



**TARIFF SETTING GUIDELINES  
FOR  
REGULATED WATER AND SANITATION  
UTILITIES, 2017**

**DAR ES SALAAM, AUGUST 2017**

## **FOREWORD**

EWURA developed and adopted the Tariff Application Guidelines (TAGs) in 2009. The guidelines described the procedures for filing water and energy related tariff applications by an applicant and reviewing tariff applications by EWURA. It is almost eight years since the guidelines have been in place and during that period many developments took place. These developments include devolution of EWURA's operational mandate to the zonal offices, development and adoption of the EWURA Client Service Charter (CSC), and introduction of periodic reviews of electricity tariff. Moreover, TAGs did not address tariff review procedures under various statutory charges such as Value Added Tax (VAT) to water production inputs, Workers Compensation Funds and changes in Skill Development Levy that have been negatively affecting utilities and compromising the sustainability of services.

Based on the above, EWURA realizes that, it is high time it reviewed TAGs in order to address new developments and challenges encountered during implementation of the TAGs. In reviewing the TAGs, EWURA involved all Regulated Water and Sanitation Utilities (RWSU) and other key stakeholders. Their constructive comments have been incorporated and formed a part of these guidelines. These guidelines have excluded the energy sector in order to address specific issues pertinent to water and sanitation sector. In addition, the guidelines harmonized various timelines to match with other regulatory tools such as EWURA CSC. To ensure that the guidelines are enforceable, EWURA developed Tariff Application and Rate Setting Rules, 2017 which have to be read in conjunction with these guidelines and in the event of a conflict between the two, the Rules shall prevail.

It is my sincere hope that, RWSU will adhere to these guidelines to ensure the tariff review process is carried out effectively. In conclusion, I would like to thank all stakeholders for their valuable contributions in preparing these guidelines, I believe your continued cooperation and interaction will grow for the betterment of the sector and the economy at large.



Eng. Godwin Samwel

**Acting Director General**

**29<sup>th</sup> August 2017**

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## CHAPTER 1: INTRODUCTION

*This chapter introduces the guidelines by providing the title of the guidelines, its applicability and objectives, background, salient features and definition of key terms.*

### 1.1 Applicability

- 1.1.1 These Guidelines shall be termed as “Tariff Setting Guidelines for Regulated Water and Sanitation Utilities, 2017” and shall apply to all Regulated Water and Sanitation Utilities.
- 1.1.2 The Guidelines are intended to provide guidance to Regulated Water and Sanitation Utilities on the procedure, timeline and information required when lodging tariff applications; how to set and apply for all types of tariff reviews and adjustments; how EWURA shall process the application and evaluate the proposed tariff; and how EWURA shall monitor the implementation of tariff Order conditions.
- 1.1.3 They are to be read in conjunction with EWURA (Tariff Application and Rate Setting) Rules, 2017 and in the event of a conflict between the two, the Rules shall prevail.
- 1.1.4 These guidelines replace the EWURA’s Tariff Application Guidelines of 2009.
- 1.1.5 All actions taken pursuant to these Guidelines shall be in accordance with the Laws of Tanzania; the National Water Policy, 2002; the EWURA Act, Cap. 414; the Water Supply and Sanitation Act, Cap. 272; DAWASA Act, Cap. 273; Applicable laws; Regulations; and Rules made by the Authority.
- 1.1.6 A Regulated Water and Sanitation Utility may request a waiver of any of the provisions in these *Guidelines*.
- 1.1.7 These Guidelines may be reviewed after every five years or at any time when the review is deemed necessary.

### 1.2 Background

- 1.2.1 The Guidelines have been developed based on new developments in the water sector and experiences acquired in the reviews of tariff application over a period of ten years. The Water and Sanitation Sector has experienced many developments which include introduction of Business Planning Guidelines which, among other things, provide that business plans are a prerequisite for budget and multiyear tariff review. Other developments include introduction of periodic reviews to take into consideration changes in electricity tariff and changes in legislation such as introduction of VAT to water production inputs, introduction of Workers Compensation Funds and changes in Skill Development Levy. In addition, the review is necessitated by the introduction of review procedures for

tariff to be charged by registered private water operators to end-user customers; dealing with tariff applications from licensed bulk water suppliers; and change in application procedures due to the devolution of EWURA's operational mandate to the zonal level.

- 1.2.2 These Guidelines improves on the previous Tariff Application Guidelines of 2009 by being specific to the water sector, and by paying more attention to tariff methodologies and monitoring and evaluation (M&E) of tariff Order conditions.

### **1.3 Salient Features of the Guidelines**

The Tariff Setting Guidelines constitutes of six (6) chapters:

- 1.3.1 Chapter One provides the applicability, objectives and salient features of the Guidelines. It also sets out some of the terms in the Guidelines, especially those that are used frequently.
- 1.3.2 Chapter Two covers the informational requirements for filing tariff adjustment requests as well as the respective format which the required information is to be submitted. The information requirements cover various types of tariff applications.
- 1.3.3 Chapter Three outlines the basis for determining the total amount of revenue required by an applicant in order to recover all the costs including costs for proper operation and maintenance of the system and sustaining the system's viable operations.
- 1.3.4 Chapter Four presents methodologies for allocation of the revenue requirement among different types of water users. It also presents tariff design to reflect the cost of providing water service and taking into account other tariff objectives including water conservation, affordability, simplicity, and revenue stability.
- 1.3.5 Chapter Five describes the procedures for tariff application review. This includes acceptance process of the application, stakeholders' consultation, tariff evaluation process, decision by the Board, and notification procedures. The aim is to ensure transparency of the tariff review process in accordance with EWURA Act.
- 1.3.6 Chapter Six highlights procedures for facilitation monitoring and evaluation on the implementation of tariff Order. Tariff Order conditions are given in order to improve services and thereby ensuring that customers are getting value for money for the services they receive.

### **1.4 Definitions of terms and Abbreviations**

- 1.4.1 The following words have the following meanings unless the context otherwise requires.

- a) **“Applicable Law”** means any principal law, treaty, convention, proclamation, regulation, rule, order or by-law that is customarily treated in Tanzania as having legally binding force and which is relevant to matters pertaining to the tariff regulation of water supply and sanitation services.
- b) **“Applicant”** means a regulated water supply and sanitation Utility.
- c) **“Authority”** means the Energy and Water Utilities Regulatory Authority.
- d) **“Automatic tariff adjustment”** means a tariff adjustment by the regulated water and sanitation utility based on changes in non-controllable costs – that is, costs that are beyond the control of the Utility (such as the costs resulting from currency devaluation, a change in bulk tariffs, power tariff, taxes) - which must be passed through to the customer tariff.
- e) **"Capital Work in Progress (CWIP)"** means accumulated capital costs of an asset under construction/installation which will be capitalized or transferred to Plant in Service after commercial operation date.
- f) **“Customer”** means a person who purchases or receives regulated services for own use or sale.
- g) **“Customer class”** means a category of persons who purchase or receive regulated services and are specified according to the use or sale.
- h) **“Effluent”** includes domestic effluent, domestic sludge or industrial effluent where
  - (i) **“domestic effluent”** means wastewater arising from domestic and commercial activities and premises, which may contain sewage; and
  - (ii) **“industrial effluent”** is wastewater arising from industrial activities and premises, including contaminated storm water drainage from industrial premises.
- i) **“Financial Statements”** means the Statement of Financial Position, Statement of Comprehensive Income, Statement of Cash Flow and Statement of Changes in Equity.
- j) **“Formal presentation”** means a written presentation by an interested party who has registered for a public hearing.
- k) **"Full Cost Recovery"** means a tariff that cover operation and maintenance expenses, depreciation expenses, and that provide a reasonable return on investment.

- l) **"Grants"** means financial support from the government or donor agency to a water utility to meet certain capital expenditures.
- m) **"Informal presentation"** means an oral presentation by an interested party who has registered for a public hearing.
- n) **"Interested party"** means a person with an interest in or who is affected by the subject matter of a public hearing.
- o) **"Letter of No Objection"** means any permit or approval granted by the Minister responsible for water or Minister responsible for local government, whatever the case may be, to a regulated water utility signifying the ministry's consent to the tariff application submitted to EWURA.
- p) **"MoU"** means Memorandum of Understanding between the Ministry responsible for Water or the Ministry responsible for Local Government and a Water Utility.
- q) **"Operating and Maintenance Expenses"** means a category of expenditure that a business incurs as a result of performing its normal business operations.
- r) **"Pass-Through Costs"** means non-controllable costs that occur during the implementation of multiyear period which must be charged/passed through to the final consumer.
- s) **"Regulated Water Utility"** means a water supply and sanitation authority established under Section 9 of the Water Supply and Sanitation Act, Cap. 272 or under Section 4 of Dar es Salaam Water and Sewerage Authority Act, Cap. 273 and any other person providing water supply and sanitation services except Community Owned Water Supply Organizations (COWSOs) established under Section 31 of Cap. 272.
- t) **"Regulatory Asset Base (RAB)"** means the total cost to be depreciated over the economic life of the asset and shall include Capital Costs (excluding grants), lenders fees and commissions, interest during construction, the initial debt service reserve account value, development costs and any withholding tax applied and grossed up on interest paid to the lenders prior to the Commercial Operation Date (COD).
- u) **"Reasonable return"** means the level of return that investors would seek for enterprises of similar risk.
- v) **"Recoverable expenditure"** means actual expenditure used in material and labour.
- w) **"Revenue requirement"** represents the total amount of money a utility must collect from customers to pay all costs which includes operating and maintenance expenses, depreciation and a reasonable return on investment so

as to properly operate and maintain its system and meet its financial obligations.

- x) **“Rules”** means the Energy and Water Utilities Regulatory Authority (Tariff Application and Rate Setting) Rules, 2017.
- y) **“Sanitation”** means the provision of appropriate facilities and services for the collection and disposal of human excreta and waste waters.
- z) **“Sewer”** means a pipe or conduit, generally closed but normally not flowing full, for carrying sewage.
- aa) **“Sewerage”** means all procedures, pipes and structures required for the collection, treatment and disposal of liquid wastes.
- bb) **“Sewage”** means the liquid waste produced by humans, their households and from industries. It does not include waste water and storm water.
- cc) **“Subsidies”** means financial support from the government or donor agency to meet certain operating expenses.
- dd) **“Tariff”** means any charge, fee, price or rate charged for the provision of a regulated activity as shall be approved by the Authority.
- ee) **“Test year”** means a period of measurement for a recent, consecutive twelve-month period consisting of a full year of operations where data is readily available.
- ff) **“The Act”** means the Energy and Water Utilities Regulatory Authority Act, Cap 414;
- gg) **“The water sector Act”** means the Water Supply and Sanitation Act, Cap 272.
- hh) **“Two-part tariff”** means a tariff structure consisting of a lump-sum payment for a good or service combined with a per unit charge.
- ii) **“Utility”** means a firm that owns and/or operates facilities used for production and distribution of water and provision of sanitation services to general public.
- jj) **“Water Operator”** means private operators who provide water supply and sanitation services in the service area of a regulated water and sanitation Utility and who have been registered by the regulated water Utility.



- kk) **“Waste Water** “means liquid waste of a non-excremental nature but does not include storm water.
- ll) **"Weighted Average Cost of Capital (WACC)"** means the utility's overall return on regulatory asset base considering its debt to equity structure and related costs.

## CHAPTER 2: **INFORMATION REQUIREMENTS FOR TARIFF APPLICATION**

*The Chapter covers the informational requirements for filing tariff adjustment applications as well as the respective format which the required information is to be submitted. The information requirements cover various types of tariff applications.*

### **2.1 Types of Tariff Applications.**

2.1.1 The following are the types of tariff applications that shall be considered in these guidelines.

- a) Multi Year Tariff Application;
- b) Provisional Tariff Application;
- c) Extra Ordinary Tariff Application;
- d) Automatic Tariff Application; and
- e) Tariff Application on Services Charged by Water Operators

2.1.2 In case a regulated water and sanitation utility may not propose the tariff, EWURA may seek to change a tariff on its own motion. This is referred to as “Tariff Adjustment on Authority’s Motion”.

### **2.2 Top Sheet**

2.2.1 Any application, shall contain a Top Sheet which shall include the following into one page:

- a) the legal name of the applicant;
- b) the full address of the applicant to which communications in the matter will be sent;
- c) the full name, title and contact information of the applicant’s chief executive officer/managing director or his representative;
- d) a verifiable reference of an applicant’s license by EWURA (or a preceding Authority) to provide a regulated service;
- e) A succinct statement of the regulatory action being requested (e.g. “XYZ WSSA requests that EWURA approve of an increase/decrease in water tariff, service charge, new water/sewer connection fees, water/sewer reconnection fees, sewerage tariff, cesspit emptying charges and sewer disposal charges as

specified in table 1 of this application. It is proposed that this tariff will apply effective from -----.”); and

- f) Date and signature of the Chief Executive Officer/Managing Director specified in paragraph c), above or a duly authorized officer.

## 2.3 Multi Year Tariff Application

2.3.1 A Multi Year Tariff application is an application for a tariff that will be applicable over a period of time normally three years in line with the Business Plan period. Tariffs for each year of a Multi-year period are determined in advance. Among the advantages of a multiyear tariff are that the Consumer will have a fair idea of what to expect in the next three years and the Regulated Water and Sanitation Utilities will be able to plan its business.

### 2.3.2 The Detailed Tariff Application

- a) Following the Top Sheet, which is a summary of the application, the applicant shall submit a detailed multiyear tariff application which must contain the following sections:
  - (i) The historical background of an applicant showing the license of the applicant, legal mandate, ownership structure of the applicant and the other entities in which the applicant has an ownership interest; and service area.
  - (ii) The requested regulatory action and the rationale for such action including a statement explaining how the proposed adjustment of the current tariff will benefit the customers.
  - (iii) A summary table of current and proposed tariff as in **Form 1** set out in the Schedule.
  - (iv) A comprehensive information about assumptions used to project various costs and implementation status of key performance indicators, as per **Form 2**.
  - (v) Information regarding electricity consumption and billing for water supply and sewerage services for all infrastructural units showing the past twelve months actual records of consumption and billing as in **Form 2** set out in the Schedule.
  - (vi) Information regarding operating and maintenance costs for the past three years and the projected costs for the next three years which shall assume that the proposed tariff change will take effect as proposed as in **Form 3** set out in the Schedule and in accordance to the Business Plan. An applicant shall also provide an analysis of test year operating

and maintenance costs and provide any reasons for its variance with the audited income statements as in **Form 4** set out in the Schedule.

