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**Draft Zambian Standard**

**ELECTRICITY SUPPLY — QUALITY OF CONSUMER  
SERVICE – Specification**

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**ZAMBIA BUREAU OF STANDARDS**

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The preparation of this Zambian Standard was undertaken by the Technical Committee TC 5/7: Electricity Supply which is responsible for the development of standards for electricity generation, transmission, and distribution systems. The Technical Committee was represented by the following members:

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## FOREWORD

The Zambia Bureau of Standards (ZABS) is the Statutory Organisation established by an Act of Parliament. ZABS is responsible for the preparation of national standards through its various Technical Committees composed of representation from government departments, the industry, academia, regulators, consumer associations and non-governmental organisations.

This Zambian standard has been prepared in accordance with the procedures of the ZABS. All users should ensure that they have the latest edition of this publication as standards are revised from time to time.

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The preparation of this Zambian Standard was undertaken by the Technical Committee TC 5/7: Electricity Supply which is responsible for the development of standards for electricity generation, transmission, and distribution systems.

The revision was undertaken to ensure that the standards continued to meet the aspirations of the stakeholders in the Zambia Electricity Supply Industry. This Standard replaces ZS 397: 2017.

Reference has been made to the following publication in preparation of this Standard:

NRS 047: 2019                      Electricity Supply – Quality of Service and Reporting Guidelines.

## ACKNOWLEDGEMENT

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**COMPLIANCE WITH A ZAMBIAN STANDARD DOES NOT OF ITSELF CONFER IMMUNITY FROM LEGAL OBLIGATION**

## INTRODUCTION

The need for a revised standard on quality of consumer service in the Electricity Supply Industry (ESI) has been driven by the new developments that have taken place in the industry since the publication of the first and second editions of the standard. Such developments include; the introduction of prepaid and other types of meters, entry of new players on the market, promulgation of the Energy Regulation Act No. 12 of 2019 and Electricity Act No. 11 of 2019, and to address the challenges that have been faced in the implementation of the standard especially in the handling of complaints received from consumers, among others.

In order to assess the quality of the consumer service provided, the Regulator will require licensees to provide as much information as is practical. This specification is restricted to the measuring and reporting of those parameters that have been mutually agreed upon by the ESI and the Regulator for the definition of consumer service standards. It is recognised that not all aspects are addressed in detail.

DRAFT FOR PUBLIC COMMENTS

# ZAMBIA BUREAU OF STANDARDS

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## Zambian Standard

### ELECTRICITY SUPPLY – QUALITY OF CONSUMER SERVICE – Specification

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#### 1 SCOPE

**1.1** This standard outlines the minimum requirements for measuring the quality of service provided by electricity undertakings in Zambia. It is intended to give the Regulator a common basis for evaluating quality of consumer service when:

- a) Granting distribution and supply licences,
- b) Monitoring the performance of licensees on an ongoing basis,
- c) Dealing with consumer complaints,
- d) Managing compensation claims, and
- e) Issuing annual reports on licensees' performance.

**NOTE:** This quality of consumer service standard does not cover consumers who have bulk supply agreements with licensees because they are covered by the terms of the agreements.

#### 1.2 Applicability

The following principles apply in the application of this standard:

- a) Testing or assessing by the Regulator for compliance or non-compliance with specified quality of consumer service standard in the granting or retention of licences. The Regulator will not require licensees to demonstrate compliance for each consumer. The Regulator may prescribe statistical sampling or frequency of reporting on licensee's service to the consumer to verify continued compliance.
- b) It is the responsibility of licensees to manage the quality of service provided to their consumers. A supply agreement that makes consumers aware of their rights and obligations shall form part of the licensee's responsibility.
- c) The minimum requirements specified apply only at the point of supply to consumers.
- d) A licensee may contract with specific consumers, or groups of consumers, to provide different levels of service under agreed terms.
- e) The consumer service standards specified do not apply in cases where licensees are experiencing unavoidable circumstances, such as:
  - 1) War, uprising, theft, sabotage, attack (including terrorist and cyber), malicious damage, vandalism, and riot.
  - 2) Damage caused by accidental and unavoidable occurrences attributable to a third party (such as vehicular accidents).
  - 3) Direct material damage caused primarily by the unusual intensity of a natural event, which may include extreme atmospheric phenomena and could not be prevented because of their cause or their extent, and to where electrical networks, especially overhead networks, are particularly vulnerable.

**NOTE:** Normal lightning activity is excluded because licensees are expected to design and install appropriate lightning protection on the electrical network.

- 4) Industrial action that prevents normal operation of the network, and
- 5) Where the licensee provides a temporary supply to keep consumers supplied during maintenance, construction works and fault condition to minimise the extent and duration of a total loss of supply.

**NOTE:** Special cases for exception from meeting the standard could be considered. However, all occurrences should be reported to the Regulator with appropriate comments of the cause of the unavoidable circumstance.

- f) Consumers who require an investigation into the level of service provided might be required to pay a fee in advance to cover the cost of the investigation. Such fee will be refunded should the complaint be justified. The amount to be recovered from a consumer for a Quality of Consumer Service (QCS) investigation may be limited to a fee set by the Regulator to approximate the average cost of the required test(s) and may depend on the size/category of consumers.

## 2 NORMATIVE REFERENCES

The following standards contain provisions which, through reference in the text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards listed below. Information on currently valid national and international standards can be obtained from the Zambia Bureau of Standards:

ZS IEC 60050.603:	Generation, Transmission and Distribution of Electricity
ZS ISO 9001:	Quality management systems: Requirements
ZS ISO 9004:	Quality management systems: Guidelines for performance improvement
ZS 387-1:	Electricity supply – Power quality and reliability – Code of Practice Part 1: Overview of Implementation of Standards and Procedures
Electricity Act	No.11 of 2019
Energy Regulation Act	No.12 of 2019



### 3 DEFINITIONS AND ABBREVIATIONS

#### 3.1 Definitions

For the purpose of this standard, the definitions given in ZS 387-1, and these given here, shall apply.

