

2023

**MID-YEAR STATISTICAL
BULLETIN**



VISION

To be the benchmark of excellence in energy regulation in Africa by 2026

MISSION STATEMENT

Efficiently regulate the energy sector and be responsive to stakeholder needs to achieve sustainable, reliable, and quality energy products and services

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FOREWORD

Energy has been identified as an important driving force for economic development. Changes in the sector aid policy makers and investors make informed policy and investment decisions that lead to the growth of the sector and the economy at large. Consequently, it is imperative that developments are constantly tracked and updated. Therefore, it is my pleasure to present the 2023 Mid-year Statistical Bulletin to our stakeholders and our readers in general. This edition of the Mid-Year Statistical Bulletin outlines some of the significant developments in the energy sector during the first half of 2023.

The publication is in line with the ERB's mandate to regulate the energy sector in an efficient manner by providing updated energy statistics. The bulletin highlights statistics on electricity generation and consumption, petroleum consumption and other energy related statistics which are accompanied by graphs.

The statistics provided are of great significance to several stakeholders including the Government, investors and regulators. It is my sincere hope and trust that you will find this publication valuable. The report is made available in various formats including print and electronic media, and can be accessed from our website (www.erb.org.zm) in pdf format.

I would like to thank all stakeholders who were consulted and who provided data and information that was used in preparing this report. In efforts to better address your energy statistical needs, I am urging you, the reader, to send us your comments and suggestions on the relevance of the information presented herein. Your feedback and suggestions will help us to improve this publication according to your information needs.

Yohane Mukabe (Mr)
Director General
September 2023

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ABBREVIATIONS

ERB	Energy Regulation Board
HFO	Heavy Fuel Oil
INDENI	INDENI Energy Company Limited
IPP	Independent Power Producer
ITPC	Itezhi tezhi Power Corporation
KGL	Kafue Gorge Lower
MCL	Maamba Collieries Limited
NFT	Ndola Fuel Terminal
OMC	Oil Marketing Company
SADC	Southern African Development Community
ZESCO	ZESCO Limited

UNITS OF MEASUREMENT

Bbl	Barrels of oil
GWh	Giga-Watt hour (1,000 MWh)
K	Zambian Kwacha
Km	Kilometre
kV	Kilo Volt
kVA	Kilo Volt Amperes (1,000 Volt Amps)
kW	Kilo Watt
kWh	Kilo Watt Hour
m/bd	million barrels per day
MW	Mega Watt
MWh	Mega Watt Hour (1,000 kWh)
MT	Metric Tonne (in this document means a mass equivalent to 1,000 kg)
m ³	Cubic Meters
US\$	United States of America dollar

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- Maamba Collieries Limited
- Ndola Energy Company
- Oil Marketing Companies
- TAZAMA Pipelines Limited
- ZESCO Limited

EXECUTIVE SUMMARY

The Mid-Year Statistical Bulletin outlines significant developments in the electricity and petroleum sectors during the initial half of 2023. This synopsis presents essential data on electricity generation, installed generation capacity and petroleum product consumption.

The national electricity capacity reached 3,812.07 MW by June 30, 2023, compared to 3,328.40 MW at 30th June, 2022. This rise was primarily due to the commissioning of new electricity generation facilities i.e. Kafue gorge lower having an additional 450MW & CEC solar Plant having 33MW & Kasanjiku having 0.64MW. The Installed electricity generation capacity breakdown is as follows, Hydro power constituted 83.0%, coal contributed 8.7%, solar held 3.2%, HFO accounted for 2.9% and diesel contributed 2.2%. ZESCO produced 5,337,412.31 MWh from major hydro plants, while smaller hydro and diesel plants yielded 132,168.81 MWh and 770.0 MWh, respectively. Independent Power Plants added 4,015,843.34 MWh to the total output.

Government-led reforms resulted in the conversion of TAZAMA Pipelines Limited to a transporter of finished petroleum products (Low Sulphur Gasoil (LSG) and INDENI Petroleum Refinery being placed on maintenance for further conversion to being an Oil Marketing company (OMC). Reflecting these reforms, no imports of petroleum feedstock occurred in the initial half of 2023. During the period under review, INDENI went on stream to refine the comingled feedstock that was in the pipeline.

LSG retained its status as the most consumed petroleum product during this review period, with daily consumption reaching 3,330,860.32 litres. Following this, Unleaded Petrol (ULP) was consumed at an average rate of 1,573,668.87 litres per day. Other petroleum product consumption: Heavy Fuel Oil (62,205.22 kgs per day), Jet A-1 (137,958.71 litres per day), Kerosene (11,797.34 litres per day), and LPG (25,937.28 kgs per day). Market dominance persisted with Mount Meru Zambia Limited, Puma Energy Plc, and Totalenergies Zambia Limited collectively capturing 54.1% of the petroleum market. During the period under review, the demand of Petroleum products was met by OMCs only, as Government ceased the procurement of petroleum products.

