

Annual Report

2019



250MWp Solar Project Under Construction



BUI POWER AUTHORITY

OUR MISSION

To support socio-economic development through the utilization of natural resources for energy generation in a safe, reliable and cost-efficient manner.

OUR VISION

To be the leader in the hydroelectric power and renewable energy industry in the subregion.

OUR VALUES

Our core values are denoted by the acronym 'SCIITT' defined as Safety, Commitment, Integrity, Innovation, Trust and Teamwork.

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Key Facts





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Key Events In 2019







Consolidated Revenues (USD '000)

Operations Across Ghana

BUI POWER AUTHORITY

Bui Power Authority was established by an Act of Parliament, BPA Act 740, 2007 with a mandate to plan, execute and manage the Bui Hydroelectric Project, now the Bui Generating Station (BGS). The BGS operates as a peaking plant with capacity to generate 404MW of hydro-generated power, which is evacuated from a 161kV Switchyard. BPA is set to add 250MWp of solart energy to Ghana's national grid. The HSH Switchyard has therefore been expanded to evacuate 250MWp of Solar-generated power. The first phase of 250MWp is a 50MWp solar project which commenced in April 2019 and is expected to be operational in 2020.



Bui Generating Station (BGS)

Tsatsadu Generating Station (TGS)

BPA Heights Accra

Tema Warehouse

Key Financial Highlights

Financial Indicators

	Units	2019	2018	2017	2016	2015
Generation in KWh	KWh	1,034,374,900	966,422,074	574,029,400	934,804,000	867,727,000
System Peak Demand	MW	2,804	2,525	2,192	2,079	1,993
Total Installed Capacity	MW	404	404	404	404	404
Ratio of Installed Capacity to System Peak Demand	%	14	16	18	19	20
Gearing Ratio	No.	1.72	1.84	1.96	2.01	2.31
Current Asset Ratio	No.	14.73	10.57	5.39	7.72	28.33
Return on Average Equity	%	14%	18%	9%	19%	21%
Return on Average Net Assets	%	5%	6%	3%	6%	6%
Gross Earning (Power Sale)	US\$M	106	99	59	96	89
Return on Capital Employed	%	5%	6%	3%	6%	6%
Operating & General Expenses/ Sales Revenue	%	19%	10%	15%	15%	7%
Electricity Generation (GWh)	GWh	1044	973	582	944	870
Energy Sales (GWh)	GWh	1,034	966	574	935	868
Staff Strength	Employees	262	179	165	160	149
Labour Productivity	GWh/Emp	3.95	5.40	3.48	5.84	5.82
Energy Sales/Employee	USD/Emp	404,302.71	552,858.17	356,246.12	598,274.56	596,343.92

Statements of Comprehensive Income

	Years							
	2019	2018	2017	2016	2015			
	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000			
Revenues from Electricity	105,927	98,962	58,781	95,724	88,855			
Cost of Sales	(29,389)	(19.253)	(18,863)	(17,978)	(17,661)			
Gross Profit	76,538	79,708	39,917	77,746	71,194			
Other income	1,311	1,745	769	192	889			
General & Admin &Oper- ating Expenses	(20,031)	(11,111)	(8,871)	(14,483)	(6,630)			
Operating Profit	57,818	70,343	31,816	63,455	65,453			
Finance Cost	(19,971)	(20,456)	(21,751)	(23,543)	(25,005)			
Operating Profit (EBIT)	37,847	49,887	10,065	39,912	40,448			
Тах	-	(75)	(32)	-	-			
Profit After Tax	37,847	49,812	10,033	39,912	40,448			



An Impressive Year

Introduction

The year 2019 was no doubt an epic year, in terms of our safety performance, power generation and sales revenue. It also saw the commencement of the Training and Maintenance Contract with Sinohydro Corporation for the first of the 5-yearly Level "A" Maintenance schedules of the generating plants, including the associated training and upskilling of our engineering employees.

People and Sustainability

Our people and sustainability performance for 2019 was impressive, having closed the year with no loss time injury, no environmental incidents, and no adverse reporting from the relevant Regulatory Agencies. These are attributable to our continued implementation of initiatives and awareness drives during the year.

We also implemented an accountability-based performance management system that completed its first year in 2019. Overall, it focused on planning and measurement of objectives for employees and work management for managers.

During the year, jobs were reclassified, and new structures and job grades developed for all Departments and Units to align with the evolving strategy of the Authority, and to remove ambiguity in jobs, whilst creating consistency across the business.

Community Relations and Livelihood Enhancement Programme

With respect to our community relations strategy, we implemented business development projects under the BPA Livelihood Enhancement Programme. These projects included the identification and development of business opportunities, the mentoring of Project Affected Persons (PAPs) and skills development projects for the Communities. The business development projects, which amounted to approximately GHS1.0 million in investment, ensured that members of the communities are now able to undertake contracts with the Authority as well as in the larger community, which contracts were hitherto undertaken by companies outside of the immediate communities of the Bui Generating Station (BGS). These businesses included

waste management, fumigation, and landscaping, among others. The business development projects initiative benefited a total of 154 project affected persons.

Power Generation and Revenue

The Authority closed the year 2019 with power generation in kilowatt hour of 1,034,375 with sales revenue of US\$105,927 (in '000), representing seven (7) per cent increase in power generation and sales revenue over 2018, respectively. All sales were made to the Electricity Company of Ghana per existing Power Purchase Agreement. Operational cost increased by 52.66% attributable mainly to cost of consumables associated with Level "A" Maintenance during the year.

Operations and Maintenance

In accordance with the Original Manufacturer's specifications/requirements, the Authority executed a Training and Maintenance Contract, which commenced the implementation of maintenance for the generating units at the Bui Generating Station. By the close of the year, Level "A" Maintenance on one unit had been fully completed. One of the significant benefits of the maintenance contract is the training of our engineering employees and the development of Standard Maintenance and Operating Procedures. With the participation of our engineering employees in the maintenance works, the Training and Maintenance Contract would ensure skills transfer and, consequently, reduced reliance, in the future, on expatriate assistance when fully executed.

Tsatsadu Generating Project

The Authority successfully completed and commissioned the rescoped Tsatsadu Hydroelectric Project, now Tsatsadu Generating Station (TGS), using in-house expertise, a feat of its only kind in Ghana.

Growth Strategy

As a growth strategy, we initiated the process of diversifying our power generation portfolio in line with our renewed mandate in renewables. This led to the

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commencement of renewable projects, which would bring in a total of 250MWp of solar-generated power when completed. The first phase of 50MWp solar project, which commenced in April 2019, is expected to be completed and commissioned in 2020. Ahead of completion of the first phase, the Switchyard was expanded to a capacity that would enable it to evacuate 250MWp when the current planned solar projects are fully executed.

Challenge

Despite the increasing sales revenue, our biggest challenge remains cash receipts from our only customer, the Electricity Company of Ghana. However, we continue to conduct stakeholder engagements with a view to improving our cash position. Cash inflows are necessary to enable us to progress with the maintenance of key installations as well as improve on our ability to fund growth projects and make up for shortfalls in capital from the investment market. Our ability to make a headway in this area is key to unlocking the potential for the future.

Outlook for 2020

In the year 2020, we must continue the process of transformation and prove that the business is resilient and able to meet the challenge of becoming a true renewable energy leader in Ghana. This transformation would require that we not only maintain our enviable sustainability record but find the required capital or investment partners to progress our solar projects in a safe and environmentally friendly manner. The year ahead would prove our mettle.

With the commitment of the team and the support of the Board, State Interests and Governance Authority, and the Ministry of Energy, we are excited about the future and our growth potential and look forward to delivering the returns on capital that are the driving force behind our overall decision making and performance.

