

PUBLIC UTILITIES REGULATORY COMMISSION



ANNUAL REPORT 2020

Mission

To build a credible and sustainable utility regulatory regime that protects the stakeholders' interest.

Vision

To be a model utility regulatory institution in Africa

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I The Commission/Board

The Commission is made up of nine members who are appointed by the President in consultation with the Council of State. The Commission consists of a Chairman, an Executive Secretary, 4 persons with knowledge in matters relevant to the functions of the Commission, and a representative each of the Trades Union Congress (TUC), the Association of Ghana Industries (AGI) and Domestic Consumers.



Mr. Michael Opam (Chairman), B.Sc Chemical Engineering, MSc Energy Management and Policy. Mr. Opam is an energy sector expert with extensive experience in engineering, energy economics and policy analysis. He served as an acting Executive Secretary of the Energy Commission, Ghana from 2015 to 2016 and was a member of the Board of Directors of the Electricity Company of Ghana (ECG) between 2006 and 2008. Mr. Opam also worked as a Technical Director at the Ministry of Energy from 2006 to 2009, having served as coordinating secretary to the Ghana Power Sector Reform Committee which undertook the design and development of Ghana's Power Sector Reform Programme (1994-1997).



Mrs. Mami Dufie Ofori (Member and Executive Secretary) B.Sc. (Hons) Development Planning, MBA Project Management with professional training in Corporate Strategy, Financial Policy, Strategic Planning and Utility Regulation and Strategy from prominent institutions. Mrs. Ofori worked as a Senior Economic Planning Officer (1996 – 2001) at the Ministry of Finance, representing the Ministry on its World-Bank sponsored advisory committee on the restructuring of the Water Sector. From 2012 to 2017 she worked in key positions at the Public Utilities Regulatory Commission and was at one time also a Director of the Local Content Unit of the Ministry of Power, being one of the key developers of Local Content Regulations for the electricity sector.



Prof. Joe Amoako-Tuffour (Member) B.A., M.A. and Ph.D. in Economics. He is a Professor of Economics with Public Policy experience and interest in Natural Resource Economics, Monetary Economics and Public Finance. Professor Amoako-Tuffour was the Director of Research at the African Center for Economic Transformation (2015-2017). He worked as a Tax Policy Advisor at the Ministry of Finance and Economic Planning, and was significantly involved with the Revenue Management Technical Team, Oil and Gas Fiscal Regime and Fund Types Technical Team from 2009 to 2011. Professor Amoako-Tuffour at one time served as a visiting scholar to the Ministry of Finance and Economic Planning and worked on the tax exemptions regime and taxation of the mining sector in Ghana.



Mr. Emmanuel Sekor (Member) BL, LL.M. Natural Resources and Environmental Law and Policy. Mr. Sekor is an energy sector, legal, regulatory and policy expert specializing in electricity, renewables and petroleum. He has been active in the energy sector in Ghana and internationally and is also an expert in the design and operation of regulatory frameworks, institutional building and stakeholder dialogue, advising extensively on creating enabling environments for energy sector investments in Africa. Mr. Sekor is currently a Principal Consultant and the energy practice lead at REM Law Consultancy. He once worked in the Ministry of Mines and Energy and the Public Utilities Regulatory Commission of Ghana.



Mr. Ishmael Edjekumhene (Member) BA, Land Economy MSc, Economics (Public Policy) is the Executive Director of the Kumasi Institute of Technology and Environment (KITE), a policy research and advocacy non-governmental organization working in the energy, environment and technology sectors. He has over 17 years of research and working experience in the energy, environment and technology sectors. He was a member of the Electricity and Natural Gas Technical Committees of the Energy Commission and a pioneering member of the Public Interest and Accountability Committee (PIAC) from 2011-2014. He chairs the Steering Committee of the Sustainable Energy Network of Ghana, which is the first country affiliate of the Energy Access Practitioner Network.



Dr. Yaw Adu-Gyamfi (Member) BSc, Chemistry and Mathematics. He also holds a Doctorate Degree in Pharmacy from Mercer University in Atlanta Georgia, USA and an Executive MBA from the Ghana Institute of Management and Public Administration (GIMPA), Ghana. He is the CEO of Danpong Group of Companies and Danadams Pharmaceutical Industry Ltd and is currently the president of the Association of Ghana Industries (AGI).



Mr. Ebo Quagraine (Member), BSc Electrical Engineering, is an expert in software engineering. He worked as a systems engineer at British Telecom, New York and was also Head of IT at the Continental Acceptances Merchant Bank (now CAL Bank) where he designed the first network of computers and built the first indigenous banking software for CAL Bank. As a principal engineer at the New York Power Authority, Mr. Quagraine has experience in undertaking corrective and preventive maintenance on power plants. He was at one time a member of the board of Ghana Civil Aviation Authority. He is currently Director for Technical Services at Savvytech Ghana Limited, an engineering consultancy company providing services to the mining, power and petroleum industries.



Mrs. Dora Oppong (Member), MBA (Finance) and Chartered Accountant. Mrs. Oppong has undertaken professional courses in finance, audit and accounting from renowned institutions including the Harvard School Business (USA). Mrs. Oppong worked as the Accounts Manager and Deputy Head of Internal Audit of the Social Security and National Insurance Trust (SSNIT). Mrs. Oppong has served on the advisory board of JOSPON Group of Companies and the Audit Reports Implementation Committees (ARIC) of several state institutions. She was one of the pioneer Commissioners of the Postal and Courier Services Regulatory Commission and is currently serving on the Board of Coconut Grove Hotels.



Mr. Daniel Owusu-Koranteng (Member), BSc Agriculture and M.A. in Human Resource Development. Mr. Owusu-Koranteng has professional qualifications in General Agriculture, Project Analysis and Workers' Education. He is a member of the Board of Directors of the Ghana Dock Labour Company at the Tema Port. He was a member of the Environmental Committee of the UN Global Compact in Ghana and served as a member of the ECOWAS Committee of Experts that prepared the Draft ECOWAS Directive on harmonisation of policies and guidelines in the mining sector for ECOWAS member states. He is currently the General Secretary of the Maritime and Dockworkers' Union and Executive Director of WACAM.

By virtue of section 10 of the Public Utilities Regulatory Commission Act, 1997 (Act 538), the Commission works through committees which conduct in-depth analysis of policy and operational issues relating to the work of the Commission. The Committees, which comprise a blend of Commissioners, external experts and Secretariat staff, are:

Table 1: Committees of the Commission

COMMITTEE	FUNCTIONS
Finance and Administration Committee	<ul style="list-style-type: none"> Review of personnel policies, financial procedures and reports.
Technical Committee	<ul style="list-style-type: none"> Consideration of utility tariff applications, tariff methodology, structure and benchmarking and reports of technical and operational audits of utility companies.
Legal, Complaints and Dispute Resolution Committee	<ul style="list-style-type: none"> Review of enactments affecting the Commission, consumer - utility complaints management and PURC dispute settlement mechanisms and oversight of Regional offices.

Additionally, in accordance with statutory requirements, the Commission has an Entity Tender Committee and an Audit Committee which were established in accordance with the Public Procurement Act, 2003 (Act 663) as amended by the Public Procurement (Amendment) Act, 2016 (Act 914) and the Public Financial Management Act, 2016 (Act 921) respectively.

Chairman's Statement



My tenure as the Chairperson of PURC, ended in February 2021, and it is with great pleasure, satisfaction and a deep sense of pride, that I present this 2020 annual report, setting out what the Commission has accomplished over the last four years and specifically in 2020. Under my leadership, the Commission coordinated and adopted new approaches for regulating the electricity, natural gas and water utility sectors in Ghana.

These include strengthening the Formal Hearing Secretariat to investigate critical sector issues, developing draft rate setting guidelines for the procurement and supply of electrical generation capacity and energy in the regulated electricity market, developing draft rate setting guidelines for electricity distribution and supply, developing benchmarking guidelines and passing new regulations, the Public Utilities Regulatory Commission (Consumer Services) Regulations (L.I. 2413) among others. The Commission has also employed a more collaborative approach with its stakeholders. This collaborative approach helps to put consumers at the heart of the Commission's decision-making process — a process, which focuses more on engagement, getting stakeholders to understand the burning issues and subsequently developing proposals, testing and determining the reasoning behind those proposals. This process helps to arrive at decisions which all stakeholders will understand and contribute to. The electricity and gas markets in Ghana have changed considerably over the period (which period?), with both sectors continuing to experience and respond to varied challenges and opportunities presented by shifting political, economic, social and technological landscapes. The year 2020 in particular was a very challenging year for the country as a whole and the Commission in particular. The Corona Virus (CoViD-19) pandemic negatively impacted operations of the Commission thereby limiting the reach of the Commission to its stakeholders. Nonetheless, the Commission continued to examine utility rates albeit on a limited scale. This was done to ensure the financial viability of Utility Service Providers and the quality of services provided by these regulated entities. The Commission also engaged Service Providers on key issues affecting their operations.

Performance of the Commission

The main objective of achieving economic efficiency in the interest of sustainability, reliability, security and safety of supply of utility services, is not lost on the Commission. In pursuit of this objective the Commission continues to be guided by the Government's wider objectives for the regulated sectors in devising policies which dovetail into national policy frameworks. The Commission in 2020, through its representation on the Electricity Market Oversight Panel (EMOP), provided continuous advice to the Ministry of Energy on the design and development of Electricity Market Operations in Ghana. The Commission also drove both the design and implementation of the Cash Waterfall Mechanism (CWM), a mechanism which allows for players within the electricity value chain to access their portion of collected revenues in an equitable manner.

To ensure that the Commission fulfils its core mandate of protecting consumer and utility interests, 2020 saw efforts concentrated on deploying effective strategies for monitoring utility operational issues and follow ups with public awareness programs. These strategies continue to be monitored internally for

appropriate modification to strengthen the Commission's performance and increase stakeholder confidence in utility service regulation in Ghana.

The Commission is aware of its responsibilities as an economic regulator in an environment that is undergoing tremendous transition and under constant scrutiny. Some of the changes include a greater role for renewable energy and consideration of new structures for effective water delivery. In view of the fact that its interest groups extend beyond those with need for the technical and complex details of regulation, the Commission will place a premium on strategic, effective and credible communication to ensure buy in as new policies are brought in to position the country for these transformations.

Appreciation

The Commission is grateful to all its stakeholders for the cooperation it has received over the years, and will count on their continued support in its quest to provide a credible and sustainable utility regulatory regime in Ghana, which will protect the interests of all stakeholders.

Mr. Michael Opam
Board Chairman

II Management of the Secretariat

The Commission is supported by a Secretariat staff with engineering/technical, economics, financial, legal, customer service and other expertise. The directorates of the Secretariat are: Regulatory Economics, Energy Services and Performance Monitoring, Water Services and Performance Monitoring, Regional Operations, Legal Services and Finance and Administration. The Secretariat is headed by the Executive Secretary.



Mrs. Mami Dufie Ofori – (Executive Secretary and Commissioner) B.Sc. Development Planning, MBA Project Management. Mrs. Ofori was at one time the Director for Consumer Services and the Director, Special Duties of PURC where she coordinated the Commission’s Strategic Plan, monitored regulatory standards, established and managed the Commission’s regional offices, among others.



Ing. Emmanuel Fiati (Director – Water Services and Performance Monitoring) BSc Mechanical Engineering, Executive MBA, Chartered Banker (ACIB). He previously worked in various engineering capacities in AngloGold Ashanti. He is a member of the Ghana Institution of Engineering, Chartered Institute of Bankers (Ghana), Chartered Management Institute (UK), and American Society of Mechanical Engineers.



Ing. Frederick Nii Amui Oblitey (Director – Energy Services and Performance Monitoring) is an electrical engineer and lawyer by profession. Prior to his current position, he worked as a Manager in both Energy and Legal Directorates. He also serves as the Secretary of the Commission’s Technical Committee and as a Member of the Professional Practice and Ethics Committee of the Ghana Institution of Engineering (GhIE).



Dr. Simons Yao Akorli (Director, Regulatory Economics). PhD Energy Economics and Policy, MSc Energy Economics, BCom & Diploma Education. Prior to joining PURC, Dr Akorli worked with Worldwide Investments as consulting Energy Economist and Nielsen Corporation, Ghana (formerly AC Nielsen Ghana), as Operations Manager.



Mrs. Nancy Atiemo (Director - Legal Services) LLB 1995, LLM Energy Law and Policy. Mrs. Atiemo previously worked as a Senior Associate at the Gharthey & Gharthey Law Firm and as a Solicitor at Lynnes, Quarshie-Idun and Co. She is a member of the Ghana Bar Association and the International Bar Association.



Alhaji Jabaru Abukari (Director, Regional Operations). B.A (Hons) Psychology, M.A Public Affairs. Before being appointed to his current position Alhaji Abukari worked as the Greater Accra Regional Manager as well as the Tamale Regional Manager of PURC.



Mr. Wallace Duodu (Director, Finance and Administration) BSc. Administration, MBA, Chartered Accountant. He once worked with Pricewaterhouse (PwC) Ghana Limited, African Mining Services and Her Majesty's Revenue and Customs Edinburgh, UK. Mr. Duodu is a member of the Association of Chartered Certified Accountants (UK), the Institute of Chartered Accountants (ICA) Ghana, the Institute of Internal Auditors (IIA) and the Association of International Petroleum Negotiators (AIPN).

III List of Abbreviations

AAF	-	Automatic Adjustment Formula
BGT	-	Bulk Generation Tariff
CSCs	-	Consumer Service Committees
ECG	-	Electricity Company of Ghana
GRIDCo	-	Ghana Grid Company Limited
GWCL	-	Ghana Water Company Limited
KWh	-	Kilowatt – Hour
KVA	-	Kilovolt – Ampere
M³	-	Cubic Meter
MW	-	Megawatts
NEDCO	-	Northern Electricity Distribution Company
TICO	-	Takoradi International Company Ltd.
VRA	-	Volta River Authority

IV Executive Summary

1.0 Introduction

The focus of the Commission in 2020 was to continue in the promotion of its corporate image and to ensure an enhanced quality of service provision, through effective monitoring and strong enforcement measures. In prosecuting this agenda in a CoViD-19 pandemic, the Commission embarked on a digitization exercise by veering into the social media space to allow for real time interaction with the population. The Commission committed resources to developing and strengthening its website as well as representing on social media handles such as twitter and whatsapp. This is to enable the Commission receive complaints and to monitor their resolutions. It was also to aid the Commission in monitoring operational efficiency of the regulated utilities and their performance around the country in real time. The Commission in the latter part of the year, complemented its digitisation with limited physical monitoring exercises, while keeping to CoVid-19 Protocols. The Commission, through these routine monitoring exercises, unearthed some operational challenges faced by the utilities. In collaboration with the utilities, measures were devised to address these challenges.

The effectiveness of the Commission's enforcement measures was enhanced with the promulgation of a Consumer Service Regulations (L.I. 2413). This Regulation is intended to help address challenges encountered by the Directorates of the Commission in their field and investigative works. The regulations, which were subsequently passed into law, also include a schedule of charges to be used as administrative penalties against defaulting utility companies.

1.1 Special Projects

As part of its social intervention policies, the Commission, accelerated its Pro Poor Water Programme around the country. This programme is aimed at providing access to potable drinking water to consumers in high water-stressed communities. In total, forty-nine (49) projects were executed, forty (40) boreholes in thirty-two (32) communities, five (5) educational institutions, and three (3) health institutions. One educational facility was provided with storage facilities to augment its water supply. Project inspections were undertaken at all project sites, with exception of four communities in the Western Region and two in the Volta Region. The Commission in collaboration with the Chief of Staff, Hon. Mrs. Frema Opare and Member of Parliament for Tano North, Hon. Mrs. Freda Prempeh, commissioned completed borehole projects at Susanso in the Ahafo Region. Additionally, contracts were awarded for the provision of limited pipeline extensions of 100mm uPVC pipelines in 6 communities covering nine kilometres in total.

The Commission's Solar Support Project (GSSP), which is aimed at meeting the energy demand of households and Small-to-Medium-Scale Enterprises (SMEs) is currently under review.

1.2 Performance of Regulated Utility Companies

The Commission monitored performance of the utility companies with the objective of ensuring systematic improvements in quality of service.

1.2.1 Electricity

Total installed generation capacity for the period under review was approximately 4,632MW with a dependable capacity of 4,206MW. Hydro generation constituted 34.09%, while thermal generation constituted 65.42% with renewables constituting 0.49%. Akosombo Generating Station (AGS) was the highest contributor to both total installed and dependable capacity, while Safisana Biogas was the least contributor to both installed and dependable capacity in 2020. Available data indicates that total dependable capacity at the end of 2020, constituted 90.81% of the total installed capacity. Over the review period, the power system recorded a peak demand of 3090MW representing an increase of 286.3MW over the 2019 peak demand of 2803.7MW. Karpowership Company Limited complied with all set out key performance indicators (KPIs) of the Commission, while Sunon Asogli Plant and AKSA Company Limited complied with all KPIs of the Commission with the exception of Plant Capacity Utilisation.

The Commission, continued with its routine Reliability and Regulatory Compliance, Monitoring and Evaluation checks in the regulated distribution utilities, around the country. The essence of these routine checks is to assess the efficiency and reliability of power supply as well as the general operations of these power distribution utilities.

1.2.2 Urban Water

The Commission in 2020 continued with inspections and audits of GWCL treatment plants and carried out validation exercises of GWCL laboratories and treatment facilities around the country. Compared with 2019, plant capacity utilization increased marginally over the first three quarters of 2020, while the fourth quarter registered a significant increase in plant capacity utilization. On the whole, average plant capacity utilization for the period under consideration was 70.37% compared with 59.28% average plant capacity utilisation in 2019. GWCL also met PURC's benchmark (95%) for treated water quality in terms of physical, chemical, and bacteriological parameters for the 1st, 3rd, and 4th quarters of the year, but missed the mark in the second quarter of the year.

Compared to 2019, non-revenue water (NRW) figures, witnessed a steady decline, meeting the Commission's benchmark of 45% for the last three quarters of the year under review. NRW figure for the 1st quarter of the year (45.49%) was marginally above the Commission's benchmark. The NRW average over the four quarters for 2020 was 37.71%, representing an improvement over the 2019 average figure of 50.45%.