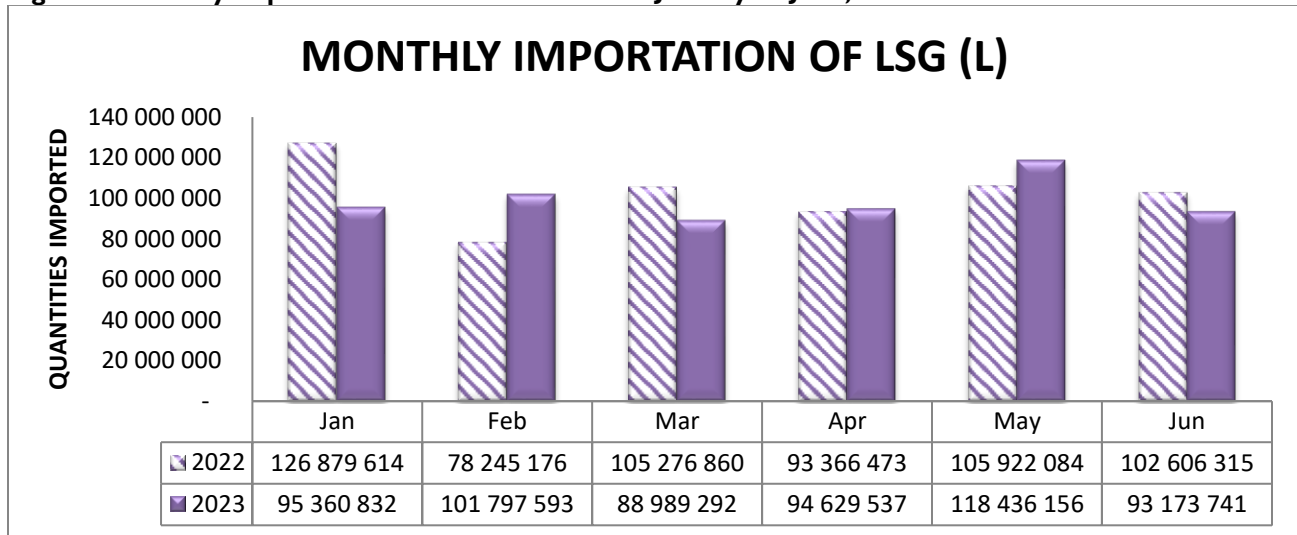
I.0 PETROLEUM SUB-SECTOR STATISTICS

I.1 IMPORTATION OF FUEL

I.1.1 Importation of finished petroleum products

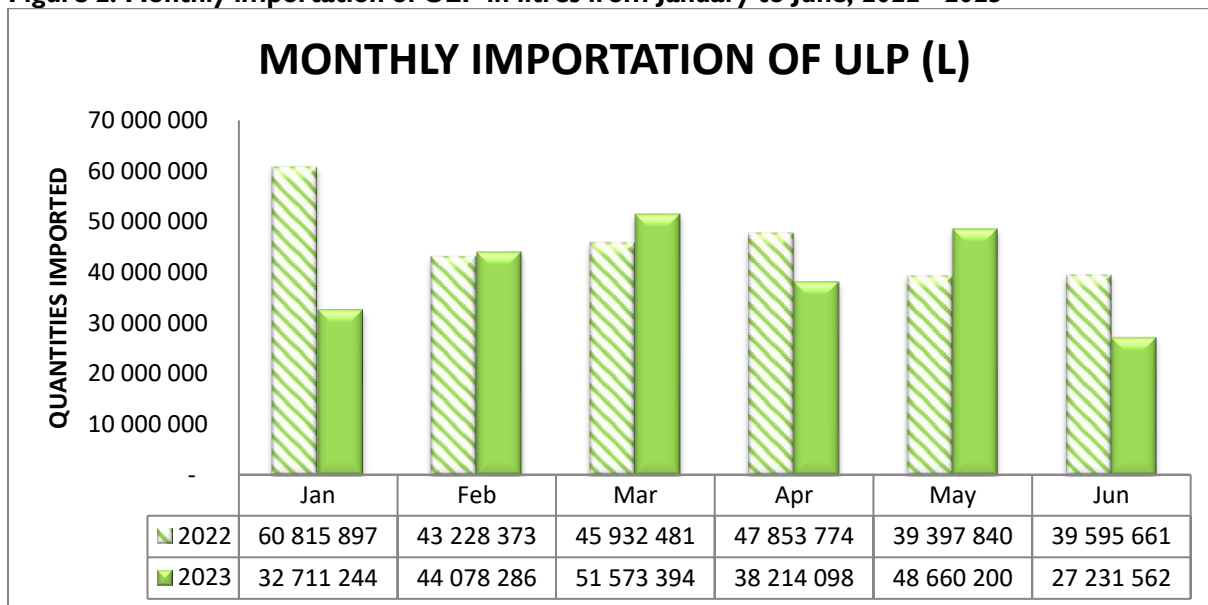
I.1.1.1 Importation of LSG

Figure 1: Monthly importation of LSG in litres from January to June, 2022 - 2023



I.1.1.2 Importation of ULP

Figure 2: Monthly importation of ULP in litres from January to June, 2022 - 2023



1.2 NATIONAL CONSUMPTION OF PETROLEUM PRODUCTS

Table 1: National consumption of Petroleum products, January-June, 2022-2023

Product	2022	2023	% Change	
Avgas (MT)	460.58	351.71	-	23.6
Heavy Fuel Oil (MT)	6 927.21	11 259.14		62.5
Jet A-I (MT)	13 261.13	19 851.57		49.7
Kerosene (MT)	757.57	1 708.26		125.5
Low Sulphur Gasoil (MT)	495 626.18	506 424.00		2.2
LPG (MT)	4 163.07	4 694.65		12.8
Unleaded Petrol (MT)	201 303.04	213 625.55		6.1
Grand Total	722 498.77	757 914.88		4.9

1.2.1 Daily national average consumption of petroleum products

Table 2: Daily average consumption (MT) of petroleum products, January-June, 2022-2023

Product	2022	2023	% Change	
Avgas (MT)	2.54	1.94	-	23.6
Heavy Fuel Oil (MT)	38.27	62.21		62.5
Jet A-I (MT)	73.27	109.68		49.7
Kerosene (MT)	4.19	9.44		125.5
Low Sulphur Gasoil (MT)	2 738.27	2 797.92		2.2
LPG (MT)	23.00	25.94		12.8
Unleaded Petrol (MT)	1 112.17	1 180.25		6.1
Grand Total	3 991.71	4 187.38		4.9

Table 3 : Daily average consumption of petroleum products, January-June, 2022-2023

Product	2022	2023	% Change	
Avgas (L)	2 544.64	1 943.16	-	23.6
Heavy Fuel Oil (Kg)	38 271.85	62 205.22		62.5
Jet A-I(L)	92 158.35	137 958.71		49.7
Kerosene (L)	5 231.82	11 797.34		125.5
Low Sulphur Gasoil (L)	3 259 840.71	3 330 860.32		2.2
LPG (Kg)	23 000.36	25 937.28		12.8
Unleaded Petrol (L)	1 482 895.33	1 573 668.87		6.1

I.2.2 National Consumption by Province

Table 4: Annual National consumption of petroleum products by province, January-June, 2022-2023

