AMEU / SARPA EASTERN CAPE

Presentation

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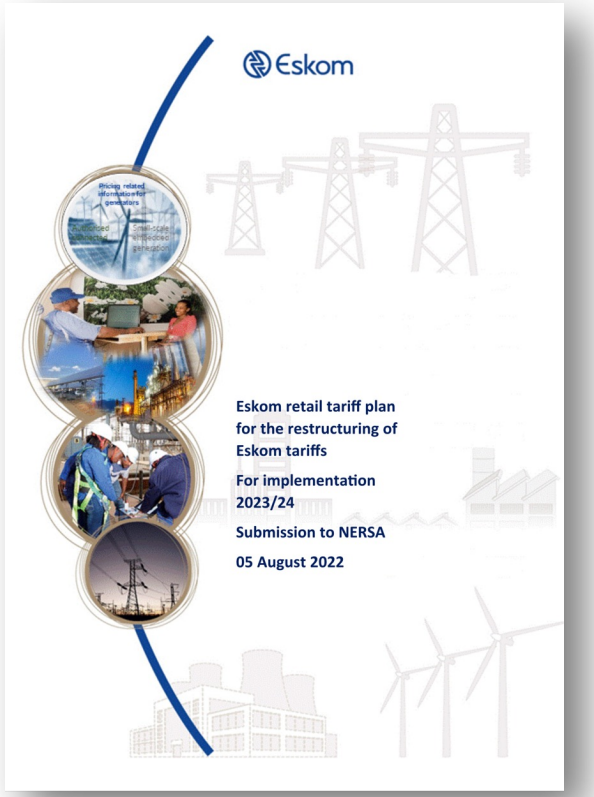
INTRODUCTION

Ayal Rosenberg (MD)

WeBill was founded by Ayal Rosenberg and Steven Gottschalk in 2017. Ayal has a legal background and is a qualified lawyer. He has set up and been involved in four previous start-ups within the gaming, financial and metering sectors.

Who is WeBill?

Retail Tariff Plan 2023/24



Annexure E – New residential TOU Homeflex and net-billing offset motivation

E.1 Introduction of a proposed new residential tariff

Eskom proposes introducing a residential time-of-use tariff, called Homeflex, for its urban residential customers that is more cost-reflective in structure and adaptable to evolving customer needs, changes in technology, and the changing energy environment, thereby providing a benefit to both the customers and Eskom.

The Homeflex tariff is a dynamic tariff for the residential urban sector that supports a more optimal operation of the power system.

Eskom identified the need for a residential time-of-use tariff to provide the right economic signals that promote economic efficiency and sustainability for Eskom and the customer long ago.

Therefore, in the past, Eskom ran pilots testing the customers' response to the TOU price signals. These pilots were run when electricity was significantly cheaper, with a statistically proven positive response to the price signals (TOU rates) from pilot customers.

The design of the Homeflex tariff is based on the proposed new TOU wholesale purchase tariff ratios plus cost-reflective network, ancillary service and service/administration charges for the residential customer category. It is then scaled to be revenue-neutral to the existing residential tariff (Homepower) to avoid over- and under-recovery of revenue.

In order to roll out the tariff, the customer would need to pay for the required smart time-of-use meter.

This submission focuses mainly on the tariff, not the metering, load management, or communications requirements.

Step 4: Offset rate for customers' exporting energy onto the grid under the net billing scheme

The offset rate for customers exporting energy onto the Distribution system at the same point of supply (or metering point) under the net billing scheme will, at this stage, be made equal to the current Homeflex TOU energy rates.