Major challenges faced nationwide by water treatment plants include, among others, raw water challenges, power challenges and obsolete laboratory equipment. Chemical and bacteriological parameters inspected at water treatment plants were found to be within recommended limits.

1.4 Consumer Services

For the period under review, the Commission received a total of 7,067 consumer complaints. A total of 6,911 of these complaints were resolved representing 97.79% of complaints received. The remaining 2.21% of complaints received are currently at various stages of resolution. Complaints received range from billing, metering, service quality, damaged equipment, disconnections, and payment complaints. Complaints bordering on service quality, constituted majority of the complaints received by the Commission for both electricity (79.7%) and water (18.9%) utility service providers. The remaining 1.4% of complaints were complaints lodged against consumers by utility service providers. Monitoring exercises, settlements and mediations were undertaken by the Commission to resolve these issues. A number of public awareness programs were undertaken to educate consumers about their rights and responsibilities. This was done mostly in the form of community durbars, visits to lorry parks, markets and schools to create awareness with respect to functions and activities of the Commission. Consumer complaints were also received at these fora and subsequently resolved.

The Public Utilities Regulatory Commission (PURC) was established under the Public Utilities Regulatory Commission Act 1997, (Act 538) to regulate and oversee the provision of utility services by public utilities to consumers. Public utilities are defined in the Act as persons engaged in the supply, transmission or distribution of electricity or water to the public for a fee, whether directly or indirectly. Under the Energy Commission Act 1997 (Act 541), the Commission has the additional mandate of regulating aspects of the natural gas industry.

By virtue of Section 4 of Act 538, the Commission is an independent body and not subject to the direction or control of any person or authority in the performance of its functions. However, PURC is statutorily required to submit annual audited statements of accounts and reports of its operations to Parliament.

The functions of the Commission include:

- Providing guidelines for rates to be charged for the provision of utility services.
- Examining and approving rates for utility services;
- Protecting the interest of consumers and providers of utility services;
- Monitoring and enforcing standards of performance for provision of utility services;
- Promoting fair competition among public utilities;
- Receiving and investigating complaints; and
- Advising any person or authority in respect of any public utility.

A key function of the Commission is to maintain a register of public utilities. The register can be found at <http://purc.com.gh/purc/node/7818> The public utilities directly regulated by the Commission by way of tariff filings are in Table 2 below.

Table 2: List of Public Utilities Regulated by the PURC

Utility	Business
Volta River Authority (VRA), Bui Power Authority (BPA)	Nationwide Power Generation
Ghana Grid Company (GRIDCo)	National Interconnected Power Transmission System
Electricity Company of Ghana Ltd (ECG)	Power Distribution, Southern Sector
Northern Electricity Distribution Company (NEDCo)	Power Distribution, Northern Sector
Enclave Power Company (EPCL)	Power Distribution, Free Zones and Concession
Ghana National Gas Company (GNGC).	Natural Gas Processing and Transportation
Ghana Water Company (GWCL)	Urban Water Production, Transmission and Supply

For purposes of effective monitoring and bringing the Commission closer to the doorsteps of consumers, the Commission in 2020, added two more regional offices, thereby establishing the Commission’s presence in 9 out of the 16 regions of Ghana. These offices are in the Northern, Upper West, Brong-Ahafo, Western, Central, Ashanti, Eastern, Volta and Greater Accra Regions of the country. Additionally, the Commission has established a number of voluntary Consumer Service Committees (CSCs) around the country, which keep

issues affecting the interests of consumers under constant review and submit representations to the Commission.

Under its rule-making powers, the Commission, in collaboration with the Attorney General's Department, has issued a Legislative Instrument (LI 2413), which captures all existing regulations of the Commission, aimed at effectively regulating utility service providers under the Commission's jurisdiction.

In line with its mandate, the Commission undertook monitoring exercises of regulated utility companies in the energy and water sectors to ensure improvements in quality of service and to enhance general performance of these utilities. Key regulatory and monitoring activities undertaken on the various utilities and infrastructure in the year 2020 are presented below.

2.1 Energy Sector

2.1.1 Generation

Performance of Generation utilities in the regulated electricity market was monitored and assessed as per Key Performance Indicators (KPIs) presented in Table 3.

Table 3: Generation Utilities - Key Performance Indicators (KPIs)

KEY PERFORMANCE INDICATORS FOR THERMAL GENERATION							
No.	PERFORMANCE INDICATORS	Based on Combustion		Based on Hot Gas Inspection (HGPI)		Based on Major Inspection (MI)	
		GAS	LCO	GAS	LCO	GAS	LCO
1	Forced Outage Rate	3%	4%	3%	4%	3%	4%
2	Planned Outage Rate	4%	6%	8%	10%	13%	15%
3	Availability	93%	90%	89%	86%	84%	81%
		MAX	MIN	Basic Underlying Assumptions. 1. Other Planned Routine Maintenance = 2% 2. Forced Outage Rate for LCO Fired Gas Turbines = 4% 3. Forced Outage Rate for Natural Gas Fired Gas Turbines = 3% 4. Plant to be dispatched fully			
4	Starting Reliability	100%	75%				
5	Capacity Utilisation	94%	85%				

2.1.1.1 Performance of the Generators

Table 4 below highlights the performance of power generators in 2020. The generators include power generating systems that run on fossil fuels (including diesel, gas, light crude oil) and renewable power generators. The renewable power generators include Safisana and BXC. In its monitoring of the generating plants, Karpowership Plant was the only one that met the Commission’s KPI benchmarks.

Table 4: KPIs for Generators

PERFORMANCE DATA							
Index	Unit	QTR 1	QTR 2	QTR 3	QTR 4	AVERAGE	PURC BENCHMARK
KPIs for TT1PS (Simple Cycle)							
Starting Reliability	%	90.91	100	100	87.5	94.60	75.00 (Minimum)
Forced Outage	%	12.54	2.39	3	0.5	4.61	3.00 (Maximum)
Planned Outage	%	45.53	0	0	0	11.38	4.00 (Maximum)
Availability Factor	%	41.93	97.61	97	97.1	83.41	93.00 (Minimum)
Capacity Utilization	%	19.52	41.66	52.1	52.1	41.35	85.00 (Minimum)
KPIs for TT2PS (Simple Cycle)							
Starting Reliability	%	46.22	84.83	81.5	47.4	64.99	75.00 (Minimum)
Forced Outage	%	33.87	7.92	20.5	20.5	20.70	3.00 (Maximum)

PERFORMANCE DATA							
Index	Unit	QTR 1	QTR 2	QTR 3	QTR 4	AVERAGE	PURC BENCHMARK
KPIs for TT1PS (Simple Cycle)							
Planned Outage	%	0.72	0.02	0	0	0.19	4.00 (Maximum)
Availability Factor	%	65.41	92.06	79.5	79.5	79.12	93.00 (Minimum)
Capacity Utilization	%	6.4	47.59	47.6	47.6	37.30	85.00 (Minimum)
TTPS-T1 (Simple Cycle)							
Starting Reliability	%	100	100	100	100	100.00	75.00 (Minimum)
Forced Outage	%	3.61	3.44	8.7	10.7	6.61	3.00 (Maximum)
Planned Outage	%	1.1	0	0	21.8	5.73	4.00 (Maximum)
Availability Factor	%	93.79	96.56	69.4	65.3	81.26	93.00 (Minimum)
Capacity Utilization	%	92.4	97.38	64.7	69.8	81.07	85.00 (Minimum)
KTPS (Simple Cycle)							
Starting Reliability	%	83.93	73.91	72.7	100	82.64	75.00 (Minimum)
Forced Outage	%	29.39	21.95	0	0.3	12.91	3.00 (Maximum)
Planned Outage	%	0	0	0	0	0.00	4.00 (Maximum)
Availability Factor	%	70.28	73.1	98.1	98.1	84.90	93.00 (Minimum)
Capacity Utilization	%	13.7	13.7	23.4	21.9	18.18	85.00 (Minimum)
TICo (Simple Cycle)							
Starting Reliability	%	76.68	63.33	66.67	98.33	76.25	75.00 (Minimum)
Forced Outage	%	52.18	33.98	35.2	22.41	35.94	3.00 (Maximum)
Planned Outage	%	1.15	0.35	0	15.23	4.18	4.00 (Maximum)
Availability Factor	%	48.34	65.67	66.46	62.36	60.71	93.00 (Minimum)
Capacity Utilization	%	44.22	57.55	24.3	42.62	42.17	85.00 (Minimum)
Karpowership (Combined Cycle)							
Starting Reliability	%	100	100	100	100	100.00	75.00 (Minimum)
Forced Outage	%	0.47	0.7	0.24	0.42	0.46	3.00 (Maximum)
Planned Outage	%	0.27	0.59	0.41	0.72	0.50	4.00 (Maximum)
Availability Factor	%	99.42	98.94	99.33	98.8	99.12	93.00 (Minimum)
Capacity Utilization	%	92.85	88.95	90.73	86.16	89.67	85.00 (Minimum)
Sunon Asogli Power Plant (SAPP) (Combined Cycle)							
Starting Reliability	%	100	100	100	100	100.00	75.00 (Minimum)
Forced Outage	%	0	0	0	0.1	0.03	3.00 (Maximum)
Planned Outage	%	0	0	0	10.9	2.73	4.00 (Maximum)
Availability Factor	%	100	100	100	89.1	97.28	93.00 (Minimum)
Capacity Utilization	%	27.83	74.56	87.57	58.72	62.17	85.00 (Minimum)
AKSA (Combined Cycle)							
Starting Reliability	%	98	98	98	98	98.00	75.00 (Minimum)
Forced Outage	%	0.32	0.17	0.11	0.07	0.17	3.00 (Maximum)
Planned Outage	%	2.78	3.18	3.6	2.73	3.07	4.00 (Maximum)
Availability Factor	%	100	100	100	100	100.00	93.00 (Minimum)
Capacity Utilization	%	29.55	6.16	6.8	7.56	12.52	85.00 (Minimum)
Bui Power (Hydro)							
Index	Unit	Unit 1	Unit 2	Unit 3	Avg.	Unit 4	PURC BENCHMARK
Starting Reliability	%	100	100	97.92	98.97	94	75.00 (Minimum)
Forced Outage	%	49.7	0.5	0.1	16.77	1.1	3.00 (Maximum)

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Index	Unit	QTR 1	QTR 2	QTR 3	QTR 4	AVERAGE	PURC BENCHMARK
KPIs for TT1PS (Simple Cycle)							
Planned Outage	%	7.1	0.6	1.1	2.933	1.4	4.00 (Maximum)
Availability Factor	%	74.7	74.7	91.1	80.17	91.4	93.00 (Minimum)
Capacity Utilization	%	76.42	66.43	80.22	74.36	81.57	85.00 (Minimum)
BXC Company Limited (Solar PV)							
Index	Unit	Annual Performance					PURC BENCHMARK
Starting Reliability	%	NA					75.00 (Minimum)
Forced Outage	%	2.15					3.00 (Maximum)
Planned Outage	%	0.07					4.00 (Maximum)
Availability Factor	%	99.93					93.00 (Minimum)
Capacity Utilization	%	97.78					85.00 (Minimum)
Safisana (Waste-to-Energy)							
Index	Unit	Annual Performance					PURC BENCHMARK
Starting Reliability	%	85.08					75.00 (Minimum)
Forced Outage	%	0					3.00 (Maximum)
Planned Outage	%	12					4.00 (Maximum)
Availability Factor	%	76.5					93.00 (Minimum)
Capacity Utilization	%	85.5					85.00 (Minimum)

2.1.1.2 Volta River Authority (VRA) – TT1PS

Table 4 above indicates that, VRA's TT1PS was the only Plant which complied with the Commission's starting reliability threshold in 2020. The Plant, however, did not meet the Commission's benchmarks for forced outage rate, planned outage rate, availability factor, and capacity utilization threshold.

2.1.1.3 Volta River Authority (VRA) – TT2PS

VRA's TT2PS was compliant with planned outage, but was non-compliant with the rest of the Commission's KPI thresholds for generation plants in 2020.

2.1.1.4 Volta River Authority (VRA) – TTPS-T1

The KPIs for Takoradi Thermal Power Station 1 (TTPS-T1) complied with the starting reliability benchmark, however, the plant was not compliant with the remaining benchmarks in 2020.

2.1.1.5 Volta River Authority (VRA) – KTPS

The KPIs for Kpone Thermal Power Station (KTPS) was compliant with the Commission's benchmarks on starting reliability and planned outage rate. The Plant, however failed to meet the Commission's benchmarks on Capacity Utilization, Availability Factor, and Forced Outage.

2.1.1.6 Takoradi International Company Limited (TICo)

With the exception of Starting Reliability, the TICO plant did not meet any of the Commission's KPI thresholds for generation plants.

2.1.1.7 Karpowership Company Limited

The Karpowership Plant was compliant with all the Commission's KPI thresholds for generation plants in 2020.

2.1.1.8 Sunon Asogli Power Plant (SAPP)

In 2020, the SAPP Plant was compliant with all the Commission's KPI thresholds for generation plants, with the exception of Capacity Utilization.

2.1.1.9 AKSA Company Limited

The AKSA Plant in 2020, was compliant with all the Commission's KPI thresholds for generation plants, with the exception of Capacity Utilization.

2.1.1.10 Bui Power Authority (BPA)

The KPIs for Bui Power Authority were reported separately on the three main units and differently on the turbinette which is a mini hydro. The turbinette was in compliance with the Commission's benchmarks for starting reliability, forced and planned outage benchmarks. Capacity utilization was however lower than expected.

There were varied compliance levels with the KPIs of the three main units. The indicators were in compliance with the Commission's starting reliability and planned outage benchmarks.

2.1.1.11 BXC Company Ghana Limited

The KPI's for BXC presented in Table 4 shows that the plant was compliant with the Commission's benchmarks for forced outage and planned outage rates, availability and capacity utilization factors. However, the determination of the reliability factor of the plant was hindered by insufficient information.

2.1.1.12 Safisana – (Waste to Energy)

The KPIs for Safisana plant were compliant with the Commission's starting reliability threshold, forced outage and capacity utilization. Safisana, however, failed to comply with planned outage rate and availability factor thresholds.

2.1.2 Hydro Generation

2.1.2.1 Dam Water Levels

The Akosombo and Bui dams had a steady decline in their headwater levels from January 2020 through to July 2020 as shown in Figures 1 and 2 below. The water levels in both dams, started to increase in August 2020. Both dams, however, operated above their minimum threshold values of 240.0ft and 168m for the Akosombo Dam and the Bui Dam respectively.

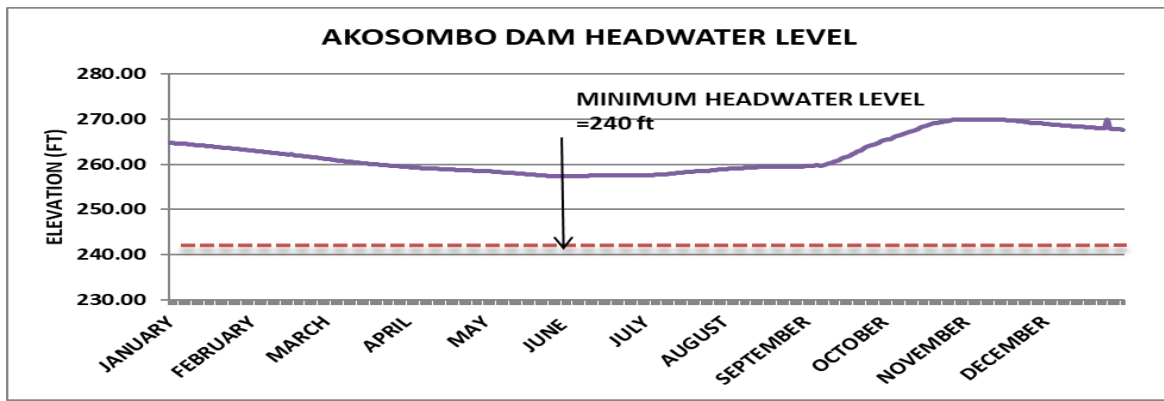


Figure 1: Akosombo Dam Head Water Level

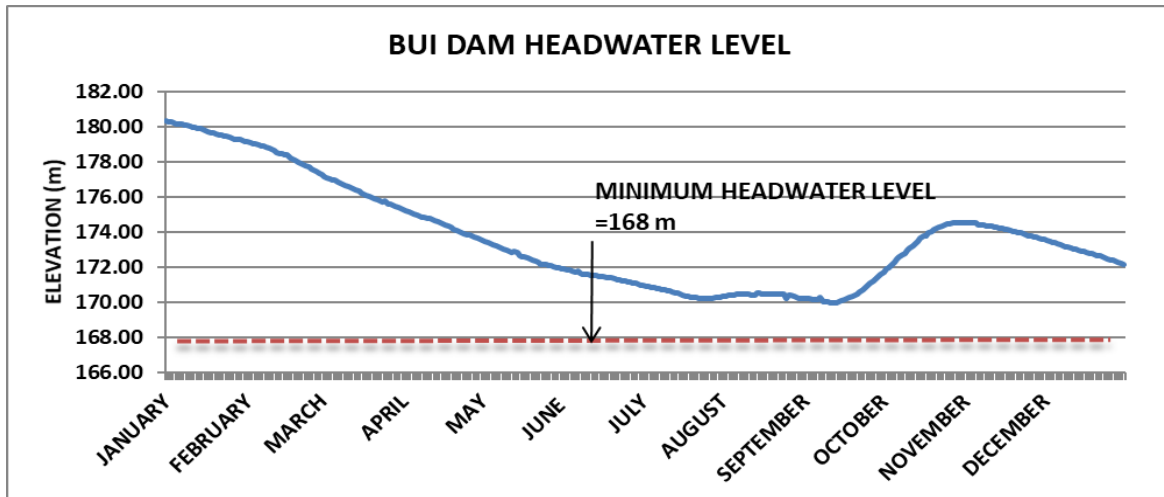


Figure 2: Bui Dam Head Water Level

2.1.2.2 Hydro-Thermal Energy Mix

The total generation mix on the transmission grid in 2020 comprised 37.0% hydropower generation and 63.0% thermal generation as shown in Figure 3 below. Hydropower generation was higher at the beginning of 2020 and declined towards the middle of the year as shown in Figure 4.