Province/Product	Avgas (L)	Heavy Fuel Oil (Kg)	Jet A-I (L)	Kerosene (L)	Low Sulphur Gasoil (L)	LPG Kg)	Unleaded Petrol (L)
Central							
2022	37 400.00			117 038.00	36 639 900.48	283 217.73	20 042 476.98
2023				98 604.00	43 122 219.86	77 050.00	20 113 454.94
Copperbelt							
2022	15 251.00	6 905 055.00	4 491 059.00	123 813.99	186 164 459.06	883 829.17	50 466 008.99
2023	17 904.00	10 334 044.00	6 535 437.00	445 552.00	137 802 349.82	989 463.21	54 919 881.38
Eastern							
2022			43 000.00	54 149.00	11 998 462.40	43 963.83	12 878 719.51
2023			81 499.00	56 695.57	12 833 451.93	24 722.00	13 221 729.62
Luapula							
2022				51 898.49	6 482 920.00	1 863.00	5 233 174.31
2023				715 869.57	6 094 564.63	1 853.00	5 486 429.01
Lusaka							
2022	364 091.00	22 150.00	11 691 407.00	530 461.72	183 565 491.17	2 706 326.68	137 648 843.51
2023	278 735.00	925 100.00	17 945 689.00	587 327.49	225 732 475.52	3 388 017.70	147 901 455.85
Muchinga							
2022					6 151 978.20	2 011.00	3 413 655.40
2023				28 906.00	6 340 500.13	3 177.00	3 555 749.93
Northern							
2022	120.00		110 992.00	24 464.17	8 074 149.81	6 376.60	6 927 584.16
2023	3 538.00		154 009.00	20 000.00	7 053 964.79	5 778.00	7 090 243.69
Northwestern							
2022	529.00		261 465.00	17 692.00	115 081 546.06	84 863.59	10 221 602.30
2023	7 448.22		98 485.00	79 000.00	129 579 146.90	82 794.00	10 087 876.28
Southern							
2022	43 188.00		82 739.00	27 442.70	29 784 573.35	137 685.19	17 139 777.50
2023	44 087.00		155 407.00	103 364.17	28 510 848.36	111 524.00	18 404 131.17
Western							
2022					6 087 687.56	12 928.94	4 432 211.81
2023					5 816 196.44	10 268.00	4 053 112.79

1.2.3 Daily national average consumption by Province

Table 5: Provincial consumption of petroleum products, January-June, 2022-2023

Product	Province	Monthly		Daily	
		2022	2023	2022	2023
Avgas (L)	Central	37 400.00		102.47	-
	Copperbelt	15 251.00	17 904.00	41.78	49.05
	Lusaka	364 091.00	278 735.00	997.51	763.66
	Northern	120.00	3 538.00	0.33	9.69
	Northwestern	529.00	7 448.22	1.45	20.41
	Southern	43 188.00	44 087.00	118.32	120.79
Heavy Fuel Oil (Kg)	Copperbelt	6 905 055.00	10 334 044.00	18 917.96	28 312.45
	Lusaka	22 150.00	925 100.00	60.68	2 534.52
Jet A-1(L)	Copperbelt	4 491 059.00	6 535 437.00	12 304.27	17 905.31
	Eastern	43 000.00	81 499.00	117.81	223.28
	Lusaka	11 691 407.00	17 945 689.00	32 031.25	49 166.27
	Northern	110 992.00	154 009.00	304.09	421.94
	Northwestern	261 465.00	98 485.00	716.34	269.82
	Southern	82 739.00	155 407.00	226.68	425.77
Kerosene(L)	Central	117 038.00	98 604.00	320.65	270.15
	Copperbelt	123 813.99	445 552.00	339.22	1 220.69
	Eastern	54 149.00	56 695.57	148.35	155.33
	Luapula	51 898.49	715 869.57	142.19	1 961.29
	Lusaka	530 461.72	587 327.49	1 453.32	1 609.12
	Muchinga		28 906.00	-	79.19
	Northern	24 464.17	20 000.00	67.03	54.79
	Northwestern	17 692.00	79 000.00	48.47	216.44
Low Sulphur Gasoil (L)	Central	36 639 900.48	43 122 219.86	100 383.29	118 143.07
	Copperbelt	186 164 459.06	137 802 349.82	510 039.61	377 540.68
	Eastern	11 998 462.40	12 833 451.93	32 872.50	35 160.14
	Luapula	6 482 920.00	6 094 564.63	17 761.42	16 697.44
	Lusaka	183 565 491.17	225 732 475.52	502 919.15	618 445.14
	Muchinga	6 151 978.20	6 340 500.13	16 854.73	17 371.23
	Northern	8 074 149.81	7 053 964.79	22 120.96	19 325.93
	Northwestern	115 081 546.06	129 579 146.90	315 291.91	355 011.36
	Southern	29 784 573.35	28 510 848.36	81 601.57	78 111.91
	Western	6 087 687.56	5 816 196.44	16 678.60	15 934.78
LPG (Kg)	Central	283 217.73	77 050.00	775.94	211.10
	Copperbelt	883 829.17	989 463.21	2 421.45	2 710.86
	Eastern	43 963.83	24 722.00	120.45	67.73
	Luapula	1 863.00	1 853.00	5.10	5.08
	Lusaka	2 706 326.68	3 388 017.70	7 414.59	9 282.24
	Muchinga	2 011.00	3 177.00	5.51	8.70
	Northern	6 376.60	5 778.00	17.47	15.83
	Northwestern	84 863.59	82 794.00	232.50	226.83
	Southern	137 685.19	111 524.00	377.22	305.55
	Western	12 928.94	10 268.00	35.42	28.13
Unleaded Petrol (L)	Central	20 042 476.98	20 113 454.94	54 910.90	55 105.36
	Copperbelt	50 466 008.99	54 919 881.38	138 263.04	150 465.43
	Eastern	12 878 719.51	13 221 729.62	35 284.16	36 223.92
	Luapula	5 233 174.31	5 486 429.01	14 337.46	15 031.31
	Lusaka	137 648 843.51	147 901 455.85	377 120.12	405 209.47
	Muchinga	3 413 655.40	3 555 749.93	9 352.48	9 741.78
	Northern	6 927 584.16	7 090 243.69	18 979.68	19 425.33
	Northwestern	10 221 602.30	10 087 876.28	28 004.39	27 638.02
	Southern	17 139 777.50	18 404 131.17	46 958.29	50 422.28
Western	4 432 211.81	4 053 112.79	12 143.05	11 104.42	

1.2.4 Consumption by economic sector

Table 6 : Percentage Consumption of petroleum products by Economic sector, January-June, 2022-2023

Product	Year	Mining	Non-mining	Retail
Avgas	2022	0.0%	100.0%	0.0%
	2023	0.0%	100.0%	0.0%
Heavy Fuel Oil	2022	99.7%	0.3%	0.0%
	2023	95.7%	4.3%	0.0%
Jet A-I	2022	0.2%	99.8%	0.0%
	2023	0.0%	100.0%	0.0%
Kerosene	2022	0.0%	1.1%	98.9%
	2023	1.4%	4.3%	94.3%
Low Sulphur Gasoil	2022	34.7%	27.4%	37.9%
	2023	33.3%	28.0%	38.7%
LPG	2022	0.6%	49.0%	50.5%
	2023	0.4%	41.8%	57.8%
Unleaded Petrol	2022	0.2%	4.5%	95.2%
	2023	0.1%	6.5%	93.4%

