

WHEELING CREDIT

Eskom Bill Reconciliation

February 2024





1. Your current billing structure

To understand the wheeling credit mechanism under renewable energy wheeling and how it impacts the customer's Eskom bill, it is necessary to understand the different charges levied by Eskom. The set of charges below is taken directly from Eskom's 2023/2024 tariff booklet that you can find [here](#).

Eskom's charge for generation costs is reflected in the table below. These per kWh **active energy charges (excluding losses)** are differentiated by month and by time-of-use. The table can be found in the Wholesale Electricity Pricing System (WEPS) section of Eskom's tariff booklet.

Table 1.1

Active energy charge excluding losses [c/kWh]											
High demand season [Jun - Aug]						Low demand season [Sep - May]					
Peak	Standard		Off Peak		Peak	Standard		Off Peak			
	VAT incl	VAT incl	VAT incl	VAT incl		VAT incl	VAT incl	VAT incl	VAT incl		
482.42	554.78	146.12	168.04	79.37	91.28	157.42	181.03	108.31	124.56	68.72	79.03

As energy is delivered across the country using transmission and distribution infrastructure, energy losses occur. These losses depend on the length of the transmission lines and the current flowing through them. Eskom charges the customer for these **energy losses** depending on the location of the customer's premises ('transmission zone', i.e., distance from Johannesburg) and the customer's voltage size. The costs in Table 1.2 reflect the total **WEPS active energy charges**, i.e., the sum of Table 1.1 and charges for **energy losses**.

Table 1.2

		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			
		VAT incl	VAT incl	VAT incl	VAT incl	VAT incl	VAT incl	VAT incl	VAT incl	VAT incl	VAT incl	VAT incl	
≤ 300km	< 500V	542.79	624.21	165.14	189.91	90.17	103.70	177.74	204.40	122.64	141.04	78.19	89.92
	≥ 500V & < 66kV	534.27	614.41	161.85	186.13	87.91	101.10	174.26	200.40	119.96	137.95	76.10	87.52
	≥ 66kV & ≤ 132kV	517.35	594.95	156.71	180.22	85.12	97.89	168.78	194.10	116.13	133.55	73.72	84.78
	> 132kV*	487.58	560.72	147.68	169.83	80.22	92.25	159.10	182.97	109.47	125.89	69.46	79.88
> 300km and ≤ 600km	< 500V	547.21	629.29	165.80	190.67	90.02	103.52	178.52	205.30	122.91	141.35	77.98	89.68
	≥ 500V & < 66kV	539.60	620.54	163.45	187.97	88.76	102.07	176.05	202.46	121.14	139.31	76.85	88.38
	≥ 66kV & ≤ 132kV	522.43	600.79	158.24	181.98	85.91	98.80	170.41	195.97	117.29	134.88	74.42	85.58
	> 132kV*	492.47	566.34	149.21	171.59	80.97	93.12	160.63	184.72	110.53	127.11	70.11	80.63
> 600km and ≤ 900km	< 500V	552.66	635.56	167.42	192.53	90.89	104.52	180.28	207.32	124.10	142.72	78.70	90.51
	≥ 500V & < 66kV	545.02	626.77	165.13	189.90	89.66	103.11	177.79	204.46	122.38	140.74	77.63	89.27
	≥ 66kV & ≤ 132kV	527.77	606.94	159.88	183.86	86.80	99.82	172.15	197.97	118.51	136.29	75.19	86.47
	> 132kV*	497.43	572.04	150.66	173.26	81.87	94.15	162.25	186.59	111.66	128.41	70.86	81.49
> 900km	< 500V	558.22	641.95	169.17	194.55	91.81	105.58	182.12	209.44	125.32	144.12	79.53	91.46
	≥ 500V & < 66kV	550.44	633.01	166.73	191.74	90.51	104.09	179.53	206.46	123.54	142.07	78.39	90.15
	≥ 66kV & ≤ 132kV	533.06	613.02	161.46	185.68	87.67	100.82	173.87	199.95	119.67	137.62	75.92	87.31
	> 132kV*	502.27	577.61	152.22	175.05	82.70	95.11	163.94	188.53	112.88	129.81	71.64	82.39

Eskom also levies an **Affordability Subsidy Charge** of 7.37c (excl. VAT) on every kWh consumed.