- (vii) Information regarding depreciation for the past three years and an analysis of projected depreciation charge for the next three years which shall assume that the proposed tariff change will take effect as proposed as in **Form 5** set out in the Schedule and which shall be supported by the estimated useful life of assets as in **Form 6** set out in the Schedule.
- (viii) An analysis of the applicant's proposed rate of return or Weighted Average Cost of Capital (WACC) on its own invested capital, if applicable, supported by a cost of capital analysis. The applicant shall propose and justify a capital structure which will include a discussion on cost of debt and equity for the applicant as in **Form 7** set out in the Schedule..
- (ix) Comprehensive information regarding Regulatory Asset Base of an applicant covering the past three financial years prior to the date of the application and the projections for the next three years.
- (x) An analysis of the proposed new investment, rehabilitation and replacement costs as in **Form 8** and **Form 9** set out in the Schedule and in accordance with the Business Plan which takes into consideration the analysis of the Return on Investment and Depreciation.
- (xi) Information regarding the annual subsidies and grants received within the past three financial years prior to the date of the application as well as forecast of the same during the rate or charge period.
- (xii) A schedule, based upon the revenue requirement analysis, that projects the applicant's revenue requirements for the next three financial years assuming the requested tariff go into effect as in **Form 10** set out in the Schedule.
- (xiii) A schedule showing current consumption pattern for each customer class reflecting the past twelve (12) months prior to the date of the application and the projected consumption pattern which reflects the proposed tariff structure as in **Form 11** set out in the Schedule. In case of a proposed new customer class, the applicant shall provide the projected consumption of the new customer class.
- (xiv) Detailed explanatory statement with subordinate schedules that clearly indicate how the proposed rates and charges for each individual customer class were calculated as in **Form 12** set out in the Schedule.

- (xv) The Applicant shall fill **Form 14** set out in the Schedule, showing total bills from proposed tariffs, and other charges that would result if the application was approved as submitted. The estimated revenues must be provided for each customer class and shall equal the total revenue requirement.
- (xvi) Options other than a tariff change considered by the applicant and why each option was not selected.
- (xvii) The financial implications to the applicant if the requested changes in tariffs are not approved. These may include ability of the applicant to pay for its creditors, to meet contractual financial obligations, to service its debt; to cover all the fixed costs; and to spend on capital investment projects.
- (xviii) An affirmation that states that all contractual agreements that may have impact on the proposed tariffs have been included in the application.
- (xix) Any other information deemed appropriate.

### 2.3.3 Supporting Documents

- a) Evidence in the form of the minutes of the Board of the Regulated water and sanitation utility that the submitted application was approved by the Board.
- b) Evidence in the form of attendance register of participants that the Regulated water and sanitation utility has consulted a representative sample of its customers on the intention to review its existing tariff.
- c) Letter of No objection (if required by EWURA) from the Minister responsible for Water or Minister responsible for local government, whatever the case may be, on the intention to review existing tariff.
- d) The implementation status of conditions imposed on the previous tariff Order of the applicant.
- e) Business Plan which has been approved pursuant with the EWURA's Guidelines for Preparing Business Plan for Regulated Water and Sanitation Utilities".
- f) Audited financial statements including the opinion of the auditor, covering the past three financial years and the most recent interim financial statements prior to the date of the application.
- g) Recent report on the valuation of assets (if any).
- h) A Cost of Service Study (if any).

- i) A sample bill or invoice applicable to each customer class for the water and sanitation services rendered.
- j) A detailed sample cost estimates for each customer class which was issued by an applicant to an existing customer for a new water or sewer customer connection. In addition, the applicant shall provide a summary cost estimates as per **Form 15 and 16** in the Schedule.
- k) Annual report covering the past one financial year and the most recent quarterly reports prior to the date of the application.
- l) A contract (if any) between an applicant and a bulk consumer. In all cases the tariff paid by the consumer shall at least be equal to the applicant's marginal costs.
- m) A Public Private Partnership (PPP) agreement (if any) in accordance with applicable laws and guidelines on PPPs for Regulated Water and Sanitation Utilities.
- n) Recent report on environmental audit regarding operations of the regulated water and sanitation utility (if any).
- o) The Memorandum of Understanding between the applicant and the Ministry responsible for water or the Ministry responsible for local government.
- p) Approved Client Service Charter by EWURA.

## 2.4 Provisional Tariff Application Guidelines

- 2.4.1 Provisional tariff application refers to an application for an urgent action to approve a tariff without undergoing a full inquiry and evaluation process.
- 2.4.2 Typical situation that might be covered is when a regulated water authority cannot submit historical financial and operational data either because it is a newly established utility or it was established but could not operate.
- 2.4.3 In the event that urgent action is required, an applicant shall submit to EWURA a written request from the Minister responsible for Water if the Applicant is a Regional Water Authority, a National Project WSSA or DAWASA/DAWASCO or Minister responsible for local government if the Applicant is a District or Township WSSA and consequently EWURA shall expedite its procedures with the view of issuing a Provisional Order as provided for under these guidelines.
- 2.4.4 The application must include the Top Sheet in its entirety as described in Paragraph 2.2.

2.4.5 The applicant shall identify any items that cannot be provided at the time of the submission through a written exemption request as described in paragraph 2.9.

## **2.5 Extra Ordinary Tariff Application Guidelines**

2.5.1 An Extra-Ordinary Review (ER) refers to a tariff review or application which comes before the approved end of the existing tariff because of unforeseen events that result in big operational losses.

2.5.2 Under normal circumstances, a regulated water and sanitation utility submits a multiyear tariff application up to a maximum of three years based on its Business Plan. However, in case of appreciable change of operating conditions, a utility may submit another tariff application within the three years under extraordinary review.

2.5.3 Typical events that might be covered include the following:

- a) a change in law that relate directly to water or wastewater services, the environment;
- b) a change in the required service or performance standards;
- c) a change in the service area;
- d) an unforeseen drop-out of big customers; or
- e) significant change in the underlying assumptions used in the determination of the existing multiyear tariff.

2.5.4 Unlike Automatic Tariff Application, an Extra-Ordinary Review (ER) requires a full prudency test to all elements of the revenue requirement because the extraordinary event cannot be predetermined in percentage terms and therefore cannot be easily passed through to the customer tariff without conducting a full review.

2.5.5 The applicant shall be required to submit information as required under Paragraph 2.2 and 2.3.

2.5.6 Extra-Ordinary Review (ER) can be petitioned on a single year or multi-year basis depending on end of the existing multi-year period.

## **2.6 Automatic Tariff Adjustment**

2.6.1 Automatic Tariff Adjustment occurs when an extra-ordinary event can be predetermined in percentage terms and thereby be measured against the existing approved revenue requirement and the related costs can easily be passed through to the existing customer tariff. Therefore, a full prudency test to the total revenue requirement is not required in this type of application.

- 2.6.2 Typical events that might be covered include the following:
- a) an increase in electricity tariff;
  - b) a change in the tariff charged by a licensed bulk water supplier; or
  - c) a change in law that relate directly to taxes and levies charged to water or wastewater services.
- 2.6.3 Under Automatic Tariff Adjustment all the assumptions used in the review of existing tariff shall remain intact and only the pass-through cost shall be considered.
- 2.6.4 The Applicant shall submit the following information with the Automatic Tariff Application:
- a) A summary table of current and proposed tariff;
  - b) A detailed analysis of pass-through costs showing the actual trend for the past twelve months. Additional information with supporting evidence should be provided to show if in a given month, operations were not normal. For example, **Form 3** in the Schedule provides an information requirement in case of a pass-through application from electricity tariff change.
  - c) Evidence in the form of official letter, document or provision in the legislation that approves a change in pass-through costs and thereby affecting the financial situation of a Utility.
  - d) Any other information deemed appropriate.

## **2.7 Tariff Application on Services Charged by Water Operators**

- 2.7.1 This applies to Water Operators operating in the service area of a regulated water and sanitation utility in accordance with the applicable Guidelines for Operations of Other Operators Business.
- 2.7.2 Water Operators shall present their case for tariff review to the regulated water and sanitation Utility and the latter shall submit a formal tariff application to EWURA on behalf of the Water Operators. The regulated water and sanitation Utility shall be accountable to justify the proposed tariff.
- 2.7.3 The regulated water and sanitation Utility shall submit the following information with the application:
- a) A top sheet at its entirety as described in Paragraph 2.2.
  - b) The main application document shall contain:-



- (i) a summary table of current and proposed tariff as in **Form 2** set out in the Schedule;
  - (ii) a detailed analysis of proposed tariff for operators of cesspit emptier services as in **Form 13** set out in the Schedule;
  - (iii) a detailed analysis of proposed tariff for water borehole operators of cesspit emptier services as in **Form 14** set out in the Schedule; and
  - (iv) a detailed analysis of proposed tariff for operators using water tankers for water supply services as presented in **Form 17** set out in the Schedule.
- c) Supporting document shall include:-
- (i) Minutes of the meetings between the regulated water and sanitation Utility, consumer representatives and other water operators regarding tariff review.
  - (ii) Any other information deemed appropriate.

## **2.8 Tariff Adjustment on Authority's Motion**

- 2.8.1 Pursuant to EWURA Act, Cap. 414, any service provided by the regulated water and sanitation Utility shall be supplied at a tariff as may be proposed by the regulated water and sanitation Utility and approved by EWURA.
- 2.8.2 The Authority, on its own motion, may initiate an inquiry to review a tariff of a regulated water and sanitation utility. This may be attributed by such cases as where a utility is recording huge surplus which makes tariff review a disincentive.
- 2.8.3 In all cases when an application or a motion to change a tariff is filed, the burden of proof shall lie with the applicant of the motion. A regulated water and sanitation Utility shall be obliged to provide any information as requirement by the Regulator to facilitate evaluation of the tariff.

## **2.9 Exemptions and Confidentiality on Information Requirements**

- 2.9.1 Exemptions from any of the relevant requirements specified in Section 2.3 to 2.7 of the guidelines may be requested in writing by the applicant.
- 2.9.2 All information submitted to EWURA as part of the Tariff Application will become a matter of public record, scrutiny and inquiry.
- 2.9.3 An applicant shall provide justification, if it considers information to be confidential.

- 2.9.4 Confidential information is generally presumed to exist when:
- a) disclosure of information could reasonably be expected to result in a material loss or gain to a party or could reasonably be expected to prejudice a party's competitive position; or
  - b) the information is financial, commercial, scientific, or technical that has been consistently treated as confidential information and EWURA considers that the party's interest in confidentiality outweighs any public interest that might be served by disclosure.

## **2.10 Submission of an Application**

- 2.10.1 Under normal circumstances, all tariff applications shall be in the form of "Multi Year Tariff Application" and shall be prepared consistent with the approved Business Plan of a Regulated Water Utility.
- 2.10.2 All submissions by an applicant such as the initial application and information provided in response to subsequent requests by EWURA, shall:
- a) be in the form prescribed by EWURA pursuant to paragraph 2.2 and 2.3 of these guidelines; and
  - b) be complete, final, correct and submitted by a duly authorized officer of an applicant.
- 2.10.3 An applicant is required to submit:
- a) two (2) signed hard copies of the Application; and
  - b) an electronic version of the application through the Licensing and Order Information System (LOIS) at <https://lois.ewura.go.tz>
- 2.10.4 In case of any inconsistency on the information provided under paragraph 2.10.3, the hard copy shall prevail.
- 2.10.5 The electronic version of the application shall be posted on EWURA's web-site for public review and comment.
- 2.10.6 An applicant shall submit a tariff application to a respective EWURA's zonal office. Below is the address of EWURA's zonal offices.
- a) EWURA Central Zone Office,  
LAPF Building,  
Uhindini Area,  
Dodoma, TANZANIA  
Tel: +255 28 2505021

- b) EWURA Lake Zone Office,  
Mezzanine Floor, Wing A, NSSF Commercial Building  
Kenyatta Road,  
P.O. Box 2069,  
Mwanza, TANZANIA  
Tel: +255 28 2505021  
Fax: +255 28 2505023
  
- c) EWURA Southern Highland Zone Office,  
4th Floor - Apartment 401,  
Plot 2/H, NHC Building - Lupa Way 5,  
Uhindini Area, near Mbeya Post Office,  
P.O. Box 2245,  
Mbeya, TANZANIA  
Tel : +255 (0)25 2957328/9;  
Fax: +255 (0)25 2957330
  
- d) EWURA Northern Zone Office  
2nd Floor PPF Plaza, Next to Kibo Palace Hotel, Corridor Area  
16 Ingira Street  
P.O Box 1458  
Arusha, TANZANIA  
Tel: +255 (0)27 2970277-78  
Fax: +255 (0) 27 2970279

2.10.7 All subsequent communications with EWURA, after the acceptance of the application, shall be sent to the following address, or to such other address as may be required by the Authority:

Director General,  
Energy and Water Utilities Regulatory Authority,  
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## CHAPTER 3: DETERMINATION OF REVENUE REQUIREMENT

*This chapter outlines the basis for determining the total amount of revenue required by an applicant in order to recover all the costs including costs for proper operation and maintenance of the system and sustaining the system's viable operations.*

### 3.1 General Principles

- 3.1.1 The allowed revenue requirement shall satisfy three general adjustment principles so as to be part of a utility's revenue requirement.
- a) Prudence principle - requires use of reasonable judgement, in light of the current facts known at the time the decision was made to accomplish the desired result at the lowest reasonable cost and in a reliable, safe, and in a timely manner. The burden of proof to show that an operating or investment decision is prudent is on the utility making the request for a change in the revenue requirement.
  - b) Known and Measureable principle requires that the regulated utility shall justify with documentation, facts, and rationale those costs it wishes its customers to reimburse. The utility shall prove that all the costs it is requesting to recover are measurable (or can be estimated), legitimate and necessary for its operations.
  - c) Used and Useful principle requires that an asset shall be used and useful in the provision of a product or service in order for that asset to earn a return that will be recovered in rates/tariffs.
- 3.1.2 In order to facilitate revenue requirement projections in the multi-year period, an applicant shall submit a test year revenue requirement. The Test Year shall reflect financial and operating conditions under a normal year. The starting point of establishing the test year revenue requirement shall be audited financial statements which shall then be normalized (that is, to make the costs reflect a normal year). Things to consider when carrying out normalization include, among others, whether in the year of audited accounts there have been disconnection of services due to pump breakdown or pipe breaks, under-dosage of chemicals, or other non-compliances to guidelines, and any other underspending due to financial constraints.
- 3.1.3 Future years' revenue requirements shall be estimated by adjusting the test year based on "known and measurable" criteria to reflect typical or expected future financial and operating conditions of the utility. Things to consider when making adjustment include, among others, projected price increases or inflation, projected increase in water production and customers, increase in personnel, targeted key performance indicators, and general increase in scale or change of scope of

operations. Otherwise, proof in the form such as project reports; labor contracts; paid invoices for services rendered on new capital projects may be required.