1.3 MARKET SHARE OF OIL MARKETING COMPANIES

1.3.1 Market share of white products

Table 7: Market share for white petroleum products, January-June, 2022-2023

OMC	2022	2023
Mount Meru Petroleum (Z) Ltd	17.9%	18.7%
Puma Energy Zambia PLC	19.6%	18.6%
TotalEnergies Zambia Limited	19.8%	16.8%
Engen Petroleum	6.8%	6.9%
Oryx Energies Zambia Limited	5.4%	5.1%
Rubis Energy Zambia Ltd	5.0%	3.9%
Spectra Oil Zambia	3.4%	3.7%
Petroda Zambia Ltd	2.8%	2.7%
Oasis Oil Zambia	1.4%	2.6%
Lake Petroleum Ltd	2.3%	2.5%
Others	15.5%	18.6%
Total	100.0%	100.0%

1.3.2 Market share for Jet A-I

Table 8: Market share for Jet A-I, 2022-2023

OMC	2022	2023
Puma Energy Zambia PLC	67.1%	61.0%
TotalEnergies Zambia Limited	32.9%	39.0%

1.3.3 Market share for Liquefied Petroleum Gas (LPG)

Table 9: Market share for LPG, 2022-2023

OMC	2022	2023
Mount Meru Petroleum (Z) Ltd	19.0%	25.1%
Oryx Gas Zambia Limited	13.9%	14.4%
Falcon Gas Zambia Ltd	6.6%	13.1%
Afrox Zambia Ltd	22.8%	13.0%
Ogaz Zambia Limited	14.8%	12.6%
Exclusive Brands Africa	6.1%	7.0%
Minegases Co. Ltd	5.0%	5.5%
Rubis Energy Zambia Ltd	6.5%	5.3%
Chingases Company Limited	5.2%	3.9%
Oilbay Zambia	0.1%	0.1%
Surya Energy	0.01%	0.03%

1.4 Retail Sites Network

1.4.1 Number of Retail Service Stations Operated by OMCs

Table 10: Number of Retail Service stations operated by OMCs as at 30th June, 2023

Province	Number of sites	% share of retail sites
Lusaka	222.00	41.0%
Copperbelt	123.00	22.7%
Central	46.00	8.5%
Southern	42.00	7.7%
Eastern	29.00	5.4%
Northwestern	25.00	4.6%
Northern	16.00	3.0%
Muchinga	14.00	2.6%
Luapula	13.00	2.4%
Western	12.00	2.2%
Grand Total	542.00	100.0%

1.5 DOMESTIC AND REGIONAL FUEL PRICES

1.5.1 Domestic Fuel Pump Prices

Table 11: January to June, 2022- 2023, fuel pump price

MONTH	ULP(K/Litre)		LSG(K/Litre)	
	2022	2023	2022	2023
January	21.16	24.49	20.15	26.44
February	19.84	27.22	18.93	29.25
March	21.96	28.52	21.54	29.25
April	26.50	27.59	26.22	26.28
May	24.15	27.59	25.64	24.64
June	24.95	24.45	25.64	21.87

1.5.2 Regional Fuel Prices

Table 12: Regional fuel pump prices as at 30th June, 2022-2023 – Diesel and Petrol

Product	LSG (US\$/ Litre)		ULP(US\$/ Litre)	
Country	30th June 2022	30th June 2023	30th June 2022	30th June 2023
Botswana	1.45	1.20	1.41	1.08
Kenya	1.19	1.28	1.35	1.39
Malawi	1.89	1.80	1.97	1.64
Mozambique	1.23	1.36	1.29	1.35
South Africa	1.42	1.04	1.46	1.18
Tanzania	1.43	1.14	1.38	1.23
Zambia	1.66	1.24	1.58	1.39
Zimbabwe	1.88	0.72	1.77	0.71

2.0 ELECTRICITY SUB-SECTOR STATISTICS

2.1 INSTALLED GENERATION CAPACITY BY TECHNOLOGY

Table 13: National Installed Generation Capacity by technology as at 30th June, 2023

Technology	Installed Capacity (MW)	% Share of installed capacity
Coal	330	8.66%
Diesel	84.8	2.22%
Heavy Fuel Oil	110	2.89%
Hydro	3164.14	83.00%
Solar	123.13	3.23%
Grand Total	3812.07	100.00%

2.2 ELECTRICITY GENERATION SENT OUT

2.2.1 ZESCO's generation from Large Hydro Power Plants

Table 14: ZESCO's Generation from Major Hydro Power Plants (MWh), January - June, 2022-2023

Station	Year /Month	January	February	March	April	May	June	Grand Total
Kafue Gorge	2022	614,448.00	560,106.00	616,554.00	592,056.00	643,230.00	611,784.00	3,638,178.00
	2023	612,306.00	593,406.00	665,100.00	626,724.00	656,334.00	651,996.00	3,805,866.00
Kariba North Bank	2022	254,785.00	264,854.50	268,919.30	197,677.40	305,368.70	293,284.30	1,584,889.20
	2023	106,707.30	188,959.60	110,418.70	171,388.10	223,853.60	274,917.90	1,076,245.20
Victoria Falls	2022	62,449.94	63,584.17	63,329.39	57,705.46	63,270.87	52,782.38	363,122.21
	2023	72,331.60	71,019.10	79,445.58	77,474.74	78,690.93	76,339.16	455,301.11
Total	2022	931,682.94	888,544.67	948,802.69	847,438.86	1,011,869.57	957,850.68	5,586,189.41
	2023	791,344.90	853,384.70	854,964.28	875,586.84	958,878.53	1,003,253.06	5,337,412.31

2.2.2 ZESCO's generation from Small and Mini Hydro Power Plants (MWh)

Table 15: Generation sent out from ZESCO's small and mini hydro power plants, (MWh), January - June, 2022-2023