**NOTE:** Where definitions have been extracted from other standards, the relevant standard/sub-clause number is given in square brackets after the definition.

- 3.1.1 Capital Contribution:** A consumer's contribution towards the cost of extending or upgrading a distribution network for the purpose of providing electricity supply to the consumer.
- 3.1.2 Compensation:** Remedy provided to a consumer for the loss or harm suffered and can be financial or material.
- 3.1.3 Complaint:** A grievance, problem, difficulty, or concern arising from a failure (perceived or real) by the licensee to provide a specific promised service.
- 3.1.4 Consumer:** A person to whom energy is supplied or who has applied and paid for the supply of energy.
- 3.1.5 Contract of Supply:** Means a contract entered into between a power utility or an electricity service provider and a customer for the supply of electricity.
- 3.1.6 Customer:** Any consumer or an applicant for electricity service.
- 3.1.7 Forced interruption:** An interruption that occurs when a component is taken out of service immediately, either automatically or as soon as switching operations can be performed, as a direct result of emergency conditions, or an interruption that is caused by improper operation of equipment or human error.
- 3.1.8 Interruption:** A phenomenon that occurs when one or more phases of a supply to a consumer/group of consumers are disconnected for a period greater than 3seconds. [ZS 387].
- 3.1.9 Large consumer:** Any large power user with a declared maximum demand exceeding 300 kVA.
- 3.1.10 Licensee:** An electricity undertaking licensed by the Regulator for the distribution and supply of electricity.
- 3.1.11 Non-Split Type meter:** A meter where the Measurement and Control Unit (MCU) and the User Interface Unit (UIU) are integrated as a single unit.
- 3.1.12 Non-Standard Connection:** A request for new supply requiring significant construction activities via extension of the backbone network for purposes of advancing it nearer to the customer's service point in addition to the provision of the usual service cable and meter. The construction may require extension of either or both the high voltage network or medium voltage and might require installation of transformers together with support structures.
- 3.1.13 Planned interruption:** An interruption that occurs when a component is deliberately taken out of service (by the utility or its agent) at a selected time, usually for the purposes of construction, preventive maintenance, or repair.
- 3.1.14 Query:** A general inquiry by a customer to a utility for purposes of clearing a doubt, misunderstanding, uncertainty or to gain better understanding on how to gain access to a service provided by the utility or for general information purposes.
- 3.1.15 Regulator:** Shall mean the Energy Regulation Board or its successor.
- 3.1.16 Residential (dwellings):** Structures utilised for domestic purposes.

- 3.1.17 Rural area (dwellings):** Clustered or scattered dwellings, usually of low density, not served by well-established infrastructure (roads, telecommunications, etc). The power is usually supplied radially by an overhead line emanating from one distribution station.
- 3.1.18 Security Deposit:** Means any monies paid by a post-paid consumer to a licensee as a guarantee against defaulting on payment of electricity bills.
- 3.1.19 Split type meter:** A meter made up of two separate components. The User Interface Unit (UIU) or keypad is split from the Measurements and Control Unit (MCU) which is usually pole mounted with a view to avoid meter bypass.
- 3.1.20 Standard Connection:** A request for new supply involving the provision of a service cable and meter only and where the customer's service point (usually a meter box) is within 30m of an existing 400V or 230V distribution overhead line or feeder pillar. This type of connection is normally restricted for supply of up to 15kVA.
- 3.1.21 Urban area (dwellings):** Formally or informally built structures, usually of high density, served by well-established infrastructure (roads, telecommunications, etc). The power supply network is usually supplied from more than one distribution station.

## 3.2 Abbreviations

**ESI:** Electricity Supply Industry.

**ERB:** Energy Regulation Board.

**IEC:** International Electro-technical Commission

**ISO:** International Organisation for Standardisation

**NRS:** National Rationalised Specification

**QCS:** Quality of Consumer Service

**ZABS:** Zambia Bureau of Standards

**ZMA:** Zambia Metrology Agency

## 4 CONSUMER SERVICE REQUIREMENTS

### 4.1 GENERAL

While some key parameters of quality of consumer service are measurable, overall quality of consumer service includes many aspects that cannot be readily measured and is dependent on appropriate quality management systems.

The guidelines given in ZS ISO 9001 shall be used by licensees in the management of the services that they provide to their consumers.

### 4.2 PROCESSING OF REQUESTS FOR SUPPLY

4.2.1 The management of the following activities for processing requests for supply will influence the quality of service:

- a) applications;
- b) feasibility studies;
- c) design;
- d) quotations and estimates;
- e) acceptance of quotation and payment;
- f) construction (including the certificate of compliance);
- g) commissioning and decommissioning;
- h) the supply contract between the licensee and the consumer; and
- i) meeting of agreed deadlines.

The licensee shall enter into a Contract of Supply with individual consumers. The minimum requirements of the Contract of Supply shall be prescribed by the Regulator. The licensee shall obtain approval from the Regulator for the draft standard Contract of Supply.

The measures of service quality for processing of requests for supply are given in Table 1.

An element of segmentation might be required with regard to applications, for example, applications submitted by township developers will require different processing from applications submitted by individual consumers.

**Table 1 - Measures of Service Quality for Processing of Requests for Supply**

Service activity	Measure of service standard	Minimum standard	
Quotations to customers	Time taken to provide the customer with a quotation for the cost of providing a supply (once all consumer obligations have been met)	1. Standard Connection	7 Days
		2. Non-Standard Connection	15 Days
		3. Industrial and Commercial	By Agreement
Provision of a supply	Time taken to make a supply available (once all consumer obligations have been met)	1. Standard Connection	30 Days
		2. Non-Standard Connection	90 Days
		3. Industrial and Commercial	By Agreement

**NOTE** - The recommended quality of service standards that are stated in Table 1 should be regarded as minimum standards.

