

**GHANA WATER COMPANY LIMITED**  
**2017 WATER TARIFF ADJUSTMENT PROPOSAL**

**TARIFF PROPOSAL**

Ghana Water Company Limited (GWCL) which has sole mandate to supply water to urban and peri-urban population of Ghana is required by law (i.e. Public Utilities Regulatory Commission (PURC) Act 1997, Act 538, Section 16,17 & 20) to submit periodic proposals for tariff adjustments to run its business. In our quest to improve our service coverage and quality, we are submitting this proposal to solicit support from PURC and the public.

In line with Public Utilities Regulatory Commission (PURC) Act 1997, Act 538 (Sections 16, 17, and 20), the Ghana Water Company Limited has submitted a proposal to the PURC for an upward tariff adjustment.

**UTILIZATION OF 2015 APPROVED TARIFF**

**GWCL Business Coverage**

The operations of GWCL cover the following areas;

- i. Raw water abstraction
- ii. Treatment of raw water to conform to Ghana Drinking Water Standards as set by Ghana Standards Authority.
- iii. Distribution of potable water to customers
- iv. Billing and collection of moneys from customers for water consumed
- v. Engineering planning, rehabilitation and expansion of water systems to keep pace with urban population and economic growth

These jobs have been done satisfactorily since the last major tariff review in December, 2015 albeit numerous challenges.

**Capacity Expansion Projects**

Several capacity expansion projects have been initiated and implemented to meet the growing water needs of the urban population of Ghana. The projects are worth €178.58 Million plus US\$821.93 Million plus GHS 20.85 Million while that of the ongoing projects are valued at €2.19 Million US\$213.04 Million plus GHS 16.21 Million to improve the company's system, network reliability and also to reduce losses.

The completed projects include Wa Water Supply Project, Kwahu Ridge, Konongo & Kumawu (3Ks) Water Supply Project, Nsawam Water Supply Rehabilitation and Expansion Project - Phase I, Cape-Coast Water Supply Project, Civil and Electro Mechanical Works for the Rehabilitation and Expansion of Breaman Asikuma, Dunkwa - Offin Water, Tamale, Wa, Navrongo, Bawku, Berekum, Kpando, Peki, Aboso, Bogoso, Elubo, Axim, Agona and New Edubiase Prestea and Suhum Supply Systems, Pipeline Replacement and Reservoir Maintenance Works.

Some of the on-going Projects include Akim Oda, Akwatia and Winneba Water Supply Project, Sogakope-Lome Water Supply Project, Greater Accra Metropolitan Area (GAMA) Sanitation & Water Project and some Pipeline Replacement, Reservoir Maintenance and Water Treatment Plant Repair Works across the nation. The works are at various stages of completion and are expected to be completed by 2019.

There are a number of projects at various pre-construction stages and they include; Asutsuare (DBFOT) Water Supply Project; Kpong Water Supply Rehabilitation and Expansion Project – Phase II; Damongo Water Supply Project; Sunyani Water Supply Project; Techiman Water Supply Rehabilitation and Expansion Project; Sekondi – Takoradi Water Supply Rehabilitation and Expansion Project; Cape Coast Water Supply - VRA Thermal Plant Additional Works Project; Addendum to Kumasi Additional Works Water Supply Project; Essiama Enclave Water Supply Project and Nationwide Water Network Management Enhancement Project.

## **Other Service Delivery and Efficiency Improvement Initiatives**

### *Customer Service Centre*

In our attempt to improve our service efficiency, we have introduced E-billing and E-Payment where customers receive their bills via SMS and Electronic Mails. The new system which has minimized billing inaccuracies has a barcode facility and GWCL's own application which customers can easily download and install on their mobile devices to make payments at their own convenience on any digital platform. In addition, customers are able to pay their water bills at any of GWCL's Collection Points and contracted Third Parties.

