whole of Eskom to direct customers and municipal licensees.

Eskom Distribution purchases the energy at the Wholesale level and Eskom Transmission transmits the electricity through an internal transfer mechanism and this is a pass-through in the standard retail tariffs.

In 2020 Eskom submitted proposed structural changes to NERSA, based on the principles in the Department of Mineral Resources and Energy (DMRE) Electricity Pricing Policy and previous decisions by NERSA. This submission is an update of the 2020 submission, based on the same motivations used in the 2020 submission, the latest CTS (cost to serve) and includes the further unbundling of the energy charges into fixed generation capacity charges and variable TOU (time-of-use) charges to align with the wholesale purchases.



2. The main objectives of this tariff restructuring submission

The following are the main objectives of this tariff restructuring submission:

1. To reflect unbundled costs more accurately

Different tariff rates no longer reflect the different services being provided (that is, the tariffs are not aligned with divisional energy, network and retail costs) due to the application of average price increases. The consequences of applying average increases to rates is that there is currently no link between the charges raised and the NERSA approved cost per division. The overall sum of all charges recovered by Eskom is based on the approved MYPD revenue decision Tariffs therefore need to be aligned with an updated cost-to-serve study to accurately reflect current Eskom divisional costs to avoid volume and trading risk, to reflect cost drivers more accurately, and to ensure that tariff charges cater for the unbundling of Eskom.

2. To reflect the changing electricity supply and demand environment

Existing tariff structures are outdated and need to be modernised to reflect the changing electricity environment, and crucial decisions in this regard are needed to protect the electricity industry. For example, customers are installing their own power generators and are using the grid in different ways, and the wheeling of energy is expanding. Fair and equitable revenue recovery from all customers for the services provided can only happen with tariffs and tariff structures that reflect this changing environment.

3. Alignment between wholesale purchases and retail tariffs

Currently, Eskom Distribution purchases all its energy and Transmission network services from Eskom Transmission through an internal transfer mechanism. These purchase costs form the basis for the retail tariffs. Correct cost recovery reflecting the wholesale purchase costs is vital as there cannot be a disconnect between the wholesale tariff levels and structure and the retail tariff levels and structure, that is, purchases at one tariff structure and selling at another.

The wholesale purchase structure and rates must be correctly reflected in retail tariffs, and this submission includes the changes and motivation for this. In the future this may be done as a separate process to the retail tariffs, meaning future separate revenue decisions and separate price increases on new NERSA methodologies.

4. Mitigate volume and revenue risk

When tariff charges recover fixed costs through volumetric charges, any reduction in sales results in a reduction in revenue, but not necessarily an equal reduction in costs. In order to ensure adequate recovery of costs, this means there needs to be an evolution in the thinking of how fixed costs can be recovered through the tariffs. It is important to realise the value of a grid connection and to pay a fair unsubsidised contribution for the use of the grid (network capacity) and the system (generation capacity). The grid and system provide backup, stability, and frequency control, can be used as a battery, provides standby capacity when needed, and provides the ability to receive compensation for energy exported.

In addition to recovering fixed network costs, generator costs should be recovered through a combination of fixed capacity charges (R/kVA) and energy charges (c/kWh). This will reduce the financial risk associated with recovering fixed costs through volumetric charges given the growth in variable energy resources, which also require backup capacity.

3. Proposed structural changes to the retail tariffs

1. Designing all charges using the updated NERSA-approved forecast volumes, divisional cost splits, and cost allocation methods:

A. Energy c/kWh rates will reflect the internal wholesale energy purchase structure; changes to the TOU ratios (peak, standard, and off-peak) and TOU periods (swopping the peak period and introducing a standard period on Sundays) to be aligned with the wholesale rates.