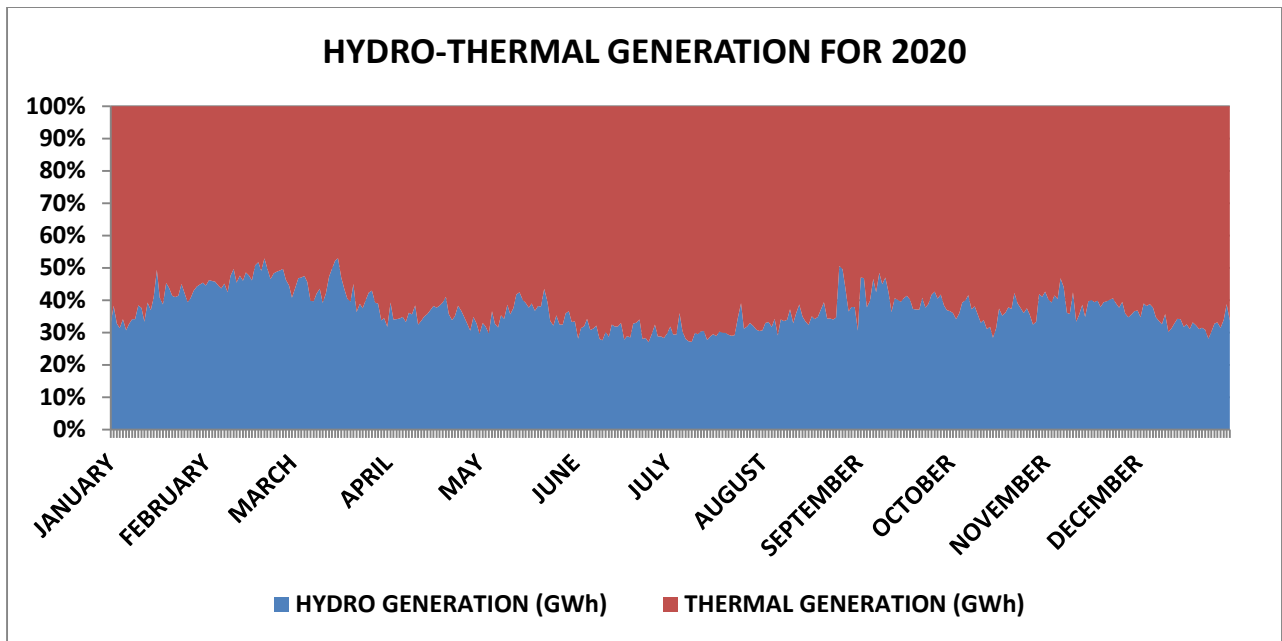


Figure 3: Daily Hydro – Thermal Generation Mix

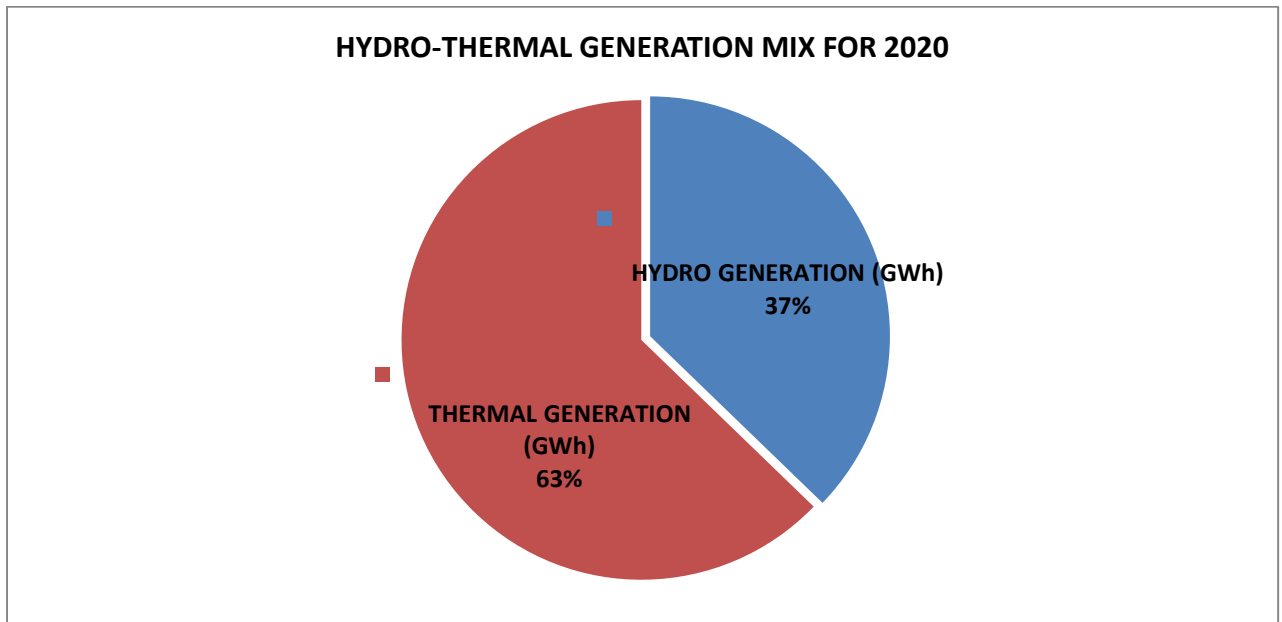


Figure 4: Generation Mix

2.1.3 Transmission

2.1.3.1 Peak Demand

The Ghana power system recorded a peak demand of 3090MW on December 4, 2020. This represents an increase of 286.3MW over the 2019 peak demand of 2803.7MW as shown in Figure 5. The total energy consumed, including losses, was 19,545.20GWh. The total energy consumption comprised 7,276.86GWh from hydro and 12,268.34GWh from thermal.

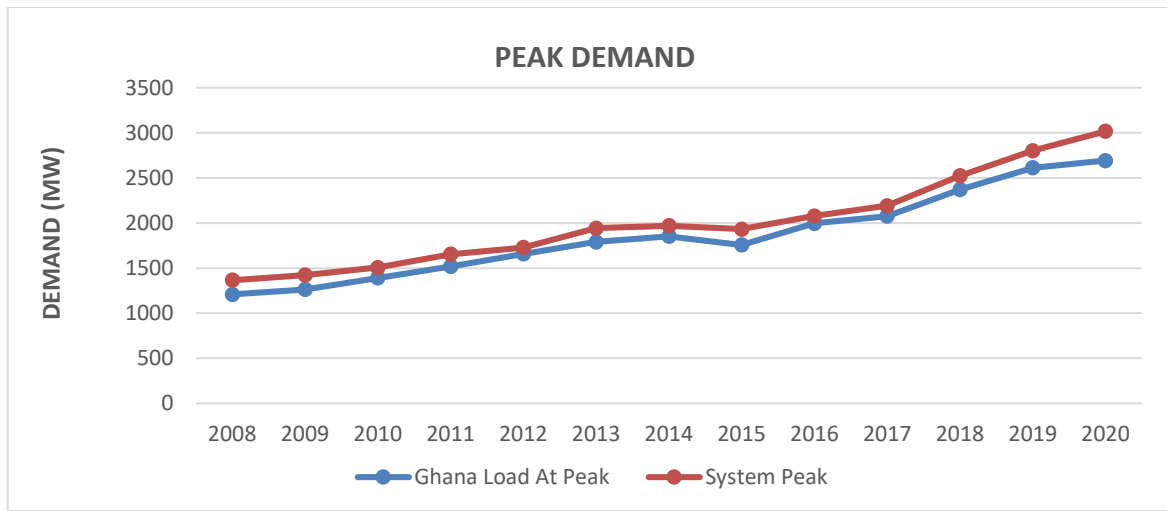


Figure 5: Peak Demand Trend from 2008 – 2020

2.1.3.2 System Average Interruption Duration Index (SAIDI)

The total sustained System Average Interruption Duration Index for the average customer of ECG, NEDCo, Enclave Power, and GRIDCo are indicated in **Table 5** below.

Table 5: SAIDI of Utilities in 2020

ECG (Hours/Customer)						
AREA	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER	TOTAL	PURC BENCHMARK
METRO	6.92	8.52	4.18	4.16	23.78	48
DISTRICT CAPITAL	11.21	14.14	8.71	8.86	42.92	72
RURAL	13.16	17.12	10.44	11.14	51.86	144
NEDCO (Hours/Customer)						
AREA	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER	TOTAL	PURC BENCHMARK
METRO	2.55	N/A	18.2	N/A	20.75	48
DISTRICT CAPITAL	5.23	N/A	10.3	N/A	15.53	72
RURAL	10.3	N/A	16	N/A	26.3	144
EPC (Hours/Customer)						
AREA	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER	TOTAL	PURC BENCHMARK
METRO	10.82	4.15	9.09	5.15	29.21	48
DISTRICT CAPITAL	-	-	-	-	0	72
RURAL	50.65	3.05	13.33	0	67.03	144
GRIDCO (Minutes/Customer)						
AREA	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER	TOTAL	PURC BENCHMARK
	97	121	147	109	474	156

2.1.3.3 SAIDI for Electricity Company of Ghana

From Table 5 above shows that, ECG has been compliant with the Commission’s SAIDI benchmarks in the metropolitan, district, and rural areas. This implies that the system outage duration per customer is within permissible limits.

2.1.3.4 SAIDI for Northern Electricity Distribution Company

The figures reported in Table 5 show that in the first and third quarters of 2020, NEDCo was compliant with the Commission’s SAIDI benchmarks in the metropolitan, district, and rural areas. Gaps in the data for the second and fourth quarters, however, did not allow for overall completion of the indices for the year in order to compare with the benchmarks.

2.1.3.5 SAIDI for Enclave Power Company

It is noted from Table 5 that, EPC has been compliant with the Commission’s SAIDI benchmarks in rural and metropolitan areas. This implies that EPC’s outage durations were within acceptable limits in these areas.

2.1.3.6 SAIDI for Ghana Grid Company (GRIDCo)

GRIDCo’s SAIDI values at the end of the year 2020 is four hundred and seventy-four (474) minutes. This value is in excess of the annual benchmark of one hundred and fifty-six (156) minutes as shown in Table 5 above.

2.1.3.7 System Average Interruption Frequency Index (SAIFI)

The total sustained System Average Interruption Frequency Index for the average customer of ECG, NEDCo, Enclave Power, and GRIDCo are indicated in Table 6 below.

Table 6: SAIFI of Utilities in 2020

ECG (Hours/Customer)						
AREA	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER	TOTAL	PURC BENCHMARK
METRO	4.11	5.12	3.27	3.03	15.53	6
DISTRICT CAPITAL	6.62	8.78	5.41	5.63	26.44	6
RURAL	8.43	11.02	7.34	7.42	34.21	6
NEDCO (Hours/Customer)						
AREA	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER	TOTAL	PURC BENCHMARK
METRO	2.71		12.32		15.03	6
DISTRICT CAPITAL	3.6		8.41		12.01	6
RURAL	6.21		12.2		18.41	6
EPC (Hours/Customer)						
AREA	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER	TOTAL	PURC BENCHMARK
METRO	3.21	1.66	3.61	2.34	10.82	6
DISTRICT CAPITAL	-	-	-	-	0	6
RURAL	2	2	11	0	15	6
GRIDCO (Minutes/Customer)						
	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER	TOTAL	PURC BENCHMARK
	0.68	1.58	2.31	1.54	6.11	5.2

2.1.3.8 SAIFI for ECG

From Table 6, ECG was not compliant with the Commission’s SAIFI benchmarks in the rural, urban and metropolitan areas. Non-compliance with the SAIFI reliability index indicates that the system outages were more than permissible.

2.1.3.9 SAIFI for NEDCo

Overall, SAIFI computations for NEDCo was incomplete during the year due to lack of sufficient data. This hindered comparison with the Commission’s reliability benchmarks. However, with half of the required data available, the total SAIFI was already in excess of PURC’s Benchmark, which is an indication of noncompliance of SAIFI indices for Metro, District Capital and Rural areas.

2.1.3.10 SAIFI for Enclave Power Company (EPC)

EPC was not compliant with the Commission’s SAIFI benchmarks in the metropolitan and rural areas during the year 2020. Non-compliance with SAIFI values, indicate that EPC recorded frequent system outages than permissible limits.

2.1.3.11 SAIFI for GRIDCo

GRIDCo, recorded a SAIFI value of 6.11 at the end of 2020. This value is outside the allowable benchmark of 5.2 as shown in Table 6.

2.1.3.12 Customer Average Interruption Duration Index (CAIDI)

The total sustained Customer Average Interruption Duration Index for the average customer of ECG, NEDCo, and Enclave Power Company Limited are indicated in Table 7 below.

Table 7: CAIDI of Utilities in 2020

ECG (Hours)						
AREA	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER	TOTAL	PURC BENCHMARK
METRO	1.68	1.67	1.28	1.37	6	8
DISTRICT CAPITAL	1.69	1.61	1.61	1.57	6.48	12
RURAL	1.55	1.55	1.42	1.5	6.02	24
NEDCO (Hours)						
AREA	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER	TOTAL	PURC BENCHMARK
METRO	0.94		5.22		6.16	4
DISTRICT CAPITAL	1.45		3.76		5.21	6
RURAL	1.66		3.95		5.61	12
EPC (Hours)						
AREA	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER	TOTAL	PURC BENCHMARK
METRO	3.37	2.5	2.52	2.2	5.89	8
DISTRICT CAPITAL	-	-	-	-	0	12
RURAL	25.33	1.53	1.21	0	26.54	24

2.1.3.13 CAIDI for ECG

Table 7 above shows that ECG was compliant with the Commission’s CAIDI benchmarks in the rural, urban and metropolitan areas. Compliance implies that the outage duration per customer in the network was within permissible limits.

2.1.3.14 CAIDI for NEDCo

Computation of reliability benchmarks for NEDCo in 2020 was incomplete due to insufficient data. Therefore, no comparable conclusions could be drawn for the performance of NEDCo for the year. However, using half

the required data, total CAIDI computed for the Metro area, was already in violation of the reliability Benchmark.

2.1.3.15 CAIDI for EPC

For year 2020, EPC was not compliant with the Commission’s CAIDI benchmarks in the rural areas. Non-compliance implies that the outage duration per customer in the network was outside the permissible limits.

2.1.3.16 Transmission System Availability

The average transmission system availability at the end of 2020 was 99.45%. This value was below the Commission’s benchmark for transmission system availability of 99.70% as shown in Table 8.

Table 8: Transmission System Availability

TRANSMISSION SYSTEM AVAILABILITY (%)					
FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER	AVERAGE	PURC BENCHMARK
99.6	99.71	99.19	99.28	99.45	99.7

2.1.3.17 Frequency Deviation

The average frequency deviation at the end of the year 2020 was 23.75% which was in excess of the Commission’s benchmark of 15.0% as shown in Table 9. This index is used to determine the percentage of time the frequency on the transmission network deviates from the nominal frequency of 50.0Hz. Significant frequency deviations from the nominal values for extended periods of time can damage system components, which can result in total or partial system collapse.

Table 9: Frequency Deviation

FREQUENCY DEVIATION (%)					
FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER	AVERAGE	PURC BENCHMARK
25.9	25.34	26.32	17.42	23.75	15

2.1.3.18 Discussion of Results

The review of the performance of GRIDCo’s operations in 2020 revealed violations in some aspects of the Commission’s reliability benchmarks as follows:

1. Long and sustained system outage duration (SAIDI values) beyond the limits specified by the Commission.
2. Transmission system availability, which was below the set benchmark, indicating the transmission lines were not in service as expected.
3. The system frequency deviated from the nominal value and stayed outside the permissible range longer than expected.

2.1.4 Energy System Losses

The Commission’s energy loss benchmark, including both technical and commercial losses, for ECG and NEDCo operations is set at 22.60%, while EPC’s is set at 3% that is, 1.4% and 1.6% for technical and commercial losses respectively. The benchmarks are necessary in order to limit the quantum of energy dissipated in distributing power from bulk supply points to load centers.

Table 10: Energy System Losses (%)

UTILITY	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER	AVERAGE	PURC BENCHMARK
ECG	28.16	30.06	16.99	28.38	25.90	22.60
NEDCO	27.6		27.22		27.41	22.60
EPC	2.31	3.28	1.55	1.5	2.16	3

From Table 10, the average system energy loss from ECG’s operations in 2020 was 25.90%. This was not in compliance with the Commission’s benchmark of 22.60%. In the absence of data for the second and fourth quarters of 2020 for NEDCo, the average system energy loss based on the first and third quarters was **27.41%**. This was equally not in compliance with the Commission’s benchmark of 22.60%. EPC recorded an average energy loss of 2.16% in 2020, which was in compliance with the Commission’s maximum allowable threshold of 3.0%.

2.1.5 Electricity Generation Audit

During the year, electricity generation data was compiled and analysed by the Commission. Results from analysis of both projected and actual electricity generation mix for 2020 indicate on average actual Hydro-Thermal Generation Mix of 25.8% for Hydro and 74.2% for Thermal compared with Projected Generation Mix of 25.1% for Hydro and 74.9% for Thermal. These results are presented in Figure 6.