- 3.1.4 EWURA shall approve revenue requirement to the extent that EWURA finds the rationale supporting them to be reasonable. The burden of proof is upon the applicant to demonstrate to EWURA's satisfaction the reasonableness of any proposed revenue requirement.
- 3.1.5 EWURA may broadly classify costs incurred by the Utility as controllable and non-controllable.
- a) For all controllable costs, EWURA or Ministry responsible for the regulated water and sanitation utility may set the targets for each year under review. If required, certain controllable costs can be indexed to appropriate indices such as Consumer Price Index (CPI).
- b) All non-controllable costs as checked by EWURA with due diligence and prudence shall be treated as pass-through.
- 3.1.6 EWURA shall require a three year business plan from each regulated water and sanitation utility for adopting the multi-year tariff regime, which the regulated water and sanitation Utility shall scrupulously comply.
- 3.1.7 The regulated water and sanitation utility shall comply to its accounting policy prepared in accordance to applicable accounting standards and regulatory requirements, and for tariff purpose shall follow a uniform chart of accounts as determined by EWURA from time to time.
- 3.1.8 The regulated water and sanitation utility shall use accrual method in estimation of all the costs required in determination of revenue requirement.

### 3.2 Revenue Requirement Formula

- 3.2.1 In determining the multiyear revenue requirement, regulated Utilities shall build the revenue requirement for each year of the multiyear period in accordance with the following formula.

$$RR_t = OM_t + D_t + T_t + WACC \times RAB_t$$

$RR_t$	=	Revenue Requirement for year t;
$OM_t$	=	Operation and Maintenance expenses in year t;
$D_t$	=	Depreciation charge in year t;
$T_t$	=	Taxes (if any) in year t;
$WACC$	=	Weighted Average Cost of Capital; and
$RAB_t$	=	Regulatory Asset Base in year t.

### 3.3 Operation and Maintenance (O&M) Costs

3.3.1 O&M costs shall include production costs, distribution costs, repair and maintenance costs, sewerage disposal costs, personnel costs, administration costs, business promotion expenses, events and donation expenses and financial costs. These costs shall be broken down as in **Form 4** of the Schedule.

#### 3.3.2 **Production costs:**

- a) Production costs for the utilities producing water from their own water sources shall include electricity costs, chemical costs, laboratory costs, water user fees, and the costs of water source protection, fuel and lubricants.
  - (i) Estimation of electricity costs shall be based on the electricity tariff category of a particular water infrastructure using electricity, capacity of the infrastructure and current and projected pumping hours.
  - (ii) Estimation of chemical costs shall be based on types of chemicals used in water production, quality of water, standard chemical dosage, prices of chemicals and current and projected amount of water produced. Benchmarked value of chemical costs per units of water produced and inflation can be used for projecting chemical costs.
  - (iii) Estimation of laboratory costs shall be based on testing costs, hosting costs of Ministry's laboratory personnel, and compliance with the EWURA's Water Quality Monitoring Guidelines. Utilities are at liberty also to use any other accredited laboratory.
  - (iv) Estimation of fuel and lubricant costs shall be based on the prices of fuel and lubricants and frequency of application of the fuel and lubricant to the water infrastructure.
  - (v) Estimation of Water User fee shall be based on the approved fee and the amount of water produced or number of payments required per year
- b) Production costs for the utilities purchasing water from bulk water suppliers shall be based on bulk water purchase costs.

#### 3.3.3 **Distribution costs:**

- a) Distribution costs shall include pipeline fittings, electricity costs/fuel costs for water distribution pumps (booster pumps), customer survey, water meter installation and new water connections.
  - (i) The costs of pipeline fittings shall be based on the price of fittings.

- (ii) The costs of electricity for water distribution pumps (booster pumps) shall be based on the electricity tariff category of a particular water infrastructure using electricity, capacity of the booster pump and current and projected pumping hours. The respective fuel costs shall be based on fuel price and usage.
- (iii) The costs of carrying out a customer survey shall be based on the number of customers to be surveyed and the respective costs per survey.
- (iv) The costs of water meter installation shall include only the labor charges associated with meter installation, or replacement and the number of customers associated with the exercise.
- (v) The proposed costs of new water connection shall be based on fees determined based on existing laws.

#### **3.3.4 Repair and Maintenance costs:**

Regulated Utilities shall project repair and maintenance costs based on the approved Utility's Asset Management Plan.

#### **3.3.5 Personnel expenses**

Regulated Utilities shall project personnel costs based on the targets set in the Business Plan.

#### **3.3.6 Administration Costs**

- a) Administration costs can be divided into general administrative expenses, Board expenses and fees and levies.
- b) Estimation of general administrative expenses shall be based on past historical value. Inflation and benchmark values can be used for making general administrative costs projections.
- c) Estimation of board expenses shall be based on the number of Board meetings per year as per Government directives, number of Board of Directors, Board allowances, and Directors fees.
- d) Fees and levies include treasury fees, rental fees, audit fees, consultancy fees, legal fees, professional fees and EWURA levy. The estimation of the fees and levies shall be based on actual amounts and rates charged.

- e) EWURA Levy
  - (i) Regulated Water and Sanitation Utilities shall charge EWURA levy as one percent on each invoice sent to customers in relation to water consumption, service charge and sewerage charges.
  - (ii) Regulated Water and Sanitation Utilities shall modify a format of their invoices to customers so that all other charges including service charge, VAT and EWURA levy are shown as line items before arriving at the final amount due to a customer for the water and sewerage services received.

### 3.3.7 **Business Promotion Expenses**

- a) Estimation and projections of business promotion expenses shall be based on past historical value. Inflation can be used for making projections.

### 3.3.8 **Events and Donations**

- a) Estimation and projections of events and donations expenses shall be based on actual and projected fees charged per event per year.
- b) Donations amount shall be approved by the Board of the respective Regulated water and sanitation Utility and in accordance with the applicant's policy.

### 3.3.9 **Financial Costs**

- a) Financial costs can include bank charges and interest expenses.
- b) Estimation and projections of financial costs shall be based on actual amount charged and loan amortization schedule.

### 3.3.10 **Sanitation Costs**

- a) Sanitation costs shall include plant electricity; sewage laboratory and analysis; sewage treatment expenses; sewer and manhole expenses; expense for up keeping of ponds; environmental expenses; cesspit emptying; customer survey and new sewer connections.
- b) Estimation of sanitation costs shall be based on past historical value. Inflation and benchmark values such as treatment costs per units of sewage flow, or manhole expenses per sewer connection or manhole expenses per length of sewer network.



### 3.4 Depreciation Charge

- 3.4.1 The depreciation charge shall be computed on all assets in service, irrespective of the source of financing. The total projected depreciation expense shall be the aggregate of depreciation for three groups of assets: existing assets, assets turned over from current work in progress balance and assets turned over from work in progress projected for the tariff period.
- 3.4.2 Funds allowed for depreciation shall be used for replacement and/or renewal of assets and may also be used for new investment as indicated in the Outline Investment Plan of the Regulated Water Utility's Business Plan.
- 3.4.3 The depreciation charge shall be determined based on assets recorded in the existing Asset Register. The Water Authorities shall ensure that its assets are revalued according to International Financial Reporting Standards (IFRS) or IPSAS for the public institutions and/or International Valuation Standards (IVS) requirements.
- 3.4.4 The amount of depreciation charge shall be derived as detailed in the Guidelines for Preparing a Business Plan for Regulated Water and Sanitation Utilities.
- 3.4.5 Depreciation charge shall be determined by using straight line depreciation method based upon the remaining useful life of the asset as indicated as indicated in the **Form 6** of the Schedule and in the formula below.

$$D = \frac{C - RV}{EL}$$

where

- D = Depreciation charge  
C = Cost or Revalued Asset Value  
RV = Estimated Residual Value, and  
EL = Estimated Economic Life

- 3.4.6 A guiding schedule of useful life for various regulatory assets is as indicated in the **Form 7** of the Schedule. Where an asset is not found on such a schedule, or no schedule is published, the utility shall submit its estimation of an asset's useful life.

### 3.5 Taxes

- 3.5.1 A regulated water and sanitation utility subjected to levies, corporate taxes and similar taxes shall include that amount in its revenue requirement.
- 3.5.2 VAT and any other indirect taxes shall be assumed as being part of the proposed Operation and Maintenance (O&M) and investment costs.

### 3.6 Regulatory Asset Base (RAB):

- 3.6.1 The audited Statement of Financial Position and the respective projected statements in the Regulated Water Utility's Business Plans shall be used as a source of raw data for determination of the starting RAB and projected RAB, respectively.
- 3.6.2 The applicant shall exclude grants or any third party contributions from the RAB.
- 3.6.3 The Used and Useful principle shall be used to arrive at a justifiable level of RAB. The principal requires that an asset shall be used and useful in the provision of a product or service in order for that asset to earn a return that will be included in tariff. Therefore, Capital Work in Progress shall not be included as part of the RAB.
- 3.6.4 The regulated water Utility may be required to provide evidence that all assets constituting the Regulatory Asset Base were prudently designed, competitively procured and or constructed.
- 3.6.5 If regulated assets are used to produce unregulated revenues, then EWURA reserves the right to impute some of the revenues into the revenues of the utility during the evaluation of the tariff filing.
- 3.6.6 RAB shall be computed based on the following formula:

- a) Based on the above discussion, RAB shall be computed as follows:

$$RAB = NCA - Grants + AWC$$

Where:

NCA = Non-current assets

Grants = Grants or any third party contributions

AWC = Allowable working capital

- b) Noncurrent assets shall include Property, Plant and Equipment (PPE) and intangible assets.
- c) Working Capital Working Capital shall be computed as follows:

$$WC = CA - CL$$

where

WC = Working Capital

CA = Current Assets

CL = Current Liabilities

- d) Notwithstanding (c) above, Utility shall include in its RAB up to the maximum 45 days of working capital which is equivalent to the annual Operation and Maintenance Expenses divided by eight, i.e.:

$$\text{Allowable Working Capital} \leq \frac{\text{Annual O \& M Expenses}}{8}$$

### 3.7 Weighted Average Cost of Capital (WACC)

3.7.1 Weighted Average Cost of Capital (WACC) for Water Authorities shall be set such that Regulated water and sanitation utility is capable of paying the annual interest cost of debt and provides a fair rate of return for the total equity employed to finance facilities used in provision of water and sewerage services.

3.7.2 WACC shall be computed as illustrated in **Form 8** of the Schedule and as described in the following formula:

$$\text{WACC} = r_D \times (1-t) \times (D/V) + r_E \times (E/V)$$

Where:

$r_D$  = cost of debt

$1-t$  = tax adjustment for interest expenses

$D$  = Total value of debt as in the Applicant's recent Statement of Financial Position

$V$  = total value of capital as in the Applicant's recent Statement of Financial Position

$r_E$  = cost of equity

$E$  = Total value of equity as in the Applicant's recent Statement of Financial Position

3.7.3 In estimating the WACC, the applicant shall need to establish the following main elements.

- a) **Capital Structure** shall be determined by using Regulated Water and Sanitation Utilities' Statement of Financial Position.
- b) **Equity:** A regulated water and sanitation utility's equity constitutes of own generated funds.
- c) **Debt:** A regulated water and sanitation utility's debt constitutes of long term debt from commercial banks or government (sub-loan).

- d) **Return on Equity** shall be computed as the average of 10-year Tanzania monthly bank rates (discount rates) provided by the Central Bank of Tanzania.
- e) **Return on Debt** shall be computed as the weighted average of the nominal interest rates quoted in the loan instruments. The Return on Debt shall be computed using the following formula:

$$r_d = \sum_{i=1}^n w_i r_i$$

Where:

- $r_d$  = Return on Debt
- $r_i$  = Nominal interest rate on loan
- $w_i$  = Weights of the constituent loan

### 3.8 Determination of Replacement, Rehabilitation and Investment Costs

- 3.8.1 An Applicant shall ensure that the proposed replacement, rehabilitation and new investment costs are consistent with those recorded in its Business Plan.
- 3.8.2 Determination of replacement, rehabilitation and new investment costs shall be limited by the estimated value of the sum of Return on Investment (ROI) and depreciation charge.
- 3.8.3 Notwithstanding 3.8.1 above, EWURA may use benchmarking method with other similar water Utilities to determine the allowed capital costs in the revenue requirement if it is observed that the capital costs determined as in 3.8.1 result in tariff shock or there is inadequate information to warrant proper estimation of return on investment and depreciation.
- 3.8.4 For Utilities with low coverage and which suffer diseconomies of scale, EWURA may allow higher repair, rehabilitation and new investment costs which exceeds the sum of return on investment and depreciation. The level of capital costs shall be determined by making reference to existing investments in water utilities having similar level of water demand.