Fred OWARE (CEO)



Our People



Gender Ratio of Employees



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The success of the Authority can be attributed to the determination, perseverance, and commitment of our employees. In 2019, we continued to strengthen the capacity of all departments.

Our total manpower strength at the end of 2019 was 262. Our highly skilled and high-performance employees have earned a reputation for delivering on ground-breaking projects in complex environments.

In 2019, we improved our people processes by introducing a new performance management system. To strengthen our people processes we also setup an HR team at the Bui Generating Station consisting of three newly recruited staff to complement the HR work being done from the Head Office.

As part of our ongoing drive towards developing a pool of highly competent and professional staff, the Authority ensured that staff received adequate training and development skills. 32 trainings were organized in 2019 for 146 personnel. 14 of our personnel attended 10 trainings at institutions oversees, while 132 personnel attended 22 trainings locally.

Employees in various departments





Corporate Governance

The governance structure of BPA is built around key corporate governance principles of accountability, transparency, fairness and responsibility. The implementation of these principles has gone a long way to reduce business risk, maximize value and utilize our resources in an efficient and sustainable manner to the benefit of all stakeholders.

The Authority is governed in accordance with the Companies Act, 1963 (Act 179), Public Financial Management Act, 2016 (Act 921), BPA's Internal Policies and Procedures, Code of Ethics and Conduct and the Board's Charter, amongst others. These laws and rules ensure that the rights and interests of all stakeholders are balanced and protected.

The Government of Ghana is the sole shareholder of BPA and is represented by the State Interests and Governance Authority (SIGA), the Ministry of Finance and the Ministry of Energy, in its dealings with BPA. The Board is currently made up of the chairperson, the chief executive officer and five other members. The independence of the Board and its representation ensure objective and balanced decision making. In ensuring that effective corporate strategies are set and implemented in the Authority, the Board fairly aligns all competing corporate and stakeholder interests and minimizes associated risks.

The Board, sets policies, makes decisions and evaluates performance, profitability and sustainability of the Authority, principally through its meetings. The various committees of the Board in the Authority and their functions are:

- 1. Finance Committee To oversee resource allocation, budget, procurement, financial discipline and compliance, staff emoluments, privileges, facilities and benefits, etc.
- 2. Technical/Engineering Committee To oversee engineering, plant operations and projects.
- 3. Resource and Environmental Committee To oversee matters on environment, fisheries, agriculture, land use, resettlement, compensation etc.

- 4. General Service Committee To oversee all non-engineering and non-environmental issues, including legal, security and allied matters.
- 5. Audit Committee To directly report to the Board on a continuous basis, all matters requiring the Board's attention.

The chairpersons of these Board committees guide members to be responsive to the present and future needs of the Authority, whilst considering the need to maximize the returns of the shareholder.

Recommendations made by the Board are implemented by the Authority's management staff who ensure the effective day-to-day management of the Authority. These management staff members ensure that the daily activities of the Authority are carried out in a fair, transparent, responsible and accountable manner and in strict compliance with relevant legislations.

Our independent external auditors, Kwame Asante & Associates, ensure that interest of the shareholder is protected and also ensure an accurate reporting of the state of BPA's finances. The Auditor's reports help the shareholder and all other stakeholders to have a broad view of the organization's internal and external working mechanisms and future outlook. Our internal audit unit also assists the Board directly in the management of enterprise risk and in the control and governance process.

Our Ambitions and Goals

The Board of BPA is committed to enhancing shareholder value through effective decision-making and open communication between management, Board of Directors and other stakeholders. The Authority will continue to comply with the principles of good corporate governance, intended to limit business risk, maximize value and utilize the Authority's resources in an efficient and sustainable manner, to the benefit of the shareholder, employees and society at large.

Shareholder Matters

BPA was established by the Act of Parliament, BPA Act 740, 2007 with a mandate to plan, execute and manage the Bui Hydroelectric Project. The Bui Hydroelectric Project cost US\$790.7 million - 90% provided by Government of China's Exim Bank and 10% Government of Ghana contribution. The Authority is fully owned by the Government of Ghana.



BPA's Contributions Towards National Medium-Term Development Policy Framework

We outlined a list of projects to undertake between 2018 – 2021 as our contribution towards achieving the policy objective set out in the National Medium-Term Development Policy Framework 2018 – 2021.

These projects have been categorised under respective sub-programmes as detailed in Table 1

Table 1: Programmes and Sub-Programmes								
ISSUE	ADOPTED OBJECTIVES	ADOPTED STRATEGIES	PROGRAMMES	SUB-PROGRAMMES	PROJECTS			
1. Low contribution of RE in the power generation mix	Ensure availability of clean, affordable and accessible energy	1. Increase the proportion of renewable energy in the national energy supply mix (SDG Targets 7.2, 7.3, 7.a)	Renewable Energy Devel- opment	Solar Developments	50 MWp HSH - 3SIL*** 10 MWp HSH - BPA 40 MWp HSH - Meinergy 150 MWp HSH - Future development			
		2. Facilitate the building of solar parks in the northern part of the country to deploy utility-scale PV systems (SDG Targets 7.a,7.b)		Hydro Development	45 kW Tsatsadu Mini Hydropower 60MW Hemang Hydro Power Project*** Western Rivers			

***Stalled or halted projects



Table 2 below presents the schedule of various projects, respective indicative budget as well as status of works as at the end of December 2019.

Table 2: Programme of Action											
Adopted Strategies	Programmes	Sub-pro- grammes	Projects	Outcome	Time frame				Budget	Status (De- cember 31,	
					2018	2019	2020	2021		2019)	
Increase proportion of renewable energy in the national en- ergy supply mix (SDG Targets 7.2, 7.3, 7.a)	Renewable Energy De- velopment	Solar Devel- opments	250MW Hydro-So- lar-Hybrid develop- ments	Addition of 250MWp capacity of solar energy to the nation- al supply mix. Provisions for the de- velopment of utility-scale solar PV systems	X	X	X	X	USD310M (est)	Project implemen- tation is expected to span beyond 2021	
Facilitate the building of solar parks in the northern part of the country to deploy utili- ty-scale solar photovoltaic systems (SDG Targets 7.a, 7.b)										Project im- plementation was mainly delayed due to non- payment of receivables from ECG and failed negotia- tions with prospective developers As of December 31, 2019, the 10MW HSH - BPA project was 46% completed.	
Increase the proportion of renewable energy in the national en- ergy supply mix (SDG Targets 7.2, 7.3, 7.a)		Hyd opm	Hydro Devel- opment	45 kW Tsatsadu Mini Hydro- power	Addition of 45kW capacity of renewable energy to the national supply mix.	X	X			USD 400,000.00	The project has been completed and in oper- ation
			60MW Hemang Hydro Power Project***	Addition of 60MW capacity of renewable energy to the national supply mix.					USD 308M (est)	The project has been halted by GoG	
			Western Rivers	Feasibility Studies for the devel- opment of hydropower on the West- ern Rivers	X	X	X	X	USD 56,136.36**	Identification of potential sites on the Tano, Pra and Ankobra rivers have been completed.	

Delivering Competitive Renewable Energy

Ghana has a very high potential for solar energy with solar irradiation ranging from 4.5 to 6.0 kWh/m² per day. Solar power is becoming a household name in Ghana in recent times. The country has attracted investment from foreign companies and most recently new local companies are investing more in solar.

Ghana's vast solar power potential has been identified as the security needed to improve the reliability of power supply in the power sector. There are however a few hindrances to the development of solar plants. One main issue is the policy decision not to issue new wholesale electricity supply licences and permits for utility-scale grid-connected solar plants. This position was taken to manage the technical challenges that fluctuating power generation from solar PV power plants pose to grid stability. To overcome this challenge, BPA has taken steps to develop both an economical and technically feasible plan. We hope that this plan will serve as a roadmap or framework to overcome the challenges faced and roll out utility-scale gridconnected solar projects.

