



PUBLIC UTILITIES REGULATORY COMMISSION ANNUAL REPORT

2000

The Public Utilities Regulatory Commission (PURC) is pleased to present to the Parliament of the Republic of Ghana, its Annual Report for the year 2000.

In its third year of existence, the Commission is gradually overcoming some of its initial problems and continues to make significant headway towards legitimacy among the stakeholders in the sectors regulated, in its development as an independent and credible regulatory institution.

However, the Commission also continues to appreciate the enormity of its statutory responsibilities. The Commission realises that the key to undertaking these responsibilities competently lies in the development of requisite expertise of the personnel of the Commission, among others. Therefore the Commission during the year under review intensified its training programmes for Commissioners and professional staff to equip them effectively for the regulatory tasks. A number of workshops and training courses were organised and attended, the results of which were highly beneficial in building the knowledge base of the Commission and also strengthening relationship with other institutions and external experts and resource persons whose expertise is often drawn on to the Commission's advantage.

The Commission also undertook a number of activities during the year. A significant achievement was the completion of draft Water Rate Setting Guidelines prepared in accordance with Act 538, with the assistance of the Adam Smith Institute - consultants for PURC on Water Sector issues. This is timely as it ties in with the on-going programme for the water sector Private Sector Participation (PSP) programme.

PURC in the course of the year commissioned a study to rationalize the structure of the tariff for multiple dwellings and to review the billing strategy for electricity and water in the country. The objective of the study is to develop a series of assessment

criteria that will assist the Commission to address the issue of consumer affordability and economic tariffs in a fair and equitable manner for all residential consumers while obviating the chronic and nagging compound house problem.

The Commission considers the availability of natural gas through the WAGP for electricity generation essential for sustained power supply at reasonable cost and for the success of our pricing policy for achieving economic rates. The Commission therefore continues to participate in on-going discussions towards the speedy and smooth implementation of that project.

PURC's responsibility to safeguard the interest of consumers of utility services continues to receive maximum attention. Numerous complaints received were expeditiously resolved through increasing collaboration with the utilities. As indicated in last year's annual report, the Commission has accomplished its aim of opening its first regional office in Kumasi thereby bringing our activities close to consumers in the Ashanti and Brong Ahafo regions. In the coming years, efforts will be intensified towards establishment of offices in other regions.

Next year, the Commission will focus on reviewing the current tariff regime to ensure that the utilities remain viable entities to ensure the continuous provision of services and also to vigorously monitor the quality of their performance by enforcing the standards of performance and compliance, with rules and regulations set by the Commission. A comprehensive public education campaign will also be undertaken to sensitise consumers of their rights and responsibilities as well as the activities of the Commission.

It is important to stress that the successful implementation of the Commission's current plans and future programmes would depend on the availability and adequacy of resources. Lack of adequate financing is a continuing constraint to our efficacy as a regulatory body. The Commission would invite honourable members to endorse a proposal submitted to Government to secure an independent source of funding and also give it full support when it is put before Parliament.

2000 - Capacity Building

As part of the capacity-building drive of the Commission, Commissioners and members of staff attended a number of workshops and training programmes during the year.

Two members of staff and a Commissioner attended a two-week program on "**International Training Program on Utility Regulation and Strategy**" in Florida, USA in January and June 2000. The World Bank sponsored this programme. The objective of the course was to enhance the economic, technical, and policy development skills required for designing and managing sustainable regulatory systems for the public infrastructure sectors.

The Adam Smith Institute, consultants sponsored by the DFID to provide technical support for capacity building of PURC in the water sector, organised two international workshops in the year. The Technical Director and an Energy Analyst participated in one on "**Utility Regulation in Africa**" in May 2000 at the University of

Stellenbosch, South Africa. The second was a three-day workshop in December on the "**Institutional Reform of the Water Sector**" in London to allow participants from the world over to share their experiences. A seven-member delegation from the Commission attended this workshop. Issues discussed ranged from economic regulation and drinking water quality regulation through to the various options available for private sector participation.

The Director of Legal Services had the opportunity to attend a training programme on "**Contract Compliance and Performance Monitoring**" in October, organised by the Institute for Public-Private Partnerships, Washington DC. In view of the Commission's regulatory responsibility to ensure that contracts entered into through IPPs are properly structured and in line with PURC's stipulated operating and pricing arrangements and compliance during performance, this training programme provided valuable exposure to the Director.

In November, the Public Relations Manager was seconded to OFWAT, the water regulator of the United Kingdom to learn about external relations (Public Relations) issues and techniques. Areas covered include:

Media Interaction

Information Sources

Stakeholder Relations

Internal Communication

Public Enquiries

Document Production and

Library Set-

2000 - Budgetary Constraints

Inadequate funding continued to constrain the Commission during the year. Expenditure exceeded a much-reduced approved budget of TWO THOUSAND SIX HUNDRED AND FORTY-FIVE MILLION, THREE HUNDRED AND FOUR THOUSAND, NINE HUNDRED AND FOUR (Ghana) Cedis (**G¢; 2,645,304,904**) in spite of cost-saving measures adopted. These funding constraints have made it extremely difficult for the Commission to effectively perform its statutory responsibilities.