#### 4.2.2 Capital contribution

Where the consumer has agreed with a licensee to meet the full cost of extending the network to an unserved area, the licensee shall refund the consumer in line with the Regulator's Connection Charges Guidelines as and when new consumers connect to the line. The mode of refund could include reduced tariffs, cash reimbursement.

A clause shall be provided in the Contract of Supply to reflect the licensee's obligation to refund the consumer.

#### 4.2.3 Security deposit

A post-paid consumer will be required to pay a security deposit. This deposit is refundable upon termination of the Contract of Supply less any monies owing to the service provider.

### 4.3 REVENUE MANAGEMENT

#### 4.3.1 Credit metering and billing

##### 4.3.1.1 General

The management of the following activities and factors influences the quality of service in dealing with credit meter customers:

- a) the frequency of meter reading;
- b) billing (format, information provided and methods);
- c) account queries (billing statement);
- d) payment method;
- e) payment venues (queuing times, operating hours);
- f) check-meter readings (as and where applicable);
- g) disconnections;
- h) reconnections;
- i) penalties for non-payment and theft;
- j) meter auditing for accuracy; and
- k) calibration.

The quality of consumer service for dealing with credit meters for revenue management will be influenced by the management of the following parameters as shown in Table 2 below:

**Table 2 - Measures of Service Quality in Credit Meter Bills and Settlement**

AREA OF SERVICE ACTIVITY	MEASURE OF SERVICE QUALITY	MINIMUM STANDARD
Meter reading	Adherence to the meter reading cycle	Meter reading shall be done monthly and within three (3) days of the scheduled dates
Disconnection for non-payment	Periods and time frame for disconnections	At least 3 days after issuance of the disconnection notice.
Reconnection after payment	Time taken to restore disconnected supply after receipt of outstanding payments and reconnection fee	Within 24 hours after the bill has been settled satisfactorily and the reconnection fee paid
Maximum waiting time to make payment	Time of entering customer service centre	Within 15 minutes

Account (billing statement) queries	Time to respond to account (billing statement) queries	Within 5 days
Timely Billing	Time taken to deliver bill after meter reading	Within 14 days

#### 4.3.1.2 Information to be provided to credit meter consumers

The following information shall be provided to credit meter consumers by the licensee using an appropriate method:

- a) The frequency and schedule of meter readings,
- b) The method used to estimate electricity consumption during periods when no meter readings are taken (where the meter is installed),
- c) The format of the electricity account (invoice/bill),
- d) Methods of payment of the account (invoice/bill) and the period allowed for payment before penalties are applied (see section 4.3.1.5),
- e) The location of revenue collection points and hours of business,
- f) Penalties for late payment, non-payment, and the disconnection/reconnection process,
- g) How a consumer should initiate an account query,
- h) The process that the licensee will follow when access to a consumer's premises is not possible,
- i) The process for dealing with check meter readings,
- j) The process for dealing with meter accuracy queries and the fees charged for accuracy audits,
- k) The penalties applied in the case of tampering, bypassing of meters, or any method used to illegally procure electrical energy as stipulated in the Electricity Act of the Laws of Zambia,
- l) where applicable, the process for recovering any energy account arrears; and
- m) where applicable, the voltage transformer/current transformer factors should be available or calculable.

#### 4.3.1.3 Frequency of meter reading

All credit meters shall be read at least once every month. In cases where this is not achieved due to justifiable reasons (for example, where the consumer's premises are locked), the meter shall be read at least once every three (3) months. The licensee shall schedule meter readings at regular intervals within the month. Meter readings shall be taken within three (3) days of the scheduled dates.

**NOTE 1:** Additional readings must be done when premises are vacated and when new consumers are registered.

**NOTE 2:** A record of the meter reading must be maintained at the consumer's premises.

#### 4.3.1.4 Estimated energy consumption

This will be done as a last resort. Every effort should be made to read the meter but where it is necessary to estimate electricity consumption for a particular period the method of estimation shall be based on historical data and in line with the Electricity Act. The underlying principle should be that the consumer is billed on a monthly basis.

#### 4.3.1.5 Format of the account (billing statement)

The following information should be provided on the billing statement and clearly separated from any other billing information:

- a) The date of previous meter reading (or estimate) and the corresponding previous meter reading (or estimate);
- b) The date of the current meter reading (or estimate) with the corresponding current meter reading (or estimate);

- c) The applicable tariff class and rate;
- d) The number of units consumed (or estimated) during the period covered by the billing statement;
- e) The cost of the electricity consumed during the period covered by the billing statement;
- f) The date and the amount of the previous payment;
- g) The outstanding balance;
- h) The total amount payable;
- i) The latest date by which the billing statement is to be paid without incurring penalties;
- j) Acceptable methods of payment;
- k) The billing statement query procedure including methods of communication with licensee;
- l) Telephone numbers of fault reporting centres;
- m) Power factor surcharge, where applicable;
- n) Any other amounts charged and a description of what the charges are for.

**NOTE 1:** The licensee shall ensure that the security deposit is reflected on the subsequent invoice after an event requiring the application of security deposit. In the case of a refund the same procedure shall apply.

**NOTE 2:** The licensee shall send a notification to the customer through a registered phone number (SMS) or e-mail about the bill.

#### **4.3.1.6 Revenue collection points**

The licensee shall ensure that wherever practical, facilities are provided within or close to residential, commercial, and industrial areas to permit consumers reasonable access for payment of billing statements and corresponding queries. The licensee shall provide alternative payment methods, including phone (mobile banking), internet banking, and mobile money payments.

#### **4.3.1.7 Actions to be taken by the Licensee for non-payment**

The licensee shall allow a reasonable period before actions are applied for non-payment.