Table 1.3

Affordability subsidy charge [c/kWh]	
Only payable by non-local authority tariffs	
VAT incl	
7.37	8.48

In addition to these costs, Eskom charges the customer for use of the transmission and distribution network. **When wheeling renewable energy, the customer remains connected to Eskom's infrastructure and continues to pay these transmission and distribution charges as before.**



2. Wheeling credit mechanism

Renewable energy wheeling allows customers to substitute their Eskom generation charges with charges for privately generated renewable power. The customer's transmission and distribution charges remain unchanged when wheeling renewable energy.

For every kWh wheeled, Eskom credits the customer with the WEPS **active energy charge excluding losses** (Table 1.1) as well as the **Affordability Subsidy Charge** (Table 1.3). The credit is therefore different for each time-of-use. In this way, the customer still incurs the costs of **energy losses** as energy must still be delivered to its premises. The values in Table 2.1 reflect the total **wheeling credit** received per kWh (the sum of Table 1.1 and Table 1.3).

Table 2.1

HIGH DEMAND SEASON			LOW DEMAND SEASON		
Peak	Standard	Off-peak	Peak	Standard	Off-peak
489.79c	153.49c	86.74c	164.79c	115.68c	76.09c

Eskom levies a **wheeling administration charge** to facilitate wheeling based on the customer's kVA category. This charge ranges from R166 per month for small energy users to R6,873 per month for larger energy users.

Table 2.2

Customer categories	Service charge [R/account/day]		Administration charge [R/POD/day]	
		VAT incl		VAT incl
≤ 100 kVA	R 25.21	R 28.99	R 5.54	R 6.37
> 100 kVA & ≤ 500 kVA	R 115.14	R 132.41	R 32.30	R 37.15
> 500 kVA & ≤ 1 MVA	R 354.25	R 407.39	R 64.12	R 73.74
> 1 MVA	R 354.25	R 407.39	R 159.66	R 183.61
Key customers	R 6 942.01	R 7 983.31	R 221.70	R 254.96

All other costs on the customer's Eskom bill remain unaffected. The customer receives their Eskom bill as usual each month, with the amendments explained above.

3. Payment to Discovery Green

Five business days after the end of Eskom's billing period each month, the customer receives a bill from Discovery Green. Discovery Green's price per kWh is structured as a discount to the per kWh **wheeling credit** the customer receives from Eskom (Table 2.1). The Discovery Green price is therefore differentiated by time-of-use. For example, the prices on a 20-year contract term offering a 25c per kWh discount under the Green Saver product would be:

Table 3.1

HIGH DEMAND SEASON			LOW DEMAND SEASON		
Peak	Standard	Off-peak	Peak	Standard	Off-peak
464.79c	128.49c	61.74c	139.79c	90.68c	51.09c

According to the prices in Table 3.1, the customer pays Discovery Green for the total number of kWhs wheeled during the month and in each time-of-use period within **15 days after the invoice date**. If this date is not a business day, the bill is due the next business day. The customer pays no further charges to Discovery Green.

4. Example

Eskom bill without wheeling

For the sample bill from October (low demand season) below, the customer has consumed:

- A. 2,779,951 kWh's during peak times
- B. 7,057,261 kWh's during standard times
- C. 10,702,776 kWh's during off-peak times



The total **Affordability Subsidy Charge** is calculated by multiplying 7.37c with the total number of kWh's consumed across all time-of-use periods and equals R1,513,796.97 (D).

Figure 1

ACCOUNT TRANSACTION SUMMARY			
ADMINISTRATION CHARGE		R	27,490.80
TRANSMISSION NETWORK CAPACITY		R	791,355.44
DIST. NETWORK CAPACITY CHARGE		R	1,684,399.40
NETWORK DEMAND CHARGE		R	2,505,663.23
ANCILLIARY SERVICE (ALL)		R	143,779.90
ENERGY CHARGE (PEAK)	2,779,951	R	4,844,342.61 (A)
ENERGY CHARGE (STD)	7,057,261	R	8,465,890.29 (B)
ENERGY CHARGE (OFF)	10,702,776	R	8,144,812.54 (C)
AFFORDABILITY SUBSIDY (ALL)		R	1,513,796.97 (D)
ELECTRIFICATION AND RURAL SUBS (ALL)		R	2,834,518.07
NETWORK DEMAND CHARGE (C/KWH)		R	33,543.26
SERVICE CHARGE		R	215,202.31
TOTAL CHARGES FOR BILLING PERIOD		R	31,204,794.82