As noted in the previous Annual Report, it has become more imperative than ever that other sources of funding apart from government subvention be pursued. The Commission therefore submitted a proposal to government on the option of obtaining funds from the utilities as a charge for regulatory costs or as a contribution towards regulatory activities. The Commission is yet to receive a response from government on this matter.

Activities of Commission:

Volta River Authority - Technical Analysis

During the year under review, the Commission monitored the actual supply mix of VRA's generation sources against projections since these values formed not only the basis of the Commission's tariff computation but also had implications for end-user tariffs, details of which are shown in Table 1 below.

Table 1: Actual And Forecast Energy Generation By Source For Year 2000

SOURCE	ACTUAL GWh	%	FORECAST FOR 2000(GWh)	% VARIANCE ACTUAL-FORECAST(GWh)
			000.00	000.00
HYDRO	6,605	82.0	6,100	505
TEMA	-		-	
TAKORADI-1	316	4.0	2,230	-1,914
TAKORADI-2(VRA/CMS)	282	3.4	200	82
IMPORTS	864	10.6	500	364
TOTAL	8,067	100	8,530	-963

As shown in Table 1, realized production of hydro generation

for the year 2000 was higher than the projected quantum by 8.3% while generation from Thermal sources comprising the units of Takoradi 1 (Simple and Combine Cycle) and Takoradi 2, was lower than forecast by 75%. Supply from imports was higher than what was projected by 72.8%.

Increased generation of energy from hydro is accounted for by the fact that the Akosombo Retrofit which commenced in the last quarter of 1999 was completed in the second half of year 2000, leading to an increase in energy supply from hydro source.

As shown in figure 1 below, actual energy generation by source as monitored by PURC during year 2000 shows that hydro accounted for 82%, with thermal and imports accounting for 7% and 11% respectively.

During year 2000, total energy demand by all customer-types totalled 7884 GWh. Of this figure, Domestic customers accounted for 4987 GWh representing 63.3%, while VALCO and CEB accounted for 2505 GWh and 392 GWh, respectively, representing 31.7 % and 5.0% respectively. This is shown in Table 2 below.

Table 2 Total Energy Demand For The Year 2000 By Customer-Type

	DEMAND (GWh)	% COMPOSITION
DOMESTIC	4,987	63.3
VALCO	2,505	31.7
CEB	392	5.0
TOTAL	7,884	100%

As shown in Table 3 below, the available daily system peak capacity for year 2000 shows that hydro contributed 780MW (65.5%), while TAPCO and imports contributed 300MW (25.2%) and 110MW (9.2%) respectively.

Table 3 VRA's Effective Daily Peak Capacity For The Year 2000

SOURCE	CAPACITY (MW)	% COMPOSITION
HYDRO	780	65.5

THERMAL	160	25.2
IMPORTS	110	9.2
TOTAL	1150	100.0

The Table 4 below shows the daily peak demand situation during the period under review. With total average daily demand of 1,095 MW, domestic customers accounted for 740MW, VALCO 250MW while CEB accounted for 110MW.

Table 4 Average Daily Capacity Demand Situation During Peak Period

CUSTOMER-TYPE	MW
DOMESTIC	735
VALCO	250
VRA SUPPLY TO CEB	110
TOTAL	1,095

b) Financial Performance

The main indicator monitored by the PURC from a regulatory perspective was Rate of Return (ROR) on average revalued net fixed assets. VRA attained a ROR of -2.4% in 2000, compared to 1.8% in 1999 and 0.62% in 1998. Total revenue from electricity sales was not adequate to cover the Authority's total operating expenses in 2000. This resulted in an operating loss of **246 Billion Cedis** as shown below:

Total Revenue	951.6 Billion Cedis
Operating Expenses	1198.0 Billion Cedis
Operating Loss	246.40 Billion Cedis
Net Loss (After Exchange Fluctuation, Interest & Commitment Charges)	909.8 Billion Cedis

Table 5

Percentage Composition Of VRA's Operating Expenses For The Year 2000

DESCRIPTION	OPERATING EXPENSE (BILLION CEDIS)	% COMPOSITION
System Generation: Hydro	13.23	1.2
Thermal	174.24	15.9
Imports of Electricity (from Cote d'Ivoire & TICO)	422.30	38.6
Transmission	16.67	1.5
Central Services	68.60	6.3
Akosombo & Akuse Township	5.53	0.50
Medical	7.24	0.70
Distribution (NED)	13.86	1.30
Depreciation	371.77	34.0
TOTAL	1,093.47	100%