### *Minor Mains Extensions*

Vigorous efforts have been made to extend water mains across the nation namely, Accra, Tema, Kasoa, Bortianor, Suhum, Koforidua, Kibi, Kumasi, Sunyani, Acherensua, Juapong, Kpando, Ho, Akosombo, Takoradi, Sekondi, Prestea, Tarkwa, etc

### *Pipeline Replacement and Reservoir Maintenance Works*

To reduce system losses, GWCL embarked on a number of pipeline replacement / improvement works, storage tanks maintenance works and water treatment plants repair works at several locations in the country. The cost of the works was GHS9, 910,000.00.

### *Low Income Consumer Services*

A Low Income Consumer Support Unit (LICSU) has been established to promote and sustain water supply to the Urban Poor. Plans have been made to replicate the unit in the other regions of GWCL.

Also, GWCL in partnership with local and international donors have undertaken programs across the nation to assist targeted low income areas. The activities include education and water extensions to improve on access to water supply. One main project that has contributed immensely to water supply to low income areas is the Greater Accra Metropolitan Area (GAMA) Sanitation and Water Project. The project aims at increasing access to improved water supply in GAMA, with emphasis on Low Income Urban Communities. Sixteen low income communities in the eleven (11) Metropolitan and Municipal Assemblies of GAMA have been selected to directly benefit under the project. To date, about 80km of pipeline works have been completed in Old Teshie, Glefe, Gbegbeyise, Manponse, Chorkor and Manmomo communities in LEKMA, Adentan MA and AMA. Further 175km of pipe works are ongoing in Olebu, Boi, Madina, Dome, Kwabenya, Bankuma, Zinginshore, Naaman, New Legon, Pokuase and Ashaiman New Town communities. The project will also see to the connection of at least 5,000 new water service connections in GAMA which will improve water service delivery to at least 50,000 households (equivalent to 250,000 people) in GAMA.

### *Commercial Customer Complaints and Dispute Resolution*

The company still continues to operate its 24-hour toll-free call center. The complaints received are forwarded to the relevant departments and units of GWCL for prompt attention and resolution.

## **KEY CHALLENGES LIKELY TO IMPACT SERVICE DELIVERY AND STRATEGIES TO ADDRESS CHALLENGES**

### **Electricity Supply**

Our operations have been hampered by frequent power outages, low voltage and high voltage. To mitigate the effect of low voltage, the company has acquired Automatic Voltage Regulators for some of our stations. A permanent solution is to provide dedicated power connections to our production stations.

Energy is by far the highest cost element in our cost build-up, rising from about 31.5% in 2012 to about 38.3% in 2017. With the coming of the (new) additional IPPs, indications are that energy tariffs are going to rise higher. This will put a lot of pressure on GWCL operations, if adequate measures are not put in to cushion us.

Even though GWCL is exempted from payment of taxes and other levies by law, we have been paying VAT and NHIL on energy supplied by ECG. It is therefore necessary for GWCL to be adequately compensated in this regard.

## **Old Age of Production Facilities**

In view of the old age and obsolescence of some of our production facilities, they are prone to breakdowns, even though the company carries out routine preventive maintenance as required. Because the tariff is inadequate, the company is unable to stock adequate spare parts and other replacement parts. When the current tariffs are adjusted as required, GWCL will carry out all the needed repair, rehabilitation, and replacement of the key production facilities to improve on plant availability and consequently the reliability of water supply to our customers.

## **Inadequacy of Production Capacity**

Generally, water infrastructural growth rate has not kept pace with economic and population growth, thereby making it impossible to satisfactorily serve customer needs adequately. However as has been noted earlier, GWCL has undertaken a number of capacity expansion projects, in an effort to ensure adequate and up-to date water systems to meet the demand for water supply in the urban / peri-urban areas of the country.

## **Metering and Accounting**

Some of the customer meters have exhausted their life spans and are susceptible to under-registering, resulting in loss of revenue. GWCL intends to improve the metering ratio from the current 60% to at least 100% by the end of 2019. Routine calibration of the customer meters will also be carried out to sustain their effectiveness.