### 3.9 Smoothing of Revenue Requirement Over a Multiyear Period

- 3.9.1 EWURA may adjust the proposed annual Revenue Requirement in the multiyear period in order to avoid tariff shocks or large tariff fluctuations to customers.
- 3.9.2 EWURA may carry out tariff smoothing by rescheduling the planned investments within the multi-year period. These rearrangements should ensure that the present value of the revenue requirement determined through the rearrangement

(“smoothed revenue requirement”) equals that of the revenue requirement determined prior to the rearrangement (“unsmoothed revenue requirement”).

$$PV(AR_t) = PV(RR_t)$$

where

$PV(RR_t)$  is the present value of the annual unsmoothed Revenue Requirements, using the value of WACC at the beginning of the first year of the multiyear period as the discount rate; and

$PV(AR_t)$  is the present value of the annual smoothed Allowed Revenues determined in Section 3.2 using the value of WACC at the beginning of the first year of the multiyear period as the discount rate

- 3.9.3 Allowed Revenue ( $AR_t$ ) shall ensure that in any year,  $AR_t$  shall at least equal the estimated O&M costs for that year and that  $AR_t$  shall permit the regulated Utility to meet its lender’s interest cover ratio requirements.

## CHAPTER 4: ALLOCATION OF REVENUE REQUIREMENT AND TARIFF DESIGN

*After revenue requirement has been established, costs are allocated among different types of water users, and then rates are designed to reflect the cost of providing water service. Tariff design also takes into account many other tariff objectives including water conservation, affordability, simplicity, and revenue stability.*

### 4.1 Customer Categories

- 4.1.1 Each Water Supply and Sanitation utility shall have six or less number of customer categories for water supply and wastewater disposal as follows:
- a) **Domestic Customers** are customers in premises built for or adapted to be used for human residential habitation.
  - b) **Commercial Customers** are customers providing service to the public in any property that is used primarily for the conduct of a trade or business for profit.
  - c) **Institutional Customers** are entities occupying properties for governmental purposes, non-profit making organizations and local authority purposes, such as hospitals, schools, day care centres, religious institutions and any other statutorily created body.
  - d) **Industrial Customers** are entities operating in premises in which the principal activity carried out involves the making, altering, blending, ornamenting, finishing, or otherwise treating or adapting any article or substance with the intent to sell, transport, or deliver such articles elsewhere. This category includes the assembly of parts, but does not include any activity normally classified as retail or wholesale.
  - e) **Kiosk/Standpipe Customers** are customers receiving water from the Water Supply and Sanitation Authorities at facilities that are authorized to sell water to any person willing to pay the approved tariff.
  - f) **Bulk Customers** are customers receiving water at one or more major points of delivery for resale to individual retail customers. Bulk customers may include water supply and sanitation authorities, investor-owned utilities, communities purchasing water to distribute and resell, and individuals.
- 4.1.2 Regulated Water and Sanitation Utilities shall provide justification for inclusion of any other customer class which is not presented in 4.1.1. This new customer class shall obtain approval from EWURA.

## 4.2 Cost of Service Analysis

- 4.2.1 EWURA may commission a third party to conduct a Cost of Service Study particularly to those utilities which have reached full cost recovery.
- 4.2.2 EWURA shall use a Cost of Service Study (if available) to support evaluation of a tariff application from the regulated water and sanitation utility.

## 4.3 Determination of Rates and Charges

- 4.3.1 After the determination of the Revenue Requirement, the following steps in the determination of individual tariff per customer categories should be followed:
  - a) First, the Applicant shall determine the customer related charges as well as the sanitation tariff based on related costs or by benchmarking the respective charges and tariff with those applicable in Regional Water Authorities as per **Table 14** in the Schedule;
  - b) Second, the Applicant shall determine if there is any part of revenue requirement which is subsidized by the Government. Normally this applies to salaries of some of the Regulated water and sanitation utility's staff or part of the electricity costs;
  - c) Third, the Applicant shall calculate the revenue requirement associated with the benchmarked tariff and charges determined in (a) above as well as the subsidy amount as in (b) above, the total of which shall be referred to as "Other Incomes";
  - d) Fourth, the Applicant shall deduct "Other Income" from the total Revenue Requirement to obtain the Revenue Requirement associated with water sales; and
  - e) Finally, the Applicant shall use the Revenue Requirement associated with water together with the estimated billed water based on demand forecast to determine the metered water tariff and the respective flat rates, if applicable.

### 4.3.2 Determination of Customer Related Charges per Customer Categories

- a) New Connection Fee
  - (i) New connection fees shall be intended to cover for costs incurred in surveying, supervision, and transportation.
  - (ii) New Connection Fee may be evaluated based on a percentage of total recoverable expenditure as determined in Section 24(3) to (7) of the Water Supply Regulations, 2013.

- (iii) Recoverable expenditure shall include expenditure used in material and labour. In an event where a customer contributes labour in kind for excavation the average market cost of labor shall be used.
- (iv) Pursuant to Section 24(7)(f) of the Water Supply Regulations, 2013, the Regulated water and sanitation utility may decide to set fixed new connection fees based on costs determined in paragraph (i) above.
- (v) If the new connection fees are calculated based on percentage determined by the Water Supply Regulations, 2013, then the associated revenue requirement will be computed in accordance with the formula below:-

$$RRnwcon = \sum(20\% \times AvConCosts_i \times NonwCustomer_i)$$

Where

*RRnwcon* = Revenue Requirement or Income related to new connection fees;

*AvConCosts<sub>i</sub>* = Average Costs for a Particular Customer class i determined as per paragraph 2.3.3j);

*NonwCustomer<sub>i</sub>* = Number of projected new connections per year for a particular customer class i.

- (vi) If the new connection fees are set as fixed rates, either through a cost based method or benchmarking method, revenue requirement association with the new connection fees will be computed in accordance with the formula below:-

$$RRnwconw = \sum(BNF_i \times NonwCustomer_i)$$

Where

*RRnwconw* = Revenue Requirement or Income related to new connection fees;

*BNF<sub>i</sub>* = Benchmarked/cost based new connection fees;

*NonwCustomer<sub>i</sub>* = Number of projected new connections per year for a particular customer class i.

b) Reconnection Fee

- (i) Reconnection fees shall be intended to recover the costs of transport, materials (such as plugs and thread seals); and labour while disconnecting and reconnecting service.



- (ii) The reconnection fee shall be charged to recover the costs of reconnection after disconnection of a customer for failing to pay the bills on time.
- (iii) The revenue requirement or income associated with reconnection fees shall be calculated based on the following formular.

$$RRreconw = \sum(BRF_i \times NorCustomer_i)$$

Where

$RRnewconw$  = Revenue Requirement or Income related to new connection fees;

$BRF_i$  = Benchmarked/cost based reconnection fees;

$NorCustomer_i$  = Number of projected reconnections per year for a particular customer class i.

c) Service Charge

- (i) A consumer shall in addition to the charges for the water used by consumer pay service charge comprising of meter reading, bills processing, maintenance and repair costs of customer connection, bills delivery and meter service which shall be approved by EWURA.
- (ii) The revenue requirement or income associated with service charges shall be calculated based on the following formular.

$$RRscharge = \sum(BSC_i \times NoacCustomer_i \times Months)$$

Where

$RRscharge$  = Revenue Requirement or Income related to new connection fees;

$BSC_i$  = Benchmarked/cost based service charges;

$NoacCustomer_i$  = Number of total active customers per year for a particular customer class I;

$Months$  = months of the year that is 12.

4.3.3 Determination of Offsite Sanitation Charges

a) Sewerage Tariff

- (i) Sewerage tariff shall be based on the recovery of the sewerage related costs such as personnel costs for sewerage staff; sewage tests and treatment; electricity for sewerage and sanitation; maintenance and repair of sewerage infrastructure, depreciation costs and all sewerage investment related costs.

- (ii) The quantity of water assumed to be converted to sewage shall not exceed 80% of water consumption.
- (iii) The revenue requirement or income associated with sewerage tariff shall be calculated based on the following formular.

$$RR_{swtariff} = \sum(BST_i \times SewageFlow_i)$$

Where

$RR_{swtariff}$  = Revenue Requirement or Income related to sewerage tariff;

$BST_i$  = Benchmarked/cost based sewerage tariff;

$SewageFlow_i$  = Total volume of sewage flow per year for a particular customer class i which is equivalent to a proposed percentage of water consumption for that customer class i.

- b) Sewerage tariff for customer not using water from a regulated water and sanitation utility shall be set either based on:
  - (i) average monthly water consumption per category in a specific zone or the whole service area;
  - (ii) benchmarking with a similar customer using water from regulated water and sanitation utility; or
  - (iii) by installing a meter for determination of water consumption by the customer.
- c) Regulated Water and Sanitation Utilities shall ensure that all sewered customers who also receive water supply services are metered.
- d) New sewer connection and reconnection charges and their respective revenue requirements shall be determined using the same criteria (Refer Paragraph 4.3.2(a) and (b) above) as new water connection charges and water reconnection charges, respectively.

#### 4.3.4 Determination of Onsite Sanitation Charges

- a) Cesspit Emptying Charges
  - (i) These are charges for collecting sewage from the customer premises, transporting and discharging the sewage to the waste treatment facility operated by a regulated water and sanitation utility.

- (ii) Cesspit emptying charges also recover the costs of depreciation, repair and maintenance of the related equipment and all investment related costs pertaining to cesspit emptiers.
- (iii) The revenue requirement or income associated with cesspit emptying charges shall be calculated based on the following formular.

$$RRcecharge = \sum(CECi \times NoVolume \times NoTrips_i)$$

Where

*RRcecharge* = Revenue Requirement or Income related to cesspit emptying charges;

*CEC<sub>i</sub>* = Benchmarked/cost based cesspit emptying charges;

*NoVolume* = Number of specified volumes. That is, for example if cesspit emptying charge is charged per 10m<sup>3</sup>, then for a 30m<sup>3</sup> tanker, *NoVolume* will be 3.

*NoTrips<sub>i</sub>* = Estimated number of trips associated with cesspit emptying per year for a particular customer class i;

b) Sludge Disposal Charges

- (i) These are charges for disposing sewage to the waste treatment facility operated by the Regulated water and sanitation utility.
- (ii) The revenue requirement or income associated with sludge disposal charges shall be calculated based on the following formular.

$$RRsdcharge = \sum(SDCi \times NoVolume \times NoTrips_i)$$

Where

*RRsdcharge* = Revenue Requirement or Income related to sludge disposal charges;

*SDC<sub>i</sub>* = Benchmarked/cost based sludge disposal charges;

*NoVolume* = Number of specified volumes. That is, for example if cesspit emptying charge is charged per 10m<sup>3</sup>, then for a 30m<sup>3</sup> tanker, *NoVolume* will be 3.

*NoTrips<sub>i</sub>* = Estimated number of trips associated with cesspit emptying per year for a particular customer class i;

#### 4.3.5 Determination of Volumetric Water Related Tariff per Customer Categories

##### a) Metered Tariff

- (i) Regulated Water and Sanitation Utilities shall determine Average Water Tariff (AT) using the following formula:

$$AT_{proposed} = \frac{RR_{water}}{Q*(1-NRW)}$$

Where

- RR<sub>water</sub> = Water related Revenue Requirement  
 Q = Annual water production as projected in the regulated water and sanitation utility's Business Plan.  
 NRW = Non-Revenue Water target for the year as projected in the Regulated water and sanitation utility's Business Plan. NRW is estimated as the difference between Water Produced and/or Water purchased and Billed water volume expressed as a percentage of total water produced.

- (ii) Revenue requirement for water sales shall be determined using the following formula:-

$$RR_{water} = RR - OI$$

$$OI = \sum(RR_{charges}_i) + Subsidy$$

Where

- OI = Other Incomes; and  
 RR = Total Revenue Requirement  
 RR<sub>charges</sub> = Expected income from all other charges except the one arising from volumetric water rate. These other charges include customer related charges and sanitation tariff and charges as determined in Section 4.3.2 and 4.3.3  
 Subsidy = Revenue requirement related to subsidised costs.

- (iii) Adjustment of individual tariffs per customer class and block is done using the following formula and as shown on **Form 13A** of the Schedule.

$$T_{i,proposed} = T_{i,current} \times \frac{AT_{proposed}}{WAT_{current}}$$

where

- $T_{i, \text{proposed}}$  = Newly adjusted water tariff for consumer category i (TZS/m<sup>3</sup>)
- $AT_{\text{proposed}}$  = Average tariff as determined in paragraph 4.3.7 (a)(i) above
- $T_{i, \text{current}}$  = current water tariff for consumer category i (TZS/m<sup>3</sup>)
- $WAT_{\text{current}}$  = Current weighted Average Tariff (TZS/m<sup>3</sup>) calculated using the proposed consumption pattern ( $C_i$ ) computed such that

$$WAT_{\text{current}} = \sum(C_i \times T_{i, \text{current}})$$

- $AWT_{\text{proposed}}$  = Computed Weighted Average Tariff (TZS/m<sup>3</sup>) calculated based on recommended revenue requirement as in paragraph .(a), above.

- (iv) The Applicant shall ensure that  $WAT_{\text{proposed}}$  defined in is approximately equal to  $AT_{\text{proposed}}$

where;

$$AT_{\text{proposed}} = \sum(C_i \times T_{i, \text{proposed}})$$

- (v) Total revenue requirement (RR) as determined under Chapter 3 shall equal the estimated revenues from all proposed tariff and charges as per **Form 14** in the Schedule.
- (vi) Regulated Water and Sanitation Utilities may propose different rate structure from the existing structure for different categories of customers, provided it presents a reasonable basis for doing so to EWURA for approval.

b) Flat Rates

- (i) Flat rate is an estimated bill charged to customers which is not based on the actual water consumption. Where any consumer is supplied with water without a water meter such consumer shall be charged a flat rate per month, irrespective of the amount of water consumed, and such rate shall be approved by EWURA
- (ii) Flat rates for domestic customers shall be a product of average domestic tariff (Band 3) and the average monthly water consumption for metered domestic customers as shown in **Form 13B** in the Schedule.

- (iii) Different flat rates may be assigned in different areas and/or customers depending on the pattern of usage and availability of water or location.
- (iv) EWURA encourages Water Authorities to meter all its customers and under financial constraint to purchase customer meters, priority shall be given to commercial, institutional and industrial customers.
- (v) The total average monthly bill for metered customers shall be equal to flat rate charge.
- (vi) For a metered domestic tariff structure consisting of bands, the average monthly consumption shall be the upper limit of band 2 or the uniform rate. The flat rate shall be determined by multiplying this consumption rate per month times respective new tariff and expressed as a charge per month.