**Percentage
Composition Of
VRA's Operating
Expenses For The**

Year 2000

2000 - Energy Sector

Electricity Company of Ghana Ltd (ECG)

Table 6: Highlights of ECG's Operational Performance

ITEM	GWh	CEDIS
Total Energy Purchased (GWh)	3,945.54	374,826
Total Energy Sold (GWh)	2,818.55	550,989
Energy Purchased (Million Cedis)	000.00	372,267
Capacity Charges Paid to EPP's (Million Cedis)	000.00	0.00
Distribution, Operation & Maintenance	000.00	15,262
Distribution System Losses (%)	000.00	28

Financial Performance:

In analysing the financial performance of ECG for the year 2000, the PURC reviewed the company's Rate of Return (ROR) achieved, Electricity Sales Revenue, Power Purchased, Distribution System Losses and Operating Profit (or Loss).

During the year under review, ECG achieved a ROR of -0.37 % compared with 1999 end-of-year ROR of 6.96%.

Using PURC's Distribution System Loss Benchmark of 20%, ECG should have sold 3,156 GWh of energy, to yield sales revenue of 774.94 Billion Cedis.

However, the company sold only 2,818 GWh, thus recording sales revenue of 550.99 Billion Cedis, resulting in a revenue shortfall 223.95 Billion Cedis, with respect to PURC's regulated revenue.

The shortfall in revenue for the company could be attributed mainly to the following:

a. High distribution system losses of about 28% (i.e. 8% above PURC benchmark of 20% for year 2000).

b. Low sales collection rate of 82% for year 2000.

With an approved end-user-tariff of 192 cedis/KWh and distribution system losses of 28% for the year 2000, ECG was unable to generate enough revenue to fully cover its total operating expenses for the year under review, as shown below:

Table: Net Operating Loss

Total Sales Revenue (Including Street Light Levy)	552.14 Billion Cedis
Total Operating Cost	560.76 Billion Cedis
Operating Loss	8.62 Billion

	Cedis
Net Operating Loss (After Exchange Fluctuation & Loan Interest payment)	425.43 Billion Cedis

2000 - PURC & West Africa Gas Pipeline Project

The purpose of the WAGP project negotiations is to establish a harmonised regime among the four participating West African countries to regulate gas operations by contract, which effectively excludes some aspects of regulation under the PURC Act. However PURC as a co-opted member of the Project Implementation Committee (PIC) has been participating in the ongoing negotiations to ensure that the pricing methodology and other issues affecting operations agreed among the stakeholders are acceptable to the Commission because of their implication for electricity generation under the natural gas scenario.

The Commission has strongly indicated to the Commercial Group and the Volta River Authority, the major purchaser of the gas, that pricing issues dealt with in the Concession Agreement must have internal approvals, including that of the PURC, before conclusion of negotiations.

2000 - Code of Practice & Standards of Performance

During the year, the Commission collaborated with the Energy Commission to draft the Standards of Performance Regulations pursuant to section 27 of the Energy Commission Act (Act 541) to regulate electricity distribution companies. Some of the issues the Regulations will govern include:

- a. Supply and Metering of Electricity;
- b. Quality of Supply of Electricity;
- c. Electricity Interruptions;
- d. Electricity Billing and
- e. Review of Electricity Bills

When the Regulations, which are currently being reviewed by the Attorney General's Department, are finalised they will be monitored and enforced by the PURC under section 13 of the PURC Act.

Water Sector:

2000 - Water Rate Setting Guidelines

In accordance with Act 538, PURC is required to develop guidelines for water rate setting. Draft Water Rate Setting Guidelines were completed at the end of June 2000, with assistance from the Adam Smith Institute.

In furtherance of the Commission's commitment to fully consult stakeholders on such important issues, copies of the draft guidelines were issued to key stakeholders for their comments. As at the end of the year, comments had been received from the Ghana Water Company Limited (GWCL) and Stone & Webster, the Transaction Advisor for the Private Sector Participation Programme in the water sector. Their comments were considered in the revising of the document.

It is the intention of the Commission to organize a workshop during the early part of 2001 to enable all stakeholders to make further contributions to the document, which will lead to the finalisation of the guidelines.

In preparing the guidelines, due consideration was given to the on-going reforms in the water sector under the Private Sector Participation Programme.

2000 - Water Tariffs

Following a submission for a tariff adjustment, the Commission approved new tariffs for GWCL on May 27, 1999. The Commission indicated that the new tariffs were expected to cover year 2000. GWCL therefore did not submit any tariff proposal for 2000.

2000 - Technical Analysis

Water Production

Ghana Water Company's water production during the year under review was 191 million cubic meters. Compared to that of 1999, there was a reduction in water production of almost 2%. The target set for water production was 197.2 million cubic meters. The company attributes reduction in production mainly to frequent power outages.