When dealing with non-payment:

- a) No disconnections may be effected until at least 14 days after the due date for payment stipulated on the account;
- b) A disconnection notice should be served on the residential consumers 48 hours before actual disconnection;
- c) Commercial and industrial consumers should be given 72 hours' notice of an impending disconnection;
- d) Disconnection notices shall be physically delivered to the registered address;
- e) Disconnections shall only be carried out Mondays through to Fridays between 08:00 hours and 15:00 hours;
- f) Disconnections shall not be carried out over weekends and public holidays, and
- g) Reconnections shall be effected within 24 hours after the bill has been settled satisfactorily and the reconnection fee paid.

#### **4.3.1.8 Recommended Steps to be taken by the Customer**

- a) The customer shall enter into a Contract of Supply (conditions of supply) with the licensee as approved by the Regulator;
- b) In an event of a complaint, the customer shall be guided by the Complaints Procedure provided by the licensee and as approved by the Regulator; and
- c) No disconnection shall be made for the disputed portion of the bill. However, the customer should pay the undisputed portion until the matter is determined by the licensee or Regulator (where a customer has escalated a complaint to the Regulator).

**4.3.1.9 Account (Billing statement) queries**

Queries shall be dealt with promptly. For accounts that require investigation, an account query made in person at a service/payment centre, written or telephonically shall be acted upon, solutions suggested and be responded to within 5 days.

**4.3.1.10 Locked premises**

Where the licensee is unable to gain access to premises to read the meter, the licensee shall make an estimate based on the last consecutive six (6) months data and shall produce a bill accordingly while making every effort to contact the consumer. The meter should be able to store data for at least 6 months.

In the case of a new installation, estimates shall be based on declared demand.

**4.3.1.11 Meter accuracy queries**

The licensee shall on request, provide meter accuracy checks as a service to consumers. Information on how to obtain the service and any associated costs shall be readily available.

Any fee charged for checking the accuracy of a meter shall be refunded if the meter accuracy should prove to fall outside the declared limits in the Contract of Supply. A meter accuracy check should be performed within 21 days of receipt of the prescribed fee. Such tests shall be carried out by the licensee or consumer using the Agency responsible for metrology. Appropriate computation shall be done based on the reassessed consumption units.

Where the meter inaccuracy is discovered by the licensee, the licensee should inform the consumer, with justification, the correct consumption and billing before making any changes to the consumer's bill. The adjusted billing should be in line with Electricity Act and the licensee may be allowed to enter into a payment plan. Where the consumer is overbilled, the licensee shall refund the customer the entire overbilled amount.

**4.3.1.12 Wrong installation of a meter/placement of consumer in an inappropriate tariff category**

The licensee shall not issue a backdated bill for historical consumption to the consumer for wrong meter installation or inappropriate tariff category by licensee. The corrected bill will apply effective from the time the anomaly is rectified.

**4.3.2 Pre-payment meters****4.3.2.1 Information to be provided to pre-payment consumers**

The licensee shall make known to every pre-payment meter consumer the following information by means of a brochure and any other appropriate medium issued at the time of installation of the service connection:

- a) How to purchase, load, and use prepaid electricity units;
- b) The applicable tariff classes and rates (which shall also be displayed at the vending stations);
- c) The location of points of sale of electricity units and the hours of business;
- d) Alternative ways of purchasing prepaid units
- e) The contact telephone numbers and addresses of the licensee's service centres, where meter and service queries can be handled;
- f) The process for dealing with meter accuracy queries and the fees charged for accuracy audits;
- g) The process that the licensee will follow when access to a consumer's premises is not possible;
- h) The process for penalties that would be applied for tampering with, or by-passing a pre-payment meter;

- i) The process for disconnecting the service if not in use-which should include non-utilisation period;
- j) Where applicable, the process for the recovery of any electricity account arrears;
- k) Changes in the tariff shall be notified to consumers in accordance with the Electricity Act;
- l) Where a consumer is on credit metering and owes the utility, but is unable to pay the outstanding amounts immediately and converts to a prepayment metering, an arrangement shall be made to recover the outstanding debt; and
- m) Lodging of complaints may be made through physical visits to the customer service centre, written or telephonically.

#### **4.3.2.2 Provision of vending stations (Point of Sale Terminal)**

Where practical, vending stations should be accessible to consumers through their normal course of daily or business activities or in areas frequented by the consumer and to ensure the total waiting time to purchase units does not exceed 15 minutes.

#### **4.3.2.3 Hours of business of vending stations**

Vending stations shall sell electricity units during normal business hours on weekdays, and from 08:00 hours to 12:00 hours over weekends and on public holidays as a minimum.

In instances where a vending station may be closed over weekends and on public holidays, the Licensee shall ensure that at least one vending station remains open within the vicinity.

#### **4.3.2.4 Alternative methods for purchase of units**

The Licensee shall also provide alternative vending channels to compliment the physical points of sale.

#### **4.3.2.5 Pre-payment meter accuracy audits**

Similar meter accuracy checking services provided for credit meter consumers shall be available to pre-payment meter consumers (see section 4.3.1.11).

The licensee shall provide means to read, and transfer or refund, as appropriate, the amount of unexpended credit due to a consumer when a pre-payment meter is replaced or removed as a result of faulty meters.

#### **4.3.2.6 Frequency of pre-payment meter inspection**

The licensee shall have the right to inspect a prepayment meter at a customer's premises during reasonable times. Meters may be inspected as per the maintenance cycle or if tampering or theft is detected or suspected. However, where reasonable but unsuccessful attempts have been made to gain access to the prepayment meter, the licensee shall disconnect the supply after having given written notice to the prepayment meter customer. Wherever possible the same conditions as for the credit consumers shall apply.

#### **4.3.2.7 Disconnecting the supply**

The licensee may disconnect the supply from the premises of the consumer if tampering or theft is proven to have occurred. Records of engagement with the consumer, prior to making the disconnection, shall be kept by the licensee.