Approach Towards the Development of Solar PV Plants

The various approaches adopted by BPA to develop solar PV projects at competitive prices are:

I. Switchyard

Expansion works has been completed on an existing BGS switchyard to accommodate additional energy that will be generated from our solar farm. Our hydrosolar hybrid scheme has the advantage of allowing the plant to maintain its operations at peak time and provide system support at other times as may be required by the system operator. The huge investment in the provision of switching stations are therefore eliminated.

II. Technical Complementation

The hydro-solar hybrid system will be achieved by constructing a solar PV farm with a capacity equivalent to one of the generating units of the hydro plant. The coupling is done in such a way that the PV plant will act as an additional unit to the hydro plant using control systems which allow for immediate compensation between the solar PV and hydro generation. The active power output of the PV plant is controlled using the turbines of the hydro plant to achieve a smooth and stable output curve.

This option addresses the intermittency issues where the cost of purchasing batteries and other storage devices is eliminated.

III. Transmission lines

Power generated will be evacuated through BPA's existing switchyard and onto the National Interconnected Transmission System (161kV). The existing transmission infrastructure is therefore not included in the capital outlay of the hydro-solar hybrid project.

IV. Renewable Energy Master Plan

There currently exists a master plan which aims to increase Ghana's renewable energy installed capacity to approximately 2,500 MW by 2030. The policy objectives are given legal basis by the Renewable Energy Act, 2011 (Act 832). Among other things, the Act guarantees the sale of electricity generated from renewable energy sources and the sale price of renewable energy. We are therefore assured that there is ready market for energy generated from solar PV plants.



Level "A" Maintenance

Bui Power Authority (BPA) has been operating and maintaining the Bui Hydroelectric Plant since its commissioning in 2013 with focus on Levels 'B' and 'C' maintenance. These activities generally involve routine daily, weekly and monthly maintenance as well as planned quarterly and annual maintenance activities carried out to ensure plant and equipment are in good working condition. Limited dismantling of parts of the plant and equipment is carried out for inspections and repairs/replacement of damaged or defective parts.



After five years of the Plant being in operation, there was the need to undertake a Level 'A' maintenance (major inspection and overhaul) of the Bui Hydroelectric Plant. This comprehensive maintenance would involve the total disassembly of the units for inspection and overhaul of defective or damaged parts. The Level 'A' maintenance, being the first such comprehensive activity to be undertaken at the BGS, required expert involvement to lead the BPA team of engineers and technicians in its implementation to achieve knowledge transfer and also raise the confidence of the BPA team to independently undertake subsequent Level 'A' maintenance activities in future. BPA therefore entered into a three (3) year Training and Maintenance agreement with Sinohydro Corporation of China (EPC Contractor for the Bui Hydroelectric Project) with the objective to:

1. Conduct Level 'A' Maintenance on the Generating Units and Auxiliary Equipment at the BGS.

- 2. Provide further Training for technical staff at the Bui Generating Station (BGS).
- 3. Provide technical assistants on site to advise and offer on the job training for technical staff at the BGS
- 4. Coordinate with Original Equipment Manufacturers (OEMs) for the procurement of spare parts.

The Level 'A' maintenance of the Plant and Equipment at the BGS commenced with Unit 3 on May 1, 2019.



Level 'A' Maintenance on Unit 3

The Level 'A' Maintenance on Unit 3 commenced on May 1, 2019 and was expected to be completed by July 31, 2019. The outage however extended beyond the scheduled completion date due significantly to spare parts procurement and delivery delays. The unit was made available for dispatch on October 24, 2019.

The maintenance on the unit included the following activities:

- 1. Complete dismantling of the unit,
- 2. Inspections, thorough cleaning and overhaul of damaged or defective parts,
- 3. Reassembly of the unit,
- 4. Commissioning
- 5. Trail Operation
- 6. Project Documentation

Complete Dismantling of the Unit

This activity was carried out with two main teams, the Generator Team and the Turbine Team. Each team comprised of leads for Sinohydro and team members for the BPA technical staff. The OEM manuals were used as a guide during the process of dismantling. Unavailability of specialized tools affected the schedule as the use of alternate tools to the specialized tools resulted in extension of the duration beyond the scheduled completion date.

Inspections, Thorough Cleaning and Overhaul of Damaged/Defective Parts

Inspections, thorough cleaning and overhaul of damaged or defective parts commenced immediately on completion of the unit dismantling. Detailed inspection and cleaning were carried out on all unit equipment and components. Parts identified to be defective or damaged were repaired and/or replaced where necessary.

All required repairs/replacements were carried out successfully.



Reassembly of the unit

The unit was successfully reassembled on completion of the inspections and overhaul.

Commissioning

After successfully completing the scheduled Level 'A' maintenance activities, the unit was finally commissioned in accordance with standard industry practice. Major activities included:

- 1. Daft tube And Penstock Water Filling Test
- 2. Manual Start Up and Bearing Heat Run Test
- 3. Unit Over-Speed Test

- 4. Governor Speed Disturbance Test
- 5. Unit Automatic Start Up and Shut Down
- 6. Generator Open Circuit Test
- 7. Unit Main Transformer Energizing Test
- 8. Unit Synchronization Test
- 9. Unit Load Rejection Test

The test results were recorded, analysed and compared with the 2003 commissioning test results for the unit and found consistent.

Trial Operation

The unit was put in service continuously for a 72hour period to confirm that all the required operating parameters were within acceptable limits. This was successful.

Project Documentation

Comprehensive Standard Maintenance Procedures (SMPs) were developed and compiled for all major activities including the generator and turbine disassembling and assembling sequence. These SMPs will serve as a guide to aid BGS technical staff in carrying out future Level 'A' maintenance on the Units independently. All commissioning test results have also been compiled as reference material.

Financial Sustainability

The Authority derives financial sustainability from value maximization for shareholders at an acceptable level of risk. Between 2015 and 2019, the Authority registered appreciable level of profits which is basically a result of management's focus on operating efficiently (refer to financial highlights). By this, all debt and interest payment obligations were met. The result of consistent profit generation also solidifies the retained earnings base hence creating good value for our shareholder.



Amazing Breakthroughs In Renewable Energy

On behalf of the Board of Directors, I am pleased to have this opportunity to report on the performance of Bui Power Authority (BPA) during the year 2019 and to share the achievements and key initiatives we have undertaken to position BPA as a blue chip Government institution. The year 2019 was very eventful for BPA and the Board of Directors are excited about the performance of the Authority.

Bui Power Authority is driving transformational change in the Renewable Energy landscape in Ghana. The Board is inspired by the ability of the Authority to leverage on its past performance and strong growth potential to bring about a revolution in the implementation of renewable energy projects in Ghana.

At the beginning of 2019, the Authority planned to undertake some renewable energy projects under its Ministerial mandate which was given in 2018.

The Tsatsadu micro hydropower plant which had been on the drawing table of the Ministry of Energy for about a decade was taken over by BPA and successfully completed to generate 45kW of energy to the environs of Tsatsadu in the Volta Region. The fascinating thing about this project is that it was constructed using the Authority's trained engineers without any foreign assistance. This gives the Board confidence that our Engineers can undertake any dam construction when given the opportunity. The Board is ready to provide the needed assistance to these Engineers to transfer the knowledge acquired into the construction of new projects for the benefit of the country.

BPA in 2019 also started preparatory works towards the construction of the 10MW and 40MW solar projects at the Bui enclave which is intended to be added to the national grid. The Board is confident that all these projects will be completed by the end of the year 2020.