About 80% of Eskom sales are on TOU tariffs. These tariffs have peak (most expensive), standard (medium) and off-peak (cheapest) hours and charges, and have a winter/summer differential. Customers have requested both Eskom and NERSA to review the TOU tariffs, expressing concerns that the high winter TOU energy rates prohibit the optimisation of their production and impede their economic efficiency, which has a negative impact on their financial sustainability, their competitiveness in the global economy, and their ability to grow. Furthermore, both the Department of Public Enterprises and NERSA have asked Eskom to modify the TOU pricing.

The current TOU charges were last changed in 2005 and no longer reflect the present system and customer requirements. As a result, the current price signals and TOU hours are not optimal for managing the system and therefore changes to the wholesale purchase price structure are being proposed to assist the System Operator to optimise how the Eskom's system is managed, scheduled and dispatched.

B. Splitting the energy charges, based on the internal wholesale purchase energy price into variable TOU c/kWh charges and a fixed generation capacity charge (GCC).

Given the fixed and variable costs of generators, the view is that generators' costs should be recovered through a combination of capacity charges (R/kVA) and energy charges (c/kWh). This will reduce the financial risk associated with volumetric recovery rates given the growth in variable energy resources, which also require backup capacity. The introduction of a fixed generation capacity charge (GCC) will result in a reduction in the variable c/kWh charge. The GCC is based on allocated costs for LPU (Large Power User) tariffs and phased in 50/50 (fixed/variable) for SPU (Small Power User) tariffs to minimise the impact on these customers. The plan is to gradually increase the SPU tariffs' GCC to be 100% aligned with the wholesale purchase cost.

		Proposed TOU periods					
		High			Low		
		Weekday	Saturday	Sunday	Weekday	Saturday	Sunday
0		3	3	3	3	3	3
1		3	3	3	3	3	3
2		3	3	3	3	3	3
3		3	3	3	3	3	3
4		3	3	3	3	3	3
5		3	3	3	3	3	3
6		1	3	3	2	3	3
7		1	2	3	1	2	3
8		2	2	3	1	2	3
9		2	2	3	2	2	3
10		2	2	3	2	2	3
11		2	2	3	2	2	3
12		2	3	3	2	3	3
13		2	3	3	2	3	3
14		2	3	3	2	3	3
15		2	3	3	2	3	3
16		2	3	3	2	3	3
17		1	2	2	2	3	3
18		1	2	2	1	2	2
19		1	3	3	1	2	2
20		2	3	3	1	3	3
21		2	3	3	2	3	3
22		3	3	3	3	3	3
23		3	3	3	3	3	3

Peak = 1 Standard = 2 Off-peak = 3

3. Proposed structural changes to the retail tariffs

1. Designing all charges using the updated NERSA-approved forecast volumes, divisional cost splits, and cost allocation methods:

C. Network charges to reflect Transmission and Distribution network costs

Transmission and Distribution network charges no longer reflect the network costs due to the application of average price increases. The consequences of applying average increases to rates is that there is currently no link between the charges raised and the NERSA approved cost per division, only that the overall sum of all charges recover the approved MYPD revenue decision. Tariffs therefore need to be updated to accurately reflect current Eskom divisional cost to avoid volume and trading risk, to reflect cost drivers more accurately, and to ensure that tariff charges cater for the unbundling of Eskom.

D. Retail charges to reflect the Distribution retail costs.

Similar to point c. above, retail charges no longer reflect the retail costs due to the application of average price increases, and need to be updated with an updated CTS to accurately reflect the costs.



2. Increasing the Distribution fixed-charge network charges component, with a commensurate reduction of the variable charge for all tariffs with network charges

The Distribution business network costs are fixed in order to deliver the capacity needed. If network charges are not cost-reflective and recovered through variable/volumetric charges such as c/kWh, this places the Distribution business at risk of not recovering costs with reduced volumetric sales.

There needs to be a fair recovery of costs by all users of the grid so that tariffs more accurately reflect the value of the service being provided and that unintended subsidies are not created.

