

PUBLIC UTILITIES REGULATORY COMMISSION

TEMPLATE FOR FILING

OF

TARIFF PROPOSALS

BY

GHANA WATER COMPANY LIMITED

(DISTRIBUTION)

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PUBLIC UTILITIES REGULATORY COMMISSION
PROPOSALS FOR REVIEW OF AGGREGATE REVENUE REQUIREMENT AND TARIFF

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1 Introduction

1.1 Brief Background

GWCL, a wholly owned State Enterprise has responsibility for the Production, Transmission and Distribution of Water in the urban communities in Ghana for public, domestic, commercial and industrial use. The Ghana Water and Sewerage Corporation (GWSC) was converted into a limited liability company under the new name Ghana Water Company Limited in July 1999. GWCL, then GWSC was originally charged to operate as a commercial concern and to ensure that its revenues cover fully its cost from year to year.

1.2 Rationale/Objectives Underpinning Tariff Submission

- Recover cost of operations
- Generate internal funds to provide limited infrastructure improvement to water service delivery. This includes repairs and replacement of broken-down plants and machinery which need immediate attention
- Inflation and exchange rate fluctuations have eroded the effect of the last major tariff increase in June, 2010. The US Dollar which was then GH¢1.44 is now GH¢2.00.

1.3 Highlights of Major Issues Which Describe Structure of Tariff Submission)

Major issues that describe the tariff structure includes the following:

- Full cost recovery
- Affordability
- Fairness
- Simplicity

2 Initiatives Undertaken

2.1 Projects Undertaken

2.2 Capital expenditure (GH¢)

Since the last tariff review in 2010, GWCL has undertaken a number of projects from its own internally generated funds including major repairs and replacement of distribution lines, installation of consumer and zonal meters, installation of specials and gauges and loggers.

A number of extension projects with financial assistance from GoG and other development partners were also undertaken.

2.3 Compliance with Directives of the Commission

GWCL will continue to comply with the directives from the PURC in respect of :

- Disconnection.
- Billing
- Customer complaints and redress
- Water quality standards as prescribed by Ghana Standard Board.

3 Key Policy Issues for Tariff Consideration

- Equity and affordability
- Recategorization of customers - Ports & Harbour, Sachet water producers
- Introduction of service charge
- Sustenance of life line band
- Deletion of unmetered premises flat rate

4 Proposed Service Delivery and Efficiency Improvements during Tariff Period

4.1 Service Delivery and Efficiency Targets

Performance indicator	2012	2013	2014	2015
Leakages/pipe bursts (#)	1600	1370	1200	1000
Average Leakage Repaired time (hrs)	48	48	48	48

4.2 Technical / Operating Performance Indicators/Indices

Performance indicator	2012	2013	2014	2015
Length of mains (#)				
Coverage(%)				

4.3 Financial Performance Indicators/Indices

- Collection efficiency ratio
- Profitability
- Connection per staff
- Service coverage
- Number of customers billed
- Number of New Service connections from year to year

5 Key Challenges Likely to Impact Service Delivery

5.1 Electricity Supply

Our operations have been hampered by frequent power outages, low voltage and high voltage. Since the company depends on power from national grid, such interruptions should be reduced to the barest minimum

5.2 Energy Consumption-Production Plants Electricity Usage

Most of our electromechanical equipment at the booster stations are not energy efficient due to their old age thus consuming much energy.

5.3 Availability of Chemicals and Laboratory Reagents

Not Applicable

5.4 Breakdown of Distribution Facility

Inadequate supply of water, introduction of foreign material (germs, bacterial), loss in revenue, increase in O & M cost

5.5 Extension of Distribution Capacity

- When there is enough water: increase in coverage, increase of access to water, increase in revenue.
- When there is no enough water: gives false hope to consumers, can cause vandalism, no returns on investment, loss of investment.

5.6 Distribution Losses

Increase in NRW, waste in energy and chemicals use in production.

5.7 Metering and Accounting

Low metering ratios and faulty meters results in inaccuracy in billing thus affecting the NRW value. Customers sometimes challenge their bills.

5.8 Billing and Collection

When bills are not accurate it creates doubts for both customers and the company. This thus causes reluctance in the payment of bills thus lowering collection of revenues which affects the liquidity of the company.

5.9 Organisational Reform and Restructuring

The Government of Ghana has announced its intention to merge GWCL and GUWL. This is causing uncertainty and low morale affecting productivity

5.10 Commercial Customer Complaints and Dispute Resolution

Creates bad image for the company and dispute resolution wastes time.

5.11 Resolution of Court Cases

Slowness of Court process to resolve customer complaints consumes time.

5.12 Government and Public Sector Debts

Outstanding debts sensitive, Some Gov't institutions are so sensitive that the disconnections are not permitted, Hospitals, TOR, Secondary schools.

5.13 Bad Debts

Inability to collect debt results in the loss of revenue hence consequent reduction in investment.

5.14 Surcharge and Subsidies

- It is an additional burden or cost to the customer in payment, hence AMA to have the capacity to bill and collect sewerage charges.
- Gov't subsidies stopped in 1986. All subsequent promises have not been fulfilled.

5.15 Government Grants

They come in the form of foreign loans and grants. However they are inadequate.

5.16 Access to Finance and Repayment of Financing Costs

Due to poor financial health of the company we are unable to attract external commercial funding.

5.17 Tariff Structure and Rates

Inadequate approved tariffs result in our inability to recover cost.