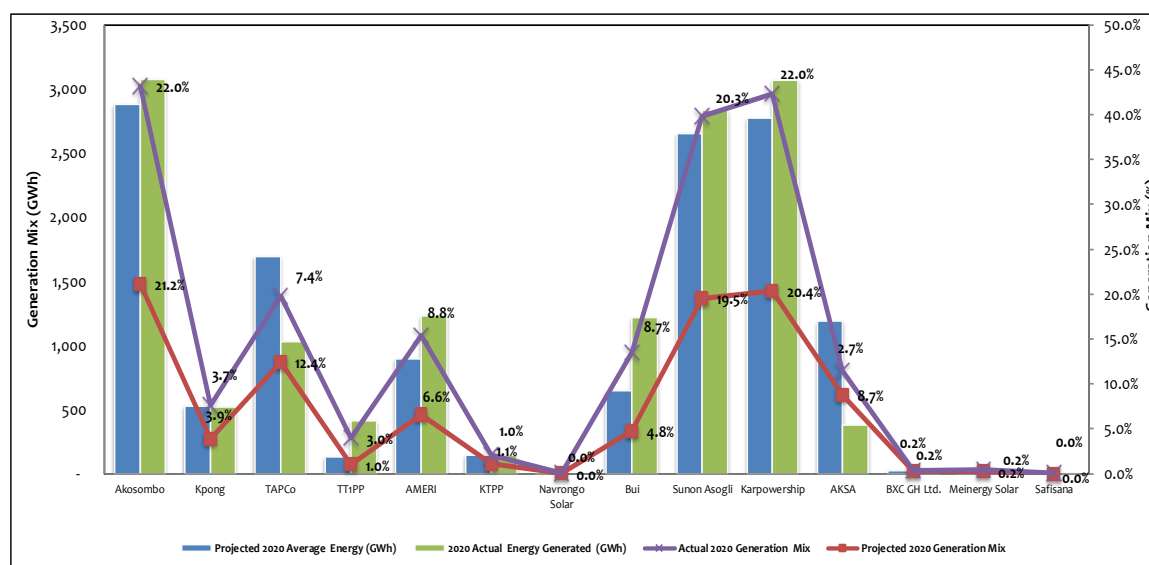
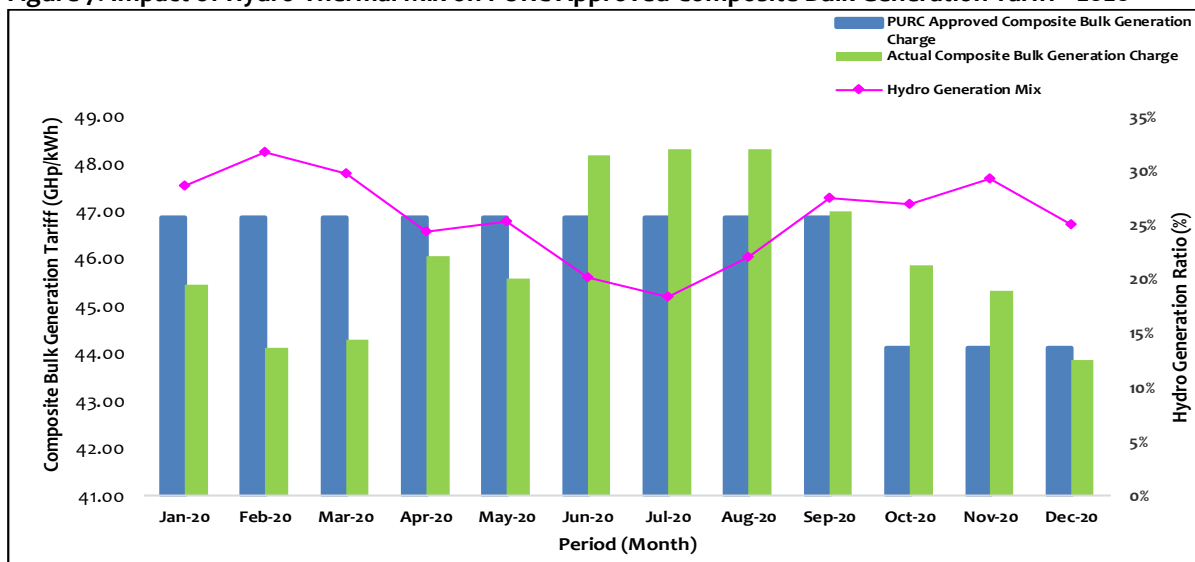


Figure 6: Summary of Projected Versus Actual Electrical Energy Generation Mix for Regulated Market- 2020

Source: Computation from PURC Data and GRIDCO’s Daily Electricity Generation Report, 2020

Figure 7: Impact of Hydro-Thermal Mix on PURC Approved Composite Bulk Generation Tariff - 2020



Source: Computation from PURC Data and GRIDCo's Daily Electricity Generation Report, 2020

Analysis was also conducted on the impact of changes in actual Hydro-Thermal generation mix on PURC Approved Composite Bulk Generation Tariff (CBGT) for the period under review. The results indicate on average significant variations in Actual CBGT compared with PURC Approved CBGT as shown in Figure 7. An increase in actual hydro generation above projected hydro generation resulted in an Actual CBGT lower than PURC Approved CBGT for some months whilst other months witnessed actual CBGT higher than PURC Approved CBGT indicating a higher actual thermal generation than as projected. This can be attributed to the fact that cost of generation from hydro sources is cheaper than cost of generation from thermal sources.

2.1.6 Revenue Audit

The Commission reviewed revenue for VRA, IPPs, GRIDCo as well as ECG and NEDCo. Results from analysis of generation revenue data for VRA and IPPs, transmission Revenue for GRIDCo as well as distribution revenue for both ECG and NEDCo for 2020 are presented in Table 11 and Table 12 respectively.

Table 11: Summary of Projected Versus Actual Electricity Generation Revenue for Regulated Market - 2020

Power Plant	Projected 2020 Electricity Generation (kWh)	Actual 2020 Electricity Generation (kWh)	PURC Approved Tariff (Ghp/kWh)	Projected 2020 Revenue (GHS)	Actual 2020 Revenue (GHS)	Non Fuel Revenue (GHS)	Fuel Revenue (GHS)
VRA Generation:							
Akosombo	2,881,325,936	3,077,718,849	10.8652	313,061,826	334,400,308	334,383,760	16,548
Kpong	527,139,064	523,543,986	22.2746	117,418,118	116,617,329	112,542,364	4,074,964
TAPCo	1,692,856,814	1,030,816,500	41.4236	701,242,235	427,001,304	133,711,831	293,289,473
TT1PP	132,550,000	415,713,000	46.2275	61,274,551	192,173,727	29,890,365	162,283,362
Ameri	898,200,000	1,229,881,100	65.6039	589,254,230	806,849,967	332,321,461	474,528,505
KTPP	145,270,000	354,547,700	46.0782	66,937,801	163,369,198	34,593,881	128,775,317
Total VRA	6,277,341,814	6,632,221,135		1,849,188,761	2,040,411,833	977,443,663	1,062,968,170
IPPs Generation:							
Bui	650,000,000	1,216,347,300	58.1772	378,151,800.00	707,636,801	707,636,801	-
Sunon Asogli	2,655,850,000	2,833,945,100	57.0898	1,516,219,895.34	1,617,894,061	779,552,194	838,341,867
Karpowership	2,775,150,000	3,067,888,700	59.6819	1,656,262,247.85	1,830,974,266	947,767,204	883,207,062
AKSA	1,189,680,000	379,228,300	74.6956	888,638,614.08	283,266,854	-	159,136,882
BXC Solar	27,000,000	24,957,832	108.2716	29,233,332.00	27,022,244	27,022,244	-
Meinergy Solar	27,000,000		97.4419	26,309,313.00	-	27,738,482	-
Safisana	700,000	28,466,688	94.0922	658,645.40	26,784,933	129,514	211,268
Total IPP	7,325,380,000	7,550,833,920		4,495,473,848	4,493,579,160	2,489,846,439	1,880,897,079
Total VRA&IPP	13,602,721,814	14,183,055,055		6,344,662,609	6,533,990,993	3,467,290,103	2,943,865,249

Source: Computed from PURC Data, 2020

Table 12: Summary of Transmission and Distribution Electrical Energy and Actual Revenues - 2020

Item Description	2020 Projected Electricity Transmission/Distribution (GWh)	2020 Actual Electricity Transmission/Distribution (GWh)	Tariff (Ghp/kWh)	Weight of Cost Items in Tariff (%)	2020 Estimated Actual Revenue (GHS)
GRIDCo:					
Projected and Actual Energy Transmitted	13,551	14,227			
Regulatory Levy			0.6023	7%	85,686,359
TSC Attributable to Losses			2.0047	22%	285,199,142
TSC Attributable to Operation, Maintenance & Return on Investment			6.5398	71%	930,386,265
Total TSC & Revenue			9.1468	100%	1,301,271,765.55
ECG/NEDCo:					
Projected and Actual Energy Distributed	9,858	11,011			
DSC Attributable to Losses			15.4213	48.9%	867,573,989.38
DSC Attributable to Operation, Maintenance & Return on Investment			16.1094	51.1%	906,285,230.46
Total DSC			31.5307	100.0%	1,773,859,219.85
ECG:					
Projected and Actual Energy Distributed	8,755	9,794			
DSC Attributable to Losses			15.4213	48.9%	771,636,098.82
DSC Attributable to Operation, Maintenance & Return on Investment			16.1094	51.1%	806,066,581.31
Total DSC			31.5307	100.0%	1,577,702,680.12
NEDCo:					
Projected and Actual Energy Distributed	1,103	1,218			
DSC Attributable to Losses			15.4213	48.9%	95,937,890.56
DSC Attributable to Operation, Maintenance & Return on Investment			16.1094	51.1%	100,218,649.16
Total DSC			31.5307	100.0%	196,156,539.72

Source: Computed from PURC Data, 2020

2.2 The Urban Water Sector

2.2.1 Compliance to Key Performance Indicators

Table 13: GWCL Key Performance Indicators

Indicator	Unit	PURC Benchmark	Avg 2019	Average 2020	1st Quarter 2020	2nd Quarter 2020	3 rd Quarter 2020	4 th Quarter 2020
Non-Revenue Water (NRW)	%	45	50.45	37.72	45.49	35.07	34.54	35.77
Metering Ratio	%	95	65.41	61.65	58.83	58.84	61.23	67.70
Collection Ratio	%	98	81.6	86.21	69.8	90.2	90.04	94.81
Capacity Utilization	%	85	59.28	70.37	65.38	67.64	67.48	81.00
Water Quality								
A. Treated Water Quality								
1. Physical & Chemical Compliance	%	95	97.75	96.61	99.70	89.00	99.00	98.75
2. Bacteriological Compliance (E-Coli)	%	100	100	100	100	100	100	100
3. Sampling Compliance Index	%	0.95	0.71	0.89	0.80	0.97	0.91	0.88
B. Distribution Water quality								
1. Physical & Chemical Compliance	%	95	94.90	85.67	90.70	66.00	92.00	94
2. Bacteriological Compliance (E-Coli)	%	100	100	92.75	74	100	97	100
3. Sampling Compliance Index	%	0.95	0.76	0.79	0.79	0.63	0.84	0.90

Non-Revenue Water (NRW)

There was a significant improvement in the NRW figures during the year 2020 compared to 2019, as GWCL witnessed a steady decline in its NRW figures for the four (4) quarters of the year. GWCL was able to meet PURC's benchmark of 45% over the last three quarters. However, the NRW figure for the 1st quarter of the year was 45.49%. The NRW average over the four quarters for 2020 was 37.71%, representing a significant improvement compared to the 2019 average figure of 50.45%. The significant reduction in NRW figures could be attributed to the COVID-19 relief on the provision of free water to customers. This enabled dormant accounts to be re-activated, in order for customers to benefit from the relief.

Metering Ratio

GWCL recorded a decline in its metering ratio for the first three quarters of the year. However, the fourth quarter of 2020 registered a marginal increase of 67.70% as compared to the 2019 figure of 65.41%. On average, the metering ratio for 2020 was 61.65% compared to the 2019 figure of 65.41%. This represented a decline of 5.7% over the 2019 metering ratio. The metering ratio for 2020, however, did not meet the PURC Benchmark of 95%.

Collection Ratio

There was an improvement in the collection ratio in the second, third and fourth quarters of 2020 compared to the average figure of 2019 of 81.60%. The first quarter, however, recorded a low of 69.8%. The average collection ratio of 86.25% for 2020 did not meet the PURC Benchmark of 98%.

Capacity Utilization

Plant Capacity Utilization recorded a marginal increase in the first three quarters of 2020 as compared to the end of 2019. The fourth quarter registered a significant increase in capacity utilization. GWCL has not attributed any reason for the increase in capacity utilization for the fourth quarter of 2020. The average plant capacity utilization for 2020 was 70.37% as compared to the average 2019 figure of 59.28%. Figures for capacity utilization for all quarters in 2020 fell short of the PURC Benchmark of 85%.

The low capacity utilization for the first three quarters of 2020 is partly attributable to factors including long hours of power outages experienced in the Ashanti, Central, Western and Brong-Ahafo Operational Regions of GWCL during the period. In addition, Wa and Obuasi low capacity utilization are due to limited distribution pipelines, Sekyere-Hemang due to limited transmission and distribution pipe networks and Weija Treatment Plant due to four failed filters at the Adam Clarke plant.

Efficiency Analyses

The Commission conducted efficiency analyses of GWCL operations over the period under review. Results from analysis of the efficiency analyses in comparison with the year 2019 presented in Table 13.

Table 14: GWCL Efficiency Analyses

Item Description	Measure	Period (Year)	
		2019	2020
Water Produced	Mm ³	304	325.3
Water sold	Mm ³	149.9	198.2
Revenue water	%	49.31%	60.93%
Billing (nominal)	MGCedis	905.4	1353.4
Collection (nominal)	MGCedis	747.3	1161.0
Average tariff	cedis per m ³	6.04	6.83
Direct Operating Cost (Excluding energy) (nominal)	MGCedis	1424.5	2980.8
Energy (electricity and fuel) (nominal)	MGCedis	281.3	322.79
Depreciation (nominal)	MGCedis	790.22	766.3
Total Operating Cost (nominal)	MGCedis	1705.80	3303.60
Direct unit operating cost of water produced (nominal)	cedis per m ³	4.69	9.16
Direct unit operating cost of water sold (nominal)	cedis per m ³	9.50	15.04
Direct unit operating cost of paid for water (nominal)	cedis per m ³	11.51	17.53
Direct unit energy cost of water produced (nominal)	cedis per m ³	0.93	0.99
Direct unit energy cost of paid for water (nominal)	cedis per m ³	2.27	1.90
Direct unit operating cost of water produced (nominal)	cedis per m ³	3.76	8.17
Direct unit operating cost of water sold (nominal)	cedis per m ³	7.63	13.41
Direct unit operating cost of paid for water (nominal)	cedis per m ³	9.24	15.63
Unit cost of water produced (nominal)	cedis per m ³	5.61	10.16
Unit cost of water sold (nominal)	cedis per m ³	11.38	16.67
Unit cost of paid for water (nominal)	cedis per m ³	13.79	19.43
Ratio of UfW to production	%	50.69%	39.07%
Ratio of collection to billing	%	82.5%	85.8%
Ratio of collection to production	%	40.7%	52.3%

Source: Prepared from PURC Data, Operational Year 2020

As indicated in Table 12, the volume of water produced increased by 21.3Mm³ from 304Mm³ in 2019 to 325.3Mm³ in 2020 with a corresponding increase in water sold from 149.9Mm³ in 2018 to 198.2Mm³ in 2020. This can be attributable to the free water policy issued by Government as COVID relief to water consumers.

Interestingly, Non-Revenue water decreased significantly from 50.7% in 2019 to 39.1% in 2020 below PURC Benchmark Non-Revenue water of 45%.

An improvement was witnessed in Collection ratio as a proportion of production. This means that Headline Efficiency or Revenue Creating Production which is expressed as the percentage of water produced converted into revenue collected increased in 2020, from 41% in 2019 to 52.3% in 2020.

An increase in average tariff from 6.08GHS/m³ in 2019 to 6.83GHS/m³ in 2020 was witnessed. This increase can be attributed to an increase in operating expenses of GWCL. It must be noted that the policy of PURC is full recovery of efficient operation and maintenance costs by GWCL from water tariffs hence GWCL must continue to improve its performance.

2.2.2 Water Quality

Treated Water Quality

Analysis of data for the year revealed that all regions failed to meet the treated water sampling compliance indices. Reasons cited for the noncompliance included lack of logistics as well as operational challenges. GWCL satisfactorily met PURC's benchmarks for treated water quality for physical, chemical, and bacteriological parameters in the 1st, 3rd, and 4th quarters of the year. Compliance levels of 89% for 2nd quarter however fell below PURC's benchmark of 95%.

Distribution Water Quality

The Distribution Water Quality followed the same trend as the treated water quality. Most regions did not meet the water sampling indices within the distribution network. Distribution Water Quality compliance for the four quarters fell below PURC's Benchmark of 95%, with the 2nd quarter recording the lowest (66%) for physical and chemical quality.

Bacteriological quality compliance for quarters 2, 3 and 4 were satisfactory except for quarter 1 (74%) which fell below the benchmark. Challenges stated for the noncompliance are same as the treated water quality.

The significant improvement in NRW figures is being monitored by the Commission to ensure that current levels achieved are maintained. Secondly, the Commission validates data received from GWCL before applying it to its work.

2.3 Consumer Care

2.3.1 Complaints Management

The Commission in 2020 received a total of 7,067 complaints. These include complaints lodged by consumers against the regulated electricity and water distribution utilities, as well as complaints lodged against some consumers by the utilities. Total complaints resolved were 6,911, representing 97.79% of complaints received. The remaining 156 unresolved complaints are at various stages of investigations by both the utilities and the Commission. Details of cases received and status is represented in Table 14 below;

Table 15: Complaints Received and Resolved by the Utilities

Complaints										
	ECG		NEDCo		GWCL		Consumers		Totals	
Regional Office	Lodged	Resolved	Lodged	Resolved	Lodged	Resolved	Lodged	Resolved	Lodged	Resolved
Ashanti	835	786	0	0	105	105	0	0	940	891
Eastern	1491	1473	0	0	473	468	0	0	1964	1941
Central	527	520	0	0	160	159	3	3	690	682
Western	616	594	0	0	72	67	0	0	688	661
Volta	270	267	0	0	54	54	0	0	324	321
Greater Accra	682	675	0	0	252	249	0	0	934	924
Northern	0	0	250	230	55	49	0	0	305	279
Upper West	0	0	338	333	49	49	0	0	387	382
Bono	0	0	623	618	119	119	93	93	835	830
Total	4,421	4,315	1,211	1,181	1,339	1,319	96	96	7,067	6,911

As shown in Figure 6 below, the number of complaints lodged against ECG was 4,421 representing 62.56% of total complaints lodged, followed by 1,211 (17.14%) complaints lodged against NEDCO. Complaints against GWCL of 1,339 represented 18.95% of total complaints lodged while 96 complaints (1.36%) were lodged against consumers by the Utilities.