3. Rationalising the local-authority tariffs into only three tariff categories: a large power user (LPU) version called Municflex, a small power user (SPU) version called Municrate, and a Public Lighting tariff for non-metered lighting supplies

The proposal is to combine Eskom's existing suite of multiple tariffs applicable to local authorities into only three tariff categories. This will reduce complexity and simplify the sales and revenue forecasting process for both Eskom and municipalities.

3. Proposed structural changes to the retail tariffs

4. Increasing the lower-voltage charges for urban LPU tariffs, thereby reducing the contribution to the low-voltage (LV) subsidies

The low voltage subsidy is an intra-tariff subsidy. Intra-tariff subsidies are when one charge is subsidised by another charge within a tariff category; for example, Megaflex higher-voltage network charges subsidise the lower-voltage network charges. The proposal in this retail plan is to reduce some of the intra-tariff subsidies in order to rebalance some of the subsidies within a tariff category.

5. Basing service charges on the number of points of delivery (PODs) and not per account

Currently, the administration charge is per point of delivery, and the service charge is per account. Eskom proposes changing the methodology so that both the administration charges and the service charges will be raised per point of delivery and this will be differentiated based on size. The rationale is that a customer could have many PODs under one account and pay the same service charge as a customer who has one account and one POD. This is not equitable or fair, as more retail resources are used where there are multiple PODs to one account.

7. Introducing a residential TOU tariff plus a new net billing offset rate for customers with small-scale embedded generation (SSEG)

Eskom proposes the introduction of a residential time-of-use tariff, called Homeflex, for its urban residential customers. This tariff is more cost-reflective in structure, aligned with the changes made to Homepower, but with TOU energy charges. This tariff also includes TOU offset rates for compensation for energy exported onto the grid.

6. Removing IBT (Inclining Block Tariff) for Homepower and Homelight tariffs

IBT as a tariff structure is no longer appropriate due to customer perceptions, and it does not provide economic incentives for customers who install embedded generation. Eskom proposes the removal of the IBT structure and replacing it with a single energy rate charge. For Homepower, the GCC and, more cost-reflective network and retail charges will be introduced.



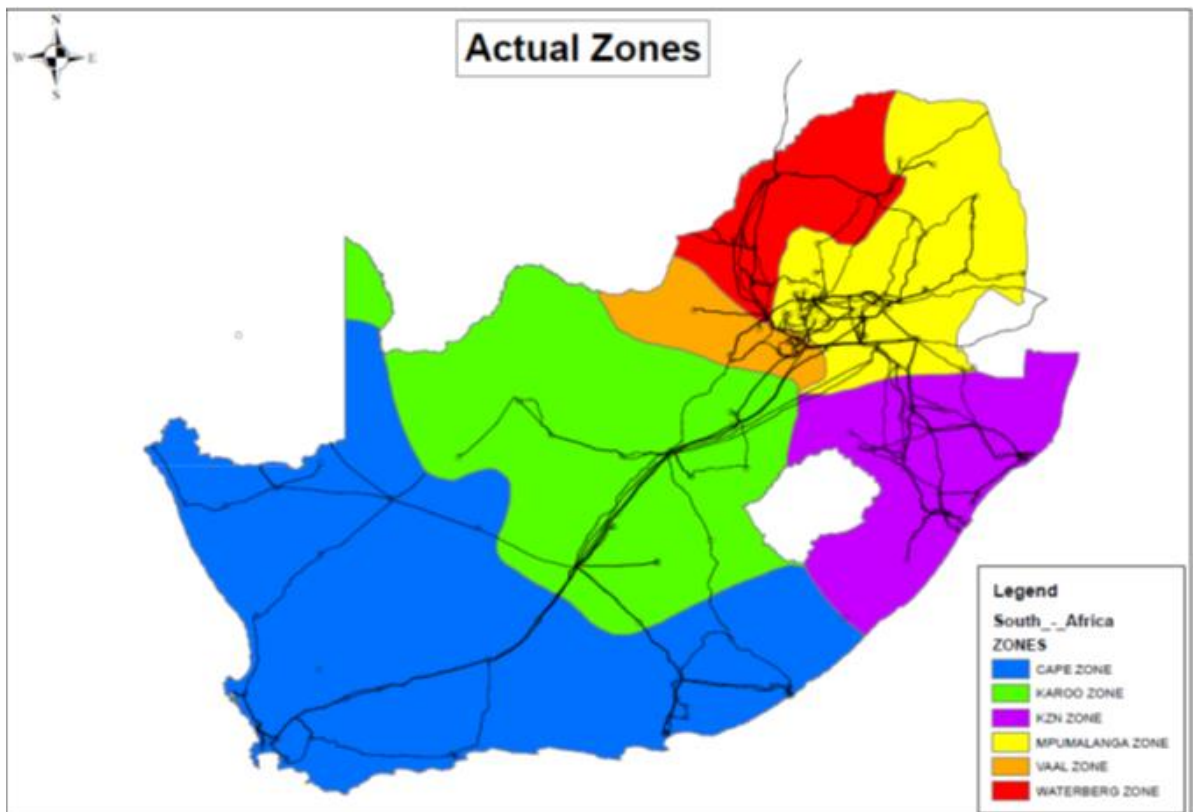
3. Proposed structural changes to the retail tariffs