Recognising the role of the Bui Generating Plants in the supply of power to the nation, the Board consented to the advise from the EPC Contractors of the Bui Generating Plants, Sinohydro Corporation of China, to provide high level maintenance and technical assistance to the Bui Generating Station to ensure greater plant availability and longevity of the Plants. We were therefore not surprised when the Authority recorded the highest supply of energy since the commissioning of the Plant in 2013.

Also, in the year under review, BPA played a key role in the establishment of Nuclear Power Ghana (NPG) as a legal entity to oversee the construction of Ghana's first nuclear power plant. NPG since its incorporation has been deeply involved in the Ghana Nuclear Power Programme which has been endorsed by the International Atomic Energy Agency (IAEA) to move to its second phase.

The industrial relations front of the Authority was very stable during the period because of the continuous engagement of the Authority and the workers, and the inclination of the Authority to provide a conducive working environment for the workers. Our workers are our greatest asset and therefore the Authority will continue to put in place the right incentives to retain the competencies which have been developed over the years.

In recognising the hard work of the Authority, BPA was adjudged the Energy Company of the year in 2019. This indicates to us that at least the Authority is doing something that industry players consider worthwhile. We are confident that all the initiatives and projects that were started in 2019 but could not be completed, especially the solar projects, will be completed in 2020.

The Board will continue to position itself to provide the needed direction and leadership for the Authority to achieve its programmes and projects for the benefit of all Ghanaians.

Amb. Afare Apeadu DONKOR (Chairman, Board of Directors)

Board of Directors

Amb. Afare Apeadu DONKOR (CHAIRMAN, BOARD OF DIRECTORS)



Amb. Afare Apeadu Donkor is the Chairman of the Bui Power Authority Board headquartered at No. 11 Dodi Link, Airport Residential Area, Accra, West Africa.

He is a banker by profession, with a degree in Economics from the University of Ghana. His work experience is mostly in financial services, having worked with the Barclays Bank, National Investment Bank and Merchant Bank.

In 1985 he set up the first Discount House in Ghana, Consolidated Discount House (CDH) which was formed together with eight banks and six insurance companies. He was its first Managing Director from 1985 to 1990.

During that period, he helped establish the Securities

Discount Company (SDC), Ghana Leasing Company and also helped to establish the Ghana Stock Exchange, all three of which he was Chairman during the 1990's.

In 1989 he founded the first privately owned bank - Continental Acceptance Limited, now CAL Bank - and was its first Managing Director until 1996. CAL Bank is currently a public company, and Mr. Donkor remains the largest single individual shareholder.

He served on several boards including Chairman of Ghana Cocoa Board (COCOBOD), and Ghana Oil Company (GOIL). Between 1996 and 2002 he was a Consultant in Banking and Finance at Sedgewick Consult until he was appointed Ghana's Ambassador to the People's Republic of China between July 2002 and January 2009.

Since his return, Ambassador Donkor has also successfully provided consulting services for Chinese and Russian firms who are currently involved in the oil sector in Ghana.

Mr. Fred OWARE (DIRECTOR & CHIEF EXECUTIVE OFFICER)



Mr. Fred Oware is a Director and the Chief Executive Officer of Bui Power Authority.

With over 40 years' experience in the Financial Industry, Mr. Oware spent a little over a decade at Merchant Bank Ghana Limited performing Corporate Finance, Fund Management, Stockbroking, Leasing, Banking and Project Management. During this period, he was exposed to intensive training in the USA, Britain, Switzerland, Hong Kong and other places.

Between 1985 and 1995, he was one of the key players to revolutionize Ghana's financial markets and was offered pioneering roles either as the CEO or the Director of the Ghana Stock Exchange, the leasing market, discount houses/money markets and promotion

of the non-bank financial industry.

Mr. Oware has held board positions in several institutions including Ghana Airways, Ghana Leasing Company, the Ghana Stock Exchange, Media Commission, and Ghana News Agency. Other public service assignments that he has been part of include, membership of the Chinery-Hesse Committee on Article 71 Office Holders' Enrolment, and the President's Investment Advisory Council.

As an entrepreneur, he has established and nurtured successful private investments in printing media, tourism and hospitality industries.

He was the first CEO of the Bui Power Authority (BPA) until May 2009. Mr. Fred OWARE is currently back in public service as the Chief Executive Officer of Bui Power Authority. His vision for BPA is to transform it into a major energy company within the matrix of power producers with a clear niche in renewables.

Mrs. Sylvia Maria ASARE (DIRECTOR)



Mrs. Sylvia Maria Asare is a Director at the Bui Power Authority.

She has about 35 years of experience in various fields, including civil engineering, transportation, economics, public policy and management. She holds a BSc Degree in Civil Engineering (KNUST, 1981), a Masters' Degree in Transport (Imperial College of London, UK, 1992) and a Masters Degree in Public Administration (Kennedy School of Government of Havard University, USA 1994).

She has worked with various public institutions in Ghana. In 1996, she ventured into private practice working as team leader, team member and individual national consultant on several local and international assignments funded by the World Bank, DANIDA,

European Union and African Development Bank among others.

She also served as a member of the Board of Ghana Civil Aviation Authority between 2001 and 2002. She is a Fellow of the Ghana Institution of Engineering (GhIE) and has served as a member and chaired various committees.

Alhaji Abubakari ABDUL-RAHMAN (DIRECTOR)



Alhaji Abubakari Abdul-Rahman is a Director at the Bui Power Authority

He is a product of the University of Cape Coast in Ghana and the Institute of Tourism and Hotel Management, Salzburg in Germany.

ALHAJI SHORT as he is popularly known has served in various political roles in the current NPP Government. He has been a polling station agent, constituency chairman, regional chairman for 12 years, chairman of regional chairmen, member of both the National Council (NC) & National Executive Committee (NEC) and Disciplinary Committee for the ruling Government.

He was previously the Upper West Reginal Chairman of the New Patriotic Party and is credited for moving the party from a position of no parliamentary seat in 2012 to the current four.

Alhaji is currently a Member of the Council of State representing the Upper West Region.

Dr. Adams Sulemana ACHANSO (DIRECTOR)



Dr. Adams Sulemana Achanso is a Director at the Bui Power Authority.

He is a Senior Lecturer and Dean of the Faculty of Education, University for Development Studies (UDS), Tamale. He holds a PhD in Political Economy and Social Policy Studies from the University of Lincoln, Lincoln, U.K.

Prior to becoming a lecturer at the UDS in 2011, Dr. Achanso served at the Ministry of Local Government and Rural Development as a District Chief Executive of Bole District between 2003 and 2005. He also served the Bole District Assembly as an Assembly Member (Government Appointee) between 2001 and 2002. In addition, he served as a Presidential Staffer in the Office

of the President under President John Agyekum Kufuor's administration from 2001 to 2003. He was the Head of Department of Development Education Studies at the Faculty of Education in the University for Development Studies from 2014 to 2018. From 2017 to 2018, he served as the Secretary of the Education Committee for the creation of the Savannah Region.

Since 2011, Dr. Achanso has been lecturing in the Department of Development Education Studies. Besides lecturing, he has been serving on numerous academic and non-academic committees; attended and spoken at various conferences, seminars and workshops; and supervised countless academic researches undertaken by postgraduate and undergraduate students. He has so far authored nine (9) peer reviewed articles and a book entitled "The Impact of Globalisation on Social Policy – the Case of Donor Agencies and Basic Education in Ghana".

Mr. Kwaku Bowiansa ABREFA (DIRECTOR)



Mr. Kwaku Bowiansa Abrefa is a Director at the Bui Power Authority.