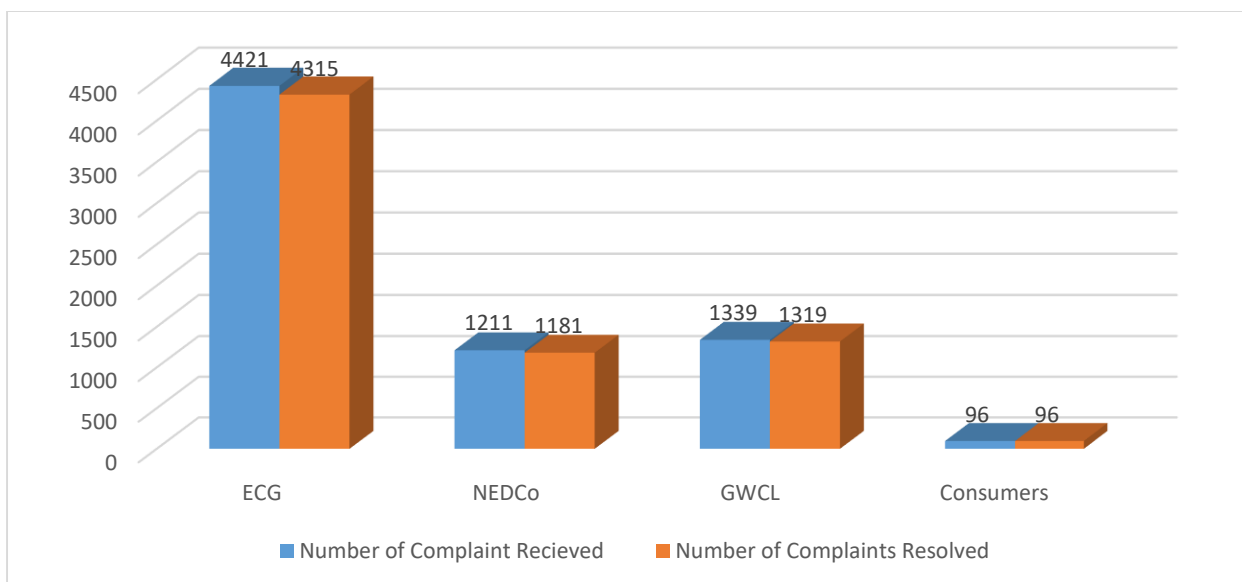


Figure 8: Total Complaints Received and Resolved by the Utilities

With regards to complaint resolution, 4,315 complaints against ECG were resolved. This represented 97.60% of complaints lodged. A total of 1,181 complaints against NEDCo were resolved, representing 97.52% of complaints lodged, while 1,319 (98.51%) complaints against GWCL were resolved. All 96 complaints lodged against some consumers by the utilities were resolved.

2.3.1.1 Trends of Complaints Resolution (2016 – 2020)

The Commission analysed the number of complaints between 2016 and 2020 to determine the trends in complaints lodged and resolved over the period (see Table 2 and Figure 2). The analysis revealed a general increase in complaints between 2016 and 2020. The number of complaints received peaked to 9,550 in 2019 due to the introduction of a Whatsapp platform for each Regional Office to receive consumer complaints. In 2020 however, the number of complaints received dipped partly due to the COVID-19 pandemic restrictions which resulted in the inability of staff to frequently visit communities to undertake outreach programs.

Table 16: Complaints Management Comparison over a Four Year Period

Years	2016	2017	2018	2019	2020
No. of Complaints	3,202	2,713	5,226	9,550	7,067
No. of Resolved	2,577	2,608	4,938	9,251	6,911
Percentage of Complaints Resolved	80.5	96.1	94.5	96.97	97.79

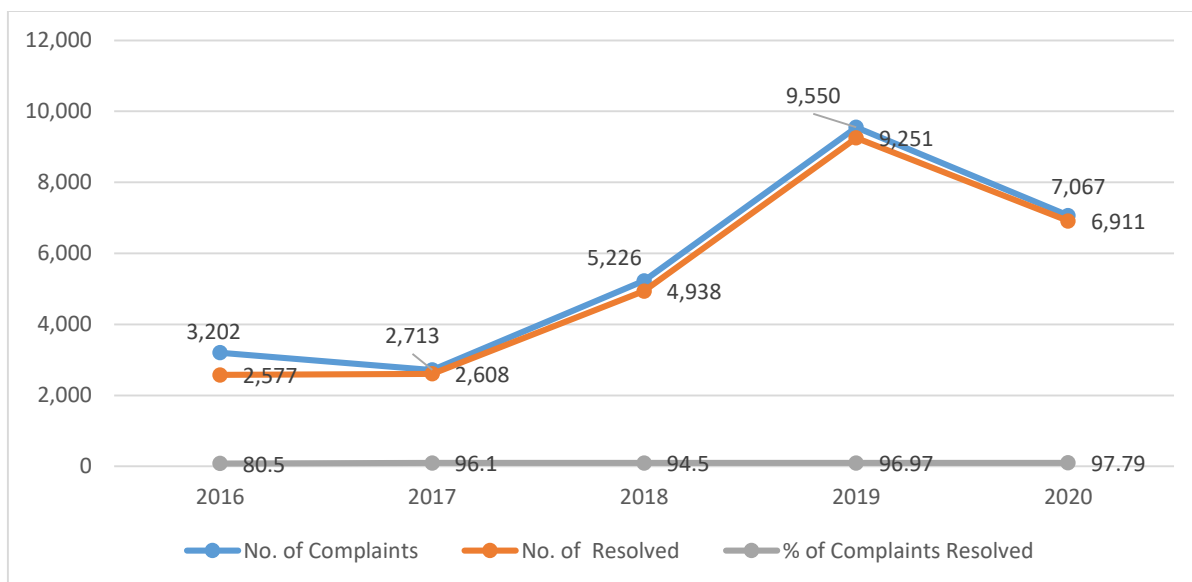


Figure 9: Comparing Complaints Management over Four Years

Figure 9 indicates that complaints resolution increased by 15.6% from 80.5% in 2016 to 96.1% in 2017. It however decreased marginally by 1.6% in 2018 and again increased by 2.37% in 2019. It also increased by 0.82% in 2020.

2.3.1.2 Categories of Complaints Lodged by Utility Consumers

The various categories of complaints received were broadly classified under Billing, Metering, Payment, Quality of Service, Unlawful Disconnection and Damaged Property. These are indicated in Table 16 below.

Table 17: Complaint Categories

Utility	Regions	Damaged Equipment	Unlawful Disconnection	Payment	Quality of Service	Meters	Billing
ECG	Ashanti	0	4	22	629	42	138
	Eastern	0	6	13	1,144	36	292
	Central	1	0	6	362	37	121
	Western	0	43	45	145	93	290
	Volta	1	3	1	218	9	38
	Gt. Accra	6	6	13	452	103	102
	Sub Total	8	62	100	2,950	320	981
NEDCo	Northern	1	3	2	196	14	35
	Upper West	0	13	18	175	35	97
	Bono	1	6	3	447	12	154
	Sub Total	1	22	23	818	61	286

GWCL	Ashanti	0	0	6	83	2	14
	Eastern	0	2	4	457	2	8
	Central	0	0	4	147	2	7
	Western	0	1	1	59	3	8
	Volta	0	1	1	49	3	0
	Gt. Accra	0	3	0	181	9	59
	Northern	0	0	6	29	3	17
	Upper West	0	0	0	39	0	10
	Bono	0	1	1	104	2	11
Sub Total	0	8	23	1,148	26	134	
Consumer	Central	0	0	3	0	0	0
	Bono	0	0	93	0	0	0
	Sub total	0	0	96	0	0	0

Categories of Complaints against ECG

Quality of Service constituted majority (66.73%) of complaints lodged against ECG in 2020. These complaints bordered mainly on frequent power outages and power fluctuations within the distribution network. Billing complaints, specifically overbilling, bulk billing and wrongful billing, constituted 22.19% of complaints received, followed by Metering issues (7.24%), Payments¹ (2.26%), Unlawful Disconnection (1.40%), and Damaged Property (0.18%).

Categories of Complaints against NEDCo

With respect to complaints lodged against NEDCo, Quality of Service was the most dominant representing 67.55%. This was followed by Billing (23.62%), Metering (5.04%), Unlawful Disconnections (1.90%), Payment (1.82%), and complaints on Damaged Equipment (0.08%).

Categories of Complaints against GWCL

Quality of Service (85.74%), mainly disruptions in water supply and leakages in the distribution mains were the most reported complaints with respect to water supply in 2020. Wrongful Billing was the second highest complaint (10.01%) followed by Metering (1.94%), Payment (1.72%), and Unlawful Disconnection (0.06%).

Categories of Complaints against Consumers

The only Complaints lodged by utilities against consumers were on non-payment of bills by customers.

¹ Unreflected payments on subsequent bills

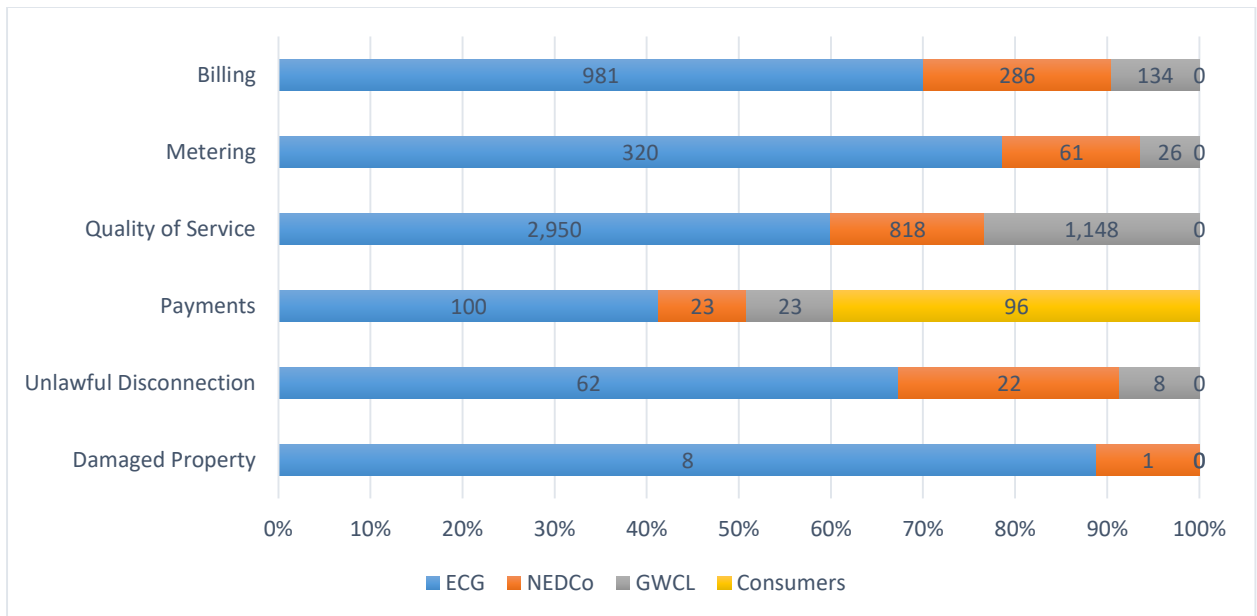


Figure 10: Categories of Complaints

2.3.1.3 Impact of Complaints Management

Investigations conducted by the Commission in 2020, revealed that credit sales adjustments were required for some complainants due to bulk billing, over billing and wrongful billing by the regulated utilities. The utilities were therefore directed to pass credit sales adjustments to the affected complainants.

Accounts of affected complainants were credited with an amount of GhC888,304.25 (see Table 17)

Table 18: Adjustment and Compensations in Favour of Complainants

Region	Credit Sales Adjustments
Ashanti	105,106.71
Eastern	5,723.78
Central	10,982.02
Western	49,410.89
Greater Accra	106,308.59
Upper West	30,655.04
Bono	10,918.89
Head Office	569, 198.33
Total	888,304.25

2.3.2 Community Monitoring

The Commission undertook monitoring activities in sixty (60) communities in the Greater Accra, Ashanti, Central, Bono, Upper East and West, Savannah and the North East Regions of the country. This was undertaken to ascertain from consumers, the actual quality of service delivery. The communities monitored are listed in Table 18.

Table 19: Communities Monitored

REGION	COMMUNITIES
Greater Accra	Sege, Ada, Afienya, Atimpoku, Amasaman, Nsawam, Amranhia
Ashanti	Kwabeng, Saabo, Asuboa, Dampong, Kumeso, Takyikrom and Kyempo all in Asante Akyem District and Fomena, Akwaserem, New Edubiase, New Krofromu, Amudurase, Ahwiaso, Fumaso and Ayaase also in the Adansi District.
Bono	Berekum, Dormaa Ahenkro, Drobo, Sampah, Seikwa
Central	Apam, Kwansakrom, Enyeme, Ajumako, Asafo
Eastern	Akim Swedru, Akroso, Achiase, Akim Awisa, Aboaso
Volta	Ho, Kpando, Hohoe, Jasikan
Upper East	Chiana, Paga, Fumbisi, Chuchuliga, Sandema.
Upper West	Tumu, Bugubelle, Dangi, Kong, Bakwala
Savannah	Kalba, Tuna, Jentilpe, Blema, Muna
North East	Yunyoo, Nalerihu, Nakpanduri, Bunkpurugu

Summary of findings of the Community Monitoring

The following issues were identified and collated during the monitoring activities:

- Issues of service provision, including billing, metering, disconnections, among others.
- The inability of utilities to capture Self-Help Electrification Project (SHEP) customers for billing.
- Concerns with respect to overloaded transformers, damaged transformers, disruptions in water supply, and prolonged outages.
- Delays in the processing of new service connections
- The quality of customer care within the offices of the utilities
- Efficient use of utility
- The use of substandard electricity poles for connection to homes
- Low voltages and frequent outages
- Overgrowth under high tension pylons
- Damage to poles from bush fire/burning.

Actions taken in the aftermath of the monitoring exercise included the following:

- Reconciliation of SHEP customer accounts with ECG
- Adjustments passed in favour of bulk billed customers
- Reconciliation of date and time issues with installed meters
- Replacement of damaged poles in some communities like Adidome and Tsawla in the Volta region
- Clearing of overgrowth under high tension poles to prevent outages in places like Kpando, Kpeve and Hohoe districts in the Volta region; and Agona, Axim and Tarkwa lines in the Western Region.

2.3.3 Monitoring Third-Party Prepaid Vending Stations

During the year, the Commission through its monitoring activities in the Greater Accra, Western and the Eastern Regions visited 19 third party prepaid vending stations. The main objective of the exercise was to assess and appraise the vending stations with regards to:

- Accessibility to the centre
- Operational times
- Knowledge of types of meters in operational area
- Type of telecommunication network use and associated challenges
- Knowledge of the PURC

Observations at the Private Vending Stations

- The vending stations visited were easily accessible to customers, and have longer working hours.

- Shop Attendants have insufficient knowledge about the meter types and challenges in their areas of service.
- Knowledge of the Commission was insufficient amongst both Shop Attendants and owners.
- All vending stations operated on a single telecommunication network platform.

2.3.4 Monitoring the Implementation of the COVID-19 Relief

In 2020, the President of the Republic of Ghana announced some relief packages for both electricity and water consumers in order to ameliorate the impact of the virus on citizens. The regional offices of the Commission across the country were tasked to monitor the implementation of the relief packages by the utilities.

Outcome of the monitoring activity indicated that while some pre-paid customers obtained their reliefs on the first purchases, others obtained theirs on latter purchases due to the gradual programming of the reliefs onto the system to avoid total system collapse. In the NEDCo operational areas, the COVID-19 reliefs were only obtained by customers who patronised NEDCo owned vending stations. This resulted long queues at the NEDCo vending centres.

ECG customers on post-paid meters had their COVID-19 relief prorated as per their billing system, while NEDCo customers obtained exactly half of their electricity bill in March as COVID-19 relief.



Figure 11: Staff monitoring the Implementation of the Covid-19 Relief in the Volta Region

2.3.5 Public Education

Schools Education “Catch them Young”

In 2020, the campaign to create awareness about the operations of the Commission in schools was extended to 14 schools in five regions including Greater Accra, Ashanti, Western, Volta and Bono Regions. The education centred on:

- The role and functions of the Commission
- Regulation on Termination of Service
- Complaint Procedure
- Conservation towards efficient and effective use of power and water

Table 20: Schools involved in the Commission’s Education Programme

Regions	No. of Schools	Schools
Gt. Accra	2	Atomic Senior High School, West Africa Senior High School
Ashanti	3	Juaso Senior High School, Ejisuman Senior High School, Konongo Senior High School
Western	3	Dabase Senior High Technical School, Tarkwa Senior High School, Fiaseman Senior High School
Volta	1	Adaklu Senior High School
Bono Region	5	Boakye Tromo Senior High School, All Standard Senior High School, Abesim Senior High School, Odumase Senior High School. Community Vocational Technical Institute
Total	14	

Other forms of consumer education employed by the Commission included but not limited to the following:

- Interactions with Metropolitan, Municipal, District Assemblies (MMDAs)
- Radio programmes and the use of virtual platforms
- Bumper to Bumper which involves interacting with transport operators and passengers about the operations of the Commission.

Some issues raised during the Commission’s engagements with the public are as follows:

Metering	Conservation
Billing	New Service Connection
Remedies for damage equipment	Prepayment/Post paid
Disconnection & reconnection fees	Quality of service
Tariff structure	Illegal connection
Utilities staff training	Estimated consumption
Dispute Resolution	Payment not reflecting
Capital Contribution	



Figure 12: Some Images of PURC’s Schools Education Programme

2.3.6 Monitoring of Customer Service Centres and District Offices

The Commission’s monitoring exercise covered some Customer Service Centres (CSC) and District Offices of the regulated utilities. The exercise was to enforce standards of performance in the Greater Accra, Ashanti,

Eastern, Western, Western North, Central, Bono East, Ahafo, Northern, Savannah, Upper East and West Regions. The CSCs monitored comprised of 40 ECG centres, 27 NEDCo centres and 31 GWCL centres.

Issues of insufficient energy meters for new service connections run through the challenges faced in most District Offices monitored. In spite of this shortfall, some district offices of ECG had ample materials for new service connection.

The table below summarizes the major findings at the offices visited.