8. Amending the Transmission loss factors for generators so that the loss factors in specific zones are no longer negative.

Eskom is proposing to amend the current loss factors applicable to Transmission connected generators. Currently in certain Transmission Zones the loss factors are negative, effectively meaning that Eskom could pay a generator for locating in this specific zone. This principle at the time assumed a generator whose injections increase transmission losses faces a positive loss factor, which results in a charge, while a generator whose injections reduce transmission losses faces a negative loss factor, which results in a rebate. It is, however, not possible to pass-through negative charges, and for this reason Eskom is proposing that the loss factors for the Cape and Karoo zones are set to 1 (that is, it will no longer go negative).

9. Overall revenue impact

When updating tariffs using a CTS study and implementing structural changes, it is not possible to have zero impact on all customers. So, while the total tariff revenue due to the structural changes will stay the same, in other words in line with to the MYPD approved revenue requirement, individual customers may pay more or less, depending on the change and their consumption profile. The overall impact per tariff category is shown in the next table. To be noted is the structural changes are a rebalancing exercise, that some tariffs will see increases and others will reduce, but the overall revenue is the same.



4. Eskom-proposed changes to the tariffs and their charges

The proposed changes to the tariffs are based firstly on the CTS results and then include specific objectives, pricing signals, subsidies (payment and receipt), and phasing in of changes to minimise impacts.

A summary of the changes per tariff are shown in the following table (excluding the impact of CTS on the level of the charges).

Tariff	Changes			
	Energy charges	Network charges	Service charges	Other structural changes
MEGAFLEX MINIFLEX WEPS (Wholesale Electricity Purchase System)	A fixed generation capacity charge will be introduced To be updated with new TOU ratios and periods	The network capacity charge (NCC) will increase. This is a fixed charge, and the network demand charge (NDC), a variable charge, will reduce	Service charges will be converted from R/account to R/POD	
Transflex	A fixed generation capacity charge will be introduced The new TOU ratios and periods will be updated		The service charge will be converted from R/account to R/POD	
NIGHTSAVE Urban Large and Small customers	A fixed generation capacity charge will be introduced To be updated with new TOU ratios and periods	The network capacity charge (NCC) will increase. This is a fixed charge, and the network demand charge (NDC), a variable charge, will reduce	Service charges will be converted from R/account to R/POD	
RURAFLEX NIGHTSAVE Rural	A fixed generation capacity charge will be introduced To be updated with new TOU ratios and periods	The network capacity charge (NCC) will increase. This is a fixed charge, and the network demand charge (NDC), a variable charge, will reduce	Service charges will be converted from R/account to R/POD	