He is a very seasoned and experienced Manager, Administrator and Diplomat. For over 23 years, he had led innovative processes and managed UNDP Country Offices in several duty stations world-wide. Between 1987 and 2010, he served in different senior management capacities in countries like the Central African Republic, Switzerland (Geneva), Cyprus, Germany (Bonn), the Democratic Republic of Congo, Madagascar and Angola.

He advised the UN Resident Coordinator and the UNDP Resident Representative on course actions and creative responses to emerging complex challenges.

These functions were carried out in his capacity as the UNDP Deputy Resident Representative and Deputy Country Director.

Since his retirement in 2010, Mr. Abrefa has been working as Management Consultant advising on, among other things; organizational restructuring/realignment; business processes and re-engineering and business advisory services. The consultancies have taken him to countries like Togo, Mozambique, Nigeria and Senegal.

Hon. Gabriel OSEI, MP (DIRECTOR)



Mr. Gabriel Osei (MP) is a Director at the Bui Power Authority.

He is a Member of the Seventh Parliament of the Fourth Republic of Ghana representing the Tain Constituency, in the Brong-Ahafo Region of Ghana.

Mr. Osei holds a BSc Economics and Business Administration from the Catholic University College of Ghana, Fiapre, and an Executive Master of Business Administration from Kwame Nkrumah University of Science and Technology.

Mr. Osei previously worked at St. Ambrose College of Education as a Finance Officer. He was also a Production Assistant Officer and a Production Clerk at Oti Yeboah

Complex Limited.

He has also served on various committees including the Government Assurance Committee that pursues all assurances, promises and undertakings given by Ministers at Plenary from time to time and also the Environment, Science and Technology Committee of the Parliament of Ghana.

Engineering Developments In Past 10 Years

BPA's short to medium term plan focuses on four key thematic areas:

- 1. Managing and operating the Bui Generating Station most efficiently for optimal results.
- 2. Developing and expanding other renewable sources of power generation.
- 3. Initiating studies leading to the development of mini-hydro plants, especially on the Western rivers
- 4. Optimally utilizing the natural resources within its acquired land for national economic growth and eventually, the development of a Bui City, an industrial and tourism city.

Several approaches for the delivery of services and the execution of the Authority's mandate have been investigated towards determining the optimal functional set up for the Authority. The approaches considered have generated many variations and alternative functional setups.

Highlights of our flagship projects in the past decade are:

COMPLETED PROJECTS

• 400MW Bui Hydroelectric Project

Financiers: Government of Ghana

Contractor: Sinohydro Corporation Limited

The 400MW Bui Hydroelectric Project is located on the Black Volta River, approximately 150km upstream of the Volta Lake.

The project was designed primarily for hydropower generation. However, it also includes a water supply scheme which has the potential of providing over 3,000 inhabitants in communities within the vicinity of the hydro station with portable treated water.

The project was contracted under the Engineering, Procurement and Construction (EPC)/ Turnkey arrangement and was governed by the Conditions of Contract for EPC/Turnkey Projects. The EPC Contract Agreement for the project was signed on April 19, 2007, between the Government of the Republic of Ghana, represented by the Ministry of Energy (the Employer) and Sinohydro Corporation Limited (the EPC Contractor). After the establishment of the Bui Power Authority in 2007, ownership and responsibility for the implementation of the project was transferred to the BPA from the Ministry of Energy.



The power facilities constructed as part of the Bui Hydroelectric Project include a 1,000,000m³ Roller Compacted Concrete (RCC) gravity dam, five (5) bay spillways arranged in the middle of the main dam crest, a surface powerhouse at the dam toe on the left bank, accommodating three Francis turbine-generator units with a total installed capacity of 400 MW, a 161 kV outdoor switchyard, four 161 kV transmission lines totaling 240 km in length and a downstream permanent bridge.

Two Saddle Dams are built in addition to accommodate the reservoir. The power generated at the Plant is first fed to the switchyard and evacuated through the associated transmission facilities which are operated as part of the National Interconnected Transmission 34 | Annual Report

System (NITS) by the Ghana Grid Company (GRIDCo).

The Bui Generating Station, since it was commissioned in 2013, has contributed to increasing the country's generation capacity and has enhanced the reliability and security of power supply to the northern sector of the country. It has also contributed to the provision of reactive power compensation to the interconnected grid system in Ghana. The highest average annual energy recorded was 1034GWh in 2019.

4MW Mini Turbinette – An Innovation To The Bui Project

Financiers: Government of Ghana

Contractor: Sinohydro Corporation Limited



The potential release of about 20m³/s precious water from the Bui reservoir through the bottom outlet of the dam without energy production caused BPA to moot the idea of installing a Mini Power Plant at this location to make use of this same water.

To this end, a bypass ('Y'-shaped bifurcation) was arranged at the lower horizontal section of the penstock for this purpose. Whiles the left manifold serves as the penstock for the Mini Power Plant; the right manifold serves as a bypass for environmental flow.

This is an ideal engineering innovation which was not part of the original plan of the Bui project.

This innovation led to the following reliefs:

- Maximizing the use of environmental discharge by using a portion of the ecological release (7.13m³/s) to generate additional 4MW of energy.
- Supplying the BGS and communities around in

cases of an extreme dry year.

The Mini Power Plant for Bui Hydropower Station is located at the right side of the riverbed, downstream of the main dam. Its significant structures include the headrace & power generation system and the bypass pipe system. The headrace & power generation system is composed of a power intake integrated with the dam, penstock, powerhouse and erection bay.

The powerhouse is a surface power plant located at the riverbank within the outlet open canal for No.1 and No.2 diversion bottom outlets at the downstream of the Dam Block, to accommodate one horizontal Francis type turbine generator with a single unit capacity of 4MW. One Y-shaped bifurcation pipe is arranged in the lower horizontal section of the penstock. Its left manifold is the water supply pipe for the turbine generator, and its right manifold is designed to be an ecological water release pipe.

• 45kW Tsatsadu Project

Financiers: UNIDO, INSHP, MoEn, Government of Ghana

Contractor: Bui Power Authority



The Ministry of Energy in 2005 entered into a Memorandum of Understanding with the United Nations Industrial Development Organization (UNIDO) and International Network on Small Hydro Power of China (IN-SHP) to undertake studies to develop the existing small hydropower potentials in the country.

Tsatsadu Waterfalls, located at Alavanyo Abehenease in the Hohoe District of the Volta, then Volta region, was selected to be developed as a pilot project. UNIDO subsequently donated a Turgo Turbine and associated electromechanical equipment for the project.

The Ministry of Energy appointed the Bui Power Authority in 2016 to develop the Tsatsadu Micro Hydropower Project on its behalf. BPA reviewed all available information of the project and also undertook site assessment surveys, conducted detailed topographical surveys and completed detailed engineering drawings of the project.

The electromechanical equipment donated by UNIDO was retrieved from the Volta River Authority (VRA) and reconditioned. The project, which was initially designed as a 30kW stand-alone system was upgraded to a 45kW grid connection system which necessitated the procurement of a new 45kW capacity A-synchronous generator and new load controller to replace the existing 30kW generator and load controller.

The facility was designed as a 45kW capacity plant with the possibility of adding a second 45kW capacity turbine in future. The plant is a run-off-the-river scheme with no impoundment.

The project consisted of the construction of;

- 1. Concrete diversion weir
- 2. Intake structure and silting tank
- 3. Diversion channel
- 4. Concrete forebay tank
- 5. Steel penstock with anchor blocks and concrete piers
- 6. Powerhouse to house the turbines and the generator
- 7. Tailrace channel
- 8. Transmission line to tie the plant to the distribution grid.