Station/Month	January	February	March	April	May	June	Total
CHISHIMBA							
2022	614.93	615.90	755.61	842.02	961.39	1,048.32	4,838.17
2023	1,392.67	1,211.50	1,283.99	1,714.71	1,804.67	1,520.43	8,927.97
LUNZUA							
2022	3,448.79	3,792.60	6,236.64	6,667.37	4,804.84	3,470.42	28,420.66
2023	4,967.99	4,160.75	6,160.79	8,699.41	6,967.80	4,987.79	35,944.53
LUSIWASI LOWER							
2022	1,558.11	1,468.76	1,603.01	1,481.66	1,563.45	1,526.53	9,201.52
2023	1,556.82	1,363.92	1,413.62	1,469.94	1,219.90	1,389.37	8,413.57
LUSIWASI UPPER							
2022	3,425.32	1,858.72	10,279.53	7,833.57	4,374.60	1,939.45	29,711.19
2023	10,090.81	9,850.45	11,162.94	89.42	4,181.32	5,672.45	41,047.39
MUSONDA							
2022	2,861.00	4,504.79	6,967.05	7,016.02	6,655.48	3,460.76	31,465.10
2023	5,792.47	6,390.47	6,834.61	6,085.24	6,939.28	5,526.56	37,568.63
SHIWAN'GANDU							
2022	68.74	8.03	21.23	52.26	45.23	44.30	239.79
2023	33.04	73.56	25.53	26.71	51.97	55.91	266.72

Station/Month	January	February	March	April	May	June	Total
Grand Total							
2022	11,976.89	12,248.80	25,863.07	23,892.90	18,404.99	11,489.78	103,876.43
2023	23,833.80	23,050.65	26,881.48	18,085.43	21,164.94	19,152.51	132,168.81

2.2.3 ZESCO's generation from Diesel Power Plants

Table 16: Generation sent out from ZESCO's diesel plants, (MWh), January - June, 2022-2023

Station/Month	2022	2023
CHAMA		
January	27.17	7.34
February	11.76	9.05
March	10.14	19.13
April	10.00	4.58
May	18.56	5.74
June	14.46	3.14
CHAMA Total	92.09	48.97
LUNDAZI		
January	105.09	25.00
February	57.56	20.13
March	67.95	39.16
April	68.00	6.40
May	103.27	17.60
June	113.12	43.26
LUNDAZI Total	514.99	151.54
SHANG'OMBO		
January	92.48	94.22
February	84.63	86.59
March	90.37	97.35
April	87.00	92.36
May	83.91	98.68
June	87.77	100.78
SHANG'OMBO Total	526.16	569.98
Grand Total	1133.2	770.49

2.2.4 ZESCO's generation from Independent Power Producers

Table 17: Generation sent out from IPPs plants (MWh), January - June, 2022-2023

Month	January	February	March	April	May	June	Grand Total
2022							
BANGWEULU	6,242.73	6,817.30	6,655.72	6,371.58	8,238.65	6,149.11	40,475.08
ITPC	45,519.00	23,302.93	51,806.46	70,153.98	84,365.74	81,748.60	356,896.71
KGL	218,365.47	194,792.82	221,481.50	216,393.19	219,300.27	259,889.15	1,330,222.40
KNBE	73,092.00	78,216.00	93,578.50	49,928.80	59,289.70	114,024.00	468,129.00
LUNSEMFVA	29,407.97	31,064.90	29,719.00	31,981.64	36,667.95	28,848.44	187,689.90
MCL	176,201.11	151,611.53	197,574.10	192,410.58	176,233.34	150,808.80	1,044,839.46
NDOLA ENERGY	-	-	-	-	-	-	-

Month	January	February	March	April	May	June	Grand Total
NGONYE	4,408.40	4,874.90	4,642.50	4,377.60	5,689.20	4,091.30	28,083.90
2022 Total	553,236.67	490,680.38	605,457.78	571,617.38	589,784.86	645,559.40	3,456,336.46
2023							
BANGWEULU	5,714.71	5,954.04	7,555.26	7,684.53	8,415.70	6,975.50	42,299.74
IIPC	55,559.70	70,023.92	77,387.83	79,694.78	68,579.72	84,735.62	435,981.57
KGL	264,061.86	295,306.00	421,330.05	445,121.71	411,706.31	356,208.02	2,193,733.95
KNBE	73,296.00	17,362.00	17,892.00	21,276.00	30,024.00	38,100.00	197,950.00
LUNSEMFVA			14,880.00	10,800.00	14,880.00	18,000.00	58,560.00
MCL	152,447.93	176,901.18	175,327.26	166,655.48	198,654.45	189,143.38	1,059,129.68
NDOLA ENERGY	-	-	-	-	-	-	-
NGONYE	3,787.00	3,941.80	5,060.70	5,223.90	5,598.70	4,576.30	28,188.40
2023 Total	554,867.20	569,488.94	719,433.10	736,456.40	737,858.88	697,738.82	4,015,843.34

2.3 ZESCO IMPORTS AND EXPORTS

2.3.1 Electricity Exports

2.3.1.1 Electricity exports by month

Table 18 : ZESCO's Exports (MWh) for January - June, 2022 - 2023

Month	2022	2023
January	197,064.30	310,368.00
February	186,552.08	278,344.50
March	199,720.71	297,475.60
April	174,303.90	301,385.00
May	225,980.21	297,166.90
June	216,224.66	303,618.00
Grand Total	1,199,845.86	1,788,358.00

2.3.1.2 Electricity exports by export market

Table 19 : ZESCO's Exports (MWh) by export market for January - June, 2022- 2023

Market	2022	2023
BPC	125 016.00	384,049.00
ESCOM	6 668.17	-
LV Exports	60 167.79	72,099.00
Nampower	543 184.30	688,667.00
SNEL	421 087.19	336,847.00
via SAPP MARKET	43 722.40	20,118.00
ZESA	-	182,177.00
ZIMPLATS	-	104,400.00
Grand Total	1 199 845.86	1,788,357.00

2.3.2 Electricity Imports

2.3.2.1 Electricity Imports by month

Table 20 : ZESCO's Imports (MWh) by month for the period January - June, 2022 - 2023

Month	2022	2023
January	1 575.17	27,929
February	1 665.52	5,704
March	1 816.66	1,144
April	1 691.94	1,435
May	1 452.13	4,165
June	1 389.57	11,456
Grand Total	9 590.99	51,833

2.3.2.2 Electricity imports by import market

Table 21 : ZESCO's Imports (MWh) by import market for January - June, 2022- 2023

Market	2022	2023
Eskom	0.00	0.00
LV Imports	7 856.39	8,527
via SAPP MARKET	1 734.60	43,305
Grand Total	9 590.99	51,832