#### **4.3.2.8 Reconnecting the Supply**



Prepayment meters shall be reconnected within 48 hours of receiving a request and the payment of the reconnection fee (except in the case of hard disconnections or service removals after tampering has taken place).

**NOTE 1:** Normally a disconnection of the prepayment meter will be done by either opening the circuit-breaker or removing the fuse. However, in the case of a hard disconnection, a section of the service conductor is also removed.

**NOTE 2:** The boundary point between the consumer and the licensee will be dependent on the type of meter installed on the premises. Where a premises is connected to the “split-type” meter, the boundary point shall be in the metering box installed by the consumer. Where a premises is connected using a “non-split type” meter, the boundary point shall be the meter.

## 4.4 PLANNED AND UNPLANNED NETWORK INTERRUPTIONS

### 4.4.1 Service activities for network interruptions

The following factors may influence the quality of service in dealing with network interruptions:

- a) Availability and location of fault reporting centres;
- b) Hours during which interruptions may be reported at fault reporting centres;
- c) Fault reporting procedures;
- d) Response time to queries;
- e) Time to restore supply;
- f) Number and duration of interruptions;
- g) Notification of planned interruptions; and
- h) Accessibility to consumer and/or fault location (due to high safety risks or failure to contact the consumer).

### 4.4.2 Restoration of supply after forced interruptions

Consumer supplies that have failed should be restored within 24 hours.

**NOTE 1:** The above represents the minimum target and should be improved upon whenever circumstances permit.

**NOTE 2:** The number of forced interruptions is considered a Power Quality and Reliability of electricity issue. [ZS 387]

### 4.4.3 Average number and duration of planned and forced interruptions

The licensee shall endeavour to keep supply interruptions to an absolute minimum and, in the case of planned interruptions, shall ensure that consumers are given adequate notice. Recommended practices with regard to single feeder supply networks are given in Table 3. Consumers who require improved continuity of supply (e.g., large consumers) could negotiate additional feeders. This would be the subject of a separate agreement.

Where a consumer or a group of consumers has suffered a series of interruptions within a short period, the licensee shall endeavour to prevent coincident planned interruptions from affecting the same consumer(s) for at least one month unless where urgent remedial work might require a planned interruption to rectify the cause of such a series of interruptions.

The requirements as set out in Table 3 should be met with regard to at least 95 % of consumers.

**Table 3 - Number and Duration of Planned and Forced Interruptions per year for Consumers without Multi-Feeder Contracts**

Category of network (See note 1)	Planned interruptions				Forced interruptions			
	Overhead distribution		Underground distribution		Overhead distribution		Underground distribution	
	Number	Total duration h	Number	Total duration h	Number	Total duration h	Number	Total duration H
Residential established	4	24	1 per 2 years	6 per 2 years	6	60	4	32
Residential developing	4	24	1	6	10	60	4	32
Commercial/ small to medium industrial	2	12	1 per 2 years	6 per 2 years	6	36	2	16
Rural overhead (≤ 33 kV)	5	40	N/A	N/A	60	200	N/A	N/A

**NOTES**

- For the purposes of this specification, the categories listed in column 1 are categories of network, not of consumer (for example, a consumer might operate a commercial enterprise in an area designed to serve residential consumers).
- The numbers and durations for overhead distribution assume bare conductors. These figures will also apply when aerial bundled conductors (ABC) are being assessed, but in general, better performance could be expected from ABC systems.
- Table A.2 to be updated each time the Quality of Supply standard ZS 387-1 is updated. Refer to Table C.1 in ZS 387
- Load management is excluded from the requirements in the table.

#### 4.4.4 Notice of planned interruptions

At least 48 hours advance notification should be given for any planned interruption except load management. In the case of large consumers, wherever possible, the licensee and customers should mutually agree on planned interruptions. The following information should be supplied:

- The date and time of the planned interruption(s);
- The area(s) that will be affected;
- The reason for the planned interruption;
- The action that will be taken to minimise disruption;
- The time at which the supply is anticipated to be restored; and
- Safety precautions to be taken by consumers during the interruption period.

#### 4.4.5 Load Management

The licensee shall submit to the Regulator any load management/shedding programme for review and approval by the Regulator at least one month before implementation. The licensee shall give customers fourteen (14) days' notice before implementation. The loadshedding schedules should be fair and equitable.

#### 4.4.6 Press/media releases

The licensee should make use of the appropriate media, (for example, newspapers, television, radio, short messaging system (SMS), public address system, social media, and e-mail) to inform its customers of any planned interruptions.

#### 4.4.7 Telephone answering response times at customer call centres

The telephone answering times at call centres shall be as outlined in Table 4 below.

**Table 4 – Measure for telephone answering times at call centres**

Service activity	Acceptable minimum standard
Percentage of incoming calls answered within 15 s	85 %
Average response time	< 10 s
Lost call rate	< 2 %
Percentage of incoming calls dealt with within 5 min	90 %
Percentage of calls not referred	90 %
Percentage of misdirected calls closed within 30 s	90 %
Emergency and fault reporting telephone service downtime	< 1 h per year

#### 4.4.8 Response time to emergency calls

A service crew or representative of an undertaking is required to be available on call at all times to respond to emergency cases promptly. These emergencies include those that have direct threat to life and/ or loss of equipment.

### 4.5 CONSUMER COMPLAINTS, ENQUIRIES AND REQUESTS

In dealing with consumer complaints, enquiries and requests, the quality of consumer service will be influenced by the management of the following:

- a) availability and location of service centres;
- b) availability of other communication channels such as telephone, e-mail/internet, SMS, mobile applications, and social media platforms;
- c) response times;
- d) time taken to resolve complaints; and
- e) time taken to attend to requests and enquiries.