E.7 Impact on the residential customer

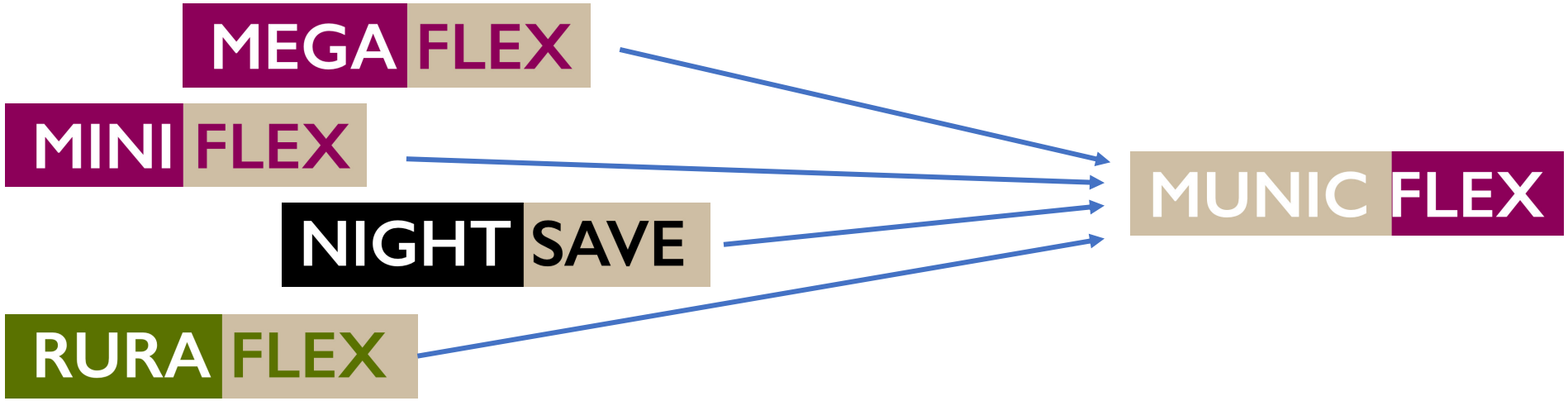
This tariff will be voluntary for customers without embedded generation and mandatory for those with embedded generation in order to provide the correct signals for consumption, generation, and battery use over the period of a day. For example, usage in peak may only decrease slightly, but there may be much lower consumption during the day. Therefore, it is important not to charge at an average energy rate (as this will, in any case, no longer be valid due to the profile change) and to have a peak energy signal. TOU tariffs will also incentivise charging of batteries in the off-peak periods and using these to reduce peak consumption. Offset (net billing) rates that are on TOU, furthermore, provide the correct signal for when export does occur. That is, lower rates are applied for export in the off-peak or standard periods.

Prepaid technological constraints

E.8 The proposed roll-out of the tariff

a) Homeflex will be mandatory for all customers with grid-tied generation, whether export or not.
b) For all other residential urban customers, converting to the Homeflex tariff will be a choice.
c) The tariff will be implemented with the approved technology, that is, a post-paid smart metering device. The Homeflex tariff cannot be offered to customers who are on a prepaid smart meter because of current technological constraints.

Local-authority large power user tariffs

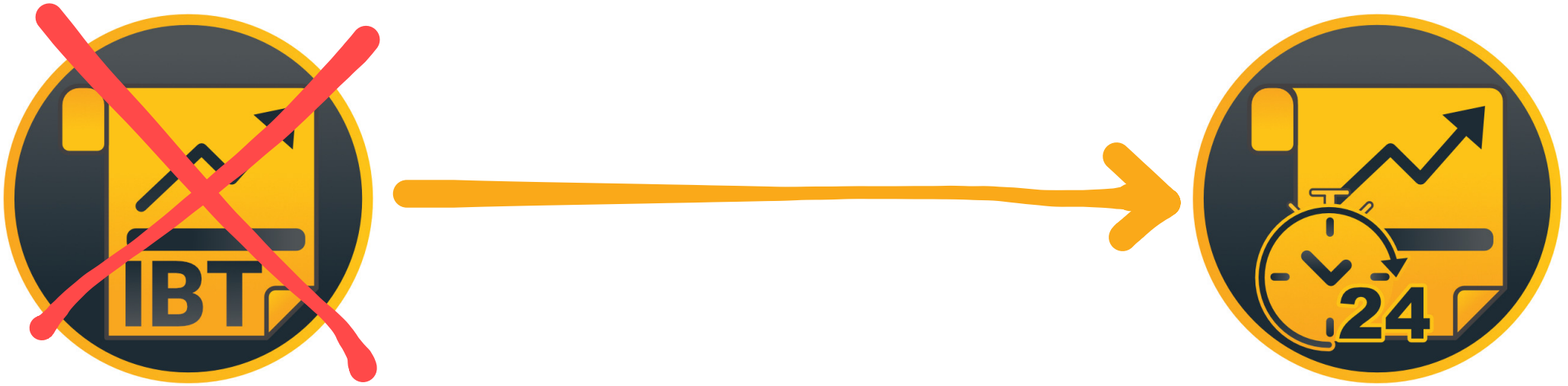


Proposed Municflex

Proposed Municflex

Local-authority Municflex large power user tariff (9 month view)									
Transmission zone	Voltage	High-demand season TOU active energy charges			Low-demand season TOU active energy charges			Generation capacity charge R/kVA	Transmission network charge R/kVA
		Peak	Standard	Off-Peak	Peak	Standard	Off-Peak		
<300km	<500V	359.16c	89.78c	59.87c	149.07c	83.81c	59.88c	R 31.50	R 8.60
	≥500V & <66kV	352.75c	88.18c	58.79c	146.39c	82.31c	58.79c	R 70.42	R 8.37
	≥66kV & <132kV	330.12c	82.52c	55.02c	136.99c	77.02c	55.02c	R 62.91	R 7.73
	>132kV*	311.47c	77.86c	51.91c	129.26c	72.67c	51.91c	R 72.30	R 11.46