4. Eskom-proposed changes to the tariffs and their charges

Tariff	Changes			
	Energy charges	Network charges	Service charges	Other structural changes
BUSINESS RATE	A fixed generation capacity charge (R/POD/day) will be introduced	The network capacity charge (NCC) will increase. This is a fixed charge, and the network demand charge (NDC), a variable charge, will reduce		The electrification and rural subsidy (ERS) charge will be introduced
LAND RATE	A fixed generation capacity charge (R/POD/day) will be introduced and be split 50/50 between fixed (R/POD) and variable charges (c/kWh) to limit customer impact	The network capacity charge (NCC) will increase. This is a fixed charge, and the network demand charge (NDC), a variable charge, will reduce		
LAND LIGHT				No structural changes
HOME POWER	A single energy charge (c/kWh), an ancillary service charge (c/kWh), a network demand charge (c/kWh) and a R/day service and administration charge will be introduced	The network capacity charge (NCC) will increase. A R/POD/day GCC will be introduced at a 50/50 split in a phased approach to limit a customer impact of the fixed (R/POD/day) and variable (c/kWh) charges		Structural changes proposed include removing the IBT

4. Eskom-proposed changes to the tariffs and their charges

Tariff	Changes			
	Energy charges	Network charges	Service charges	Other structural changes
HOME LIGHT 20 and 60A				Structural changes proposed include removing the IBT and converting to a single energy charge (c/kWh) (but the option remains to retain the IBT structure)
PUBLIC LIGHTING				No structural changes – the Public Lighting tariff for non-metered lighting supplies will have no change but will be updated with the CTS). [Previously approved in Eskom but not approved by NERSA – required it to be based on a cost to serve study. Eskom only has NERSA approval for subsidies for Homelight and rural tariffs].
Municflex	A fixed generation capacity charge will be introduced To be updated with new TOU ratios and periods	The network capacity charge (NCC) will increase. This is a fixed charge, and the network demand charge (NDC), a variable charge, will reduce	Service charges will be converted from R/account to R/POD	Local-authority LPU tariffs, Megaflex, Miniflex, Nightsave Urban, Ruraflex, and Nightsave Rural are combined into a new tariff called Municflex (based on the Megaflex structure)
Municrate	Introduction of a Generation Capacity Charge (GCC) at a 50/50 split between fixed and variable charges to limit customer impact			Local-authority small power tariffs are combined into a single tariff called Municrate (based on the existing Businessrate structure) The Electrification and rural subsidy (ERS) charge will be introduced to this tariff category

4. Eskom-proposed changes to the tariffs and their charges

Tariff	Changes			
	Energy charges	Network charges	Service charges	Other structural changes
Generator-related tariffs				
Gen-wheeling	Energy charges – the credit rate will be updated with new TOU ratios and periods			
Gen-offset	Energy charges – the credit rate will be updated with new TOU ratios and periods			
Gen- DUoS (Distribution Use of System)	Updated network charges and loss factors based on a high-voltage, cost-reflective charge for loads			
Gen-TUoS (Transmission Use of System)	The negative loss factors for Transmission-connected generators proposed will change (not part of this submission)			

Abbreviations

CTS - Cost-to-serve	NCC - Network capacity charge
ERS - Electrification and rural subsidy	NDC - Network demand charge
HV - High-voltage	NMD - Notified maximum demand
IBT - Inclining block tariff	POD - Point of delivery
IPP - Independent power producer	PV - Photovoltaic
LPU - Large power user	SPU - Small power user
LV - Low-voltage	SSEG - Small-scale embedded generation
MV - Medium-voltage	TOU - Time-of-use
MYPD - Multi-year price determination	WEPS - Wholesale Electricity Purchase System

For the comprehensive Retail Tariff Plan submission visit our website

[Tariff Restructuring Plan - Distribution \(eskom.co.za\)](https://www.eskom.co.za/tariff-restructuring-plan-distribution)