#### 4.5.1 Consumer Complaints

**4.5.1.1** Written consumer complaints should be acknowledged in writing within five (5) days with a traceable reference number. An average of 95% percent success rate should be achieved.

**4.5.1.2** Complaints lodged in person (at service centres or by means of telephone services) should be acknowledged immediately and a traceable reference number assigned to the consumer.

**4.5.1.3** Resolution of consumer complaints will be as per Table 5. There should be no closure to a reference number prior to resolution of consumer complaints by a licensee.

**Table 5 -Timeframes for resolution of consumer complaints by a licensee**

TYPE OF COMPLAINT	TIMEFRAMES FOR LICENSEE RESOLUTION		COMPLIANCE
Delayed New Service Connection	Standard Connection	30 Days	100%
	Non-Standard Connection	60 Days	100%
Unplanned Interruptions	Within 24 Hours		90%
Planned Interruptions	Adherence to the stipulated timeframe given in the outage notice for restoration of supply.		90%
	Communication on the duration of extension to the planned outage.		100%
Load Management	Adherence to the planned and approved load management schedule.		90%
Billing	14 Days		100%
Metering	Faulty Meters	3 Days	100%
	Meter Accuracy	10 Days	100%
Poor Voltage	90 days		100%
Disconnection	Reconnection within 24 hours after payment of outstanding bill.		100%
Tariffs and Charges	30 days		100%
Poor Customer Service	7 days		100%
Location of Electricity Infrastructure	90 days		100%
Electrical Safety	Within 24 hours		100%
Other Complaints	Up to 30 Days		80%

**NOTE 1:** Where consumers are subjected to prolonged load management, the licensee should exempt such customers from the immediate next scheduled load management.

**NOTE 2:** For matters relating to the accuracy of meters, complaint will be referred to ZMA.

#### 4.5.2 CUSTOMER ENQUIRIES

90% of general queries should be resolved at first contact and without further referral.

The following queries shall apply:

- a) General accounting
- b) Meter queries
- c) Payment queries

#### 4.5.3 CONSUMER REQUESTS

All general customer requests such as separation of meters, meter replacement, tariffs should be replied to in writing by the licensee within fourteen (14) days of receipt of a written request. Requests lodged in

person should be acknowledged immediately. All customer requests should be allocated with a traceable reference number.

Compliance levels for consumer requests shall be as shown in Table 6 below.

**Table 6 – Timeframes for responding to consumer requests**

TYPE OF REQUEST	TIMEFRAME		COMPLIANCE
In person requests	15 Minutes		90% without referral
Telephonic requests	5 Minutes		90%
Written requests	Acknowledgement of receipt	Within 3 Days	100%
	Detailed feedback	Within 7 Days	90%

#### 4.6 HANDLING COMPENSATION CLAIMS

All licensees shall have a compensation handling procedure in matters relating to breach of a licence condition or failure to meet stipulated standards. Compensation claims shall be handled in line with the procedure outlined below:

1. Affected consumer shall complete a prescribed claim form and submit to the licensee (Sample form is in Appendix A3). This form shall be available at the licensee's service centres and website;
2. The licensee shall acknowledge receipt of the claim and state the next course of action, specifying the timeframe for which feedback shall be provided, or outrightly reject the claim;
3. Where the claim requires an investigation, the licensee shall carry out such an investigation within the specified timeframe;
4. The licensee shall communicate the outcome of the investigation and its position on the claim to the claimant;
5. Where the consumer is not satisfied with the decision of the licensee, such consumer may appeal to the Regulator.

The timeframes for handling compensation claims are specified in Table 7 below.

**Table 7 – Timeframes for handling compensation claims**

SERVICE ACTIVITY	TIMEFRAME	COMPLIANCE
Acknowledge receipt of claim/rejection of claim	15 Days	100%
Carrying out an investigation	60 Days	100%
Communicating outcome of the investigation and the licensee's position on the claim	15 Days	90%
Consumer appeal to the Regulator	14 Days	N/A
Determination by the Regulator	Within 60 Days	100%

#### 4.7 CONSUMER AND PUBLIC EDUCATION

Licensees shall sensitise consumers and the public on various areas relating to the supply and use of electricity. Areas of consumer and public education may include:

- a) The safe use of electricity;
- b) The efficient use of electricity;
- c) Consumer rights and obligations;
- d) Tariffs and charges;
- e) Illegal connections and extensions;
- f) Tampering;
- g) The dangers of using incompetent or unqualified persons to undertake electrical works;
- h) The use of unauthorised and unsafe devices;
- i) Protection against undervoltage/overvoltage;
- j) Dangers associated with working or moving in proximity of power lines;
- k) Vandalism of electricity infrastructure; and
- l) Illegal sale/redistribution of electricity.

A licensee shall have in place an annual communication/education plan. The plan should include channels of communication, target groups, expected outcomes and evaluation methods.

The communication activities should be documented and made available to the Regulator upon request.

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## 5 REPORTING GUIDELINES

Reporting formats for the quality of consumer service shall be agreed between the Regulator and the licensee (Refer to Appendix B1 for sample reporting formats). These formats shall be used by the licensee to report to the regulator and a section for comments shall be included to enable the licensee to provide any additional relevant information. The licensee may also use this section to indicate reasons for not meeting the minimum standards and also provide details as to when the licensee will meet the minimum standards.

Licensees shall report all required parameters to the Regulator and shall ensure that their Quality of Consumer Service report to the Regulator is freely available to any consumer or prospective consumer upon request.

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## APPENDIX A1 – Complaints Procedure

(Normative)

### A1. COMPLAINTS PROCEDURE

#### A1.1 General information on complaints procedure

All licensees shall ensure that the quality of service meets the minimum requirements set in this standard. Consumers, on the other hand, shall ensure that they meet their obligations to ensure sustainable access to quality of electricity supply services.