IBT is being ***scrapped,*** moving over completely to **TIME OF USE.**



IBT TARIFF

TIME OF USE TARIFF

STS ***won't*** work on Time of Use tariffs!

Eskom Netflex Home Billing

(Scenario Diagram)

Times	kWh
08:00am (peak)	
	10
	20
09:00am (peak)	
	20
	10
11:00am (standard)	
	20
	10
12:00pm (standard)	
	10
	20
23:30pm (off-peak)	
	0
	20

Time	kWh
08:00am	10
09:00am	0
11:00am	0
12:00pm	0
23:30pm	20

January February

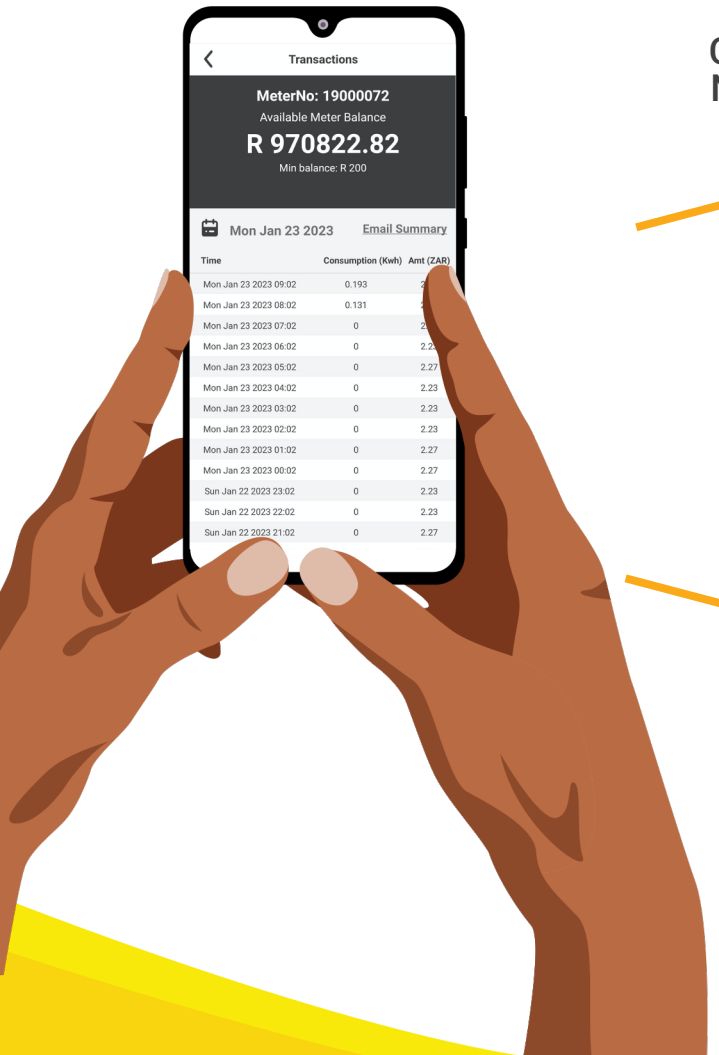
Banking periods	1st Jan 08:00am	1st Jan 09:00am	1st Jan 11:00am	1st Jan 12:00pm	31st Jan 23:30pm	1st Feb 00:00am
Peak	0	10	10	10	10	0
Standard	0	0	10	0	0	0
Off-peak	0	0	0	0	0	0

What are the Solution Requirements?

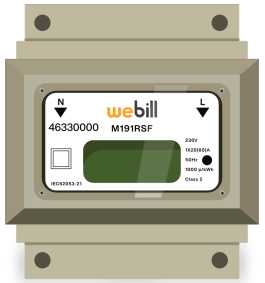
What is the Webill Solution?

(Patent Pending)

METER READ



CELLULAR NETWORK



METER

IoT NETWORK

(30-minute reads)

WEBILL NET METERING
IoT SERVER

WEBILL GATEWAY/

CREDIT CARD

BANK

Q&A

Thank you

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