Non-Revenue Water

The average non-revenue water for the year under review was 51%. Compared to the 1999 figure of 55%, there was a relative improvement in performance. This figure is, however, higher than the PURC benchmark of 45% for year 2000. The following strategies adopted by GWCL must have contributed to the reduction in non-revenue water:

- a. The continuous programme of procurement and installation of consumer and bulk meters;
- b. Use of own staff and private contractors to identify and disconnect illegal connections.

In the coming year, PURC intends to intensify its monitoring activities and also strengthen its regulatory mechanisms to ensure the achievement of better performance from GWCL.

Plant Performance

Compliance for pH was satisfactory with all the treatment plants except Densu/Koforidua, which had reported a broken down lime dosing system since the second quarter.

Compliance for sampling was satisfactory for all the systems except Daboase/Inchaban, Brimsu, Koforidua Densu and Dalun.

Table 7: An indication of the level of residual chlorine and bacteriological compliance of samples taken at the headworks.

Major Plants									
Indicator	Weija	Kpong	Daboase / Inchaban	B'kesse	Brimsu	B/A	Densu	Kpeve	Dalun
Residual Chlorine (% compliant)	89	86	74	100	73	100	100	100	70
Bacteriological (% compliant)	100	100	100	100	100	100	100	100	100

Residual Chlorine levels were lower in the third quarter for both Weija and Kpong.

2000 - Water Distribution Systems

Water Distribution Systems

GWCL reported on eight out of the ten regional distribution systems during the year under review. With the exception of Ashanti and Brong-Ahafo regions, sampling targets ranged between 73% in ATMA to 40% in the Volta region.

Table 8: Level of Performance of Regional Distribution Systems

INDICATOR	ATMA	ASH	W/R	B/A	C/R	U/E	E/R	V/R	N/R
% of Target Achieved (sampling)	73	106	63	103	72	55	46	40	60

Residual Chlorine (% Compliant)	67	90	0	100	56	100	92	100	60
Bacteriological Quality(% Compliant)	100	100	98	92	100	95	97	100	100
pH (% Compliant)	98	80	88	100	54	80	94	100	40

Although there was improvement in the levels of residual chlorine in the third quarter, much more needs to be done to move compliance levels above 95%. Figure 2 shows the situation graphically.

Figure 2: Performance of Some Regional Distribution Systems

Problems Encountered

Some of the reasons given by GWCL for its inability to meet targets were:

- a. Inadequate dosing facilities;
- b. Non-flushing of pipelines;
- c. Breakdown of sampling vehicles; and
- d. Unavailability of water in the distribution system.

2000 - Commercial Analysis

Billing and Collection

GWCL's billing improved by 17%, from ₦109.31 billion in 1999 to ₦127.83 billion in 2000. This increase was due to the following measures undertaken by GWCL:

- a. Increased detection of illegal connections;
- b. Use of private companies in arrears collection; and
- c. The installation of more meters.

Revenue collection amounted to ₺110.37 billion with a collection ratio of 86%. Table 9 gives the details of the billing, collection, and collection ratio of the different categories of consumers for the year 2000.

Table 9: Billing & Collection Analysis

	TOTAL BILLING & COLLECTION FOR YEAR 2000		
	Billing(₺b)	Collection(₺b)	Collection Ratio(%)
Private	106.09	97.24	92
Government	21.74	13.13	60
Total	127.83	110.37	AVERAGE: 86

2000 - Financial Analysis

proposal for year 2001. The financial performance was not satisfactory due to the depreciation of the Cedi resulting in a higher exchange loss of ₺125.15 billion compared to a loss of ₺101.83 billion in 1999. Interest payments on loans amounted to ₺18.36 billion.

The highlights of GWCL's financial performance in 2000 is given below:

Total Income	₺136.09b
Total Direct Operation & Maintenance Cost	₺151.17b
Surplus (Deficit)	(₺ 15.08b)
Less Non-operating Cost	₺136.16b
Net Profit (Loss)	(₺151.24b)

The rate of return on average net fixed assets improved from -3.6% in 1999 to -2.8% in 2000. This may be attributed to the asset revaluation exercise, which increased the value of the net fixed assets.