#### 4.3.6 Tariff Determination under Automatic Tariff Application

- a) An Automatic Tariff Review shall be considered during a Multi-Year Tariff period if material changes to specified cost items occur.
- b) The average water tariff shall be determined by the formular below.

$$AWT_t = \tilde{AWT}_t + \frac{C_t - \tilde{C}_t}{\tilde{Q}_{w_t}}$$

where

- $AWT_t$  = adjusted average weighted tariff for year t;
- $\tilde{AWT}_t$  = Existing approved average weighted tariff for year t;
- $C_t$  = actual total costs after the extraordinary event for year t;
- $\tilde{C}_t$  = forecast total costs before the extraordinary event for year t;
- $\tilde{Q}_{w_t}$  = Quantity of billed water in the past tariff review;

## 4.4 Tariff Design

### 4.4.1 Tariff Design for Water Supply Services

- a) A regulated water and sanitation utility shall structure tariff for providing water supply services for domestic customers in a way that takes into account the viability and sustainability of water supply services; the affordability of

basic water supply to domestic customers; and incentives to reduce the wasteful or inefficient water use.

- b) A regulated water and sanitation Utility shall structure tariff for providing water supply services for industrial or non-domestic customers in a way that would encourage the conservation of water and that would discourage the wasteful use of water.
- c) A regulated water and sanitation Utility shall charge differential tariff taking into consideration the use of water as a basic need in which industrial customers shall have the highest rate or charge, followed by commercial, then institutional and lowest tariff group will be the domestic customers including kiosks. Tariff spread among the customer groups shall be based on the average tariff spread in the Regional Water Authorities.
- d) In order to encourage water conservation, a regulated water and sanitation Utility shall apply an increasing block tariff to domestic customers with homogenous group of customers in such a way that a relatively high consumption shall be charged a relatively high tariff.
- e) Except for metered domestic tariff, a regulated water and sanitation Utility shall apply uniform rates and charges for all customer categories. The applicant shall provide justification if a different tariff structure is proposed.
- f) A regulated water and sanitation Utility shall use a two-part tariff structure which is a combination of a fixed charge and a volumetric rate as per the formula below:

$$\text{Monthly Bill} = \text{Sales from Vol. Rate} + \text{Sales from Fixed Charge}$$

Whereas

Sales from Vol. Rate = the part of monthly customer bill reflecting charges due to the amount of water consumed;

Sales from Fixed Rate = the part of monthly customer bill in the form of service charge per month.

- g) A regulated water and sanitation Utility shall use Block Tariff Structure for volumetric charges. Under a block tariff scheme, users pay different amounts for different consumption levels. Block tariffs have a step-wise structure. The water charge is set per unit (e.g. cubic meters) of water consumed and remains constant for a certain quantity of consumption (first block). As the water use increases, the tariff shifts to the next block of consumption and so on for each block of consumption until the highest one.
  - (i) An increasing block tariff shall be adopted for domestic customer class with the aim of encouraging efficient consumption of water,

while the tariff structure for non-domestic customers shall be a uniform volumetric tariff.

- (ii) EWURA recommends three consumption blocks for a domestic customer.
- (iii) The first consumption block shall be set equal to the lifeline consumption for a household, which is up to 5 cubic meters and shall be charged the minimum of the domestic rate.
- (iv) The second consumption block shall be in excess of the first block and shall end at the average monthly consumption for domestic customers in the regulated water Utility.
- (v) The remaining third consumption block of the tariff structure is then thought for consumption above the second consumption block with the normal needs and has to generate revenues for the cross subsidizing of the first block of consumption (lifeline consumption).
- (vi) In an increasing block tariff structure, the water bill shall be calculated as follows:

$(Q^*) P1$  if  $Q^* < Q1$  or;

$P1Q1 + (Q^* - Q1)P2$  if  $Q1 < Q^* < Q2$  or;

$P1Q1 + P2Q2 + (Q^* - (Q1+Q2))P3$  if  $Q1 + Q2 < Q^* < Q3$ .

Where

$Q^*$  = amount of water sold to a specific consumer

$Q1$  = maximum amount of water that can be sold in the first block at price  $P1$

$Q2$  = maximum amount of water that can be sold to a consumer in the second block at  $P2$

$Q3$  = maximum amount of water that can be sold to a consumer in the third block at  $P3$

#### 4.4.2 Tariff Design for Sanitation Services

- a) A regulated water and sanitation Utility shall structure tariff for providing sanitation services for domestic customers in a way that takes into account:
  - (i) the viability and sustainability of sanitation services;
  - (ii) the affordability of basic sanitation to poor households; and



- (iii) incentives to reduce the wasteful or inefficient water use in conveying sewage.
- b) A regulated water and sanitation Utility shall structure tariffs for sanitation services to consumers who primarily discharge industrial effluent to a wastewater treatment works in a way that takes into account:
  - (i) the viability and sustainability of sanitation services;
  - (ii) incentives to reduce the wasteful or inefficient water use in conveying effluent;
  - (iii) the cost of treating specific chemical and physical properties of the effluent discharged;
  - (iv) the environmental harm caused by the effluent discharged; and
  - (v) the need to encourage consumers that discharge industrial effluent to install primary treatment on all wastewater discharge facilities.

#### **4.5 Disallowable Charges and Fees**

4.5.1 Disallowable charges and fees shall include but not limited to the following:

- a) Application Form Fee: EWURA shall not allow Application Form Fee for new connection in order to encourage new water connections. EWURA is of the opinion that the associated costs of application forms can be covered in the administration costs.
- b) Meter Rent Charges: EWURA considers meter as an asset of the utility which shall be depreciated according to applicable standards. Therefore, meter rent shall not be allowed.
- c) Penalties: EWURA shall not allow penalties in tariff application as it falls under civil case proceedings which are supposed to be handled by the court of law.
- d) Minimum Charge: EWURA shall not allow minimum charge in tariff application since it is not based on consumption.
- e) Discriminative tariff such as a tariff for a particular social class, race, and faith group, are not allowed.

## 4.6 Affordability Tests

- 4.6.1 EWURA shall regularly conduct affordability studies to determine how each customer group afford water supply and sanitation services given the approved tariff.
- 4.6.2 In the absence of such study, as a measure of affordability of tariff bill to the domestic customers, a monthly water bill for domestic customers shall not exceed 5% of the total average monthly income of a household.
- 4.6.3 Data for household income shall be obtained from the National Bureau of Statistics (NBS) Household Budget Survey.

## CHAPTER 5: PROCEDURES FOR TARIFF APPLICATION REVIEW

*This Chapter describes the procedures for tariff application review. This includes acceptance process of the application, stakeholders' consultation, tariff evaluation process, decision by the Board, and notification procedures. The aim is to ensure transparency of the tariff review process in accordance with EWURA Act.*

### 5.1 Acceptance of an Application

- 5.1.1 EWURA shall acknowledge receipt of the application within three (3) working days from the date of receipt of the application.
- 5.1.2 EWURA shall within five (5) working days from the date of receipt of the application identify any flaws or gaps and review any additional information that the Authority may require in evaluating such application. After the preliminary review, EWURA shall issue a letter to the applicant accepting, referring back or rejecting the application.
- 5.1.3 In case the application has been referred back, EWURA shall establish a data response deadline, not exceeding 21 days from the date of its determination under paragraph 5.1.2 within which the applicant shall be requested to provide any supplemental information required.
- 5.1.4 If the information required in paragraph 5.1.2 is not timely submitted, the application shall be considered as withdrawn.
- 5.1.5 In case the application has been accepted, the date of acceptance letter shall be considered as the beginning date for processing the application pursuant to paragraph 5.4.1b) of these Guidelines.
- 5.1.6 EWURA shall not accept a Pass-Through Tariff Adjustment Application three months after the occurrence of an extra-ordinary event.

### 5.2 Inquiry Process

#### 5.2.1 Initiation to Carry Out Public Inquiry Process

- a) The Authority shall conduct an inquiry before exercising a power to regulate any rate or charge.
- b) The Board of the Authority shall approve the initiation to carry out a Public Inquiry Process.

#### 5.2.2 Issuance of a Public Notice

- a) Following approval of initiation of inquiry, EWURA shall issue a notice to the public through government gazette and in a daily newspaper circulating generally in Tanzania specifying the purpose of the inquiry, the time within

which submissions may be made to the Authority, and the form in which submissions should be made.

- b) The Authority shall give notice of an inquiry by sending written notice of the inquiry, including the information in paragraph (a) to:
  - (i) Service providers known to the Authority whose interests the Authority considers are likely to be affected by the outcome of the inquiry;
  - (ii) The EWURA Consumer Consultative Council (EWURA CCC);
  - (iii) Industry and consumer or organizations which the Authority considers may have an interest in the matter;
  - (iv) The Minister responsible for water and the Minister responsible for local authorities.
- c) The Authority may serve the Public Notice upon any person, body, institution or organization by ordinary mail, inviting any person, body, institution or organization to provide their written comments.
- d) An applicant shall post the notice at various strategic locations within its service area in the format prepared by EWURA.
- e) All stakeholders may submit written comments to EWURA in connection with an application within 21 days from the date of the Public notice.

### 5.2.3 **Involvement of Key Stakeholders in the Inquiry Process**

- a) Stakeholders to the Public Inquiry process shall include EWURA CCC, Government Consultative Council (GCC), registered interveners, the general public and any interested party.
- b) To qualify as an intervener;
  - (i) an interested party is required to submit in writing a declaration of intent to intervene to EWURA within five (5) working days after the date of the public notice.
  - (ii) The intention to intervene must clearly state the name and address of the person seeking intervention and the reasons for that intervention.
  - (iii) The Authority shall, after reviewing an application to intervene, either grant or deny such application.
- c) EWURA CCC, GCC, and registered interveners shall be entitled to:

- (i) obtain a copy of the application and all supporting materials submitted to EWURA by the Applicant;
  - (ii) submit written comments to EWURA in connection with the Application;
  - (iii) have an opportunity to be placed on the agenda of the public meeting, if one is held, for the purpose of making a formal presentation of the party's position with respect to the application; and
  - (iv) receive a copy of EWURA's Order concluding the matter.
- d) EWURA shall avail the application and supporting materials for viewing by all stakeholders at EWURA's offices and the electronic form of it shall be posted at EWURA website which is [www.ewura.go.tz](http://www.ewura.go.tz) .
  - e) EWURA shall avail a copy of the application with any other interested persons upon request to EWURA accompanied by the payment of a fee to be established by EWURA to cover the cost of copying and postage.

#### 5.2.4 **Public Inquiry Meeting**

- a) EWURA shall **notify the applicant** that it will conduct a Public Inquiry meeting on a specified date to collect comments from stakeholders as part of determination into the reasonableness of Tariff Review Application.
- b) **Guest of Honor**
  - (i) The Authority may invite a Guest of Honor to officiate the opening of any Public Inquiry meeting.
  - (ii) The Guest of Honor may be the District Commissioner or his/her representative if an applicant is located at district center or a Township Regulated water and sanitation utility or Regional Commissioner or his/her representative if an applicant is located at a regional centre.
- c) **Presentations During Public Inquiry Meeting**
  - (i) During the Public Inquiry meeting, the applicant shall make a presentation in support of its tariff application.
  - (ii) There shall be two categories of presentations at a public hearing: formal presentations and informal presentation which shall not be in writing.
  - (iii) All presentations shall be made in Kiswahili.

- (iv) Any person either registered for an informal presentation or a person who could not attend the public inquiry meeting shall be allowed to submit written comments seven (7) days after the public inquiry meeting.
- d) **Closing of the Public Inquiry meeting**
- (i) The applicant shall, before the close of a public hearing, be given an opportunity to answer questions raised during the meeting, and clarify on or correct any issue or matter raised during the meeting.
  - (ii) Notwithstanding (i) above, the applicant shall submit to EWURA the responses to all raised comments within three (3) working days from the date of closure of the public Inquiry process as specified in paragraph 5.2.4(c)(iv) above.
  - (iii) EWURA may decide to conduct site inspection after the public hearing in order to verify some of the information received from the stakeholders during the public Inquiry meeting.
  - (iv) The closure of the Public Inquiry process shall be twenty one (21) days after the date of the public notice or seven (7) days after the public inquiry meeting, whichever is later.
  - (v) At the conclusion of the public inquiry, the Authority shall, require the applicant to share with its customers and other stakeholders all responses and positions on the raised comments. The same will be posted on EWURA's website.
- e) **Postponement of Public Inquiry Meeting**
- (i) The Authority may, on its own motion or by application of the applicant, a key stakeholder or interested person, at least 7 days before the date of the public inquiry meeting, postpone a public inquiry meeting until further notice.
  - (ii) Where the public inquiry meeting is postponed, the Authority shall, at least seven (7) days before the date on which the hearing is to be conducted, communicate to the public through the media, the date, time and venue of the meeting.
- f) Under the Automatic Tariff Adjustment Application, a Public Inquiry process shall involve no holding of a Public Inquiry meeting. However, other processes of collecting comments as stipulated in Section 5.2 will be followed.

### **5.3 Evaluation of the Application**

- 5.3.1 Evaluation of the tariff will commence after the closure of the Public Inquiry process.
- 5.3.2 Evaluation of the tariff application shall consider:
- a) the views of stakeholders during the Public Inquiry process;
  - b) site inspection of water and sanitation infrastructure;
  - c) water and wastewater quality reports;
  - d) information as stipulated in Chapter 2;
  - e) tariff setting methodology as stipulated in Chapters 3 and 4 of these guidelines; and
  - f) any other information deemed appropriate.
- 5.3.3 EWURA's approval or disapproval of an application shall be based upon its evaluation of the application, which shall be conducted in a fair and transparent manner.
- 5.3.4 EWURA may request the applicant to clarify certain aspects of the application and to supply supplementary information.
- 5.3.5 The need for clarification and supplemental information may evolve during the course of the evaluation and the time required for the applicant to respond to EWURA's requests and to schedule site inspections may necessitate extension of the time-line for the evaluation.
- 5.3.6 EWURA may conduct an exit meeting with the Management of the Applicant to review the Draft Decision.
- 5.3.7 The Authority may invite or share the Draft Decision with representatives from the responsible Ministries, GCC and CCC for any further comments.