2.4 ELECTRICITY CONSUMPTION

2.4.1 Monthly consumption of electricity by sector

Table 22: Monthly consumption (MWh) of electricity by sector Jan - June, 2022 – 2023

Sector	January	February	March	April	May	June
Agriculture						
2022	11,109.44	9,006.29	12,206.29	19,913.95	28,590.83	31,964.72
2023	9,133.28	10,148.66	16,099.47	19,810.03	31,967.37	36,437.18
Construction						
2022	674.44	589.42	724.75	674.19	709.99	757.397
2023	453.86	798.02	329.37	596.65	602.56	591.06
Energy and Water						
2022	9,504.96	8,747.16	8,542.97	9,831.44	9,308.02	7,769.90
2023	9,927.48	8,723.59	10,186.23	7,447.16	8,973.71	10,099.18
Finance and Property						
2022	63,345.29	55,231.56	65,919.38	65,095.43	69,447.67	80,057.87
2023	57,463.24	65,517.58	80,168.99	73,926.51	84,880.24	79,072.41
Manufacturing						
2022	28,821.22	28,524.19	32,267.72	30,875.16	29,125.97	36,643.49
2023	25,533.75	27,456.81	31,466.95	28,634.79	34,999.80	35,708.91
Mining						
2022	597,572.73	497,918.78	589,289.71	563,767.69	593,292.84	627,635.80
2023	551,338.52	577,818.48	632,442.66	629,749.68	652,698.31	645,039.83
Others						
2022	6,366.41	4,699.90	4,913.48	4,718.11	5,972.11	4,604.08
2023	3,541.51	3,861.67	4,308.71	4,098.18	3,200.51	4,060.75
Services (Households)						
2022	353,085.44	339,261.98	367,004.92	369,020.77	379,639.46	393,015.61
2023	329,377.63	344,711.75	386,533.03	380,599.91	411,990.27	405,966.49
Trade						

Sector	January	February	March	April	May	June
2022	6,758.62	7,227.72	6,702.41	5,932.11	6,921.43	6,632.38
2023	6,753.25	7,358.09	7,827.70	6,616.04	7,590.79	7,170.12
Transport						
2022	2,608.38	2,275.69	2,602.38	2,569.89	2,455.52	2,956.69
2023	2,660.93	2,988.43	3,063.76	2,979.77	3,493.86	3,594.78
Grand Total	2,076,030.38	2,002,865.77	2,262,600.88	2,226,857.46	2,365,861.26	2,419,778.63

2.4.2 Percentage share of consumption of electricity by sector

Table 22: Percentage share of monthly consumption of electricity by sector January - June, 2022 - 2023

Month	January		February		March		April		May		June	
	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023
Agriculture	0.90%	0.92%	0.80%	0.97%	1.50%	1.37%	1.40%	1.72%	2.50%	2.58%	2.68%	2.97%
Construction	0.00%	0.05%	0.00%	0.08%	0.10%	0.03%	0.10%	0.05%	0.10%	0.05%	0.06%	0.05%
Energy and Water	0.70%	1.00%	0.90%	0.83%	0.70%	0.87%	0.90%	0.65%	0.80%	0.72%	0.65%	0.82%
Finance and Property	6.60%	5.77%	6.40%	6.24%	6.90%	6.84%	6.80%	6.40%	6.30%	6.84%	6.72%	6.44%
Manufacturing	2.20%	2.56%	2.60%	2.62%	2.60%	2.68%	3.20%	2.48%	2.80%	2.82%	3.07%	2.91%
Mining	56.20%	55.35%	54.90%	55.06%	55.20%	53.94%	53.20%	54.55%	51.70%	52.62%	52.65%	52.54%
Others	0.40%	0.36%	0.40%	0.37%	0.40%	0.37%	0.50%	0.35%	0.40%	0.26%	0.39%	0.33%
Services (Households)	32.00%	33.06%	33.00%	32.85%	31.70%	32.97%	33.10%	32.97%	34.60%	33.21%	32.97%	33.07%
Trade	0.60%	0.68%	0.60%	0.70%	0.70%	0.67%	0.60%	0.57%	0.60%	0.61%	0.56%	0.58%
Transport	0.20%	0.27%	0.30%	0.28%	0.20%	0.26%	0.30%	0.26%	0.20%	0.28%	0.25%	0.29%
Grand Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

2.5 CUSTOMER BASE BY TARIFF CATEGORY

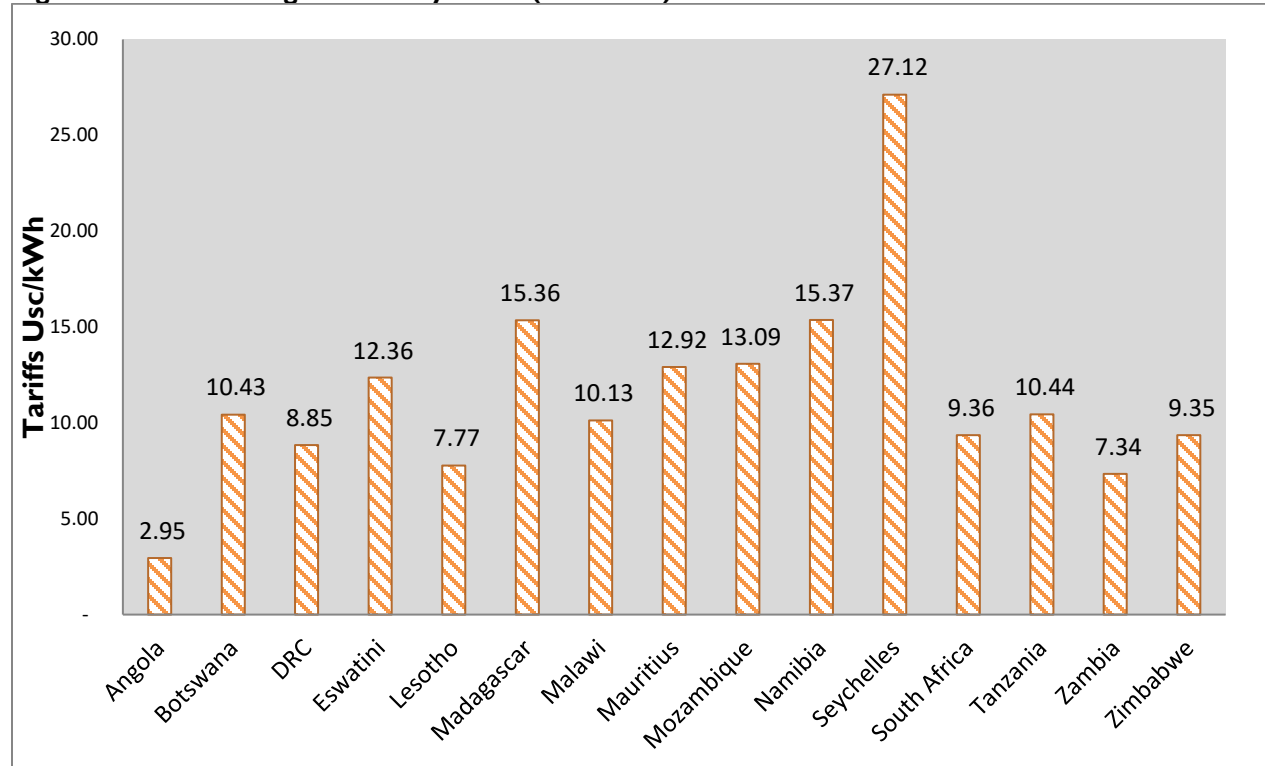
2.5.1 ZESCO's Customer base by tariff category