2000 - Visits to GWCL Systems

Water Sector

During the year, the technical team for water visited thirteen GWCL supply systems in the country as part of familiarization and monitoring activities regarding the

operations of the company. The team also apprised itself of the condition of the GWCL plants. The systems inspected included Kpong and Weija in the Greater Accra Region, Ho and Peki in the Volta Region, Koforidua in the Eastern Region, Kumasi in the Ashanti Region, Sunyani in the Brong Ahafo Region and all the systems in the Northern, Upper East and West Regions. [A summary of the findings is given in Table 10.](#)

2000 - Summarised Findings of Visits

Table 10. Summarised Findings of Visits

System	Remarks
Greater Accra 1. Kpong	The old works of the plant require rehabilitation. This could lower production cost. However, the new works were in a good state. The raw water quality is not very good, thus resulting in the use of a substantial quantity of chemicals in the treatment process.
2. Weija	The raw water quality also affects the taste and odour of the treated water. There is the need to police and protect the Densu Basin from wanton pollution so that there could be savings in chemical cost.
<i>Volta Region</i> 3. Kpeve (Ho & Peki)	Dosing equipment was faulty, but an improvised system had been put in place. The treatment plant buildings need to be rehabilitated. Despite these setbacks, the water produced was of good quality and met demand requirement.
4. Eastern Region Koforidua	The intake works and the treatment plant are very old and require rehabilitation. The water supplied met about 50% of demand requirement. Additional water source is required for the Koforidua municipality.
Ashanti Region 5. Kumasi (Barikese & Owabi)	The scour valves of the Owabi Dam need to be repaired to facilitate desilting of the dam. The distribution network is not adequate for receiving the water from the treatment plants when producing at full capacity.
Brong Ahafo Region 6. Sunyani	The water is inadequate and therefore has to be rationed. The clear water well is rather small and could affect supply during emergency situations.

Northern Region 7. Tamale	The transmission pipeline is old and has leaks on it. Although the recent rehabilitation of the system has brought about an improvement in water delivery, it does not meet demand. Some customers are not co-operative and this hampers GWCL's operations
8. Damango	There is adequate water for the town but the inhabitants cannot easily afford the cost of water. The raw water reservoir is heavily silted and could affect the availability of raw water in the near future if not remedied.
9. Yendi	The transmission and distribution pipelines are old and leak and the water treatment plant does not function efficiently. Although the plant can produce enough water to meet demand, water is rationed because consumers cannot easily pay for the water.
Upper East Region 10. Bolgatanga	The dam embankment was being eroded with cracks developing on the intake tower. The scour valves required to de-silt the dam, were not operational. There is adequate water to meet demand requirements but chlorination is inadequate because the delivery pipe at the treatment plant is clogged.
11. Bawku	Water is rationed because production is inadequate and the distribution network is limited to the central part of Bawku. Residual chlorine and bacteriological quality were below required standards.
12. Navrongo	The water delivered to consumers is inadequate because one of the transmission pipelines is old and cannot withstand high pressures. The water delivered is not chlorinated and is susceptible to bacterial growth.
Upper West Region 13. Wa	Additional water source is required for the Wa as the supply is inadequate. The distribution network is limited to the old parts of the town.

2000 - PURC & the Private Sector

In accordance with Government policy to achieve greater coverage of potable water to consumers, discussions on PSP were commenced in 1996. The process was chosen as the quickest mode for injecting technical and

financial resources into the water sector.

The Commission has been interacting and working closely with the Water Sector Restructuring Secretariat (WSRS), the advisory body on PSP, on the involvement of the private sector in water delivery.

Major inputs by PURC to the process has been through the reviewing of the bid packages for the Business Units A and B which resulted in significant changes being effected on the following sections:

- a. Lessee Fee calculations and the adjustment mechanisms for the various cost components
- b. Social Concerns (Pro-poor provisions)
- c. Regulatory Standards and Targets
- d. Regulatory Penalties

The Commission has also been represented at various seminars, workshops and conferences organized by the WSRS. These include workshops to present bid packages; Donor's Conferences and a workshop on Standardization of water quality.

2000 - Study on Rationalising Tariff Structure

Since its establishment, the Commission has adopted and applied the concept of a lifeline tariff for electricity and water consumers. PURC's eventual objective is to eliminate cross-subsidies between classes of customers. The cross-subsidies involved in setting lifeline tariffs are derived from the tariffs for residential consumption above the lifeline consumption levels, using the concept of inclining tariff structure.

The Commission has observed some weaknesses in the current regulatory scheme. In some instances the tariff structures tend to exacerbate the inequities between the poorest and the better-off consumers. In some cases, billing arrangements cause particular difficulties for the poorest consumers.

In an effort to find solutions to these problems, the PURC in the year under review, commissioned a study to rationalize the structure of the tariff for multiple-dwellings and to review billing strategies for electricity and water services in the country. A consulting firm, CEED Solutions, was appointed to undertake the study.

The overall goal of the study is to develop a series of assessment criteria that will assist the Commission to address the issue of consumer affordability and economic tariffs and also rationalize the tariff structure in a fair and equitable manner for all residential consumers. The results of this important study are very keenly awaited.