#### A1.2 Licensee complaints procedure

All Licensees shall have in place a complaints handling procedure which shall include the following information:

1. How to lodge a complaint
2. Timelines for acknowledging and resolving a complaint
3. Feedback to the complainant
4. How to appeal a decision by the licensee

#### A1.3 Lodging a Complaint to the regulator

All complaints must first be channelled to the relevant licensee to enable them to address the complaint within the specified time. A complaint should only be referred to the regulator when a licensee has:

- Neglected to resolve the complaint;
- Failed to resolve it within reasonable time; or
- Not satisfactorily attended to the complainant.

Therefore, a complaint to the regulator should be seen primarily as an appeal.

The regulator shall receive, investigate, and determine complaints in accordance with the law. Complaints may be lodged in a number of ways including the following:

- a) Visit to the office;
- b) In writing (letter or email);
- c) Electronic (website, official social media platforms, SMS, etc.); and
- d) Telephone/toll free line.

##### A1.3.1 Type of Information Required by the regulator

In order to enable the regulator effectively handle consumer complaints, the following information shall be submitted by the complainant:

- a) Full name;
- b) Contact details including the physical address, email, and account number (where applicable) and phone numbers;
- c) The licensee and/or person against whom the complaint is made;



- d) Nature of the complaint and details (including date, time, loss suffered, and relief sought); and
- e) Supporting documentation such as receipts, bill statements, invoice, or correspondence with licensees.

Where a person lodging a complaint is acting on behalf of another person, company or organisation, the capacity in which that person is acting and/or the reasons for doing so must be clearly stated.

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**APPENDIX A2 – Complaint Forms**  
(Informative)

**A2.1 COMPLAINT FORMS**

(Sample Complaint form to be used for submitting complaints to the licensee)

**CONSUMER COMPLAINTS FORM**

**Personal Details**

Full Name (s): .....  
Email Address: .....  
Telephone No.: Mobile No.: .....  
.....  
Business Name: .....  
Contact Person: .....  
Physical Address: .....  
Postal Address: .....  
District: Province: .....  
.....

**Complaint Details**

Nature of Complaint: .....  
Complaint Details: .....  
.....  
.....

Relief/Redress Being Sought: .....  
.....

Account No.: .....  
Reference No.: .....  
Supporting Documents: 1. ....  
2. ....  
3. ....  
4. ....

Date: ..... Signature: .....

## A2.2 COMPLAINT FORM

(Sample Complaint form to be used for submitting complaints to the Regulator)

### CONSUMER COMPLAINTS FORM

#### Personal Details

Full Name (s): .....  
Email Address: .....  
Telephone ..... No.: Mobile No.: .....  
.....  
Business Name: .....  
Contact Person: .....  
Physical Address: .....  
Postal Address: .....  
District: ..... Province: .....  
.....

#### Complaint Details

Company Complained Against: .....  
Nature of Complaint: .....  
Complaint Details: .....  
.....  
.....  
Relief/Redress Being Sought: .....  
.....  
Account No.: .....  
Reference No.: .....  
Supporting Documents: 1. ....  
2. ....  
3. ....  
4. ....

Date: ..... Signature: .....

**APPENDIX A3 – Compensation Claim Form**  
(Informative)

**A3. COMPENSATION CLAIM FORM**

**COMPENSATION CLAIM FORM**  
**(TO BE AVAILED BY THE LICENSEE)**

Date: .....

Name of Customer: .....

Account Name (As appears on electricity bill/invoice): .....

Account/Meter No.: .....

Physical Address: .....

Email Address: .....

Telephone No.: ..... Mobile No.: .....

**Details of Claim**

Description: .....  
.....  
.....  
.....

Date and Time Incident Occurred: .....

Date and Time Incident Reported to Licensee: .....

Reference No. Assigned by the Licensee: .....

1. Loss Suffered (E.g., Household Goods, Electrical Items, Human/Animal Life, Property, Injury)  
.....  
.....
2. Details of Loss Suffered (Age, Brand, Name, etc.)  
.....  
.....
3. The Brief Cause of the Incident  
.....  
.....
4. Any Strange Observation During the Incident  
.....  
.....
5. Any Similar Incident in the Same Area that Affected the Customer Previously  
.....  
.....  
.....

6. Cost of Loss Suffered

a) .....	K .....
b) .....	K .....
c) .....	K .....
d) .....	K .....
e) .....	K .....
Total Value	K .....

7. Any Repair Work Undertaken on the Item and the Total Cost

Item	Total Cost	Receipt No.
1. ....	K .....	.....
2. ....	K .....	.....
3. ....	K .....	.....
4. ....	K .....	.....

Name of Claimant: ..... Signature: .....

Date: .....

Name of Customer Services Officer: ..... Signature: .....

Date: .....

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## APPENDIX B1 – Reporting Formats

(Informative)

### B1.1 REPORTING FORMAT – PROVIDING QUOTATIONS TO CUSTOMERS

(TO BE SUBMITTED BY THE LICENSEE WHEN REPORTING TO THE REGULATOR)

Sample reporting format for providing quotations for supply to customers.

1	2	3	4	5
<b>Connection Category/ Customer Classification</b>	<b>Target Duration</b>	<b>Total number of quotations</b>	<b>Number of quotations within target duration</b>	<b>Percentage success</b>
Standard Connection	7 Days			
Non-Standard Connection	15 Days			
Industrial and Commercial Customers	By agreement			
Comments:				
NOTE 1: In column 3, list for each connection category or customer classification shown in column 1 the total number of quotations for supply in the year.				
NOTE 2: In column 4, list the total number of quotations that were within the period prescribed as the target duration in column 2.				
NOTE 3: The value in column 5 is the value in column 4 divided by the value in column 3 multiplied by 100.				

### B1.2 REPORTING FORMAT – PROVIDING SUPPLY TO CUSTOMERS

(TO BE SUBMITTED BY THE LICENSEE WHEN REPORTING TO THE REGULATOR)

Sample reporting format for provision of supply to customers.