Table 23 : ZESCO's customer base by tariff category, January – June 2023

TARIFF CATEGORY	MONTHS					
	JAN	FEB	MAR	APR	MAY	JUNE
AGRICULTURE	924	941	928	924	928	935
COMMERCIAL	102,783	103,273	103,929	104,585	105,370	105,957
MAXIMUM DEMAND	9,704	9,734	9,775	9,827	9,874	9,895
RESIDENTIAL	1,079,729	1,084,168	1,089,747	1,095,043	1,101,207	1,106,051
SOCIAL	13,261	13,305	13,328	13,370	13,085	13,136
WATER PUMPING STATIONS	-	-	-	-	376	401
TOTAL	1,206,401	1,211,421	1,217,707	1,223,749	1,230,840	1,236,375

2.6 REGIONAL ELECTRICITY TARIFFS

Figure 3: SADC average electricity tariffs (USc/kWh)



APPENDICES

Appendix I: Number of OMC service stations by province as at June 2023

OMC	Central	Copperbelt	Eastern	Luapula	Lusaka	Muchinga	Northern	Northwestern	Southern	Western	Total
Acm Petroleum									1		1
Admire Energy Ltd					1						1
Alfa Energy Limited					1						1
Asharami Energy Resources Zambia					2						2
Benzol Petroleum					1						1
Collum Lunm Tian Petroleum					1						1
Eco Petroleum Ltd		4		1		1	2	1			9
Endrone Petroleum							2				2
Fa Fuel Ltd		1									1
Hamdi Investment & Trading Ltd		1									1
Harvest Group of Company Ltd					9						9
Hass		3			2					1	6
Japawa						1					1
Karan Petroleum Z Ltd	2	2		1	4			1	2		12
Kasgon				1							1
Lake Petroleum Ltd	5	11	1		12	1		1	2		33
LBM Investments Limited		2		1		1	3				7
Luapula Oils Ltd				1							1
Lushomo	1										1
Mel Petroleum						1		1			2
Mon Fuel and Oil Investments Ltd								1			1
Mount Meru Petroleum Zambia Ltd	10	10	4	2	29	3	2	6	9	3	78
Ngucha Energy Corp Ltd					1						1
Oasis Oil Ltd	3		6		4						13
Oilbay (Z) Ltd	1			1							2
Oryx Energies Zambia Limited		7	3	1	12				3	1	27
Petroda Zambia Ltd		6			17			1	1		25
Petrolink	1	1						2			4
Puma Energy Zambia	3	15	5	1	24	1	1	3	5	3	61
Ravasia					1						1
Refuel									1	1	2
Rubis Zambia Ltd	4	14	3		12				6	1	40
SGC		10	2	1	10		2	1	1		27
Simba Energy		1				2					3

OMC	Central	Copperbelt	Eastern	Luapula	Lusaka	Muchinga	Northern	Northwestern	Southern	Western	Total
Simba Oil Company	1				2						3
Sino Petroleum Limited					1						1
Spectra Oil Corporation	1				4						5
Star Oil Company Ltd		1									1
Surya Energy		1			6						7
Totalenergies Zambia	7	19	1	1	28	2	1	2	3	1	65
Tribute Investments								2			2
Ufuel	1										1
United Metro		1									1
Vivo Energy Zambia	1	11	2	1	32		2	2	6	1	58
Wada Chovu		1									1
Www Investments	1										1
Zacks	1					1	1				3
Zamfuel	3		2		6			1	2		14
Zhongkuang Zambia Services Co. Ltd		1									1
Grand Total	46	123	29	13	222	14	16	25	42	12	542

Appendix 2: Installed Electricity Generation Capacity by Licensee

Licensee's Name	Station	Technology	Installed Capacity (MW)
ZESCO Limited	Kafue Gorge	Hydro	990.0
	Kariba North bank	Hydro	720.0
	Kariba North Extension	Hydro	360.0
	Victoria Falls	Hydro	108.0
	Lunzua River	Hydro	14.8
	Lusiwasi	Hydro	12.0
	Chishimba Falls	Hydro	6.0
	Musonda Falls	Hydro	10.0
	Shiwang'andu	Hydro	1.0
	Lusiwasi upper	hydro	15.0
	Kafue Gorge Lower	Hydro	750.0
Itezhi-tezhi Power Corporation	Itezhi-tezhi	Hydro	120.0
Rural Electrification Authority	Kasanjiku	Hydro	0.6
Zengamina Limited	Ikelenji	Hydro	0.7
Lunsemfwa Hydro Power Company	Mulungushi	as	32.0
	Lunsemfwa	Hydro	24.0
	Total Hydro		3,164.14
Maamba Collieries Limited	Maamba Power Plant	Coal	300.00
Dangote Cement Zambia Limited	Dangote Thermal Power Plant	Coal	30.00
	Total Coal		330.00
Copperbelt Energy Corporation Generation Plants	Luano	Diesel	40.00
	Bancroft	Diesel	20.00
	Kankoyo	Diesel	10.00
	Maclaren	Diesel	10.00
ZESCO Limited Generation Plants	Shang'ombo	Diesel	1.60
	Lundazi	Diesel	1.75
	Chama	Diesel	1.45
	Total Diesel		84.80
Ndola Energy Generation Plants	Ndola	Heavy Fuel Oil	110.00
	Total Heavy Fuel Oil		110.00
Rural Electrification Authority Generation Plants	Samfya	Solar	0.06
Copperbelt Energy Corporation	Kitwe	Solar	34.00