### **5.4 Decision of the Board**

- 5.4.1 Ordinary Board Decision
- a) The Board of EWURA, after due consideration of all material facts shall issue an Order in response to the application.
  - b) The Board shall make a decision on an application within sixty (60) working days after its official acceptance and issue a written Order bearing the signature of the Director General.
  - c) Subject to sector legislation and in the absence of any contrary terms in an Order, the Order shall take effect not earlier than fourteen (14) working days following the Authority's decision on the application.

- d) A decision of the Board may be appealed to the Fair Competition Tribunal under applicable law.
- e) A tariff or tariff methodology shall remain in effect from the effective date provided in the Order until it is superseded by a new Order.

#### 5.4.2 Provisional Board Decision

- a) After the evaluation of an Provisional Tariff Application, the Board shall issue a Provisional Order.
- b) This Order shall take effect as soon as practicable and expire after one year from the date of issuance.
- c) EWURA shall institute the normal evaluation procedure, including the inquiry process. The results of the evaluation shall be used by EWURA to issue a Final Order in due course.
- d) The Final Order shall supersede the Provisional Order and take effect retroactively upon the date of the Provisional Order's effect.
- e) If the Final Order contravenes the Provisional Order, the conditions of the Final Order shall take precedence and, with respect to the actual tariff, any over-charging will be compensated to its customers. That is, if EWURA in the provisional or interim Order approved a higher tariff due to insufficient information, then during the approval of the final order EWURA may decide to approve a relatively low tariff in order to compensate the customers for paying higher bills during the Provisional Order

### 5.5 Notification to Stakeholders of the Approved Decision

- 5.5.1 The decision of the Board will be published in the *Government Gazette* as soon as is practicable.
- 5.5.2 Copies of the Orders and decisions made by EWURA shall be certified with the seal of EWURA and shall be made available to any person on payment of the fee that EWURA may from time to time set.
- 5.5.3 Copies of any Order and decision shall be available in the Electronic Public Register on the EWURA website and at the EWURA's Public register in Head quarter office for public review at no cost.
- 5.5.4 Copies of the Order will be availed to the applicant, EWURA CCC, GCC and all interveners free of charge.



- 5.5.5 Copies of the Order shall be availed to the Permanent Secretary of the Ministry responsible for water and the Ministry responsible for Local Government (where applicable) for information.
- 5.5.6 The applicant shall notify its customers on Board's decision, in a form and manner as prescribed by EWURA.
- 5.5.7 The notification in paragraph 5.5.6 shall be sent not less than five (5) working days prior to the effective date.
- 5.5.8 The Applicant shall post the notice of Board's decision at various strategic locations within its service area showing therein the original tariff and the newly approved tariff. This notification shall be published not later than five (5) working days prior to the date the rate or charge will be effective.

## CHAPTER 6: MONITORING AND EVALUATION

*This Chapter highlights procedures for facilitation monitoring and evaluation of the implementation of tariff Order for the purpose of ensuring improved services so that customers are getting value for money for the services they receive.*

### 6.1 Monitoring

6.1.1 As provided in paragraph 5.4.1, the Board of EWURA shall issue an Order in response to the application. The Order shall contain both the approved tariff and a list of tariff Order conditions.

#### 6.1.2 Monitoring of the Approved Tariff

- a) EWURA shall conduct inspections to monitor the compliance of the approved tariff.
- b) For charges related to water sales, a regulated water and sanitation utility must on every invoice sent to a customer show:
  - (i) the first and last date of the period for which the consumer is being billed;
  - (ii) the water meter reading, or estimated water meter reading, at the beginning and at the end of the period for which the consumer is being billed;
  - (iii) the water consumed for the period;
  - (iv) the approved tariff and the amount charged in respect of each unit of water consumed for the period being billed;
  - (v) the amount charged in respect of fixed and other charges (such as sewerage charges; EWURA levy) for the period being billed;
  - (vi) any amount remaining unpaid in respect of previous periods;
  - (vii) any interest accrued in respect of any unpaid amounts;
  - (viii) the total amount due;
  - (ix) the date by which the amount due must be paid; and
  - (x) the place or accounts and methods by which the payment may be made.
- c) For charges related to new connection of services and reconnection of services that requires uprooting the old network, a regulated water and sanitation utility must on every cost estimates sent to a customer show:
  - (i) The list of all material and their respective costs;
  - (ii) The estimation of labor charge;
  - (iii) The Authority's connection or reconnection fee;
  - (iv) the total estimated amount;

- d) Compliance Order shall be served for failure to comply with the approved tariff.
- e) Penalties as stipulated in the Rules shall apply.

### 6.1.3 **Monitoring of Tariff Order Conditions**

- a) Tariff Order conditions shall be given to address, but not limited to following key areas.
  - (i) Protection of the customer interests;
  - (ii) Protection of Government interests;
  - (iii) Technical and financial sustainability of the regulated water utility;
  - (iv) Environmental sustainability; and
  - (v) Regulator's interests including timely submission of reports.
- b) A regulated water and sanitation Utility shall provide an Action Plan for each condition of the Order not later than three months after the effective date of the Order. The Action Plan shall be reflected in the utility's revised business plan
- c) A regulated water and sanitation Utility shall be required to provide reports of the implementation of each of the Tariff Order condition and each cost item of the revenue requirement quarterly or as may be required by EWURA.
- d) Inspections and performance audits may be done to validate submitted reports. Data validation may also involve certified third party assessment. Such a process shall include but not limited to queries, defense submissions, external auditor verification or any other third party assessments.

### 6.1.4 **Failure to Implement the Order**

- a) The Regulated water and sanitation Utility shall not be liable for failure to perform its obligations of the tariff Order in the event that such failure is caused by or due to change in legislation, severe weather, strike, epidemic, interruption or any other legitimate cause beyond the control of the Regulated Water Utility.
- b) Under the approval of the Authority, a regulated water and sanitation Utility shall be required to make appropriate reallocation of planned activities in order to implement activities which could not be implemented in the previous year of a multiyear period in accordance with the tariff Order.
- c) Where it is proved that there is no justification for failure to implement the Order after the end of multiyear tariff period, this may lead to:
  - (i) Rejection of the new application;

- (ii) Deduction of revenue requirement from the newly proposed revenue requirement in order to compensate customers for the denied services. The deduction will be based on the estimated value of projects which have not been implemented;
  - (iii) Reinstatement of unimplemented tariff order conditions for implementation in the new tariff review period without setting aside any funds in the newly approved revenue requirement;
  - (iv) If the regulated water and sanitation utility fails to attain any of the performance targets EWURA may decide to impose special performance monitoring which includes increased performance reporting to EWURA; or continue to use the targeted performance indicators in the determination of the new tariff.
- d) Penalties as stipulated in the Rules shall apply.

## 6.2 Evaluation

- 6.2.1 EWURA shall evaluate the implementation of tariff order conditions directly in terms of achieving the set targets and the timeframe provided in the Order.
- 6.2.2 For the purpose of evaluation, tariff order conditions shall be grouped in terms of:
- a) Conditions related to Key Performance Indicators;
  - b) Conditions related to achievement of approved investment costs;
  - c) Conditions related to submission of reports.
- 6.2.3 For conditions related to Key Performance Indicators, implementation shall be evaluated based on the minimum score (that is, 0%) which is equivalent to the status of the respective indicator at the time when the Order is issued and the maximum score (that is, 100%) which is equivalent to the targeted performance on the specified date. Intermediate performances are allocated pro rata by interpolating between the minimum and maximum scores.
- 6.2.4 For conditions related to investment, points shall be deducted based on the comparison of actual investment and the amount allocated for a specific investment on an annual basis.
- 6.2.5 For conditions related to submission of reports, submission within the deadline will get a score of 100%, and 0% otherwise. As regards late submission of reports, points shall be deducted by achieving the set target beyond a specified deadline. Consideration shall be given for the period between the date of the deadline which will get 0% deduction of the achieved score and the end of multiyear period which will get a maximum of 100% deduction of the achieved score. Intermediate deduction shall be allocated pro rata by interpolating the 100% total deductions of the achieved score between the deadline date and the end date of a multiyear period.

- 6.2.6 The percentage performance achievements for all the tariff Order conditions shall be averaged to determine the overall performance of the regulated water and sanitation utility in terms of the implementation of Tariff Order Conditions within a reporting period.
- 6.2.7 The implementation of tariff Order conditions shall be interpreted in accordance with the Performance Benchmarking Guidelines for WSSAs as follows:
- a) “Excellent performance” shall be achievement of between 85% and 100% of the target.
  - b) “Very good performance” shall be achievement of between 70% and 84% of the target;
  - c) “Good performance” shall be achievement of between 55 to 69%;
  - d) “Fair performance” shall be achievement of between 40 to 54%; and
  - e) “Unsatisfactory performance” shall be achievement of below 40%.
- 6.2.8 EWURA shall make the results of the achievements and non-compliances regarding implementation of tariff order conditions, public once a year in the annual performance review report of the Regulated Water and Sanitation Utilities.

# FORMS

**FORM 1: CURRENT AND PROPOSED TARIFF**

<b>CUSTOMER CLASS</b>	<b>CURRENT TARIFF</b>	<b>PROPOSED TARIFF (Unit of Measure)</b>	<b>PROPOSED TARIFF (Unit of Measure)</b>	<b>PROPOSED TARIFF (Unit of Measure)</b>
		<b>YEAR 1</b>	<b>YEAR 2</b>	<b>YEAR 3</b>
Domestic				
Band 1				
Band 2				
Band 3				
Institution				
Commercial				
Industrial				
Kiosk/Standpipe				
Bulk Customers				
<i>Other categories (Mention)</i>				

**NB: The regulated water and sanitation utilities have to develop similar tables for all other charges and fees including sanitation charges**

**FORM 2: ASSUMPTION DATA**

Description	Units	Historic Data			Current	Projections		
		Year n-3	Year n-2	Year n-1	Year n	Year n+1	Year n+2	Year n+3 to 5
<b>DETAILS</b>	<b>Units</b>							
<b>DEMOGRAPHIC DATA</b>								
Total Population	Number							
Population Growth	%							
Number of People per Household	Number							
Low income areas	Number							
Number of households in low income areas								
<b>ECONOMIC DATA</b>								
Inflation Rate (Most Recent Month)	%							
Price of Water meter (Domestic)	TZS/meter							
Price of Water meter (Non Domestic)	TZS/meter							
Price of Gate valve (3")	TZS/valve							
Price of Gate valve (4")	TZS/valve							
Price of Gate valve (6")	TZS/kiosk							
Unit Cost of Constructing a Domestic point	TZS/kiosk							
Unit Cost of Network Extension (inch 2)	TZS/km							
Price of Water pump	TZS/Pc							
Price of Bulk Water Meter (2 inch)	TZS/Pc							
Price of Induction Motors	TZS/Pc							
Price of Chemical (Chlorine)	TZS/kg							
<b>PRODUCTION SYSTEM</b>								
Installed Capacity	m3/day							
Average Water Production	m3/day							
Average Water Production	m3/year							
<b>INTERGRATED WATER RESOURCES MANAGEMENT (IWRM)</b>								
Water Abstraction	m3/year							
Water User fee	TZS/m3							
<b>SANITATION</b>								
Wastewater generation	m3/year							
Billed Sewerage	m3/year							
<b>CHEMICAL COSTS</b>								
Chemical Cost	TZS							
Chemical Cost per m3 (chlorine)	TZS/m3							
Quantity of Chemical (chlorine)	Kg							



Description	Units	Historic Data			Current	Projections		
		Year n-3	Year n-2	Year n-1	Year n	Year n+1	Year n+2	Year n+3 to 5
<b>LABORATORY COSTS</b>								
Number of Sample per Quarter	Number							
Number of Sample per Year	Number							
Cost per sample	TZS							
Transport Costs Plus Allowance	TZS							
Total Laborator Costs	TZS							
<b>ELECTRICITY COSTS</b>								
Electricity Consumption	kWh/Day							
Energy Charge	TZS/kWh							
Total Energy Cost	TZS/Annum							
Service Charge	TZS/Annum							
Demand Charge	TZS/Annum							
REA,EWURA,VAT	TZS/Annum							
Total Electricity Cost	TZS							
Total Subsidized Electricity Bill	TZS							
Total Electricity Cost per m3	TZS/m3							
<b>OTHER PRODUCTION COSTS</b>								
Water User Fees	TZS/m3							
Water source upkeep	TZS							
<b>DISTRIBUTION SYSTEM</b>								
Water storage capacity	m3							
Raising Main	km							
Distribution Main	km							
<b>DISTRIBUTION COSTS</b>								
Customer survey	TZS							
Number of water meters for new connections	Number							
Number of water meters for replacement	Number							
<b>DEMAND AND CONSUMPTION</b>								
Average Water Demand	m3/day							
Billed volume	m3/year							
Number of connections (active, disconnected & moribund)	Number							
Domestic	Number							
Institutional	Number							
Commercial	Number							
Industrial	Number							
Kiosks/Standpipe	Number							
Bulk Customers	Number							
Number of active connections	Number							

Description	Units	Historic Data			Current	Projections		
		Year n-3	Year n-2	Year n-1	Year n	Year n+1	Year n+2	Year n+3 to 5
Domestic	Number							
Institutional	Number							
Commercial	Number							
Industrial	Number							
Kiosks/Standpipe	Number							
Bulk Customers	Number							
Number of Metered connections	Number							
Domestic	Number							
Institutional	Number							
Commercial	Number							
Industrial	Number							
Kiosks/Standpipe	Number							
Bulk Customers	Number							
Number of reconnections	Number							
Domestic	Number							
Institutional	Number							
Commercial	Number							
Industrial	Number							
Kiosks/Standpipe	Number							
Bulk Customers	Number							
Number of new water connections	Number							
Domestic	Number							
Institutional	Number							
Commercial	Number							
Industrial	Number							
Kiosks/Standpipe	Number							
Bulk Customers	Number							
Average Water Consumption per Customer per Month								
Domestic	m3							
Institutional	m3							
Commercial	m3							
Industrial	m3							
Kiosks/Standpipe	m3							
Bulk Customers	m3							
Total	m3							
<b>PERSONNEL COSTS</b>								
Number of employees	Number							
Number of Subsidized Staff	Number							
Personnel expenditure as % of collection from water	%							
<b>ADMINISTRATIVE COSTS</b>								
Administrative Expenses	TZS							
Administration costs per m3 of water produced	TZS/m3							