Table 20: Customer Service Centres visited in 2020

REGION	ECG CENTRES	GWCL CENTRES	NEDCo Centres
GREATER ACCRA	Kwabinya, Dodowa, Mampong, Teshie, Makola, Dansoman, Bortianor, Nsawam, Achimota, Ablekuma	Teshie, Kanda, Legon, Adenta, Accra Central (Circle), Kasoa, Amasaman, Nyanyano, Sowutuom, Dansoman-South	
ASHANTI REGION	Effiduase, Ejisu, Offinso, Konongo, Kwabre	Offinso, Konongo, Ashanti North A (Barekese) & North B (Suame)	
WESTERN REGION	Takoradi, Sekondi, Agona Nkwanta, Axim, Half Assini, Tarkwa, Bogoso, Enchi, Asankragua, Juaboso, Sehwi Wiawso, Bibiani, Diaso, Elubo	Takoradi North, Takoradi South, Sekondi, Axim, Tarkwa	
EASTERN REGION	Asamankese, Asesewa, Nkwakaw, Mpraeso, Kibi	Kwahu, Nsawam, Krobo, Akwapim, New Juaben East	
CENTRAL	Twifo Praso, Assin Fosu, Breaman Asikuma, Ajumako, Saltpond	Bisease, Saltpond, Essarkyir, Budumburam	
NORTHERN REGION		Bolga, Bawku, Navrongo	Bolga, Navrongo, Bawku, Salaga, Bimbila, Yendi, Zabzugu, Buipe, Damongo, Zebila, Garu, Dandema
BONO REGION			Bamboi, Ejura, Akomadan, Busunya, Kwame Danso, Kenyasi, Hwidiem, Tepa, Bechem, Duayaw Nkwanta
UPPER WEST			Hain, Nandom, Nadowli, Lawra, Issa

Observation at the Electricity Company of Ghana Centres

The table below summarizes findings at service centers monitored within the year

Table 21: Observations made during the Commission's visit to Customer Service Centres of the Utilities

	Outlook	Customer Care	Resources
ECG	<ul style="list-style-type: none"> Conveniently sited with the exception of Dodowa and Offinso District Offices Conducive working environment and space except Nsawam (with limited working space), Dodowa, Half Assini, and Agona Nkwanta² 	<ul style="list-style-type: none"> Various media and platforms used in public education Prompt response to complaints aided by the use of Customer Management Systems (CMS) Timely new service connections Improved customer education and care despite COVID-19 Fair level of compliance with the Commission's benchmark with the exception of Dodowa and Nsawam 	<ul style="list-style-type: none"> Modest availability of logistics and resources Improved revenue mobilization, meeting targets of 80% - 95%
NEDCO	<ul style="list-style-type: none"> Accessibility of customer service centers not encouraging. Bolgatanga Office reasonably resourced. Ambience at these centers challenged with inadequate sitting space and untidy environment 	<ul style="list-style-type: none"> Limited consumer education Improved records keeping and complaints management with the exception of Wa Area Improved customer relations 	<ul style="list-style-type: none"> Insufficient availability of logistics Improved revenue mobilization
GWCL	<ul style="list-style-type: none"> Conveniently sited and accessible to customers 	<ul style="list-style-type: none"> Regular consumer education via community durbars and face-to-face customer interaction Deployment of educational materials such as PURC brochures Fair record keeping including complaints log. 	<ul style="list-style-type: none"> Metering penetration between 65% - 80% Adequate supply of meters for new service applicants and replacement including Axim Issues of cost of service prevalent Some available logistics for operations Improved revenue mobilization targets of 80% to 90%

² New district offices and customer service centres are under construction at these places and are at various stages of completion.



Figure 13: The Old Half Assini District ECG Office



Figure 15: New Half Assini ECG District Office



Figure 14: The old Teshie GWCL office



Figure 16: Newly constructed office of GWCL



Figure 17: NEDCO customer service center at Lawra

3.1 Quarterly Review of Electricity, Natural Gas and Water Tariffs

With respect to quarterly review of electricity, natural gas and water tariffs using PURC’s Automatic Adjustment Formula (AAF) in 2020, four quarterly tariff reviews, analyses and determinations were conducted by the Commission. Results from analyses of Hydro-Thermal Generation Mix, Ghana Cedi-US Dollar Exchange, Inflation Rate and Fuel Prices across the four quarters saw some variations from projected values used in the 2020-2020 Major Tariff Review. The combined impact of these four effects in each quarter resulted in either an over or under-recovery of revenue by the Utility Service Providers. However, the overall net effect of these variations provided insignificant justification for upward or downward adjustment in end user tariffs hence the Commission approved a no change in electricity, natural gas and water tariffs for all four quarters of 2020.

Table 22: Approved Electricity Tariffs Effective October 01, 2020

Customer Class	Approved Tariff (Ghp/kWh)
Residential	
0-50	32.6060
51-300	65.4161
301-600	84.8974
600+	94.3304
Service Charge for Lifeliners	213.0000
Service Charge for Other Residential Consumers	745.6947
Non-Residential	
0-300	79.7943
301-600	84.9097
600+	133.9765
Service Charge	1242.8245
SLT-LV	
Energy Charge (Ghp/kWh)	104.7943
Service Charge (Ghp/month)	4971.2983
SLT-MV	
Energy Charge (Ghp/kWh)	79.5167
Service Charge (Ghp/month)	6959.8177
SLT-HV	
Energy Charge (Ghp/kWh)	83.4562
Service Charge (Ghp/month)	6959.8177
SLT-HV Mines	
Energy Charge (Ghp/kWh)	263.9705
Service Charge (Ghp/month)	6959.8177

Table 23: Approved Water Tariffs Effective October 01, 2020

Category of Service	Approved Rates in Ghp/1000 litres
Metered Domestic	
0-5	329.2121
5 and above	560.2083
Commercial	923.0390
Industrial	1111.8338
Public Institutions/Government Departments	718.6628
Premises without connection (Public stand pipes) per 1000 Litres	369.4489
Special Commercial	5607.5588
Sachet Water Producers	1237.7011
GHAPOHA (Internal Usage)	923.0390
GHAPOHA (Ocean Going Vessels)	12586.8266

NB: Special Commercial refers to bulk customers who use GWCL treated water as the main raw material for bottling water

3.2 Maintenance of Appropriate Methodologies for Rate Determination

In fulfillment of the Commission's statutory mandate as set out in the Public Utilities Regulatory Commission Act, 1997 (Act 538) relating to provision of guidelines for rates chargeable for provision of utility services and in line with international best practice, the Commission in 2020 reviewed and developed the following Rate Setting Guidelines. A number of these Rate Setting Guidelines are in a Draft Stage awaiting approval by the Board.

Rate Setting Guidelines for Natural Gas Transmission, Distribution and Supply

As mandated by law, the Commission developed Rate Setting Guidelines for Natural Gas Transmission, Distribution and supply. The purpose of the guidelines is to set out the principles, methodology and processes for the approval of Natural Gas Transmission, Distribution and Supply Tariffs by PURC. The guidelines apply to a Public Utility licensed or authorised under any law to own or operate Natural Gas Transmission, Distribution and Supply Assets or to provide Natural Gas Transmission, Distribution and Supply Services in the regulated gas market in Ghana. In addition, the guidelines provide industry participants with information to facilitate tariff application and approval processes.

Rate Setting Guidelines for Quarterly Review of Electricity and Water Tariffs

The Commission reviewed its Rate Setting Guidelines for Quarterly Review of Electricity and water Tariffs. The guidelines provide industry participants with information with respect to determination of natural gas, electricity and water tariffs on quarterly basis and set out the principles, methodology and processes for the approval of natural gas, electricity and water production, transmission, distribution and supply tariffs by PURC. The guidelines apply to Public Utilities licensed or authorised under any law to own or operate natural gas, electricity and water production, transmission, distribution and supply assets with a view to providing electricity, natural gas and water services in the regulated natural gas, electricity and urban water supply markets in Ghana.

Rate Setting Guidelines for Net Metering of Renewable Energy Generation Systems connected to Distribution Networks in Ghana

In fulfillment of the Commission's mandate enjoined by the Renewable Energy (Amendment) Act, 2020 (Act 1045), Rate Setting Guidelines for Net Metering of Renewable Energy Generation Systems connected to Distribution Networks in Ghana was developed. The guidelines set out the principles, methodology and processes for the approval of Net Metering Rates by the Commission, and applies to renewable energy customer-generators operating under the Net Metering Scheme. The guidelines also provide industry participants with information to facilitate Net Metering application and approval processes.

3.3 Compliance and Legal Processes

Notifications

The Commission issued notifications to Electricity Company of Ghana (ECG), Northern Electricity Company of Ghana (NEDCO), Meinergy Solar and Safisana Biogas to rectify their breach of section 24 of Act 538 for their failure to submit regulatory data. The entities rectified their breach by submitting the requested regulatory data.

The Commission also issued a notification to Ghana Water Company Limited (GWCL) on interruptions in water supply over a one-year period (December 2019 to December 2020) at Accra-Tema Metropolitan Area (ATMA). Owing to the unsatisfactory response from GWCL and given the nature of the issues, the matter was referred to the Commission's Formal Hearing process for detailed investigation.

Request to Show Cause

Following the power outages experienced between January and February 2020, the Commission served Electricity Company of Ghana (ECG) and Ghana Grid Company Ltd with Requests to Show Cause why enforcement procedures should not be initiated under Sections 11 and 13 of the Public Utilities Regulatory Commission Act, 1997 (Act 538) against them. The Act imposes a duty on public utilities to make reasonable efforts to provide adequate and efficient service.

Referrals to Formal Hearing

Due to unsatisfactory responses from GWCL, ECG, and GRIDCo in respect of the previous enforcement processes, the Commission escalated instances of non-compliance through its Formal Hearing processes. Through this the Commission was able to undertake root cause investigations into shortcomings identified in the level of service provided by the utilities so as to prevent or minimise future recurrence in the sector.

Litigation

- *In The Matter of the Republic v Public Utilities Regulatory Commission, Ex-parte Electricity Company of Ghana & Grimaldi Ghana Limited. Suit No GJ.1073/2020*

The above suit was in respect of the Commission's hearing of a billing complaint lodged by Grimaldi Ghana Limited against Electricity Company of Ghana (ECG). ECG filed an application by way of Judicial Review in the High Court against the Commission for an Order of Certiorari to quash a ruling delivered by a Formal Hearing Panel of the Commission and for an Order for Prohibition to restrain the Panel from proceeding with the hearing of the complaint, on the grounds that it involved questions of law of Agency and Tort.

On the 25th of November 2020 the Court in its ruling dismissed ECG's application on the ground that the complaint before the Commission was one that related to utility service under Act 538 and the Commission therefore acted within its jurisdiction.

- *Jehovah Motors @Trading Ltd vrs Electricity Company of Ghana & Public Utilities Regulatory Commission. Suit No. C12/03/21*

The plaintiff in this case filed a suit in the High Court in Kumasi, praying the court to set aside the findings of the Commission in respect of a complaint of a disputed bill the plaintiff had brought against ECG and an order setting aside the disputed bill. The parties however agreed to refer the matter back to the Commission to exhaust all administrative remedies available in the various stages of its complaints management process.

Gazetting- Tariffs

The tariff review for 2020 was done under the Commission's Automatic Adjustment Formula (AAF). The Electricity and Water Tariffs for the first quarter (Q1) to the fourth quarter (Q4) were published in Gazette as follows:

- Q1 Electricity and Water Tariffs published in Gazette No. 4 dated Monday, 13th January 2020
- Q2 Electricity and Water Tariffs published in Gazette No. 58 dated Monday 20th April 2020
- Q3 Electricity and Water Tariffs were published in Gazette No. 95 dated Monday, 29th June 2020
- Q4 Electricity and Water Tariffs published in Gazette No. 146 dated Friday dated 2nd October 2020.

The associated tariff decision papers were also duly published on the Commission's website for public information.

Regulations

Enactment of Public Utilities Regulatory Commission (Consumer Service) Regulations, 2020, LI 2413

In 2020, the Commission developed and passed the Public Utilities Regulatory Commission (Consumer Service) Regulations. This followed the extensive stakeholder consultations from of 2018 and a number of review sessions with the Energy Commission and Office of the Attorney General during 2020. The draft instrument was submitted for a detailed pre-laying analysis by the Parliamentary Committee on Subsidiary Legislation.

Creation of Online Utility Register

In the year under review, the Commission digitized its Utility Register which is maintained in accordance with Section 3 (k) of the Public Utilities Regulatory Commission Act 1997, Act 538. The purpose of the register is to create a database of all public utilities. The Utility Register has been uploaded on the Commission's website.

3.5 Special Projects

3.5.1 Pro-Poor Water Projects

The Commission continued the implementation of the Pro Poor Water Programme as part of its social intervention policy, aimed at providing access to potable drinking water in high water-stressed communities in Ghana. During the period under review, the Pro Poor Water Management Team (PPWMT) through National Competitive Tendering (NCT) and Price Quotations Tendering awarded contracts for the provision of forty (40) boreholes in Nine Districts of the country. Additionally, contracts were awarded for the provision of limited pipe extensions of 100mm uPVC pipeline totalling about nine kilometres in 6 communities.

In total, forty-nine (49) projects were executed, comprising the awarded contracts for forty (40) boreholes in thirty-two (32) communities, five (5) educational institutions, and three (3) health institutions. Of the total number of 40 boreholes, thirty were fully mechanized with submersible pumps, overhead storage, standpipes and superstructure to house pump control panels and overhead tank. The remaining ten (10) boreholes were fitted with hand pumps as there was no source of power in those communities. In addition, one educational institution was provided with storage facilities to augment the school's water supply. The

Commission also conducted inspections of the projects at all project sites with the exception of four communities in the Western Region and two communities in the Volta Region.

On 29th October 2020, the Commission, in a grand ceremony commissioned the completed borehole projects at Susanso in the Ahafo Region. The Chief-of-Staff of the Republic of Ghana, Mrs. Frema Opare was the Special Guest of Honour at the Commissioning. Other important dignitaries who graced the occasion included Mrs. Freda Prempeh, the Honorable Member of Parliament for Tano North, and Commissioners of the PURC. The pictures below show some of the completed projects under the Pro-poor Water Programme.



Figure 18: One of the Completed Pro poor Project Sites at Susuano in the Brong Ahafo Region



Figure 19: The Chief-of-Staff, Mrs. Frema Opare unveiling the plaque at the Commissioning of the Susuanso Pro poor Site



Figure 20: The Executive Secretary of PURC, Mami Dufie Ofori, the Chief-of-Staff, Mrs. Frema Opare and other Dignitaries cutting the sod at the commissioning of the Susuanso Project



Figure 20: Completed Borehole at Domi Keniango, Manso Adubia

3.5.2 Set-up and Commissioning of PURC Energy Meter Laboratory

The Public Utilities Regulatory Commission (PURC) as one of its functions resolves complaints between consumers and utility service providers. Most of these cases are associated with meter accuracy issues and with regards to that, the Commission has installed a stationary meter test equipment to improve its quality of service and access the integrity of regulated electric utilities.

Prior to setting up the Energy Meter Test Laboratory, the Commission had procured a number of portable energy meter test equipment and energy analyzers to undertake some of its performance regulatory functions. The portable test equipment and analyzers have proved to be invaluable assets in carrying out the functions of the Commission over the years. The portable meter test equipment, however, can only be used on already installed meters and also lack the capabilities to undertake some of the abovementioned tests.

On December 19, 2020, the Commission contracted Alpha TND Limited to set up a Turnkey Electrical Metering Test Bench at the PURC Head Office in Accra. Subsequent to this, a test bench equipment has been installed, staff trained, equipment commissioned and handed over to the Commission.

3.6 Finance and Administration

3.6.1 Human Resources and Administration

Staff Strength

The total staff complement as at December 31, 2020 stood at 112, with 22 new recruited staff over the period under review. The total number represents permanent staff, with 58 employed at the Head Office in Accra and 54 stationed across PURC Regional Offices in the Greater Accra, Ashanti, Brong Ahafo, Western, Central, Northern, Volta, Upper West and Eastern Regions of Ghana.

The Commission's financial statements below, represent the unaudited provisional accounts of the Commission.

APPENDIX

THE COMMISSION'S FINANCIAL STATEMENT FOR THE YEAR ENDED 31ST DECEMBER 2020

INDEPENDENT AUDITOR'S REPORT TO THE COMMISSIONERS OF PUBLIC UTILITIES REGULATORY COMMISSION

REPORT OF THE COMMISSIONERS ON THE FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2020

The Commissioners have the pleasure to present this Financial Statements for the year ended December 31, 2020 as follows:

Activities

The principal activities of the Commission continue to be, to regulate and oversee to provision of utility services by public utilities to consumers and to provide for related matters.

Results of Operations

The results of the operations for the year ended December, 2020 are set out in the Statement of Income and Expenditure, Statement of Financial Position, the Statement of Cash Flows and the notes to the Financial Statements set out on pages 10 to 31

The operations for the year resulted in an excess of Income over Expenditure of GHS19,730,933 as against that of 2019 of GHS25,725,190. Total assets as at December 31, 2020 was GHS621,620,271 as against GHS534,935,753 in 2019.

Statement of Commissioners' Responsibility

The PURC Act, 1997 (Act 538) requires the Commissioners to maintain proper books of accounts and submit Audited Financial Statements at the end of the financial year to Parliament. In preparing the Financial Statements the Commissioners are required to:

- Select suitable accounting policies and apply them consistently;
- Comply with all appropriate Accounting Standards and all relevant Statutes of Ghana
- Make judgments and estimates that are reasonable and prudent;
- State whether applicable accounting standards have been followed, subject to any material departures disclosed and explained in the Financial Statements; and
- Prepare the Financial Statements on the going concern basis unless it is inappropriate to presume that the Commission will continue in business.

The Commissioners are responsible for keeping proper accounting records which disclose with reasonable accuracy at any time the Financial Position of the Commission which enable them to ensure that the Financial Statements comply with the PURC Act 1997, (Act 538) and the Public Sector Accounting Standard (IPSA). The Commissioners are also responsible for safeguarding the assets of the Commission and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The above Statements, which should be read in conjunction with the Statement of the Auditors' Responsibilities set out on pages 5 to 7, are made with a view to distinguishing to the stakeholders, the

respective responsibilities of the Commissioners and the Independent Auditors in relation to the Financial Statements.

Going Concern

The Commissioners have made an assessment of the ability of the Commission to continue as a going concern and have no reason to believe that the Commission will not be a going concern in the year ahead.

Nature of Business

There was no change in the nature of business of the Commission during the year. The Commissioners consider the state of affairs of the Commission to be satisfactory, so long as this remains within their control.