5.18 Independent Water Producers-IWPs

Not applicable

5.19 Water Purchase from Independent Water Producers

Not in place, however cash flow constraints when in place.

5.20 Human Resource-Skilled Manpower

Lack of ability to retain recruited young employees due to unattractive conditions of service.

5.21 Transmission Infrastructure Constraints

Many of the transmission infrastructures are developed by government. Unfortunately this is not forth coming. Also the cost of maintaining the existing infrastructure is high and the current tariff is not enough to contain it.

6 Strategies to Address Key Challenges

- Liaise with ECG to provide the company with dedicated lines to our stations ensure continuity in our service delivery.
- Procure equipment to stabilize supply voltage and continue with the installation of capacitor banks which will correct the power factor.
- Allocate sufficient fund to carry out repair, replace and rehabilitate aged distribution lines.
- Continue to liaise with government to make necessary funding available to carry out the needed investment.
- Liaise with PURC to ensure the approval of adequate tariffs.
- Provide attractive conditions of service for staff to retain staff.
- Continue the installation of consumer meters

7 GWCL WATER DISTRIBUTION SYSTEM RELATED DATA

7.1 Projected Water Distribution Data

Table-1 GWCL Water Distribution Systems Data 2011-2015

Parameter	Unit	2011	2012	2013	2014	2015
A. Gross Distribution Capacity	M ³ /Day	647,822	655,630	675,932	728,767	754,795
B. Projected Water Distribution	M ³ /Day	681,918	690,137	711,507	767,123	794,521
B1. Target Average Availability of Distribution lines	M ³ /Day	90,695	91,788	101,390	123,890	143,411
C. Authorised Water Usage Within Distribution Network	M ³ /Day	3	3	2	2	2
D. Water Available for Sale	M ³ /Day	647,822	655,630	675,932	728,767	754,795

7.2 Capital Expenditure

Table-2 Summary of Water Distribution Related Capital Investment Plan (Million GHS) 2011-2015

Item	2011	2012	2013	2014	2015
Capital Cost	15	15	40	40	45
Initial Spares					
Additional Capitalisation					
Renovation & Modernisation (R&M)			65	65	70
Rehabilitation & Resettlement (R & R)					

7.3 Capital Expenditure Financing Plan

Table-3 Summary of Water Distribution Related Capital Expenditure Financing Plan (Million GHS) 2011-2015

Item	2011	2012	2013	2014	2015
Accumulated Depreciation	0.89	0.84	1.90	2.09	2.30
Retained Earnings					
Commercial Borrowings:					
Domestic					
Foreign					
Additional Equity Contribution By Shareholder(s)					
Grants:					
Domestic					
Foreign					
Tariff Revenue (Revenue from Projected Capacity Charge)	165.88	188.64	316	350	400

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8 Operation and Maintenance Costs

Table-4 Water Distribution Related Operation and Maintenance Costs (Million GHS) 2011-2015

Item	2011	2012	2013	2014	2015
Fixed O & M Costs	4,518,699	4,744,634	4,981,688	5,230,959	5,492,507
Variable O & M Cost					

9 Administration and General Costs

Table-5 Water Distribution Related Administration and General Costs (Million GHS) 2011-2015

Item	2011	2012	2013	2014	2015
Fixed O & M Costs	29.6	30.6	33.6	37.0	40.7
Variable O & M Cost					

10 Human Resource Costs- Employee Costs

Table-6 Water Distribution Related Human Resource Costs (Million GHS) 2011-2015

Item	2011	2012	2013	2014	2015
Fixed O & M Costs					
Variable O & M Cost					

11 Public Education

Table-7 Summary of Public Education Costs (Million GHS) 2011-2015

Item	2011	2012	2013	2014	2015
Stakeholder Communication & Sensitisation (Public Education)					

12 Financing and Interest Costs:

Table-8 Water Distribution Related Financing and Interest Costs (Million GHS) 2011-2015

Item	2011	2012	2013	2014	2015
Interest on Foreign Loans					
Interest on Domestic Loans					
Interest on Working Capital Loan					

13 Return on Equity

Table-9 Water Distribution Related Equity Financing Costs (%) 2011-2015

Item	2011	2012	2013	2014	2015
Rate of Return					

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14 Depreciation

Table-10 Depreciation (Million GHS) 2011-2015

Item	2011	2012	2013	2014	2015
Depreciation of Distribution Assets					

15 Projected Water Distribution Revenue Requirement

Table-11 Summary of Water Distribution Revenue Requirement (Million GHS) 2011-2015

Item	2011	2012	2013	2014	2015
A. Capital Recovery Component (CRC)					
B. Fixed O & M Component (FOMC)					
C. Water Charge Recovery Component					
D. Fixed Charges					
D1. Service Connection Charge					
D2. Reconnection Charges					
D3. Interconnection Charges					
D4. Separate Metering Charges					
D5. Penalties (Illegal Abstraction and Consumption of Water-Illegal Connection)					
D6. Rural Water Levy					
D7. Fire Fighting					

16 Proposed Tariff and Rates Structure

NB: The Target for Non-Revenue Water (NRW) is 46.3%. PURC allows 45% for NRW. Planned Water Sales by GWCL is 139,454,145m³ whereas PURC target results in a higher output of 142,824,414 m³. The under-absorbed output of 3,370,269m³ results in a higher sales figure for tariff calculation.