The company will deploy smart metering technology where customers' consumptions will be monitored in real time. Under the GAMA Sanitation and Water, a calibrated hydraulic model for GAMA (then ATMA) distribution network has been built to improve on the management of the water distribution network.

## **Billing and Collection**

### *Replacement of Billing Software*

The current billing software in use by the company has a number of limitations, including difficulty in processing customer accounts in excess of 10,000 at a time. Accounts of customers who make payments outside their regions have to be credited manually. The company has acquired an electronic billing system to surmount the above billing limitations.

### *Prepayment Metering*

The company intends to use prepayment metering as a strategy to address revenue collection challenges which we currently face. Overall, it can greatly simplify the revenue collection operation (meter reading, billing, payment), while enabling GWCL give superior service from the consumer's perspective if well implemented. We consider that while it has its challenges, a prepaid metering system is an innovative way to reduce the cost and complexity of the utility operation, while improving the quality of the service.

### *Government and Public Sector Debts*

Previously, there was a cross debt arrangement amongst public utilities where all the public utilities set off their charges levelled by either party against the other via an in-house clearing mechanism. Government has abolished the mechanism and the implication is that individual public utilities are now directly responsible to collect monies owed them by other public organizations.

The current arrangement has impacted on our revenue collection since many public institutions like the Ministries Departments and Agencies (MDAs) are reluctant in paying their bills. GWCL will need the support of PURC by fully applying sanctions to agencies which consciously are unwilling to meet their payment obligations in respect of water consumed by them.

### **Access to Finance and Repayment of Financing Costs**

Due to poor financial health of the company, we are unable to attract external commercial funding. GWCL relies heavily on foreign loans and grants for the development of its infrastructure but the quantum of the inflows has been inadequate, as such, we are unable to keep pace with the rate of population and economic growth.

The Ministry of Finance on-lends all loans and grants given us by donor partners, a move which puts pressure on our limited cash flow. We expect that a cost-reflective tariff will be approved to enable us meet our loan repayment obligation to MoF. When the tariff is adequately adjusted to reflect GWCL's full cost of operations, GWCL will be able to borrow from financial institutions for viable projects.

### **High Production Cost due to Pollution**

GWCL is also saddled with high production costs (by way of using more chemicals and undertaking frequent repairs of pumping equipment) as a result of pollution of raw water sources and siltation at the intakes mainly through human activities such as tree felling, farming, illegal mining, and sand winning. It is hoped that the efforts of Operation Vanguard would help to eliminate the threats to our water sources.

### **Strategies to Address Key Challenges**

The strategies to address the key challenges noted above have been presented in the preceding sections. In addition, the following will also be undertaken to address the challenges:

- Liaise with ECG to provide the company with dedicated power lines to our stations.
- Procure equipment to stabilize supply voltage.
- Continue with the installation of capacitor banks.
- Continue with the Installation of efficient laboratory and dosing equipment
- Use alternative and more efficient chemicals, where applicable
- Allocate sufficient funds to carry out repair, replace and rehabilitate aged equipment.
- Continue to liaise with government to make necessary funding available to carry out the needed investments.

- Liaise with WRC and security agencies to protect the various water sources.
- Hasten the payment of compensation.
- Liaise with PURC to ensure the approval of adequate tariffs.
- Provide attractive conditions of service for staff to retain their membership.
- Complete the installation of production meters
- Increase customer metering

## **RATIONALE FOR THE WATER TARIFF ADJUSTMENT**

Currently, unsatisfactory level of service is due to the inability of GWCL to raise enough revenue to finance the much needed capital investment projects. Like any utility, GWCL is expected to (1) provide affordable, safe and desirable services to consumers; and (2) ensure an institutional and commercial system capable of actually recovering costs. Like any business, GWCL must recover its costs if we are to sustain our operations. Over the years, however, the approved tariffs have not been cost reflective.

Some major issues which have persisted since the last tariff adjustment, and which have necessitated this review include the following.