Description	Units	Historic Data			Current	Projections		
		Year n-3	Year n-2	Year n-1	Year n	Year n+1	Year n+2	Year n+3 to 5
<b>BOARD RELATED DATA</b>								
Average Costs per Board Meeting	TZS							
Number of meetings per year	Number							
Number of Board members	Number							
<b>INVESTMENT COSTS</b>								
Contribution to investment % total investment	%							
<b>EFFICIENCY INDICATORS</b>								
Non-Revenue Water (NRW)	%							
Revenue Collection Efficiency	%							
Metering Ratio	%							
Proportion of Population Living with Access to Water Supply	%							
Average Service Hours	hours							
No. of Staff/1000 Connections	/							

**FORM 3: ELECTRICITY CONSUMPTION FOR WATER AND SEWERAGE SERVICES FOR THE PAST 12 MONTHS**

<b>STATION 1</b>	<b>Month 1</b>	<b>Month 2</b>	<b>...Month 12</b>	<b>Total</b>
kWh used				
kVA used				
Energy charge				
kVA Charge				
Service Charge				
EWURA & REA				
<b>TOTAL BILL</b>				

<b>STATION 2</b>	<b>Month 1</b>	<b>Month 2</b>	<b>...Month 12</b>	<b>Total</b>
kWh used				
kVA used				
Energy charge				
kVA Charge				
Service Charge				
EWURA & REA				
<b>TOTAL BILL</b>				

<b>STATION 3</b>	<b>Month 1</b>	<b>Month 2</b>	<b>...Month 12</b>	<b>Total</b>
kWh used				
kVA used				
Energy charge				
kVA Charge				
Service Charge				
EWURA & REA				
<b>TOTAL BILL</b>				

<b>STATION n+1</b>	<b>Month 1</b>	<b>Month 2</b>	<b>...Month 12</b>	<b>Total</b>
kWh used				
kVA used				
Energy charge				
kVA Charge				
Service Charge				
EWURA & REA				
<b>TOTAL BILL</b>				

#### FORM 4: TREND IN OPERATIONAL AND MAINTENANCE COSTS

Amount in TZS Millions									
Description	Historical Data			Current	Projections				
	Year n-3	Year n-2	Year n-1	Current Year n	Year n+1	Year n+2	Year n+3	Year n+4	Year n+5
<b>Water Production costs</b>									
<i>Electricity for Water Production</i>									
<i>Chemicals</i>									
<i>Fuel &amp; Lubricants (Generator)</i>									
<i>Water User Fee</i>									
<i>Laboratory</i>									
<i>Water Source Upkeep</i>									
<i>Other Water Production costs</i>									
<i>Bulk water purchase costs</i>									
<b>Total Water Production costs</b>									
<b>Water Distribution costs</b>									
<i>Electricity for Water Distribution</i>									
<i>Fuel &amp; Lubricants (Generator)</i>									
<i>Pipelines - New connections</i>									
<i>Water Meter Installation - Replacements/testing</i>									
<i>Other Water Distribution costs</i>									
<b>Total Distribution costs</b>									
<b>Sanitation costs</b>									
<i>Sewage Treatment</i>									
<i>Electricity for Sewerage and Sanitation</i>									
<i>Laboratory</i>									
<i>New Sewer Connections</i>									
<i>Cesspit Emptying</i>									
<i>On-site Sanitation Activities</i>									
<i>Other Sewerage Disposal costs</i>									
<b>Total Sewerage Disposal costs</b>									
<b>Maintenance and Repair costs (as per Asset Management Plan)</b>									
<b>Personnel costs</b>									
<i>Basic Salary</i>									
<i>Wages</i>									

<b>Amount in TZS Millions</b>									
<b>Description</b>	<b>Historical Data</b>			<b>Current</b>	<b>Projections</b>				
	<b>Year n-3</b>	<b>Year n-2</b>	<b>Year n-1</b>	<b>Current Year n</b>	<b>Year n+1</b>	<b>Year n+2</b>	<b>Year n+3</b>	<b>Year n+4</b>	<b>Year n+5</b>
<i>Employer's Pension Contribution</i>									
<i>Travelling on leave</i>									
<i>Allowances</i>									
<i>Other staff costs</i>									
<b>Total Personnel costs</b>									
<b>Administration costs</b>									
<i>Insurance</i>									
<i>Electricity for Offices</i>									
<i>Audit Fees</i>									
<i>Staff Training</i>									
<i>Provision for doubtful debts</i>									
<i>Fuel for motor vehicles/cycles</i>									
<i>Other Administration costs</i>									
<b>Total Administration costs</b>									
<b>Business Promotion</b>									
<i>information, education, communication &amp; publicity</i>									
<i>customer outreach</i>									
<i>customer survey</i>									
<i>research and feedback</i>									
<i>documentary and upkeep of audio visual</i>									
<i>newspaper and periodicals</i>									
<i>upkeep of public garden and monument</i>									
<b>Events and Donations</b>									
<i>ATAWAS costs (If any )</i>									
<i>Maji week expenses</i>									
<i>Mazingira week</i>									
<i>Nanenane day</i>									
<i>Annual general meeting contribution</i>									
<i>donations</i>									
<i>May day expenses</i>									
<i>Other Events and Donation costs</i>									
<b>Total Events and Donation costs</b>									

<b>Amount in TZS Millions</b>									
<b>Description</b>	<b>Historical Data</b>			<b>Current</b>	<b>Projections</b>				
	<b>Year n-3</b>	<b>Year n-2</b>	<b>Year n-1</b>	<b>Current Year n</b>	<b>Year n+1</b>	<b>Year n+2</b>	<b>Year n+3</b>	<b>Year n+4</b>	<b>Year n+5</b>
<b>Board Expenses</b>									
<i>Directors Fees</i>									
Meeting expenses									
Other costs									
<b>Financial costs</b>									
<i>Interest on bank overdrafts</i>									
<i>Bank charges</i>									
<i>Interest on term loans</i>									
<b>Total Financial costs</b>									
<b>Depreciation and Amortization</b>									
<b>Surplus/Loss</b>									

**FORM 5: TEST YEAR REVENUE REQUIREMENT**

<b>COST DESCRIPTION</b>	<b>MOST RECENT AUDITED YEAR</b>	<b>CURRENT NORMALIZED YEAR (TEST YEAR)</b>	<b>VARIANCE</b>	<b>REASONS FOR VARIANCE</b>
Water Production costs				
Water Distribution costs				
Sewerage Disposal and Sanitation costs				
Maintenance and Repair costs				
Personnel costs				
Administration costs				
Business Promotion				
Events and Donations				
Board Expenses				
Financial costs				
Depreciation and Amortization				



**FORM 6: PROJECTIONS OF DEPRECIATION CHARGE**

<b>Description</b>	<b>Year</b>	<b>Asset Group 1</b>	<b>Asset Group 2</b>	<i>Add other Asset Groups as appropriate</i>	<b>Total</b>
Depreciation Rates (%)					
Opening Balance	Year -1 (Audited Year)				
Additions	Year 0 (Current Year)				
Disposal	Year 0 (Current Year)				
<b>Depreciation Charge For the Year</b>	<b>Year 0 (Current Year)</b>				
Book Value	Year 0 (Current Year)				
Additions	Year 1				
Disposal	Year 1				
<b>Depreciation Charge For the Year</b>	<b>Year 1</b>				
Book Value	Year 1				
Additions	Year 2				
Disposal	Year 2				
<b>Depreciation Charge For the Year</b>	<b>Year 2</b>				
Book Value	Year 2				
Additions	Year 3				
Disposal	Year 3				
<b>Depreciation Charge For the Year</b>	<b>Year 3</b>				

**FORM 7: ESTIMATED USEFUL LIFE**

Asset	Expected useful life in years	
	Lower bound	Upper bound
Dams	75	100
Intake structures	35	45
Shallow Wells / Boreholes	15	20
Chlorination equipments	10	15
Storage tanks	30	60
Pumps	10	20
Buildings	30	50
Water treatment plants	40	50
Electrical systems	7	10
Transmission mains	35	40
Distribution pipes	35	40
Valves	10	15
Meters	10	15
Sewerage network	35	40
Laboratory/Monitoring equipments	5	7
Office furniture/equipments	5	10
Intangible assets	3	5
Workshop equipment and tools	10	15
Computers	3	5
Vehicles, motorcycles and bicycles	3	5
Transportation equipment /heavy duty vehicles	8	10

## FORM 8: ILLUSTRATION OF THE COMPUTATION OF RETURN ON INVESTMENT

### FORM 8A: A SAMPLE CAPITAL STRUCTURE

DESCRIPTION	DATA FROM MOST RECENT AUDITED FINANCIAL STATEMENT
Plant, Property and Equipment	P
Work In Progress	W
<b>Sub-Total Non-Current Assets</b>	<b>A=P+W</b>
Current Assets	B
<b>Total Assets (Million TZS)</b>	<b>A+B</b>
Grants	G
Retained Earnings	R
<b>Total Equity (Million TZS)</b>	<b>E=G+R</b>
Short term Debt	C
Long term Debt	L
<b>Total Debt (Million TZS)</b>	<b>D</b>
<b>Total Debt and Equity (Million TZS)</b>	<b>V=E+D</b>
<b>WACC</b>	<b><math>r_D \times (1-t) \times (D/V) + r_E \times (E/V)</math></b>
<b>RAB</b>	<b>[A-W-G+(B-C)]</b>
<b>Return on Investment</b>	<b>WACC × RAB</b>

### FORM 8B: A SAMPLE BANK RATES – $r_E$ ( Refer Paragraph 4.6.3(d))

Year /Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2006	20.00	18.50	17.50	17.00	16.02	13.40	13.40	14.60	16.67	18.40	15.69	20.07
2007	21.31	17.92	20.09	22.05	18.43	21.42	21.05	20.11	20.59	21.42	17.44	16.40
2008	15.89	13.36	12.39	12.08	12.00	12.84	14.46	14.47	15.17	15.30	15.33	15.99
2009	17.53	17.85	18.33	16.01	13.00	10.31	6.95	5.20	4.40	3.70	3.70	3.70
2010	7.58	7.58	7.58	7.58	7.58	7.58	7.58	7.58	7.58	7.58	7.58	7.58
2011	7.58	7.58	7.58	7.58	7.58	7.58	7.58	7.58	7.58	9.58	12.00	12.00
2012	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
2013	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
2014	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
2015	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
2016	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00				
2017												

**Source:** <https://www.bot-tz.org/Publications/MonthlyEconomicReviews>

**Note:** The figures highlighted in yellow cover a duration of 10 years out of which an average is taken to determine the Cost of Equity.

**FORM 9: NEW INVESTMENTS**

<b>Year</b>	<b>Source of Funds</b>	<b>Asset Group 1</b>	<b>Asset Group 2</b>	<b>Asset Group 3</b>	<b>Add other Asset Groups as appropriate</b>	<b>Total</b>
<b>Year n-3</b>	Own					
	Grants					
	Loan					
	<i>Subtotal</i>					
<b>Year n-2</b>	Own					
	Grants					
	Loan					
	<i>Subtotal</i>					
<b>Year n-1</b>	Own					
	Grants					
	Loan					
	<i>Subtotal</i>					
<b>Curent</b>	Own					
<b>Year n</b>	Grants					
	Loan					
	<i>Subtotal</i>					
<b>Year n+1</b>	Own					
	Grants					
	Loan					
	<i>Subtotal</i>					
<b>Year n+2</b>	Own					
	Grants					
	Loan					
	<i>Subtotal</i>					
<b>Year n+3</b>	Own					
	Grants					
	Loan					
	<i>Subtotal</i>					
<b>Year n+4</b>						
<b>Year n+5</b>						
<b>Year n+10</b>						

**FORM 10: RENEWAL AND REPLACEMENT**

<b>Year</b>	<b>Source of Funds</b>	<b>Asset Group 1</b>	<b>Asset Group 2</b>	<b>Asset Group 3</b>	<b>Add other Asset Groups as appropriate</b>	<b>Total</b>
<b>Year n-3</b>	Own					
	Grants					
	Loan					
	<i>Subtotal</i>					
<b>Year n-2</b>	Own					
	Grants					
	Loan					
	<i>Subtotal</i>					
<b>Year n-1</b>	Own					
	Grants					
	Loan					
	<i>Subtotal</i>					
<b>Curent</b>	Own					
<b>Year n</b>	Grants					
	Loan					
	<i>Subtotal</i>					
<b>Year n+1</b>	Own					
	Grants					
	Loan					
	<i>Subtotal</i>					
<b>Year n+2</b>	Own					
	Grants					
	Loan					
	<i>Subtotal</i>					
<b>Year n+3</b>	Own					
	Grants					
	Loan					
	<i>Subtotal</i>					
<b>Year n+4</b>						
<b>Year n+5</b>						
<b>Year n+10</b>						

**FORM 11: REVENUE REQUIREMENT PROJECTIONS AND PROPOSED AVERAGE TARIFF**

<b>Description</b>	<b>CURRENT YEAR</b>	<b>PROJECTED YEAR 1</b>	<b>PROJECTED YEAR 2</b>	<b>PROJECTED YEAR 3</b>
Operating and Maintenance (Million TZS)				
Depreciation & Amortization (Million TZS)				
Return on Investment (Million TZS)				
<b>Total Revenue Requirement (Million TZS)</b>				
Less: Other Income				
Less Government/LGA's Grants				
<b>Revenue Requirement from Water Sales (Million TZS)</b>				
Water Production ( m <sup>3</sup> )				
NRW (%)				
Billed Volume				
<b>Average Tariff (TZS/m3)</b>	<b>W0</b>	<b>W1</b>	<b>W2</b>	<b>W3</b>
<b>Tariff Increase (%)</b>				
<b>Proposed Weighted Average Tariff (TZS/m3)</b>				

