



**NEW ZESCO KEY PERFORMANCE INDICATORS FRAMEWORK
FOR THE PERIOD
JANUARY 2017 – DECEMBER 2019**

MARCH 2017

SUMMARY ZESCO'S KEY PERFORMANCE INDICATORS AND WEIGHTING - JANUARY 2017-DECEMBER 2019

Thematic Area	Primary weight	New Sub-Indicator	Sub-Weight
1. Customer Metering	10%	a) Quotations for all types of connections must be issued within 30 days from the date of application;	0.5
		b) All new standard residential connection to supply must be done within 30 days upon payment.	0.5
		c) Un-metered Customers (To be dropped)	N/A
		d) Metering new connections (To be monitored only)	<u>N/A</u>
		Total	<u>1.0</u>
2. Cash Management	20%	a) Reduce domestic (residential, commercial and maximum demands customers) debtor days to not more than 60 day.	0.3
		b) Reduce mining debtor days to not more than 60 days	0.3
		c) Reduce export debtor days to not more than 60	0.2
		d) Reduce GRZ debtor days to not more than 90 days	0.2
		Total	<u>1.0</u>
3. Staff Productivity	15%	a) Maintain the Corporate customer employee ratio of 100:1;	0.1
		b) Maintain the Lusaka division customer employee ratio of 100:1;	0.1
		c) Maintain the Copperbelt division customer employee ratio of 100:1;	0.1

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Thematic Area	Primary weight	New Sub-Indicator	Sub-Weight
		d) Maintain the Northern division customer employee ratio of 75:1;	0.1
		e) Maintain the Southern division customer employee ratio of 75:1; and	0.1
		f) Reduce staff costs to 30% or less as a share of total costs	0.5
		Total	1.0
4. Quality of Service Supply	20%	a) Maintain the Dry Season (DS) System Average Interruption Duration Index (SAIDI) at 27 hours or less and Wet Season (WS) SAIDI at 36 hours or less;	0.25
		b) Maintain the DS System Average Interruption Frequency Index (SAIFI) of 5 times or less and WS-SAIFI 5.5 times or less;	0.25
		c) Maintain the DS-Customer Average Interruption Duration Index (CAIDI) at 5 hours or less and WS-CAIDI at 7 hours or less; and	0.25
		d) Maintain the Average System Availability Index (ASAI) at 90% or better.	0.25
			1.0
5. System Losses	10%	a) Maintain Transmission losses at 6% or less (to be monitored only)	0.5

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Thematic Area	Primary weight	New Sub-Indicator	Sub-Weight
		b) Maintain distribution Losses at 12% or better per quarter.	0.5
		Total	1.0
6. Generation	5%	a) Maintain the Unit Capability Factor (UCF) for large hydro plants at 80% or better per quarter; and	0.5
		b) Maintain the UCF for Mini hydro plants at 60% or better per quarter.	0.5
		Total	1.0
7. Safety	5%	a) Achieve Zero fatality per quarter; and	0.5
		b) Achieve Zero Lost Time Injury (LTI) per quarter	0.5
		Total	1.0
8. Customer Complaints	10%	a) Replacement of faulty Meters must be done within 5 days after a complaint is lodged; and	0.5
		b) Maintain a total customer complaint resolution rate of 90% or better per quarter.	0.5
		Total	1.0

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Thematic Area	Primary weight	New Sub-Indicator	Sub-Weight
9. Equipment failure	5%	a) Number of replaced distribution transformers as a proportion of total number of distribution transformers in service/month – should not exceed 0.1 %.	0.5
		b) Number of Replaced Meters as a Proportion of Total Meters in service should not exceed 0.25%.	0.5
		Total	1.0
Gross Weight	100%		

1. TARIFF AWARD RULES

KPIs will be used in tariff awards for ZESCO as shown in table 1.

