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

<table>
<thead>
<tr>
<th>Thematic Area</th>
<th>Primary weight</th>
<th>New Sub-Indicator</th>
<th>Sub-Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Customer Metering</td>
<td>10%</td>
<td>a) Quotations for all types of connections must be issued within 30 days from the date of application; 0.5</td>
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<td></td>
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<td>b) All new standard residential connection to supply must be done within 30 days upon payment. 0.5</td>
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<td>c) Un-metered Customers (To be dropped) N/A</td>
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<td></td>
<td></td>
<td>d) Metering new connections (To be monitored only) N/A</td>
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<tr>
<td></td>
<td></td>
<td><strong>Total</strong></td>
<td><strong>1.0</strong></td>
</tr>
<tr>
<td>2. Cash Management</td>
<td>20%</td>
<td>a) Reduce domestic (residential, commercial and maximum demands customers) debtor days to not more than 60 day. 0.3</td>
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<td></td>
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<td>b) Reduce mining debtor days to not more than 60 days 0.3</td>
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<td>c) Reduce export debtor days to not more than 60 0.2</td>
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<td></td>
<td></td>
<td>d) Reduce GRZ debtor days to not more than 90 days 0.2</td>
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<tr>
<td></td>
<td></td>
<td><strong>Total</strong></td>
<td><strong>1.0</strong></td>
</tr>
<tr>
<td>3. Staff Productivity</td>
<td>15%</td>
<td>a) Maintain the Corporate customer employee ratio of 100:1; 0.1</td>
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<td></td>
<td></td>
<td>b) Maintain the Lusaka division customer employee ratio of 100:1; 0.1</td>
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<tr>
<td></td>
<td></td>
<td>c) Maintain the Copperbelt division customer employee ratio of 100:1; 0.1</td>
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</tbody>
</table>
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<tr>
<td></td>
<td></td>
<td>d) Maintain the Northern division customer employee ratio of 75:1;</td>
<td>0.1</td>
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<tr>
<td></td>
<td></td>
<td>e) Maintain the Southern division customer employee ratio of 75:1;</td>
<td>0.1</td>
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<tr>
<td></td>
<td></td>
<td>and f) Reduce staff costs to 30% or less as a share of total costs</td>
<td>0.5</td>
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<td></td>
<td></td>
<td><strong>Total</strong></td>
<td><strong>1.0</strong></td>
</tr>
</tbody>
</table>

#### 4. Quality of Service Supply 20%

<table>
<thead>
<tr>
<th>New Sub-Indicator</th>
<th>Sub-Weight</th>
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</thead>
<tbody>
<tr>
<td>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;</td>
<td>0.25</td>
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<tr>
<td>b) Maintain the DS System Average Interruption Frequency Index (SAIFI) of 5 times or less and WS-SAIFI 5.5 times or less;</td>
<td>0.25</td>
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<tr>
<td>c) Maintain the DS-Customer Average Interruption Duration Index (CAIDI) at 5 hours or less and WS-CAIDI at 7 hours or less; and</td>
<td>0.25</td>
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<tr>
<td>d) Maintain the Average System Availability Index (ASAI) at 90% or better.</td>
<td>0.25</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>1.0</strong></td>
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</tbody>
</table>

#### 5. System Losses 10%

<table>
<thead>
<tr>
<th>New Sub-Indicator</th>
<th>Sub-Weight</th>
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</thead>
<tbody>
<tr>
<td>a) Maintain Transmission losses at 6% or less (to be monitored only)</td>
<td>0.5</td>
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<tr>
<td>Thematic Area</td>
<td>Primary weight</td>
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<td>------------------------</td>
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<tr>
<td>6. Generation</td>
<td>5%</td>
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<td>7. Safety</td>
<td>5%</td>
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<tr>
<td>8. Customer Complaints</td>
<td>10%</td>
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<tr>
<td>Thematic Area</td>
<td>Primary weight</td>
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<td>-----------------------</td>
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<tr>
<td>9. Equipment failure</td>
<td>5%</td>
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</tbody>
</table>

**Gross Weight** 100%
1. **TARIFF AWARD RULES**

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

<table>
<thead>
<tr>
<th>Score</th>
<th>Award Rules</th>
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</thead>
<tbody>
<tr>
<td>Above 75%</td>
<td>One hundred percent (100%) of the ERB determined tariff would be awarded</td>
</tr>
<tr>
<td>Between 50 – 75%</td>
<td>Seventy five percent (75%) of the ERB determined tariff would be awarded</td>
</tr>
<tr>
<td>Between 25% - 50%</td>
<td>Fifty percent (50%) of the ERB determined tariff would be awarded</td>
</tr>
<tr>
<td>Below 25%</td>
<td>Twenty five percent (25%) of the ERB determined tariff would be awarded</td>
</tr>
</tbody>
</table>

2. **MANDATORY MINIMUM SCORE IS 75%**

3. **DEFINATIONS 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:

\[ SAIDI = \frac{\sum \text{Customer Interruption Durations}}{\text{Total number of customers served}} \]

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:

\[ SAIFI = \frac{\sum \text{Total Number of Customers Interrupted}}{\text{Total number of customers served}} \]

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

\[ CAIDI = \frac{\sum \text{Customer Interruption Durations}}{\text{Total number of customers interrupted}} \]

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:
\[ PCLF = \frac{\text{Planned MWh lost} \times 100}{\text{Total MWh designed}} \]

and

\[ UCLF = \frac{\text{Unplanned MWh lost} \times 100}{\text{Total MWh designed}} \]

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.