### *Inadequacy of tariff to carry out urgent repairs of assets*

The Automatic Adjustment Tariff Formula does not adequately compensate us in the face of the rising prices of tools, equipment, materials and other inputs such as energy on the world market. In real terms the average tariff per cubic meter in 2015 was USD 1.49, but has reduced to USD 1.36 as a result of the cedi depreciation over the period as shown in the figure below. This has affected our ability to carry out repairs and replacement of aged and obsolete equipment and pipelines, and other critical assets as would be expected and has given rise to high levels of NRW.

### *Low Operating Cost Coverage Ratio (OCCR)*

The assessment of the ability of a utility to recover operating costs from customers' bills (using the Operating Cost Coverage Ratio, OCCR) is a major aspect of utility performance assessment, and a key performance indicator. The internationally accepted norm is that operating cost coverage ratios should be in the range 130% to 160%, with an allowance for asset rehabilitation and replacement, as well as debt payment. This excludes capital investment in expansion, additional water production etc.

The Operating Cost Coverage Ratio for GWCL for 2017 was 111% (which was even suppressed due to our difficulty in raising sufficient cash to fund all the needed maintenance activities). This is much less than the internationally accepted norm of 130% to 160%, hence the need for an adjustment of current tariff to enable GWCL recover its cost and carry out urgent asset rehabilitation.

### *Rising energy costs*

Energy is one of the major cost components for water utilities worldwide. For GWCL, it constituted about 20-30% of our total operating expenditure until 2011. However, since 2011, energy costs have been rising steadily. Currently it is about 39% of our operating expenditure. In terms of our revenues, it forms about 35%.

### *Teshie- Nungua Desalination Project*

In order to improve on service delivery to customers in the Teshie- Nungua and surrounding areas, GWCL has entered into a Water Purchase Agreement (WPA) with Messrs Befesa Ghana Limited, to produce 60,000m<sup>3</sup> of water a day. The project, which uses Reverse-Osmosis (membrane) technology to treat seawater, was commissioned in early 2015, and has brought some relief to our customers in this area. Unfortunately, GWCL is having serious financial challenges meeting its financial obligations under the WPA governing the Public Private Partnership (PPP) project.

### *Exchange rate fluctuation/ Depreciation of the cedi*

Since the last major tariff adjustment in December, 2015, the dollar-cedi exchange rate increased from 3.81 to 4.42 in January, 2018.

### *On-lending of Grants and Loans by MOF:*

Ministry of Finance has currently adopted a new policy on Grants and Loans contracted for or guaranteed for Projects to SOEs of which GWCL and Water Sector projects are of no exception. By this policy, MOF has on lent signed loan agreements to GWCL at an interest rate of LIBOR plus 4% interest rate over a period not exceeding 15 years. As part of the requirement, GWCL has opened escrow account into which an agreed percentage of the GWCL's revenues equivalent to the loan amount is being lodged.

In light of this, GWCL has no option but to recover such Loans and Grants for onward payment to MOF. This simply means that GWCL have to recover these Grants and Loans by passing it on to the customers through tariff.

### **Asset Revaluation**

Over the period, GWCL undertook revaluation of its fixed assets which has been outstanding for a long while. The revaluation exercise has resulted in a considerable upward adjustment in the company's depreciation value and therefore requires a corresponding reflection in the tariff being requested for.

### **Revenue Requirement**

1. We propose to be given the following amounts in the respective years through tariff to be able to cover the necessary operating expenses of GWCL.

Years	Proceeds from Tariff (GHS)
2017	3,325,385,469.34
2018	3,613,163,609.56
2019	3,917,050,333.46
2020	4,247,950,489.01
2021	4,692,932,011.01

**Conclusion**

We seek to be given an adequate tariff to bridge the revenue gap as noted above and in addition to address deficiencies in the prevailing tariff structure. When granted, it will enable GWCL to acquire enough financing for corporate operations as well as make a modest return on our asset base.

In our view, the tariff proposal ensures adequacy, fairness, simplicity, and affordability to domestic, public, commercial and industrial consumers