1	2	3	4	5
<b>Connection Category/ Customer Classification</b>	<b>Target Duration</b>	<b>Total number of connections</b>	<b>Number within target duration</b>	<b>Percentage success</b>
Standard Connection	30 Days			
Non-Standard Connection	90 Days			
Industrial and Commercial Customers	By agreement			
Comments:				
NOTE 1: In column 3, list for each connection category or customer classification shown in column 1 the total number of connections for the year.				
NOTE 2: In column 4, list the total number of connections within the period prescribed as the target duration in column 2.				
NOTE 3: The value in column 5 is the value in column 4 divided by the value in column 3 multiplied by 100.				

**B1.3 REPORTING FORMAT – METER READING****(TO BE SUBMITTED BY THE LICENSEE WHEN REPORTING TO THE REGULATOR)**

Sample reporting format for meter reading monitoring.

1	2	3	4	5
Month	Number of credit meters/metering points installed	Number of faulty credit meters/metering points	Number of credit meters read in the month	Percentage success
January				
February				
March				
April				
May				
June				
July				
August				
September				
October				
November				
December				
<b>Average</b>				
Comments:				
<p>NOTE 1: In column 2, write the total number of credit meters/metering points installed that were to be read each month.</p> <p>NOTE 2: In column 3, write the total number of credit meters/metering points that are faulty.</p> <p>NOTE 3: In column 4, write the actual number of credit meters/metering points that were read in each month.</p> <p>NOTE 4: The value in column 5 is the value in column 4, divided by the difference between the values in column 2 and column 3 (i.e., the value in column 2 minus the value in column 3), multiplied by 100.</p> <p>NOTE 5: Calculate the average of column 5.</p>				

**B1.4 REPORTING FORMAT – DISCONNECTION OF CREDIT METER CUSTOMERS****(TO BE SUBMITTED BY THE LICENSEE WHEN REPORTING TO THE REGULATOR)**

Sample reporting format for disconnection of credit meter customers.

1	2	3	4
Month	Total number of disconnections done	Total number of disconnections done within the stipulated period	Percentage success success
January			
February			
March			
April			
May			
June			
July			
August			
September			
October			
November			
December			
<b>Average</b>			
Comments:			
NOTE 1: In column 2, write the total number of disconnections done each month. NOTE 2: The value in column 3 is the value in column 2. NOTE 3: The value in column 4 is the value in column 3 divided by the value in column 2 multiplied by 100. NOTE 4: Calculate the average of column 4.			

**B1.5 REPORTING FORMAT – RECONNECTION OF CREDIT METER CUSTOMERS****(TO BE SUBMITTED BY THE LICENSEE WHEN REPORTING TO THE REGULATOR)**

Sample reporting format for reconnection of credit meter customers.

1	2	3	4	5
Month	Total number of customers to be reconnected	Number of customers not reconnected within stipulated period	Number of customers reconnected within stipulated period	Percentage success success
January				
February				
March				
April				
May				
June				
July				
August				
September				
October				
November				
December				



<b>Average</b>				
Comments:				
<p>NOTE 1: In column 2, write the total number of credit meter reconnections that have been carried out each month.</p> <p>NOTE 2: In column 3, write the number not reconnected within the stipulated period after the account has been settled and the reconnection fees has been paid.</p> <p>NOTE 3: The value in column 4 is the value in column 2 minus the value in column 3.</p> <p>NOTE 4: The value in column 5 is the value in column 4 divided by the value in column 2 multiplied by 100.</p> <p>NOTE 5: Calculate the average of column 5.</p>				

## B1.6 REPORTING FORMAT – ASSESSING FAULT REPORTING

(TO BE SUBMITTED BY THE LICENSEE WHEN REPORTING TO THE REGULATOR)

Sample reporting format for assessing parameters for the fault reporting process.

1	2	3
Service activity	Actual (Yes/No/NA)	Comments
Is there a 24 h telephone service?		
Is there a facility to redirect after-hours calls?		
Has the following information been obtained from the customer? Name Telephone number Physical address/Pole No./Site ID Nature of fault		
Is the response time immediate on the first call during normal working hours, thereafter according to an emergency priority list?		
Has a fault reference number been given to the reporting customer?		
NOTE: In column 2, answer the question for each of the service activities in column 1 by yes, no, or not applicable.		

## B1.7 REPORTING FORMAT – RESTORATION OF SUPPLY AFTER INTERUPPTION

(TO BE SUBMITTED BY THE LICENSEE WHEN REPORTING TO THE REGULATOR)

Sample reporting format for the restoration of supply after a forced interruption.

1	2	3	4
Month	Total number of forced interruptions after which supply is restored	Supply restored within 24 hours	
		Actual	%age
Jan			
Feb			
March			
April			
May			
June			
July			
Aug			

Sep			
Oct			
Nov			
Dec			
<b>Average</b>			
Comments:			
NOTE 1: In column 2, state the total number of forced interruptions after which supply was restored each month. NOTE 2: The value in column 4 is the value in column 3 divided by the value in column 2 multiplied by 100. Calculate the average of column 4.			

## B1.8 REPORTING FORMAT – CUSTOMER COMPLAINTS

(TO BE SUBMITTED BY THE LICENSEE WHEN REPORTING TO THE REGULATOR)

Sample reporting format for customer complaints.

1	2	3	4
	<b>Service activity</b>	<b>Minimum standards</b>	<b>Percentage success</b>
<b>CUSTOMER COMPLAINTS</b>	Customer complaints received in person	Acknowledged immediately without referral.	
	Customer complaints received by telephone	Acknowledged immediately without referral.	
	Written customer complaints (e.g., email)	Acknowledged within 5 days and reference number issued.	
	Customer complaints received electronically (USSD, App, social media, and website).	Acknowledged within 5 days and reference number issued.	