The plant was designed and constructed with local expertise at Bui Power Authority. BPA received technical support from International Network on Small Hydro Power of China (IN-SHP) through the United Nations Development Program - Renewable Energy Technology Transfer (UNDP-RETT).

Other stakeholders involved in the project included United Nations Industrial Development Organization (UNIDO), Energy Commission, Electricity Company of Ghana, the Alavanyo Traditional Council, the Foyer de Charité (a roman catholic spiritual retreat centre) and the Alavanyo Abehenease Community. The benefits of the Tsatsadu Project are as follows:

Efficient Energy Source

The plant requires a small volume of water to generate electricity for use of the surrounding communities.

Avenue for Capacity Building, Future Development & Training

Ghana has abundant natural resources that support hydropower development. Sites such as Pwalugu (60 MW), Juale (90 MW), Daboya (40 MW), Hemang (60 MW), Koulbi (62MW), Tanoso (86MW) remain undeveloped. The Government of Ghana through its Renewable Energy Master Plan intends to develop these sites for power generation and irrigation.

The successful completion of the Tsatsadu project, creates the enabling environment for the transfer of acquired knowledge in the areas of design, development and operation of Small-Scale Hydro Power Plants for the development of the undeveloped sites.

The Bui Power Authority having obtained these skills during the development of the 400MW Bui Generating Station, and the 45kW Tsatsadu Generating Station will transfer the knowledge to tertiary students and other industry players.

Tourism Potential

The project, the first of its kind in Ghana, will attract academia, tourists and students to visit the plant. The project will, among other things, serve as a practical tutorial plant for engineering students across the country and the West African sub-region.

Employment Opportunities

The Tsatsadu plant will support the delivery of energy services to rural areas, create employment, alleviate poverty and generate wealth through employment opportunities.

• 30kW BPA Heights Solar Rooftop

Financiers: Bui Power Authority



With renewed mandate in 2018, the BPA has accordingly adopted the term 'Renewable Energy Leaders' as its corporate tag line.

To promote and live up to our corporate tag line, the Authority's properties, particularly its buildings, are expected to be operated as 'green buildings' by employing the use of renewable energy.

A 30kW roof-mounted solar PV system has been installed at the BPA Heights to power all light loads within the building.

ONGOING PROJECTS

• 250MW Hydro Solar Hybrid Project

Financiers: Bui Power Authority

Contractor: Bui Power Authority and various Developers



BPA is exploiting the opportunity that exists for technical complementation between the hydro-generation at Bui

Generating Station (BGS) and solar power production to promote the development of a 250MWp hydro-solar PV hybrid plant at Bui.

The Bui Hydro-Solar Hybrid scheme has the advantage of allowing the Plant to maintain its operations at peak time and system support at other times as may be required by the System Operator.

It is noted that once the Solar PV plant has been installed, the Bui Generating Station will still be capable of performing its normal evening-peak time operations. Besides, it will be collaborating with the Solar Plant during the day off-peak period by providing the needed intermittency mitigation, power modulation and voltage regulation.

As part of the project implementation, BPA is granting the developer access to its switchyard facility and transmission assets for power evacuation.

As at the end of 2019, a 50MW out of the 250MW Solar PV Plant was under construction within the Bui enclave.

Bui Switchyard as Key to evacuating power onto NITS



The Bui switchyard is situated on the left bank of the Black Volta river and is approximately 370m to the dam axis. It is a 161kV switchyard with a ground elevation of 111m, covering an area of 107m x 185m. The switchyard has five bays, four of which have been used to accommodate the evacuation of power from the Bui plant.

The fifth bay was designed to be used for future expansion. The current configuration is a 3/2 connection using a pipe bus bar. Power from the generating station is delivered from the three main transformers by an overhead line. Four export lines are connected at the
downstream side of the switchyard.

The Bui switchyard has been expanded to accommodate the injection of up to 250MWp of solar photovoltaic power. The expansion works involved the extension of the existing control room to accommodate new electrical equipment. Two (2) 161/34.5 kV 156 MVA step-up transformers have been added to receive up to 250MWp of additional power.

• 60MW Hemang Hydroelectric Project

Financiers: Government of Ghana **Contractor:** China Water and Electric Corporation



The Government of Ghana represented by the Ministry of Energy entered into an Engineering, Procurement and Construction/Turnkey Contract with the China Water and Electric Corporation (CWE) in October 2014 to develop a 60MW Hydroelectric Project located at the lower reaches of the Pra River, 18 km from the estuary of the Gulf of Guinea.

The Bui Power Authority was appointed as the Employer's Representative to spearhead the development of the project. The appointment was based on BPA's experience with the construction and operationalization of the Bui Hydroelectric Project.

The project was developed to the Level 1 Design Drawings and a contract signed on October 2014.

Key Highlights of the Project

The proposed Hemang Hydropower Project has the following characteristics:

• The dam height of 22m (above riverbed) would create a total reservoir capacity of 46Mm³ which will inundate or flood an area of about 15km². (1,500 ha).

- Impoundment will cover an area of about 15km² (1,500 ha), and this is likely to displace about 7 communities with total population of 1,650 based on a July 2014 census.
- Parts of the Pra Suhyen Forest Reserve will be affected and GWCL's water intake and treatment facilities at Obosomase and Sekyere Hemang may be at risk of being flooded.
- The project is expected to produce averagely, 216 GWh annually for an installed power of 60 MW, with annual utilization of 3,600 hours.
- The Hydroelectric Power Plant will be integrated into the National Interconnected Transmission System (NITS) either by breaking into the Aboadze

 Cape Coastline or through the Akyempem Substation by constructing 54 km, double-circuit toucan lines from the Power Station to Akyempem Substation.

The Ministry of Energy instructed in 2017 that the Hemang Project is halted until a review of the Ghanaian energy sector has been completed. BPA is hopeful that the Ministry will give the Authority the nod to develop the project once a review of the sector is complete.

Northern Solar Development

Financiers: Bui Power Authority

As part of efforts to attain the Ghana Shared Growth and Development Agenda's policy objective of increasing the proportion of renewable energy in Ghana's energy mix through Public Private Partnership arrangements, public institutions such as the Bui Power Authority have been implored to partner with private entities to develop renewable energy potentials.

BPA is, therefore, exploiting the opportunity to harness the vast solar radiation resource in the Northern parts of the country. This is to be achieved by the expansion of existing substations owned by GridCo. Solar PV is expected to be injected onto the NITS through these substations.

BPA has located lands adjacent to these substations and started the process of acquiring them. The solar PV plant capacity to be developed ranges from 10MWp-100MWp.

BPA has earmarked six (6) sites for these projects. The sites identified are in Bawku, Yendi, Tumu, Sawla, Buipe and Zebilla.

Corporate Social Responsibility

We strongly believe in contributing towards a healthier future for communities we operate in and the larger Ghanaian population. Each year funds are set aside to cater for improvements in education, healthcare, social and cultural activities, and sports. The construction of the dam affected the livelihoods of residents of various communities. We continue to support these Project Affected Persons (PAPs) in various ways.

Livelihood Enhancement Programme (LEP) II



The implementation of the Bui Hydroelectric Project resulted in the resettlement of seven (7) communities with a total population of 1,216, referred to as Project Affected Persons (PAPs). We have over the years, implemented livelihood programs aimed at restoring and improving the economic wellbeing of the PAPs. We intend to build the capacity of the PAPs to reduce their dependence on the Authority.

In January 2019, the Chief Executive Officer commissioned a five (5) member committee and directed them to develop business modules and constitute the PAPs into groups to operate as business entities. The work of the committee resulted in the creation of seventeen (17) business modules.

Out of 815 eligible beneficiaries, 154 benefited from the business modules in 2019.