Score	Award Rules
Above 75%	One hundred percent (100%) of the ERB determined tariff would be awarded
Between 50 – 75%	Seventy five percent (75%) of the ERB determined tariff would be awarded
Between 25% - 50%	Fifty percent (50%) of the ERB determined tariff would be awarded
Below 25%	Twenty five percent (25%) of the ERB determined tariff would be awarded

2. MANDATORY MINIMUM SCORE IS 75%

3. DEFINITIONS AND FORMULAE

- 3.1 **Customer Complaint means** a report made by a customer or on behalf of a customer to indicate dissatisfaction of service provision by ZESCO including but not limited to power outages, low voltage, delayed connections, compensation claims etc.
- 3.2 **Debtor days** =(trade receivables/credit turnover) x 360 days.
- 3.3 **Trade receivables** mean amounts owed by ZESCO for the provision of electricity, that is domestic, mining and export customers.
- 3.4 **Receivables values** mean carrying value less any provision for impairments (provision for trade receivables impairment only).
- 3.5 **Total income** (Turnover) mean revenue from the regulated business of the sale of electricity by ZESCO only.
- 3.6 **Total costs** means the sum of cost of sales and operating expenses with the exclusion of financing costs and exchange loss/gain.
- 3.7 **Staff** means the total employee establishment or number of employees working and on the payroll of ZESCO in each quarter of the KPIs reporting period.

- 3.8 **Staff costs** mean all staff emoluments including salaries, wages, pension, gratuity, medicals, bonus, overtime, funeral grants etc.
- 3.9 **Division** refers to the geographical operating areas of Lusaka, Copperbelt, Southern and Northern.
- 3.10 **System Average Interruption Duration Index (SAIDI)** shall mean the total duration of interruption for the average customer during a predefined period of time measured in customer minutes of interruption and computed as follows:

$$SAIDI = \frac{\Sigma \text{Customer Interruption Durations}}{\text{Total number of customers served}}$$

- 3.11 **System Average Interruption Frequency Index (SAIFI)** shall mean how often the average customer experiences a sustained interruption over a predefined period of time and computed as follows:

$$SAIFI = \frac{\Sigma \text{Total Number of Customers Interrupted}}{\text{Total number of customers served}}$$

- 3.12 **Customer Average Interruption Duration Index (CAIDI)** shall mean the average time required to restore service and computed as follows:

$$CAIDI = \frac{\Sigma \text{Customer Interruption Durations}}{\text{Total number of customers interrupted}}$$

- 3.13 **Average Service Availability Index (ASAI)** shall mean the fraction of time (often in percentage) that a customer has received power during the defined reporting period and computed as follows:

$$ASAI = \frac{\text{Customer Hours Service Availability}}{\text{Customer Hours Service Demands}}$$

- 3.14 **Unit Capability Factor (UCF)** shall provide an overall indication of how well the generation plant was operated and maintained and shall be computed as 100% less Capability Loss Factor (PCLF) and less Unplanned Capability Loss Factor (UCLF).

Formular:

$$UCF = 100 - PCLF - UCLF$$

Where:

$$PCLF = \frac{\text{Planned MWh lost} * 100\%}{\text{Total MWh designed}}$$

and

$$UCLF = \frac{\text{Unplanned MWh lost} * 100\%}{\text{Total MWh designed}}$$

Computation of UCF shall take into consideration energy lost on account of all constraints (such as water/fuel availability) other than those attributed to outages only.

3.15 **Network Availability (NA)** gives the available number of hours of the network, measured as a percentage against the total number of hours in a given period. This indicator can be used to ensure minimum level of unsupplied energy and shall be computed as follows:

$$NA(\%) = \frac{\text{Sum of Available Hours of each circuit}}{\text{Number of circuits in the system} \times \text{No. of Hours in a period}} \times 100$$

3.16 **Lost Time Injury (LTI)** shall mean an occurrence that resulted in permanent disability or time lost from work of one day/shift or more and shall take into account all employees whether direct or third party/contractor employee.

3.17 **KPIs Report Due Date** shall be the 21st Day of the month following the end of each Quarter.