Licensee's Name	Station	Technology	Installed Capacity (MW)
Copperbelt Energy Corporation	Kitwe	Solar	1.00
Muhanya Solar Limited	Sinda Village	Solar	0.03
Ngonye Power Limited	LSMFEZ	Solar	34.00
Bangweulu Power Company Ltd	LSMFEZ	Solar	54.00
Solera Power	Luangwa bridge	Solar	0.01
Standard Microgrid	Kafue	Solar	0.02
Mugurameno	Chirundu	Solar	0.01
Engie Power	Chitandika	Solar	
	Total Solar		123.13
Grand Total			3,812.07

Appendix 3: ZESCO'S Approved Tariff schedule 2023 to 2027

CUSTOMER CATEGORY	TARIFF	Current Tariffs (K/kWh)	ERB Approved Tariffs (K/kWh)				
			2023	2024	2025	2026	2027
1. METERED RESIDENTIAL TARIFFS [Capacity up to 15KVA]							
R1-Consumption up to 100kWh	Energy Charge/kWh	0.47	0.40	0.44	0.54	0.63	0.73
R2-Consumption above 100 to 300kWh	Energy Charge/kWh	0.85	0.95	1.05	1.28	1.50	1.76
R3-Consumption above 300 to 500kWh	Energy Charge/kWh	1.94	1.54	1.69	2.07	2.42	2.83
R4- Consumption above 500kWh	Energy Charge/kWh	N/A	2.22	2.44	3.23	3.45	4.04
2. COMMERCIAL TARIFFS (Capacity up to 15KVA)							
C1-Consumption up to 100kWh	Energy Charge/kWh	1.07	0.67	0.78	0.92	0.98	1.05
C2- Consumption above 100 to 300kWh	Energy Charge/kWh	1.85	1.15	1.35	1.58	1.69	1.81
C3-Consumption above 300 to 500kWh	Energy Charge/kWh	N/A	1.99	2.19	2.52	2.65	2.78
C4-Consumption above 500kWh	Energy Charge/kWh	N/A	2.26	2.28	2.39	2.51	2.63
3. SOCIAL SERVICES TARIFFS (Schools, Hospitals, street lighting)							
S1- Consumption up to 100kWh	Energy Charge/kWh	1.19	0.62	0.69	0.76	0.81	0.87
S2- Consumption above 100 to 300kWh	Energy Charge/kWh		0.94	1.04	1.15	1.23	1.32
S3- Consumption above 300 to 500kWh	Energy Charge/kWh		1.00	1.11	1.22	1.31	1.40
S4- Consumption above 500kWh	Energy Charge/kWh		1.13	1.25	1.38	1.48	1.59
	Fixed Monthly Charge	83.84	Abolished				
4. WATER PUMPING STATIONS							
W1- Consumption up to 12,000kWh	Energy Charge/kWh		0.50	0.56	0.60	0.65	0.70
W2 - Consumption above 12,000 to 50,000kWh	Energy Charge/kWh		0.57	0.65	0.76	0.81	0.88
W3 - Consumption above 50,000 to 100,000kWh	Energy Charge/kWh		1.01	1.13	1.21	1.30	1.41
W4 - Consumption above 100,000kWh	Energy Charge/kWh		1.53	1.72	1.84	1.97	2.15
5. DISTRIBUTION TARIFFS							
Purchasers of power for distribution to Retail customers	MD Charge/KVA/Month	218.73	250.8	254.8	258.2	261.7	268.5
	Energy Charge/kWh	0.54	0.62	0.63	0.64	0.65	0.66

CUSTOMER CATEGORY	TARIFF	Current Tariffs (K/kWh)	ERB Approved Tariffs (K/kWh)				
			2023	2024	2025	2026	2027
6. MAXIMUM DEMAND TARIFFS							
MD1-Capacity from 16 to 300KVA	MD Charge/KVA/Month	42.79	51.96	55.23	60.2	65.62	71.53
	Energy Charge/kWh	0.61	0.74	0.81	0.88	0.96	1.05
	Fixed Monthly Charge	419.02	508.82	548	597.32	651.07	709.67
	Off Peak MD Charge/KVA/Month	21.39	25.98	27.62	30.1	32.81	35.76
	Off Peak Energy Charge/kWh	0.46	0.56	0.61	0.66	0.72	0.79
	Peak MD Charge/KVA/Month	53.48	64.95	69.04	75.26	82.03	89.41
	Peak Energy Charge/kWh	0.77	0.93	1.01	1.10	1.20	1.31
MD2-Capacity from 301KVA to 2,000KVA	MD Charge/KVA/Month	80.03	97.18	106.22	115.78	126.2	137.56
	Energy Charge/kWh	0.53	0.64	0.70	0.77	0.84	0.91
	Fixed Monthly Charge	837.97	1,017.55	1,112.18	1,212.28	1,312.38	1,440.31
	Off Peak MD Charge/KVA/Month	40.01	48.59	53.11	57.89	63.1	68.78
	Off Peak Energy Charge/kWh	0.39	0.48	0.53	0.58	0.63	0.68
	Peak MD Charge/KVA/Month	100.03	121.48	132.77	144.72	157.75	171.95
	Peak Energy Charge/kWh	0.66	0.80	0.88	0.96	1.04	1.14
MD3-Capacity from 2,000KVA to 5,000KVA	MD Charge/KVA/Month	126.39	295.33	319.84	364.62	390.15	429.16
	Energy Charge/kWh	0.43	1.00	1.09	1.24	1.33	1.46
	Fixed Monthly Charge	1,755.17	3,397.77	3,815.70	4,349.89	4,654.39	5,119.82
	Off Peak MD Charge/KVA/Month	63.2	147.67	159.92	182.31	195.07	214.58
	Off Peak Energy Charge/kWh	0.32	0.75	0.82	0.93	1.00	1.1
	Peak MD Charge/KVA/Month	157.99	369.16	399.8	455.78	487.68	536.45
	Peak Energy Charge/kWh	0.54	1.26	1.36	1.55	1.66	1.83
MD4-Capacity >5,000KVA			This category has been migrated to Power Supply Agreements				
NOTE:							
The above tariffs are:							
(a) Exclusive of 3% Government excise duty							
(b) Exclusive of 16% Value Added Tax (VAT)							