- 1. 815 eligible PAPs identified.
- 2. 17 business modules developed.
- 3. Beneficiaries constituted into 164 groups under the modules.
- 4. 91-PAPs resourced with start-up tools/equipment/ PPE to operate as independent businesses.
- 5. 13-groups of 75-PAPs out of the 91-PAPs resourced as 'Service Providers' and helped to be registered at the Registrar General's Department as Associations that qualify for public contracts.
- 6. Approval obtained from Public Procurement Authority to use single source procurement method to offer service contracts to the PAPs service provider groups.
- 7. 63-PAPs enrolled in their chosen skills and trained.
- Processes to establish other groups like artisans, vegetable farming, animal husbandry, car washing/ vulcanizing and raised fishpond were also started.



PAPs showing up to receive start-up tools/equipment/PPEs to operate as independent businesses



PAPs showing up to receive start-up tools/equipment/PPEs to operate as independent businesses

The summary of achievements are:



PAPs showing up to receive start-up tools/equipment/PPEs to operate as independent businesses



Spraying of Weeds by the Plantation Development Cooperative Group



Management of Fire and Landscaping Group undertaking landscaping works at the project office area

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Mowing of lawns at the Village by the DYIG Group



Nyame Tease Weeding Group undertaking spraying of weeds along the road to Saddle Dam 1



 ${\it GH}$ Lovers Sanitation Group creating a firm position for dustbins at the Village



A PAP driving home newly provided start-up tricycle, other equipment and $\ensuremath{\mathsf{PPEs}}$



PAPs driving home newly provided start-up tricycles, other equipment and PPEs

BPA Educational Support Scheme

By supporting the Project Affected Persons (PAPs) to develop their skills, we hope to boost economic activities in the communities.

We have therefore developed a Corporate Social Responsibility policy targeted at the PAPs which among others focuses on:

- Education
- Health / medical
- Social / cultural
- Sports

As directed by policy, we set up a panel to review applications of potential students within the seven resettled communities (Brewohodi, Dam Site, Agbegikuro, Lucene, Bator Akanyakrom, Bui and Dokokyina), two host communities (Jama and Bongase) and two closest communities (Agbelekame North and Agbelekame South).

This Educational Support Scheme Panel was made up of;

- 1. Mr Sulley Al-Hassan (Education Director, Banda)
- 2. Mr Vincent Kwasi (Education Director, Bole)
- 3. Nana Kwadwo Wuo II (Bui Community)
- 4. Togbe Michael Atsu Torgbadz (Jama Newtown)
- 5. Togbe Emmanuel Kpakpa (Bator Akanyakrom)
- 6. Mr Eric Nsiah (Dokokyina Community)
- 7. Mr Johnson Kofi Henneh (BPA JHS Headmaster)



Chairman of the Educational Support Panel, Dr. Mensah (2nd from left) presenting a laptop to one of the PAPs.

The first batch of four (4) beneficiaries are pursuing BSc Information and Community Technology at the Sunyani Technical University, BSc Planning and Sustainability at the University of Energy and Natural Resources, Sunyani, and Degree in Education (ICT & Mathematics) at the E.P College of Education, Bimbilla.

Others were supported to pursue Basic Education at the Abetifi Presbyterian College of Education.

Samaritan Purse Distribution

The BPA distributed over 1,000 Samaritan Purse gift boxes to children of the PAPs.



The Panel Members



The Chief Executive Officer presenting a Samaritan Purse gift box to a child with one of the chiefs of the resettled communities (Nana Kwadwo Wuo II) looking on.



The Chief Executive Officer presenting a Samaritan Purse gift box to a child with a parent looking on.

Renovation of KG and Community Centre



The completed hand-pumped borehole at Jama Newtown

Several projects were undertaken to improve the standard of living of Project Affected Persons (PAPs). They include renovation of KG School Block and Community Centre of the Jama Newtown.

A new hand-pumped borehole was sunk for Jama Newtown community to augment the existing water sources.



Renovation works on the Kindergarten at Jama Newtown



Renovation works on the Community Centre



Renovated Kindergarten block at Jama Newtown

Provision of Community-Based Health Planning and Services (CHPS), Water & Light

The Bui Power Authority believes that the implementation of the Bui Hydroelectric Project should bring tangible benefits to the Project Affected Persons (PAPs) and the communities within the immediate environs of the Bui Generating Station. The Authority supported these communities in the area of health, and the provision of water and light.

Community-Based Health Planning and Services (CHPS)



Ag. Director GSD, Mr. Wumbilla Salifu presenting the ASV Serums and the Storage Items to the Director of Health at Banda, Mr. Simon Adams

There are three CHPS at Jama, Bui and Bongase serving the health needs of the communities within the immediate surroundings of the BGS. The Authority during the period continued to offer free ambulance services to ensure enhanced health service delivery to the PAPs.

Deaths resulting from snake bites continued to be a major challenge in the BGS area due to the lack of anti -snake venom and the associated storage facilities. To address this health issue, the Authority handed over five (5) Anti-Snake Venom (ASV) and storage items to the Bui CHPS to serve all persons within the BGS environs. The ASV was received by the Banda District Director of Health on November 19, 2019.



The BPA and the Health team inspecting the contents of the ice chest: ASV Serums & fridge thermometer

Light

The Authority also provided streetlights to the Town, Jama New Town, Jama and Bongase to promote security and improve safety for drivers, riders, and pedestrians.



Provision of Water

The Authority as part of efforts to improve the living standards of the PAPs provided potable water to the PAPs through the provision of hand-pumped boreholes. To ensure regular supply of water to the Bui CHPS, the Authority drilled and mechanized a borehole to constantly provide water to the facility.







Executive Management

Profile of Mr. Fred Oware - Chief Executive Officer



Mr. Fred OWARE is a financial expert with over 40 years of experience.

He attended the University of Ghana School of Administration where he read Finance and Accounting after obtaining his 'O' and 'A' Level Certificates from Prempeh College and Apam Secondary School.

He spent a little over a decade at Merchant Bank Ghana Limited doing work in corporate finance, fund management, stock broking, leasing, banking and project management. During this period, he was exposed to intensive training in the USA, Britain, Switzerland, Hong Kong and other places.

Between 1985 and 1995, he was one of the key players to revolutionize Ghana's financial markets and was offered pioneering roles as the Chief Executive Officer or the Director at the Ghana Stock Exchange, the leasing market, discount houses/money markets and the promotion of the non-bank financial industry.

He has held board positions in several institutions including Ghana Airways, Ghana Leasing Company, the Ghana Stock Exchange, Media Commission and Ghana News Agency.

Other public service assignments that he has been part of include membership of the Chinery-Hesse Committee on Article 71 Office Holders' Emoluments and the President's Investment Advisory Council. As an entrepreneur, he has established and nurtured successful private investments in the print media, tourism and hospitality industries.

He was the first Chief Executive Officer of the Bui Power Authority (BPA) until May 2009. He has been appointed the second time as BPA's Chief Executive Officer with an objective of utilizing BPA's resources to generate additional energy in renewable energy, especially solar applications.

Profile of Mr. George Tettey - Deputy Chief Executive Officer



Mr. George Tettey is a Chartered Accountant by profession and an Investment Banker by training with over 33 years' experience in the energy and financial sectors.

George has been a member of the Institute of Chartered Accountants, Ghana, since 1988 having completed a course of study in 1987. He also completed a course of study at the University of Wales, Bangor in 1999 for a Master's in Business Administration.

George began his working life in 1983 as a trainee Accountant / Auditor at KPMG in Ghana. After qualifying as a Chartered Accountant in 1987, he joined the Volta River Authority in 1988 where he served in

various capacities in the Finance and Accounting departments.