**FORM 12: CONSUMPTION PATTERN**

<b>CUSTOMER CLASS</b>	<b>CURRENT WATER CONSUMPTION (m<sup>3</sup>)</b>	<b>PERCENTAGE CONSUMPTION (%)</b>	<b>AVERAGE CONSUMPTION PER CUSTOMER CLASS PER MONTH (m<sup>3</sup>)</b>
Domestic			
Band 1	C1	P1	AC1
Band 2	C2	P2	AC2
Band 3	C3	P3	AC3
Institution	C4	P4	AC4
Commercial	C5	P5	AC5
Industrial	C6	P6	AC6
Kiosk	C7	P7	AC7
Bulk Customer	C8	P8	AC8
<b>Total Billed Amount</b>		<b>100%</b>	

**FORM 13A: CALCULATION OF PROPOSED METERED TARIFF**

CUSTOMER CLASS	CURRENT TARIFF	PROPOSED TARIFF (YEAR 1)	PROPOSED TARIFF (YEAR 2)	PROPOSED TARIFF (YEAR 3)
Domestic				
Band 1	A1	A1*( W1/B)	A1*( W2/B)	A1*( W3/B)
Band 2	A2	A2*( W1/B)	A2*( W2/B)	A2*( W3/B)
Band 3	A3	A3*( W1/B)	A3*( W2/B)	A3*( W3/B)
Institution	A4	A4*( W1/B)	A4*( W2/B)	A4*( W3/B)
Commercial	A5	A5*( W1/B)	A5*( W2/B)	A5*( W3/B)
Industrial	A6	A6*( W1/B)	A6*( W2/B)	A6*( W3/B)
Kiosk/Standpipe	A7	A7*( W1/B)	A7*( W2/B)	A7*( W3/B)
Bulk Customer	A8	A8*( W1/B)	A8*( W2/B)	A8*( W3/B)
<b>WEIGHTED AVERAGE (WAT)</b>	<b><math>B = \sum P_i * A_i</math></b>			

**FORM 13B: CALCULATION OF PROPOSED FLAT RATES**

CUSTOMER CLASS	CURRENT FLAT RATE	PROPOSED TARIFF (YEAR 1)	PROPOSED TARIFF (YEAR 2)	PROPOSED TARIFF (YEAR 3)
Domestic	FR3	A3*( W1/B)*C3	A3*( W2/B)*C3	A3*( W3/B)*C3
Institution	FR4	A4*( W1/B)*C4	A4*( W2/B)*C4	A4*( W3/B)*C4
Commercial	FR5	A5*( W1/B)*C5	A5*( W2/B)*C5	A5*( W3/B)*C5
Industrial	FR6	A6*( W1/B)*C6	A6*( W2/B)*C6	A6*( W3/B)*C6
Kiosk/Standpipe	FR7	A7*( W1/B)*C7	A7*( W2/B)*C7	A7*( W3/B)*C7
Bulk Customer	FR8	A8*( W1/B)*C8	A8*( W2/B)*C8	A8*( W3/B)*C8



**FORM 14: TARIFF DESIGN AND REVENUE ESTIMATION**

<b>CUSTOMER CLASS</b>	<b>PROPOSED TARIFF YEAR 1(TZS/m<sup>3</sup>)</b>	<b>ESTIMATED BILLED WATER PER CUSTOMER CLASS FOR YEAR 1 (m<sup>3</sup>)</b>	<b>ESTIMATED REVENUE FOR YEAR 1 (TZS)</b>
<b>METERED TARIFF</b>			
Domestic			
Band 1	A1	C1	A1*C1
Band 2	A2	C2	A2*C2
Band 3	A3	C3	A3*C3
Institution	A4	C4	A4*C4
Commercial	A5	C5	A5*C5
Industrial	A6	C6	A6*C6
Kiosk/Standpipe	A7	C7	A7*C7
Bulk Customer	A8	C8	A8*C8
Other (Mention)			
<b>WEIGHTED AVERAGE (WAT)</b>	<b><math>B = \sum P_i * A_i</math></b>		<b>TOTAL REVENUE REQUIREMENT FROM WATER</b>
<b>SERVICE CHARGE</b>	<b>PROPOSED SERVICE CHARGES FOR YEAR 1 (TZS/MONTH)</b>	<b>NUMBER OF CUSTOMERS PER CATEGORY FOR YEAR 1</b>	<b>ESTIMATED REVENUE FOR YEAR 1 (TZS)</b>
Domestic	S1	N1	S1*N1*12
Institution	S2	N2	S2*N2*12
Commercial	S3	N3	S3*N3*12
Industrial	S4	N4	S4*N4*12
Kiosk/Standpipe	S5	N5	S5*N5*12
Bulk Customer	S6	N6	S6*N6*12
Other (Mention)			
			<b>TOTAL REVENUE REQUIREMENT FROM SERVICE CHARGE</b>
<b>NEW CONNECTION FEE</b>	<b>AVERAGE CONNECTION COSTS (0-10m etc) FOR YEAR 1 (TZS/CONNECTION)</b>	<b>NUMBER OF NEW CUSTOMERS (0-10m)</b>	<b>ESTIMATED REVENUE FOR YEAR 1 (TZS)</b>
Domestic	CC1	N1	20%*CC1*N1
Institution	CC2	N2	20%*CC2*N2
Commercial	CC3	N3	20%*CC3*N3
Industrial	CC4	N4	20%*CC4*N4
Kiosk/Standpipe	CC5	N5	20%*CC5*N5
Bulk Customer	CC6	N6	20%*CC6*N6
Other (Mention)			
			<b>TOTAL</b>

			<b>REVENUE REQUIREMENT FROM NEW CONNECTION FEE</b>
<b>NEW RECONNECTION FEE</b>	<b>PROPOSED RECONNECTION FEE FOR YEAR 1 (TZS/CONNECTION)</b>	<b>NUMBER OF NEW CUSTOMERS</b>	<b>ESTIMATED REVENUE FOR YEAR 1 (TZS)</b>
Domestic	<b>F1</b>	<b>N1</b>	<b>F1*N1</b>
Institution	<b>F2</b>	<b>N2</b>	<b>F2*N2</b>
Commercial	<b>F3</b>	<b>N3</b>	<b>F3*N3</b>
Industrial	<b>F4</b>	<b>N4</b>	<b>F4*N4</b>
Kiosk/Standpipe	<b>F5</b>	<b>N5</b>	<b>F5*N5</b>
Bulk Customer	<b>F6</b>	<b>N6</b>	<b>F6*N6</b>
Other (Mention)			
			<b>TOTAL REVENUE REQUIREMENT FROM RECONNECTION FEE</b>
<b>SEWERAGE DISPOSAL CHARGE</b>	<b>PROPOSED SEWERAGE DISPOSAL CHARGE FOR YEAR 1 (TZS/CONNECTION)</b>	<b>NUMBER OF TRIPS</b>	<b>ESTIMATED REVENUE FOR YEAR 1 (TZS)</b>
Domestic	<b>S1</b>	<b>T1</b>	<b>S1*T1</b>
Institution	<b>S2</b>	<b>T2</b>	<b>S2*T2</b>
Commercial	<b>S3</b>	<b>T3</b>	<b>S3*T3</b>
Industrial	<b>S4</b>	<b>T4</b>	<b>S4*T4</b>
Kiosk/Standpipe	<b>S5</b>	<b>T5</b>	<b>S5*T5</b>
Bulk Customer	<b>S6</b>	<b>T6</b>	<b>S6*T6</b>
Other (Mention)			
			<b>TOTAL REVENUE REQUIREMENT FROM SEWERAGE DISPOSAL CHARGE</b>
<b>ADD ANY OTHER PROPOSED CHARGE</b>			
			<b>TOTAL REVENUE REQUIREMENT</b>

**FORM 15: NEW WATER CONNECTION COSTS**

**FORM 15A: DOMESTIC CUSTOMER**

LENGTH OF WATER SERVICE LINE FROM THE TAPPING POINT	PROPOSED COSTS (YEAR 1)		PROPOSED COSTS (YEAR 2)		PROPOSED COSTS (YEAR 3)	
	Min.	Max.	Min.	Max.	Min.	Max.
0 – 10m						
0 – 20m						
0 – 30m						
0 – 40m						
0 – 50m						

**FORM 15B: COMMERCIAL, INSTITUTION AND INDUSTRIAL CUSTOMER**

LENGTH OF WATER SERVICE LINE FROM THE TAPPING POINT	PROPOSED COSTS (YEAR 1)		PROPOSED COSTS (YEAR 2)		PROPOSED COSTS (YEAR 3)	
	Min.	Max.	Min.	Max.	Min.	Max.
0 – 10m						
0 – 20m						
0 – 30m						
0 – 40m						
0 – 50m						

**FORM 16: NEW SEWER CONNECTION COSTS**

**FORM 16A: DOMESTIC CUSTOMER**

LENGTH OF SEWER LINE FROM THE DISCHARGING LATERAL SEWER LINE	PROPOSED COSTS (YEAR 1)		PROPOSED COSTS (YEAR 2)		PROPOSED COSTS (YEAR 3)	
	Min.	Max.	Min.	Max.	Min.	Max.
0 – 5m						
0 – 10m						
0 – 15m						
0 – 20m						
0 – 25m						

**FORM 16B: COMMERCIAL, INSTITUTION AND INDUSTRIAL CUSTOMER**

LENGTH OF SEWER LINE FROM THE DISCHARGING LATERAL SEWER LINE	PROPOSED COSTS (YEAR 1)		PROPOSED COSTS (YEAR 2)		PROPOSED COSTS (YEAR 3)	
	Min.	Max.	Min.	Max.	Min.	Max.
0 – 5m						
0 – 10m						
0 – 15m						
0 – 20m						
0 – 25m						

**FORM 17A: TARIFF COMPUTATION FOR WATER TANKER OPERATORS**

ITEM	UNIT	Size 1 of the Tanker	Size 2 of the Tanker	Size n of the Tanker
Capital	TZS			
Economic Life period	Years			
Residual Value	TZS			
Return on Investment	%			
Costs of Refurbishing and installing a Tanker	TZS			
Costs of painting a Tanker	TZS			
Salary per month for:				
Driver	TZS			
Assistant Driver(s)	TZS			
Distance with load	Km			
Distance with load (Roundtrip)	Km			
Fuel usage	Km/Litre			
Trip per day	Number			
Working days per month	Number			
Trip per year	Number			
Total kilometer covered per year	Km			
<b>Fixed Operating Costs per year</b>				
Annual Depreciation	TZS			
Annual Salaries	TZS			
Annual Taxes and Levies	TZS			
Annual Insurance 1% of value	TZS			
<b>Sub-Total (for Fixed Operational Costs)</b>	TZS			
Administration Expenses (xx%) of fixed costs	TZS			
<b>Total Fixed Operational Cost</b>	TZS			
<b>Variable Operating Costs</b>				
Annual costs of Fuel	TZS			
Annual Maintenance costs	TZS			
Cost of Tyres per year	TZS			
Regulated water and sanitation utility Bills (Based on Bulk Supplier Tariff Category)	TZS			
<b>Total Variable Operational Costs</b>	<b>TZS</b>			
<b>Total Fixed+Variable Costs</b>	TZS			
<b>Return On Investment</b>	TZS			
<b>Total Costs</b>	TZS			

**FORM 17B: TARIFF COMPUTATION FOR CESS EMPTIER TRUCKS  
OPERATORS**

ITEM	UNIT	Capacity in..... (m <sup>3</sup> )		
		Year 1	Year 2	Year 3
Capital	TZS			
Economic Life period	Years			
Residual Value	TZS			
Return on Investment	%			
Costs of Refurbishing and installing a Cess Pit Emptier Truck	TZS			
Costs of painting a Cess Pit Emptier Truck	TZS			
Personal Protective Equipment (PPE) for health and safety per month	TZS			
BRELA Registration fee	TZS			
TRA fees	TZS			
Business registration fee from Municipality/City	TZS			
	TZS			
Salary per month for:				
Driver	TZS			
Assistant Drivers (two)	TZS			
Distance with load	Km			
Distance with load (Roundtrip)	Km			
Fuel usage	Km/Litre			
Trip per day	Number			
Working days per month	Number			
Volume of fecal sludge collected, transported and safely disposal at the wastewater treatment plant per month	m <sup>3</sup>			
Trip per year	Number			
Total kilometer covered per year	Km			
<b>Fixed Operating Costs per year</b>				
Annual Depreciation	TZS			
Annual Salaries	TZS			
Annual Taxes and Levies	TZS			
Annual Insurance 1% of value	TZS			
Annual BRELA fee	TZS			
Annual TRA tax	TZS			
Annual Municipal/City fee	TZS			
<b>Sub-Total (for Fixed Operational Costs)</b>	TZS			
Administration Expenses (xx%) of fixed costs	TZS			
<b>Total Fixed Operational Cost</b>	TZS			
<b>Variable Operating Costs</b>				
Annual costs of Fuel	TZS			
Annual Maintenance costs	TZS			

ITEM	UNIT	Capacity in..... (m <sup>3</sup> )		
Cost of Tyres per year	TZS			
Feacal Sludge disposal at the wastewater treatment plant per trip	TZS			
<b>Total Variable Operational Costs</b>	<b>TZS</b>			
<b>Total Fixed+Variable Costs</b>	<b>TZS</b>			
<b>Return On Investment</b>	<b>TZS</b>			
<b>Total Costs</b>	<b>TZS</b>			

**FORM 17C: TARIFF COMPUTATION FOR BOREHOLE OPERATORS**

ITEM	UNIT	Size 1 of the Tanker	Size 2 of the Tanker	Size n of the Tanker
Capital	TZS			
Economic Life period	Years			
Residual Value	TZS			
Return on Investment	%			
<b>Fixed Operating Costs per year</b>				
Annual Depreciation	TZS			
Annual Salaries (if any)	TZS			
Annual Taxes and Levies (if any)	TZS			
Any other fixed costs (mention)	TZS			
<b>Sub-Total (for Fixed Operational Costs)</b>	TZS			
Administration Expenses (xx%) of fixed costs	TZS			
<b>Total Fixed Operational Cost</b>	TZS			
<b>Variable Operating Costs</b>				
Annual Maintenance costs	TZS			
Water treatment costs	TZS			
Pumping costs	TZS			
<b>Total Variable Operational Costs</b>	<b>TZS</b>			
<b>Total Fixed+Variable Costs</b>	TZS			
<b>Return On Investment</b>	TZS			
<b>Total Costs</b>	TZS			