Other Matters

The Commissioners confirm that no matters have arisen since December 31, 2020 which materially affect the Financial Statements of the Commission for the year ended on that date.

Commissioners in Office

The under listed are the Commissioners in office at the time of signing the financial statements of the Commission

Mr. Michael Opam	-	Chairman
Prof. Joe Amoako - Tuffour	-	Member
Mrs. Dora Oppong	-	Member
Mr. Ishmael Edjekumhene	-	Member
Mr. Ebo B. Quagraine	-	Member
Dr. Yaw Adu-Gyamfi	-	Member
Mr. Emmanuel Sekor	-	Member
Mr. Daniel O. Korangteng	-	Member
Mrs. Mami Dufie Ofori	-	Member/Executive Secretary

By Order of the Commissioners

.....
Signature of the Commissioner

.....
Signature of the Commissioner

.....
Name of the Commissioner

.....
Name of the Commissioner

Accra,

....., 2021

**REPORT OF THE INDEPENDENT AUDITORS
ON THE FINANCIAL STATEMENTS OF
PUBLIC UTILITIES REGULATORY COMMISSION**

Report on the Financial Statement

We have audited the Financial Statements of Public Utilities Regulatory Commission

(the Commission), set out on pages 10-31. which comprise

- i. Statement of Financial Position as at December 31, 2020;
- ii. Statement of Income and Expenditure for the year then ended;
- iii. Statement of Changes in Accumulated Fund for the year then ended;
- iv. Statement of Cash Flows for the year then ended; and
- v. Notes to the Financial Statements, including a summary of significant accounting policies and other explanatory.

Opinion

In our opinion, the accompanying Financial Statements give a true and fair view of the Financial Position of the Commission as at December 31, 2020, and its Financial Performance and Cash Flows for the year then ended in accordance with International Public Sector Accounting Standards (IPSAS) and in the manner required any other relevant legislation.

Basis for Opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the Auditors' Responsibilities for the audit of the Financial Statements section of our report. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion

Independence

We are independent of the Commission in accordance with the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants (IESBA Code), and we have fulfilled our other ethical responsibilities in accordance with the IESBA Code.

Other Information

The Commissioners are responsible for the other information. The other information comprises the Commissioners report and Corporate Governance but does not include the Financial Statements and Auditor's report thereon.

Our opinion on the Financial Statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the Financial Statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the Financial Statement or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If based on the work we have performed on the other information, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the Commissioners for the Financial Statements

The Commissioners are responsible for the preparation and fair presentation of the Financial Statements in accordance with IPSA and in the manner required by The PURC Act, 1997 (Act 538) and any other relevant

legislation, and for such internal control as the Commissioners determine is necessary to enable the preparation of Financial Statements that are free from material misstatement, whether due to fraud or error.

In preparing the Financial Statements, The Commissioners are responsible for assessing the Commission's ability to continue as a going concern, disclosing, as applicable, matters related to the going concern and using the going concern basis of accounting unless the Commissioners either intend to liquidate the Commission or to cease operations, or have no realistic alternative but to do so.

The Commissioners are responsible for overseeing the Commission's financial reporting process.

Auditors' Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the Financial Statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an Auditors' Report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISA will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these Financial Statements.

As part of an audit in accordance with ISA, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the Financial Statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Commission's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Commissioners.
- Conclude on the appropriateness of the Commissioners' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Commission's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the Financial Statements or, if such disclosures are inadequate, to modify our opinion.
- Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Commission to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the Financial Statements represent the underlying transactions and events in a manner that achieves fair presentation.
- We also provide the Commissioners with a statement that we have complied with relevant ethical requirements regarding independence, and have communicated with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with the Commissioners, we determined those matters that were of most significance in the audit of the Financial Statements of the current period and are therefore the key audit matters. We describe these matters in our auditors' report unless the law or regulations precludes public disclosure about the matter or when, in extreme rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication

We also communicate with the Commissioners regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Report on Other Legal and Regulatory Requirements

We report on other regulatory requirement that the Financial Statements give a true and fair view and fairly comply with:

- i. Financial Administration Regulaions,2004, L.I. 1802;
- ii. The Internal Revenue Act, 2000 (Act 592) as amended;
- iii. Value Added Tax Act, 1998 (Act 546) as amended;
- iv. Public Procurement Act, 2003 (Act 663) as amended; and
- v. Public Financial Management Act, 2016 (Act 921).

The engagement partner on the audit resulting in this independent Auditors' Report is **Diana Shormeh Otoo (ICAG/P/1574)**

.....
Aryeetey & Associates (ICAG/F/2020/105)
Chartered Accountants
No. 3, off Brewery Road
Adabraka, Accra

....., 2021

Statement of Financial Position				
As at December 31, 2020				
		Notes	2020	2019
			GH¢	GH¢
Non-Current Asset				
Property, Plant and Equipment	6		9,108,740	7,215,360
Capital Work in Progress	8		5,631,082	4,006,261
Deferred Expenditure	9		185,193	190,103
Intangible Asset	10		-	4,584
			<u>14,925,015</u>	<u>11,416,308</u>
Current Assets				
Cash and Cash Equivalent	11		7,316,857	784,909
Accounts Receivable	12		599,378,398	522,734,536
			<u>606,695,255</u>	<u>523,519,445</u>
Total Asset			<u>621,620,271</u>	<u>534,935,753</u>
Current Liabilities				
Accounts Payable	13		461,958,581	395,004,996
			<u>461,958,581</u>	<u>395,004,996</u>
Equity				
Accumulated fund			155,166,040	135,435,106
Capital Reserve	14		4,495,651	4,495,651
			<u>159,661,691</u>	<u>139,930,757</u>
Total Equity & Liability			<u>621,620,272</u>	<u>534,935,753</u>
Approved by the Commissioners on, 2021 and signed on its behalf by:				
.....			
Signature of Commissioner			Signature of Commissioner	
.....			
Name of Commissioner			Name of Commissioner	
The notes on pages 14 -31 forms an Integral Part of the Financial Statement.				

Statement of Income & Expenditure				
For the year ended December 31, 2020				
		Notes	2020 GH¢	2019 GH¢
Income				
Regulatory Income		15	47,968,138	53,658,685
Non-Regulatory Income		16	2,187,205	338,750
Total Income			<u>50,155,344</u>	<u>53,997,435</u>
Expenditure				
Personnel Cost		17	20,577,989	17,188,419
Commissioners' Allowances		18	540,750	674,600
Operational Expenses		19	3,851,588	5,982,838
Administrative Cost		20	5,454,084	4,426,387
Total Expenditure			<u>30,424,410</u>	<u>28,272,244</u>
Surplus/(Deficit) Income over Expenditure				
transferred to Accumulated Fund			<u>19,730,933</u>	<u>25,725,191</u>
The notes on pages 14 -31 forms an Integral Part of the Financial Statement.				

Statement of Changes in Accumulated Fund				
For the year ended December 31, 2020				
			Accumulated	
			Fund	Total
			GH¢	GH¢
December 31, 2020				
Balance as at January 1, 2020			135,435,106	135,435,106
Excess income over expenditure			<u>19,730,933</u>	<u>19,730,933</u>
Balance as at December 31, 2020			<u>155,166,040</u>	<u>155,166,040</u>
December 31, 2019				
Balance as at 1 January, 2019			109,709,915	109,709,915
Excess income over expenditure			<u>25,725,191</u>	<u>25,725,191</u>
Balance as at December 31, 2019			<u>135,435,106</u>	<u>135,435,106</u>
The notes on pages 14 -31 forms an Integral Part of the Financial Statement.				

Statement of Cash Flows				
For the year ended December 31, 2020				
			2020	2019
			GH¢	GH¢
Excess Income over Expenditure			19,730,933	25,725,191
Add: Depreciation			1,228,868	982,792
Gain on Disposal			(36,608)	15,571
Amortization of Deferred Expenditure			4,910	10,324
Computer Software Amortization			4,584	5,000
			20,932,687	26,738,879
Changes in Working Capital				
(Increase)/decrease in accounts receivables			(76,643,862)	(105,661,879)
Increase/(decrease) in Payables			66,953,585	79,820,569
Net cash flows from operating activities			<u>(9,690,277)</u>	<u>(25,841,310)</u>
Cash flows from Investing Activities				
Purchase of Fixed Assets			(3,122,482)	(1,449,130)
Capital Work-in-Progress			(1,624,821)	(8,940)
Proceeds from Sale of Assets			36,841	-
Net Cash flow from Investing Activities			<u>(4,710,462)</u>	<u>(1,458,070)</u>
Net Increase in Cash & Cash Equivalent				
			<u>6,531,949</u>	<u>(560,502)</u>
Cash & Cash Equivalent at 1st January			784,909	1,345,411
Net Increases in Cash & Cash Equivalent			<u>6,531,949</u>	<u>(560,502)</u>
			<u>7,316,858</u>	<u>784,909</u>
Analysis of Cash and Cash Equivalent as shown in the statement of Financial Position				
Cash on hand			73,990	69,950
Cash at Bank			7,242,867	714,959
Cash and cash equivalents			<u>7,316,857</u>	<u>784,909</u>
The notes on pages 14 -31 forms an Integral Part of the Financial Statement.				

Note 1 General information

Public Utilities Regulatory Commission is the economic regulator of electricity, natural gas and water in Ghana. The Commission is an independent body set up to provide guidelines on rates chargeable for the provision of utility services; among others as spelt out in Section 3 of the Public Utilities Regulatory Act,1997 (Act 538) an Act of Parliament.

The Commissioners do not have the power to amend the financial statements after issue

Note 2. Basis of Preparation

2.1 Statement of compliance

The Financial Statements of the Commission have been prepared in accordance with International Public Financial Reporting Standards (IPSAS) framework, including International Accounting Standards and interpretation as issued by the International Public Sector Accounting Standards Board (IPSASB) and its committees as required by the Institute of Chartered Accountant (Ghana).

2.2 Basis of Measurement

The financial statements have been prepared on a historical cost basis except for those assets and liabilities that are stated at their fair values. Historical cost is generally based on the fair value of consideration given in exchange for goods and services.

Fair value is the price that will be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, regardless of whether that price is directly observable or estimated using another valuation technique. In estimating the fair value of an asset or liability, the Commission takes into account the characteristics of the asset or liability if market participants will take those characteristics into account when pricing the asset or liability at the measurement date.

2.3 Functional and presentation currency

The financial statements are presented in Ghana Cedi which is the Commission's functional and presentation currency. Except otherwise indicated, the financial information presented has been rounded off to the nearest one Ghana cedi.

2.4 Preparation of the financial statements

The preparation of financial statements in conformity with IPSAS framework, requires the use of certain critical accounting estimates. It also requires management to exercise its judgment in the process of applying the Commission's accounting policies. Changes in assumptions may have a significant impact on the financial statements in the period the assumptions changed. Management believes that the underlying assumptions are appropriate. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the financial statements are disclosed in Note 4.

Note 3 Summary of Significant Accounting Policies

The following Principal accounting policies have been applied consistently in dealing with items that are considered material in relation to the Commission's financial statements. These policies have been consistently applied to all years presented, unless otherwise stated. The significant accounting policies which have been adopted by the Public Utilities Regulatory Commission in the preparation of these Financial Statements are disclosed under the appropriate headings in the notes below:

3.1 Revenue recognition

Revenues are recognised when they are realised or realisable, and are earned no matter when cash is received.

Revenues from grants and sponsorship received are measured at fair value and recognised on obtaining control of the grant if it is free from conditions and it is probable that the economic benefits or service potential related to the asset will flow to the Commission and can be measured reliably.

When a liability is subsequently reduced, because a condition is satisfied, the amount of the reduction in the liability is recognised as revenue.

3.2 Revenue from Exchange Transaction

Interest income is accrued using the effective yield method. The effective yield discounts estimated future cash receipts through the expected life of the financial asset to that asset's net carrying amount. The method applies this yield to the investment outstanding to determine interest income each period.

3.3 Foreign Currency Translation

Foreign Currency Transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions or valuation where items are re-measured. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in the profit or loss for the year.

Foreign exchange gains and losses that relate to borrowings and cash and cash equivalents, unless they are capitalised, are presented in profit or loss within "finance income or costs". All other foreign exchange gains and losses are presented in profit or loss within "other income or expenses".

3.4 Operational Expenses

When expenses are incurred in relation to the achievement of the objectives of the Commission. The fair value of such expenses are recognised as an expense in the period in which they are related to.

3.5 Goods and Services

These represent expenses include amount paid or payable for goods and services including legal, auditing and others that are incurred in the course of the Commission's normal operations. They are recognised in the Income and Expenditure Statement in the period in which they are incurred (on an accruals basis).

3.6 Employee Benefit

(a) Long-term benefits

The Commission operates a defined contribution plan. Payments to defined contribution retirement benefit plans are recognised as an expense when employees have rendered service entitling them to the contribution.

Under the National Pension Scheme, the Organization contributes 13% of employees' total emolument to the Social Security and National Insurance Trust (SSNIT) for the employee pension. The Organization's obligation is limited to the relevant contribution, which were settled on due dates. The pension liabilities and obligation therefore rest with SSNIT

The Commission is required to contribute 13.5% of employees' basic salary to the Social Security and National Insurance Trust and 5% to a Fund Manager under the terms of the Pension Act 2008 (Act 766).

(b) Short-term benefits

The cost of short-term employee benefits, (those payable within 12 months after the service is rendered, such as wages, salaries, paid annual leave and sick leave, bonuses and non-monetary benefits such as medical aid, cars and housing), are recognised in the period in which the service is rendered and are not discounted

The expected cost of accrued leave is recognised as an expense as the employees render service that increase their entitlement or, in the case of non-accumulating leave, when the absence occurs. Accrued leave is measured as the amount that the Commission expects to pay as a result of unused entitlement that has accumulated to the employee at the balance sheet date.

The expected cost of bonus payments is recognised as an expense when there is a legal or constructive obligation to make such payment as a result of past performance

The expected cost of bonus payments is recognised as an expense when there is a legal or constructive obligation to make such payment as a result of past performance.

3.7 Provisions

Provisions for legal claims are recognised when:

- The Commission has a present legal or constructive obligation as a result of past events;
- It is probable that an outflow of resources will be required to settle the obligation; and
- The amount can be reliably estimated.

Provisions are measured at the present value of the expenditures expected to be required to settle the obligation using a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the obligation. The increase in the provision due to passage of time is recognised as finance cost.

Where the Commission, as lessee, is contractually required to restore a leased property to an agreed condition prior to release by a lessor, provision is made for such costs as they are identified.

3.8 Cash and Cash Equivalents

Cash and cash equivalents includes cash in hand, deposits held at call with banks, other short-term highly liquid investments with original maturities of three months or less, and bank overdrafts. Cash and cash equivalents are carried in the financial statement at cost.

For the purpose of cash flow statement, cash and cash equivalents consist of cash on hand and bank deposits net of any outstanding bank overdrafts

3.9 Accounts Receivable

These are stated deduction of impaired loss and the net of provision for bad and doubtful debts. At the end of each year reporting period, carrying amount of account receivable are reviewed to determine whether there is any objective evidence that the amounts are not recoverable. If so, an impairment loss is recognised immediately in the Income.

Pre-payments are carried at cost less any accumulated impairment losses.

3.10 Property, Plant and Equipment

All property, Plant and Equipment (PPE) is stated at historical cost less depreciation. Historical cost includes expenditure that is directly attributable to the acquisition of the items and where applicable borrowing costs.

Cost of an item of PPE includes its purchase price and any direct attributable costs. Cost includes the cost of replacing part of an existing PPE at the time that cost is incurred if the recognition criteria are met; and excludes the costs of day-to-day servicing of an item of PPE.

Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the

Commission and the cost of the item can be measured reliably. The carrying amount of those parts that are replaced is derecognised. All other repairs and maintenance are charged to the statement of profit or loss during the financial period in which they are incurred.

Depreciation, based on a component approach, is calculated using the straight-line method to allocate the cost over the assets' estimated useful lives, as follows:

Motor Vehicle	5 years
Computer & Accessories	3 years
Furniture & Fittings	5 years
Office Equipment	5 years
Leasehold Land	50 years

If there is an indication that there has been a significant change in the depreciation rate, useful life or residual value of an asset, the depreciation rate of that asset is revised prospectively to reflect the new expectations. It is treated as a change in estimates. The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at least at each financial year end.

An asset's carrying amount is written down immediately to its recoverable amount if its carrying amount is greater than its estimated recoverable amount.

Gains and losses on disposals are determined by comparing proceeds with carrying amount and are included in the statement of comprehensive income statement.

3.11 Revaluation of Property, Plant & Equipment

It is the policy of the Commission to revalue its Land and Buildings every 5 years based on a professionally Qualified Valuer's Certificate. The carrying value is determined by the fair value at the date of revaluation less any Accumulated Depreciation and subsequent Accumulated Impairment. The revaluation shall be made to ensure that the carrying amount does not differ materially from that which would be determined using Fair Value at the end of the reporting year.

3.12 Accounts Payable

Accounts payables are obligations to pay for goods or services that have been acquired in the ordinary course of business from suppliers. Accounts payable are classified as current liabilities if payment is due within one year or less. If not, they are presented as non-current liabilities.

Accounts payable are recognised initially at fair value and subsequently measured at amortised cost using the effective interest method.

3.13 Events after reporting date

Events after reporting dates are reflected in the financial statement only to the extent that they relate to the year under consideration and effect is material.

3.14 Impairment of non-financial assets

Assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable amount.

The recoverable amount is the higher of an asset's fair value less costs to sell and value in use. For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows (cash-generating units). The impairment test also can be performed on a single asset when the fair value less cost to sell or the value in use can be determined reliably. Non-financial assets

3.15 Financial Instruments

Financial assets and liabilities are recognised when the Commission becomes a party to the contractual provisions of the instrument. Financial assets are derecognised when the rights to receive cash flows from the assets have expired or have been transferred and the Commission has transferred substantially all risks and rewards of ownership. Financial liabilities are derecognised when the obligation specified in the contract is discharged, cancelled or expires.