Eskom bill with renewable energy wheeling

Suppose the customer has wheeled 2,500,000 kWh's during peak times, 6,300,000 kWh's during standard times and 9,600,000 kWh's during off-peak times during the month. By applying the per kWh rebate in Table 2.1, the total credit per time-of-use period is:

Table 4.1

HIGH DEMAND SEASON			LOW DEMAND SEASON		
Peak	Standard	Off-peak	Peak	Standard	Off-peak
-	-	-	R 4,119,750	R 7,287,840	R 7,304,640

This translates to a total **wheeling credit** of R18,712,230 for the month of October. The Eskom bill will show the portion of this total wheeling credit attributable to the peak, standard and off-peak **WEPS active energy charges excluding losses** credit (Table 1.1) and the **Affordability Subsidy Charge** credit (Table 1.3).

Eskom also levies the **wheeling administration charge**. For this example, the customer pays R 6,873 in wheeling administration costs (E).

The remaining transmission, distribution and administration charges on the Eskom bill remain the same.

Figure 2

ACCOUNT TRANSACTION SUMMARY			
ADMINISTRATION CHARGE		R	27,490.80
TRANSMISSION NETWORK CAPACITY		R	791,355.44
DIST. NETWORK CAPACITY CHARGE		R	1,684,399.40
NETWORK DEMAND CHARGE		R	2,505,663.23
ANCILLIARY SERVICE (ALL)		R	143,779.90
ENERGY CHARGE (PEAK)	2,779,951	R	4,844,342.61 (A)
ENERGY CHARGE (STD)	7,057,261	R	8,465,890.29 (B)
ENERGY CHARGE (OFF)	10,702,776	R	8,144,812.54 (C)
CREDIT ENERGY CHARGE (PEAK)	2,500,000	R	-3,935,500.00
CREDIT ENERGY CHARGE (STD)	6,300,000	R	-6,823,530.00
CREDIT ENERGY CHARGE (OFF)	9,600,000	R	-6,597,120.00
AFFORDABILITY SUBSIDY (ALL)		R	1,513,796.97 (D)
CREDIT AFFORDABILITY SUBSIDY (ALL)		R	-1,356,080.00
ELECTRIFICATION AND RURAL SUBS (ALL)		R	2,834,518.07
NETWORK DEMAND CHARGE (C/KWH)		R	33,543.26
SERVICE CHARGE		R	215,202.31
WHEELING ADMINISTRATION CHARGE		R	6,873.00 (E)
TOTAL CHARGES FOR BILLING PERIOD		R	12,499,437.82



Bill from Discovery Green

Suppose the customer has selected the Green Saver product on a 20-year term and thus receives a discount of 25c for every kWh wheeled. According to Table 3.1 and the number of kWhs wheeled in each time-of-use period, the total cost of renewable energy payable to Discovery Green per time-of-use period is:

Table 4.2

HIGH DEMAND SEASON			LOW DEMAND SEASON		
Peak	Standard	Off-peak	Peak	Standard	Off-peak
-	-	-	R 3,494,750	R 5,712,840	R 4,904,640

This represents a total cost of R 14,112,230 for wheeled renewable energy. Discovery Green only charges for the cost of renewable energy and levies no administration or service charges.

Figure 3

DISCOVERY GREEN ACCOUNT SUMMARY		Discovery	
REN ENERGY CHARGE (PEAK)	2,500,000	R	3,494,750.00
REN ENERGY CHARGE (STD)	6,300,000	R	5,712,840.00
REN ENERGY CHARGE (OFF)	9,600,000	R	4,904,640.00
TOTAL CHARGES FOR BILLING PERIOD		R	14,112,230.00

The difference between the Eskom rebate of R 18,712,230 and the Discovery Green cost of R 14,112,230 represents a monthly saving of **R 4,600,000** to the customer. More simply, the monthly saving can be calculated by multiplying the 25c discount by the total number of kWhs wheeled in the month (18,400,000 kWh's). The total monthly saving to the customer after considering the wheeling administration charge is **R 4,593,127**.

In the following year, the Discovery Green prices (Table 3.1) will increase with recorded CPI inflation over the previous year. Eskom tariffs are expected to follow the current trend of annual price increases well above recorded CPI. The higher expected escalation on Eskom tariffs, and hence a higher Eskom rebate for the business, is expected to increase the business's savings through renewable energy wheeling with Discovery Green.



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