2000 - Consumer Services

Consumer Protection

As part of PURC's objectives to ensure that consumers are not exploited, and that

their rights are adequately and effectively protected, the Commission, in pursuance of Section 3(b) of Act 538, has requested the utilities to post copies of their Schedule of Charges for Services Rendered in front of their offices. This directive has been duly complied with and charges were found posted in most offices of the utilities. The objective was to avoid arbitrariness in pricing, price discrimination and to protect consumers from marketing practices that were unfair or abusive in nature.

PURC's Bureau of Consumer Services has prepared a comparative analysis of non-tariff charges of the Volta River Authority (VRA-NED) and Electricity Company of Ghana (ECG) Limited for the consideration of the Commission. The Commission is reviewing the recommendations made to ensure that there is some degree of standardization in the pricing of services rendered by the two sister utility companies. Standardization in pricing would reduce the disparity in the pricing of the same services by the VRA and ECG.

In response to some violations in disconnection procedures, the Commission has had to remind the utilities of their duty to comply with the provisions of L.I. 1651 on "Termination of Service".

Prepayment Metering

Although the Commission appreciates the reasons given by the utilities for broadening the coverage for prepaid meters beyond their pilot schemes, it however cautioned that adequate preparation and care must be applied in implementing the wider scheme. Important issues such as sensitization of customers to embrace the concept through sustained education, determination of appropriate incentives in the nature of tariff discounts for affected customers, as well as the establishment and operation of a transparent pricing mechanism had to be appropriately addressed. Moreover, the Energy Commission, in collaboration with the PURC is in the process of promulgating the Code of Practice and Standards of Performance Regulations, which would provide the desired framework for prepayment metering by electricity utilities companies.

Customer Charters

To enable the PURC to perform some of its statutory obligations of monitoring utility service standards in Ghana, the Commission has requested each of the utility companies to prepare a comprehensive Customer Charter. The Customer Charters will set out the standards of service that customers should expect from the service providers. They will also spell out the obligations and responsibilities of consumers.

It is envisaged that Ghana Water Company's (GWC) charter, which is currently going through a review process, will be finalized soon. The ECG and VRA have engaged consultants to assist them draw up performance standards for both technical and customer service areas.

2000 - Public Relations

Public Education

During the year under review, the Commission, in its efforts to educate consumers and the general public on PURC's functions and activities, produced two consumer brochures that outline in simple language the contents of the two Legislative Instruments so far issued by the Commission. These are the Public Utilities (Termination of Service Regulations) 1999 L.I 1651, and the Public Utilities (Complaints Procedure Regulations) 2000 L.I. 1665.

The Commission was also represented on a number of radio programmes and participated in phone-in public education programme on various radio stations. PURC officials responded positively to the numerous enquiries from the media, the public and organizations and welcomes the opportunities offered by the media to discuss the Commission's work and some of the challenges of utility regulation.

Regional Offices

Pursuant to the plan of action on the establishment of regional offices mentioned in the 1999 Annual Report, the Commission during the year opened its first regional office in Kumasi. Preparations are being made towards opening a second regional office in Tamale.

2000 - Introduction

One of the Commission's most important tasks, as far as consumers are concerned, is to develop and operate a regulatory framework that requires the utilities to provide to the public, service that is safe, adequate, reliable, and efficient and also at reasonable cost and on a non-discriminatory basis.

To that end, the Commission's **Bureau of Consumer Services was instituted in the Secretariat with the primary responsibility of monitoring the performance of the utility companies** in the delivery of good quality of service to meet consumer expectations. Some of the functions of the Bureau are to:

Provide responsive, efficient and accountable management of consumer complaints

Protect the right of Consumers with regard to quality of services

Advise consumers of their rights; responsibilities as well as educating the public to enable consumers make informed choices in respect of their services.

In addition to the Bureau of Consumer Services, a Water Quality Inspectorate is to be established and resourced to deal with water quality issues. The Inspectorate could be fully operational at the beginning of 2001.

Part of the Commission's regulatory responsibility is to set rates that will furnish the utilities with the requisite resources to enable them provide the good quality of service that will be satisfactory to consumers; and also allow reasonable returns on capital invested in providing the service. In setting the rates however, the Commission has always insisted on a linkage between tariff setting and improvement in the quality of service. In the 1998 and 1999 tariff increases for electricity and water respectively, PURC instituted certain benchmarks which were to

be met by the utilities. Further increases in tariffs were conditional on the utilities ability to meet these performance targets. For example, for electricity supply, the distribution utilities were expected to reduce their operational losses from 20% to about 17% in 1999. Unfortunately due to some operational, cash flows and other problems, these performance targets were not met. The utilities' inabilities and other factors partly informed the decision of the Commission not to increase tariffs in 1999 and 2000.

In the year under review the following are the specific findings of the Commission on quality of service of the utilities.

2000 - The Volta River Authority

During year 2000, VRA did not experience any major or significant system collapse hence a more reliable supply of energy compared to the year 1999.