(i) Classification

At initial recognition, the Commission classifies its financial instruments in the following categories:

a) Financial assets at amortised cost:

The Commission classifies its financial instruments as financial assets at amortised cost when both criteria set out below are met:

- The asset is held within a business model whose objective is to collect the contractual cash flows; and
- The contractual terms give rise to cash flows that are solely payments of principal and interest.

b) Financial liabilities at amortised cost

Accounts payables are initially recognised at fair value and subsequently measured at amortised cost using the effective interest method. These are classified as current liabilities in the statement of financial position if payment is due within twelve months. Otherwise, they are presented as non-current liabilities.

(ii) Offsetting financial instruments

Financial assets and liabilities are offset and the net amount reported in the statement of financial position when there is a legally enforceable right to offset the recognised amounts and there is an intention to settle on a net basis or realise the asset and settle the liability simultaneously.

(iii) Impairment of financial assets

The Commission assesses on a forward-looking basis the expected credit losses associated with its debt instruments carried at amortised cost. The impairment methodology applied depends on whether there has been a significant increase in credit risk.

For Trade Receivables, the Commission applies the simplified approach permitted by IFRS 9, which requires expected lifetime losses to be recognised from initial recognition of the receivables.

3.16 Loans and Receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. After initial measurement, such financial assets are subsequently measured at amortized cost using the effective interest method, less impairment. Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the

effective interest rate. Losses arising from impairment are recognized in the surplus or deficit. The Commission's loans and receivables comprises of cash and cash equivalent and other receivables.

3.17 Loans and Borrowing

After initial recognition, interest bearing loans and borrowings are subsequently measured at amortized cost using the effective interest method. Gains and losses are recognized in surplus or deficit when the liabilities are derecognized as well as through the effective interest method amortization process. Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the effective interest rate.

3.18 Held-To-Maturity Financial Assets

Non-derivative financial assets with fixed or determinable payments and fixed maturities are classified as held to maturity when the Commission has the positive intention and ability to hold it to maturity. After initial measurement, held-to-maturity investments are measured at amortized cost using the effective interest method, less impairment. Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the effective interest rate. The losses arising from impairment are recognized in surplus or deficit.

3.19 Derecognition

A financial liability is derecognized when the obligation under the liability is discharged or cancelled or expires. When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and the recognition of a new liability, and the difference in the respective carrying amounts is recognized in surplus or deficit.

3.20 Capital Grants and Gifts

Grants meant for capital expenditure are capitalised and written back to income over the useful economic lives of the fixed assets in line with the depreciation rates. Actual capital items received either in lieu of grants or as gifts are also treated in the same manner.

3.21 Conditions on Transferred Assets

Conditions on transferred assets require the Commission either to consume the future economic benefits or service potential of the asset as specified or return future economic benefits or service potential to the transferor in the event that the conditions are breached.

The entity incurs a present obligation to transfer future economic benefits or service potential to third parties when it initially gains control of an asset subject to a condition. This is because the entity is unable to avoid the outflow of resources as it is required to consume the future economic benefits or service potential or else to return to the transferor future economic benefits or service potential. Therefore, when the entity initially recognizes an asset that is subject to a condition, the entity also incurs a liability.

Conditions on a transferred asset that give rise to a present obligation on initial recognition shall be recognized as a liability. When a liability is subsequently reduced, because the condition is satisfied, the amount of the reduction in the liability is recognized as revenue.

3.22 Capital Reserves

This represents the difference between the carried value and the revalued amount of Property Plants and Equipment of the Commission. This amount will be transferred to the Accumulated Fund when the asset is realised.

Note 4 Critical accounting judgements and key sources of estimation uncertainties

The preparation of the financial statements in conformity with IPSAS requires management to make judgements, estimates and assumptions that affect the reported amounts of revenues, expenses, assets and liabilities, and the disclosure of contingent liabilities, at the end of the reporting period.

Estimates and Assumptions are recognised in the period in which the estimate is revised if the revision affects only that period or in the period of the revision and future periods if the revision affects both current and future periods.

4.1 Critical Accounting Estimates and Assumptions

Estimates and judgements are continually evaluated and are based on historical experience and other factors, including experience of future events that are believed to be reasonable under the circumstances. Management make estimates and assumptions concerning the future. The resulting accounting estimates will, by definition, seldom equal the related actual results. The estimates, assumptions and management judgements that have a significant risk of causing a material adjustment to the carrying amounts of evaluation assets.

In the process of applying the Commission's accounting policies, management has made judgments, which have the most significant effect on the amounts recognized in the financial statements.

4.2 Useful lives and residual values

The useful lives and residual values of assets are assessed using the following indicators to inform potential future use and value from disposal:

- The condition of the asset based on the assessment of experts employed by the Commission
- The nature of the asset, its susceptibility and adaptability to changes in technology and processes
- The nature of the processes in which the asset is deployed
- Availability of funding to replace the asset
- Changes in the market in relation to the asset

4.3 Fair value estimation – financial instruments

Where the fair value of financial assets and financial liabilities recorded in the statement of financial position cannot be derived from active markets, their fair value is determined using valuation techniques including the discounted cash flow model. The inputs to these models are taken from observable markets where possible, but where this is not feasible, judgment is required in establishing fair values. Judgment includes the consideration of inputs such as liquidity risk, credit risk and volatility.

Changes in assumptions about these factors could affect the reported fair value of financial instruments.

Note 5 Financial Risk Management

The Commission's activities expose it to a variety of financial risks: market risk, credit risk and liquidity risk. The Commission's overall risk management programme focuses on the unpredictability of financial markets

and seeks to minimise potential adverse effects on its financial performance. The Commission does not hedge any of its risk exposures.

Financial risk management is carried out by the finance department under policies approved by the Commissioners of Public Utilities Regulatory Commission.

The Commission's risk management policies are established to identify and analyse the risks faced by the Commission, to set appropriate risk limits and controls and is to monitor risk and adherence to limits.

5.1 Foreign Exchange Risk

Foreign currency risk arises on financial instrument that are dominated in a currency other than the functional currency in which they are measured. Transaction related risks are therefore not included in the assessment of the Commission's exposure to currency risk.

5.2 Credit Risk

Credit risk is the risk of financial loss to the Commission if counterparties to financial instruments fail to meet their contractual obligations, and it arises principally from receivables and cash and cash equivalents.

The carrying amount of financial assets represents the maximum credit exposure.

The maximum exposure to credit risk as at 31 December was:

Financial Assets	Amount GH¢
<u>As at December 2020</u>	
Cash and Bank Balance	7,316,857
Receivables	599,378,398
	<u>606,695,255</u>
 <u>As at December 2019</u>	
Cash and Bank Balance	784,909
Receivables	522,734,536
	<u>523,519,445</u>

5.3 Liquidity Risk

Liquidity risk is the risk that the Commission will not be able to meet its obligations as they fall due. Prudent liquidity risk management includes ensuring the availability of funding. Management performs cash flow forecasting and monitors rolling forecasts of the Commission's liquidity requirements to ensure it has sufficient cash to meet its operational needs.

The Commission's approach when managing liquidity is to ensure, as far as possible, that it will always have sufficient liquidity to meet its liabilities when due, without incurring unacceptable losses or risking damage to the Commission's reputation.

The table below analyses the Commission's financial liabilities that will be settled on a net basis into relevant maturity groupings based on the remaining period at the reporting date to the contractual maturity date:

At December 31, 2020

Accounts payable

Contractual undiscounted cash flows

461,958,581

At December 31, 2019

Accounts Payable

395,004,996

5.4 Fair Value Estimation

The Commissioners consider that the carrying amount of the Commission's financial assets and financial liabilities in the financial statements approximate their fair values.

5.5 Financial Instruments

Exposure to currency, commodity, interest rate, liquidity and credit risk arises in the normal course of the Commission's operations. This note presents information about the Commission's exposure to each of the above risks, policies and processes for measuring and managing risk, and the Commission's management of funds.

The fair value of the financial assets and liabilities are included at the amount at which the instrument could be exchanged in a current transaction between willing parties, other than in a forced sale or liquidation. Cash and short-term deposits, receivables and other current liabilities approximate their carrying amounts largely due to the short-term maturities of these instruments.

Fair Values

	Carrying Amount GH¢	Fair Value GH¢
Financial Assets		
2020		
Cash & Cash Equivalents	7,316,857	7,316,857
Receivables from Exchange Transaction	599,378,398	599,378,398
	<u>606,695,255</u>	<u>606,695,255</u>
2019		
Cash & Cash Equivalents	784,909	783,277
Receivables from Exchange Transaction	522,734,836	522,734,896
	<u>523,519,445</u>	<u>523,518,173</u>
Financial Liabilities		
2020		
Accounts Payable from exchange transaction	<u>461,958,581</u>	<u>461,958,581</u>
2019		
Accounts Payable from exchange transaction	<u>395,004,996</u>	<u>395,004,996</u>

Notes to the Financial Statements (Continued)							
For the year ended December 31, 2020							
Note 6 Property, Plant and Equipment							
	2020	Leashold Land	Motor Vehicle	Computer & Accessories	Office Equipment	Furniture & Fittings	Total
		GH¢	GH¢	GH¢	GH¢	GH¢	GH¢
Cost							
Cost 01/01/2020		4,883,184	4,576,717	571,470	1,443,610	402,374	11,877,355
Additions		6,300	1,573,738	157,403	1,274,251	110,790	3,122,482
Disposal			(260,556)	(16,799)	(14,080)	(2,413)	(293,848)
Cost 31/12/2020		<u>4,889,484</u>	<u>5,889,899</u>	<u>712,073</u>	<u>2,703,782</u>	<u>510,751</u>	<u>14,705,988</u>
Depreciation		2%	20%	33%	20%	20%	
As at 1/01/2019		796,381	2,087,799	374,905	1,113,276	289,634	4,661,995
Current Depreciation		99,579	693,882	160,459	220,749	54,200	1,228,868
Disposal		-	(260,556)	(16,799)	(13,847)	(2,413)	(293,615)
As at 31/12/2020		<u>895,960</u>	<u>2,521,124</u>	<u>518,564</u>	<u>1,320,178</u>	<u>341,422</u>	<u>5,597,248</u>
Carrying Amount							
As at Dec 31, 2020		<u>3,993,524</u>	<u>3,368,775</u>	<u>193,509</u>	<u>1,383,603</u>	<u>169,329</u>	<u>9,108,740</u>

Notes to the Financial Statements (Continued)							
For the year ended December 31, 2020							
Property, Plant and Equipment							
2019	Leashold Land	Motor Vehicle	Computer & Accessories	Office Equipment	Furniture & Fittings	Total	
	GH¢	GH¢	GH¢	GH¢	GH¢	GH¢	
Cost 01/01/2019	4,884,629	3,689,795	530,441	1,486,907	392,737	10,984,510	
Additions	-	979,759	140,359	104,484	24,300	1,248,901	
Disposal	(1,445)	(92,837)	(99,330)	(147,781)	(14,664)	(356,056)	
Cost 31/12/2019	4,883,184	4,576,717	571,470	1,443,610	402,374	11,877,355	
Depreciation	2%	20%	33%	20%	20%		
As at 1/01/2019	696,802	1,604,889	373,328	1,081,026	263,643	4,019,688	
Current Depreciation	99,579	572,910	101,619	168,132	40,552	982,792	
Disposal	-	(90,000)	(100,042)	(135,883)	(14,561)	(340,485)	
As at 31/12/2019	796,381	2,087,799	374,905	1,113,276	289,634	4,661,995	
Carrying Amount							
As at Dec 31, 2019	4,086,803	2,488,918	196,565	330,334	112,739	7,215,360	

Notes to the Financial Statements (Continued)				
For the year ended December 31, 2020				
			2020	2019
			GH¢	GH¢
Note 7	Disposal of Property and Equipment			
	Cost		293,848	356,056
	Accummulated Depreciation		<u>(293,615)</u>	<u>(340,485)</u>
	Carring Amount		(233)	15,571
	Sales Proceeds		36,841	
	Gain/(Loss) on Disposal		<u>36,608</u>	<u>15,571</u>
Note 8	Building Work-In-Progress			
	Balance as at Jan 1, 2020		4,006,261	3,997,321
	Addition for the year		1,624,821	<u>8,940</u>
	Balance as at December 31, 2020		<u>5,631,082</u>	<u>4,006,261</u>
	This represent expenditure to date on the commission's proposed 15 Storey Office Complex at African Liberation Circle, Accra.			
Note 9	Rehabilitation Expenditure			
	Balance as at Jan 1, 2020		190,103	198
	Addition for the year			200,229
	Amount Written Off		<u>(4,910)</u>	<u>(10,324)</u>
	Balance as at December 31, 2020		<u>185,193</u>	<u>190,103</u>
	This represents Rehabilitation works on the commission's Rented Office Building which is being written off over 5 years. During the year 2019, the Commission refurbished the old block for Water and Energy Laboratories and other staff offices.			
Note 10	Intangible Asset			
	Balance as at Jan 1, 2020		1,184,727	1,226,646
	Disposal for the year		<u>-</u>	<u>(41,919)</u>
	Balance as at December 31, 2020		<u>1,184,727</u>	<u>1,184,727</u>
	Amortization			
	Balance as at Jan 1, 2020		1,180,143	1,217,063
	Disposal for the year			(41,919)
	Charge for the year		<u>4,584</u>	<u>5,000</u>
	Balance as at December 31, 2020		<u>1,184,727</u>	<u>1,180,144</u>
	Net Book Value		<u>-</u>	<u>4,584</u>

Notes to the Financial Statements (Continued)				
For the year ended December 31, 2020				
			2020	2019
			GH¢	GH¢
Note 11	Cash and Bank Balances			
	Cash on Hand		73,990	69,950
	Cash at Bank		7,242,867	714,959
			<u>7,316,857</u>	<u>784,909</u>
Note 12	Accounts Receivable			
	GRIDCO Limited		236,270,186	176,698,480
	Ghana National Gas Company Limited		362,280,444	345,359,571
	Staff Debtors		274,503	270,918
	Sundry Debtors		-	-
	Rent Prepaid		320,985	245,418
	Insurance Prepaid		178,400	110,308
	Others		53,880	49,841
			<u>599,378,398</u>	<u>522,734,536</u>
Note 13	Accounts Payable			
	Energy Commission		111,707,667	98,597,994
	Rural Electrification		197,873,680	167,893,594
	Pro Poor		148,946,486	126,131,944
	Sundry Creditors		3,204,287	2,121,038
	Accrued Expenses		226,461	260,426
			<u>461,958,581</u>	<u>395,004,996</u>
Note 14	Capital Reserve			
	This resulted from the revaluation of Office Property at 51 Liberation Road, Ridge, Accra on November 9, 2011 by Bortey Consulting, Valuers and Estate/Project Managers, Estate Brokers.			
Note 15	Regulatory Income			
	Electricity Levy		37,827,162	32,774,156
	Natural Gas Levy		10,140,976	20,884,529
			<u>47,968,138</u>	<u>53,658,685</u>

Notes to the Financial Statements (Continued)				
For the year ended December 31, 2020				
			2020	2019
			GH¢	GH¢
Note 16	Non-Regulatory Income			
	Ghana Water Company Limited		-	-
	Sales of Tender Document		11,200	5,400
	Sundry Income		2,077,227	155,000
	Interest on Call Account		98,779	60,609
	Exchange Gain		-	117,741
			<u>2,187,205</u>	<u>338,750</u>
Note 17	Personnel Cost			
	Salaries & Allowances		16,531,552	13,775,124
	Medicals		679,611	647,589
	Overtime Allowances		36,400	35,785
	Temporal Staff & National Serv. Allowances		128,800	135,282
	Staff Transfer Expenses		-	-
	Employer's contributiona to Pension Funds		3,201,626	2,594,640
			<u>20,577,989</u>	<u>17,188,419</u>
Note 18	Commissioners' Allowances			
	End of year bonus		294,000	527,600
	others		246,750	147,000
			<u>540,750</u>	<u>674,600</u>
Note 19	Operational Expenses			
	Travelling & Transport		149,900	927,166
	Training & Conferences		416,849	2,112,537
	Printing & Publication		206,010	43,167
	Materials & Consumables		91,078	194,429
	Commissioners' Technical Sub-Committees		355,313	192,213
	Public Relations and Related Expenses		104,577	100,294
	Operational Program Expenses		2,354,135	2,405,093
	Local Consultancy Fees		99,851	6,000
	Legal Expenses		73,875	1,940
			<u>3,851,588</u>	<u>5,982,838</u>

Notes to the Financial Statements (Continued)				
For the year ended December 31, 2020				
			2020	2019
			GH¢	GH¢
Note 20	Goods and Services			
	Insurance		129,374	103,030
	Rent		411,999	347,485
	Electricity & Water		257,745	271,115
	Post & Telecommunication		483,697	322,519
	Motor Vehicle Running Cost		713,739	743,600
	Audit Fees		57,999	67,262
	Forensic Audit Fees		-	-
	Bank Charges		30,880	24,633
	Security		147,933	120,696
	Adhoc Sub-Committee		98,445	104,921
	Printing & Stationery		741,424	459,189
	Office Consumables		-	-
	Travelling & Transport		77,440	49,634
	Welfare Expenses/ Honorarium		259,896	172,258
	General Repairs & Maintenance		139,284	114,757
	Corporate Social Responsibility		54,870	41,685
	Cleaning & Sanitation		243,852	198,868
	Computer Software Amortization		4,583	5,000
	Amortization of Rehabilitation Expenses		4,910	10,327
	Depreciation		1,228,868	982,792
	Professional Fees		216,060	217,192
	Loose Tools		151,085	69,422
			<u>5,454,084</u>	<u>4,426,387</u>

Notes to the Financial Statements (Continued)				
For the year ended December 31, 2019				
Note 21	Related Party Transactions			
a	There was no payment to any Commissioner or past Commissioners in respect of compensation for any past event.			
b	Compensation of key management personnel			
	Key management personnel are those persons having authority and responsibility for planning, directing and controlling the activities of the entity directly or indirectly, including any director or trustee of that entity.			
	Key management compensation which includes salaries, allowances and other benefits paid during the year under review was GH¢ 1,810,961. (2019: GH¢1,614,048).			
c	Commissioners' Allowances			
	During the year, Commissioners' allowances and sitting allowances paid to the members of the Commission amounted to GH¢ 540,750 (2019: GH¢674,600)			
Note 22	Contingent Liabilities			
	The Commission had no contingent liabilities as at December 31, 2020.			
Note 23	Capital Commitments			
	There were no outstanding commitments for capital expenditure not provided for in the Financial Statements at the financial position date.			