With regard to the transmission system, **VRA achieved a 97.3% average** in-service period compared to 1999 **performance of 98.97%**. The marginal decline in transmission system reliability, according to VRA, was attributable to the impact of planned maintenance and major rehabilitation works on some of the transmission network, during the period under review.

2000 - Electricity Company of Ghana

Analysis of ECG's outage report reveals that unplanned outages and faults accounted for 78% of total outages in the country while planned outages and load shedding accounted for 18% and 4% respectively.

The system average availability figures (excluding load shedding) for the entire country is as follows:

Table: System Average Availability Figures

DISTRIBUTION ZONES	AVERAGE CUSTOMERS HOURS LOST PER YEAR
Accra	82
NED	113
Tema, Volta & Eastern	31
Western & Central	205
Ashanti	122

COUNTRY AVERAGE:	111
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2000 - Ghana Water Company Limited

Water Quality

Water delivered by GWCL is subjected to drinking water standards established by the Ghana Standards Board (GS 175 PTS 1, 2, 4 and 5).

GWCL over the years, have sampled water from fixed points and randomly selected customers' taps. Regular samples were also taken from the treatment works and service reservoirs. Among the tests conducted were determination of bacteriological quality and residual chlorine. Bacteriological Quality and Residual Chlorine Compliance recorded averages of 95% and 88% respectively. These results are satisfactory; hence the water is suitable for drinking and other domestic purposes.

However, there were few customer complaints of water quality in respect of colour and turbidity. These were mainly due to inadequate flushing in the distribution network.

Water Delivery

Reliability of water delivery to consumers was not satisfactory during the year under review. This was due to GWCL's inability to meet the water demand resulting in a supply gap. **Table 11 below, shows the daily water demand and supply for the year under review.** To minimize or eliminate this gap, massive capital injection is required for plant expansions, renewals and rehabilitations.

Table 11: Shows the daily water demand and supply for the year 2000

AREA	YEAR 2000	
	Water Demand (Million gallons/day)	Water Supply (Million gallons/day)
National	187	118
ATMA	94	60

As an interim measure, GWCL embarked on water-rationing programme to ensure equitable water distribution to consumers. Unfortunately, the programme was not well supervised and therefore did not yield the expected results.

Consequently, the PURC intends to set up a task force in 2001 to monitor among other things, water delivery to urban areas experiencing acute water shortage.

2000 - Consumer Complaints

The Commission received 186 complaints in the year 2000. The breakdown of the complaints is tabulated as follows:

Table 12: Electricity Complaints

Quarter	No. Of Complaints	Quality of Service/Load Shedding	Billing	Disconnection/Reconnection	Illegal Connection	Prepaid Metering	New Service/Capital Contribution
1st	20	3	13	2	2	----	----
2nd	44	4	27	4	6	----	3
3rd	50	10	25	4	5	3	3
4th	26	4	18	2	2	0	----
Total	140	21	83	12	15	3	6

Table 13: Water Complaints

Quarter	No. Of Complaints	Quality of Service	Billing	Disconnection/Reconnection	Prepaid Metering	New Service/Capital Contribution
1st	8	4	3	1	----	----
2nd	14	4	8	2	----	----
3rd	12	3	9	----	----	----
4th	12	3	8	1	----	----
Total	140	21	83	12	3	6

From the statistics, it is evident that 75% (140) of the complaints were on electricity, with water recording 25% (46). Billing problems continued to be the major cause of dissatisfaction among consumers of utility services, accounting for as much as 60% of the total number of complaints received.

The marginal increase in the number of complaints from 184 in 1999 to 186 in 2000

could be attributed to:

- a. inadequate publicity due to financial constraints and
- b. the delay in implementing the regional programme i.e. opening of the Regional Offices. (So far, only the Kumasi Regional Office has been opened).

The Commission was successful in resolving 180 complaints while 6 complaints remained unresolved at the end of the year.

The procedures used by the BCS to resolve the complaints are:

- a. acknowledgement of receipt of complaints
- b. request to the utility to submit reports on the complaints
- c. investigation by the Bureau
- d. receipt and examination of the utility's report
- e. further inquiry and meetings with disputing parties for mediation
- f. recommendation(s) based on findings to the Commission
- g. parties informed about the decision of the Commission
- h. monitoring the compliance with the decision of the Commission.

2000 - PURC Mandate Under the Energy Commission

Under the Energy Commission Act, 1997 (Act 541) the PURC has additional responsibility of setting rates for the following:

- e. Wholesale supply, transmission and distribution of natural gas
- f. Storage and transportation of petroleum products by a refinery
- g. Bulk transportation of petroleum products by pipelines, barges and rail tanker wagons, and
- h. Operations of the national network of petroleum strategic storage depots

As indicated in our 1999 Annual Report, PURC held discussions with the Energy Commission on ways to operationalise our mandate, however due to the latter's involvement in a transitional process of the sector, the matter was put on hold. PURC urges, and remains hopeful that the Ministry of Energy and the Energy Commission would initiate appropriate measures to enable PURC assume its statutory responsibilities over these aspects of the petroleum sector.

To enable the PURC to perform some of its statutory obligations of monitoring utility service standards in Ghana, the Commission has requested each of the utility companies to prepare a comprehensive Customer Charter. The Customer Charters will set out the standards of service that customers should expect from the service providers. They will also spell out the obligations and responsibilities of consumers.

It is envisaged that Ghana Water Company's (GWC) charter, which is currently going through a review process, will be finalized soon. The ECG and VRA have engaged consultants to assist them draw up performance standards for both technical and customer service areas.

Relationships with Regulatory Bodies:

2000 - External

Uganda Government Team

In January, a 15-member delegation from the government of Uganda, drawn from the Ministry of Water, Lands and Environment as well as three consultants, paid a visit to the Commission to learn from the Commission's regulatory experience. The government of Uganda has decided to carry out an Urban Water and Sanitation Sector review programme. The visit was therefore part of a study tour of Ghana with the aim of exposing key Ugandan stakeholders and decision-makers to Ghana's water sector reform programme.

African Development Bank

The Commission also hosted a delegation from the African Development Bank in January. The Bank wanted to know the Commission's functions and policy, particularly aspects relating to promotion of investment in public infrastructure projects as well as tariff methodology and pricing policy.

Maryland Public Service Commission

Reciprocal visits were made under the Executive Exchange Programme between the PURC and the Maryland Public Service Commission (MPSC), which commenced in 1999. In June 2000, five members of staff undertook a one-week working visit to Maryland Public Service Commission sponsored by the USAID through the United States Energy Association (USEA) as part of the programme. The objective of the visit was to enable the delegates to familiarize themselves with the operations of the MPSC and to learn from its experiences.

2000 - Governmental Institutions

Ministry of Energy

PURC's working relationship and level of cooperation with the Ministry of Energy continued to develop.

In March 2000, the Ministry established a Power Sector Consultative Group, which was to meet on a monthly basis to continually review sector policy and development issues. The Commission accepted the invitation to join the Group and has participated fully in its deliberations. This proved to be a useful link for apprising PURC of current policy developments in the sector.

The Ministry also continued to invite PURC to various important fora, which included discussions on sectoral policy reviews and presentations to other organisations such as NDPC and external energy sector donors.

Ministry of Works and Housing

The Commission continues to have a fruitful working relationship with the Ministry, which has responsibility for the water sector. The Ministry is also diligently working towards providing PURC with permanent office accommodation.

Energy Commission

The Commission has collaborated with the Energy Commission often including the project to develop a Legislative Instrument on technical operations and standards of performance for electricity distribution utilities.

Following an invitation to the Commission, the PURC has nominated the Technical Director of the Commission to serve on the Technical Committee of the Energy Commission. This appointment serves as an important link between our two bodies at the technical level.

In addition, some joint Standing Sub-Committees in respect of natural gas and electricity have been established to further the collaborative mandates of the two Commissions.

Water Sector Restructuring Secretariat (WSRS)

In the course of the year a number of discussions and meetings were held with the Water Sector Restructuring Secretariat (WSRS), on the status of the water sector reform programme. The WSRS also invited the Commission to workshops and conferences including the Donor's Conference held to solicit support from donors for the PSP programme, especially in the areas of extension, renewals and rehabilitation.

2000 - Donors

Department For International Development (DFID) UK

DFID has been very supportive of the work of the Commission. Based on a needs assessment, DFID is giving assistance to the Commission in capacity building for the water sector through the Adam Smith Institute.

Also the Public Relations Manager of PURC was sponsored to learn about public awareness techniques and operation of Consumer Service Committees in the United Kingdom.

The World Bank

PURC continues to receive financial support from the World Bank for a variety of the Commission's activities through the Private Enterprise Partnership Technical Assistance (PEPTA) programme.

USAID

The Executive Exchange Programme between the PURC and the Maryland Public Service Commission (MPSC) continues to be sponsored by the USAID through the

United States Energy Association (USEA).

During the year, the Commission collaborated with the Energy Commission to draft the Standards of Performance Regulations pursuant to section 27 of the Energy Commission Act (Act 541) to regulate electricity distribution companies. Some of the issues the Regulations will govern include:

- f. Supply and Metering of Electricity;
- g. Quality of Supply of Electricity;
- h. Electricity Interruptions;
- i. Electricity Billing and
- j. Review of Electricity Bills

When the Regulations, which are currently being reviewed by the Attorney General's Department, are finalised they will be monitored and enforced by the PURC under section 13 of the PURC Act.

9. MANDATE OF PURC UNDER THE ENERGY COMMISSION ACT

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