Between 1992 and 2009, George was actively involved in the financial sector of Ghana, Malawi and Rwanda in the money markets, stockbroking, and fund management. He played a pioneering role in the establishment of a discount house in Malawi in 1998 and was the first CEO of the discount house there. Similarly, he was the first CEO of the pioneer discount house in Rwanda in 2007.

He has held board positions in several institutions in Ghana, Malawi and Rwanda including Ghana Stock Exchange, CDH Insurance Ltd., Ghana National Petroleum Corporation, Prestea Sankofa Gold Ltd., Continental Discount House, Malawi, and CDH Sarl, Rwanda. He was a board member of GNPC when Ghana discovered oil in 2007.

George joined the Bui Power Authority in 2010 during the construction phase of the Bui Hydroelectric project as Financial Controller. From 2014 to January 2017, he was seconded to the then newly established Ministry of Power as Director of the Revenue Monitoring Unit.

In April 2019, he was appointed Deputy Chief Executive (Finance & Services) at Bui Power Authority.

Profile of Ing. Anthony Boye OSAFO-KISSI (MGhIE) – Deputy Chief Executive Officer



Ing. Anthony Boye OSAFO-KISSI is a Civil Engineer with over 20 years of experience in construction, project management, contract negotiations and system planning operations for power plants. He holds two Masters of Science Degrees in Civil Engineering from the Vladimir State University, Russia and Hydropower Development from Norwegian University of Science and Technology, Norway. Mr. OSAFO-KISSI is a member of Ghana Institution of Engineers (GhIE) and International Hydropower Association (IHA).

He started his engineering career as a System Planning Engineer at the Engineering Department of the Volta River Authority (VRA) in Akuse and rose through the ranks from an Assistant Engineer to a Principal Engineer.

His professional expertise at VRA was generation expansion planning; energy generation modelling and forecasting; project planning, preparation and implementation; contract administration and implementation. During his time at the VRA, he gained substantial experience in appraising and implementing power projects. His rich experience in project management was tapped by managers of the Bui Development Committee to provide technical assistance for the 400 MW Bui Hydroelectric Project in 2006. He was very instrumental in the contract negotiations (engineering and financing) for the Bui Project which culminated in the signing of the Engineering, Procurement and Design (EPC/Turnkey) contract between Government of Ghana and Sinohydro Corporation Limited in 2007. He subsequently served tirelessly and selflessly in his capacity as the Resident Engineer for the Bui Project for a period of six (6) years. The Bui Hydroelectric Project was successfully completed and commissioned in 2013. After successfully seeing to the completion of the project, he was elevated to the Director of Projects and Engineering of Bui Power Authority and later the Deputy Chief Executive Officer (Engineering).

His responsibilities, among others, include developing potential hydro sites of the Black Volta River and Western Rivers, and complementing renewable energy generating sources to the existing Bui Generating Station.

Profile of Mr. Samuel K. Ansah - Executive Engineer



Mr. Samuel Kow ANSAH is an Electrical Engineer with over 28 years of professional experience within the power sector.

He has handled major projects within key areas of the power industry. His vast engineering experience in the power sector covers procurement, construction and commissioning of power plants. He has considerable experience in operation and maintenance (O&M) of power systems from generation to transmission with specialty in operations and protection & control of high voltage electrical systems.

Among his leadership positions, he served as the Chief Operating Officer and later the Managing Director of

Genser Energy Ghana Limited; Chief Technical Advisor of Karpowership Ghana Limited; Energy Consultant to Lighting and Construction Africa; Project Manager, Electrical and Instrumentation of McDonnell USA; Operations Manager of Takoradi Thermal Power Plant (VRA); Thermal Power Consultant to Public Utility and Regulatory Commission (PURC) and the Volta Aluminium Company Limited (VALCO).

Mr. Ansah was also the award winner for various prizes when he was a student at the Kwame Nkrumah University of Science and Technology (KNUST) including Best First and Second Year Electrical/Electronic Engineering Student; Levine Prince for Best Third Year Electrical Student; and Mobil Prize for the Best Final Year Electrical/Electronic and Best Final Year Engineering Student.

Profile of Ing. Kwesi Brenu Amoako - Director Power Operations



Ing. Kwesi Brenu Amoako has a BSc Electrical/Electronic Engineering from Boston University (1977 -1982). He had his O'level and A'Level certificate education at Accra Academy (1970 – 1977).

He is the Director of Power Operation at Bui Power Authority.

Ing. Kwesi Brenu Amoako, a product of the Boston University, USA, and a member of both the Institute of Electrical/ Electronic Engineers (IEEE) of USA, and the Ghana Institute of Engineers, is a Manager with over 33 years of professional experience within the power sector. He has handled virtually all the major projects within key areas of the power industry. His vast

engineering experience in the power sector covers procurement, construction and commissioning of power plants. He has considerable experience in operations & maintenance (O&M) of power systems with specialty in protection & control.

Among other leadership positions, he served as the Director, Hydro Generation of the Volta River Authority (VRA), Director-Kpong Generating Station Retrofit, and Director of the Navrongo Solar Power Plant.

Health, Safety and Environment (HSE)

We prioritize Health, Safety and Environment. We make sure all employees and contractors are well informed of our safety standards and policies and strictly enforce them to ensure a safe and secure working environment. Our operations were executed focusing on preventing injuries to people, preventing damage of equipment/ assets and preventing adverse impacts on the environment. The Authority also ensured employees avoided work-related illnesses.

In compliance with statutory requirements, we obtained two (2) Environmental Permits (EPs) from the EPA on September 1,2008 (Permit No. CE0012201668) for the Bui Hydroelectric Project (Bui HEP) and November 22, 2010 (Permit No. CE0012201668) for the associated transmission lines under the Bui Hydroelectric Project. Our 2019 Annual Environmental Report was prepared for the EPA, Energy Commission, Water Resources Commission and other stakeholders to account for among others the challenges and successes achieved during the year 2019.

We also submitted to EPA our draft Environmental and Social Management Plan (ESMP) for the Bui Generating Station and its associated transmission lines.

During the year, two officers of the Environmental Protection Agency (EPA) visited the BGS to familiarize themselves with our operations and issues raised in the draft ESMP.



BPA and EPA Staff at the Control Room.



Board Members' inspection at the BGS



Safety Committee Members' Training Session at BGS



Inauguration of Work Area Safety Committee (WASACO) at BPA Heights on June 28, 2019



Inspection and testing of Fire Hydrants



Routine Inspection of Firefighting Agents



Updated BGS Emergency Protocol List



Ambulances at the Bui Generating Station



Department of Factories Inspectorate officials being briefed at BGS during an inspection

BGS Routine Fumigation





Fumigation exercise at the BGS

BPA Forestry Resource Enhancement Program



Weeding plantations

The formation of the Bui reservoir created a lake covering a landmass of $444 \, \mathrm{km^2}$. It therefore contributed

to the depletion of some forest resources in the area. We therefore needed to implement the Forestry Resource Enhancement Program (FREP) to mitigate the impact of the construction of the dam on natural resources within the enclave.

FREP involves the promotion of sustainable forest resources utilization, tree planting, agroforestry, establishment of community resources management areas, 'taungya', education and awareness creation.

FREP currently covers a total land area of about 381 acres with different tree species (Teak, Acacia, Mahogany and various fruit trees) at various stages of growth. It also includes several hectares of natural forest within our acquired land.

Objectives of FREP are:

- Enhancement of forestry resources of the Black Volta basin and BPA's Acquired Land for sustainable utilization i.e medicinal use, commercial timber and fuelwood.
- Control and protect against soil erosion, reservoir siltation, sedimentation and depletion of vegetative cover within the Black Volta basin.
- Creation of a Memory Centre for the preservation of indigenous and traditional knowledge of the forest resources within the Black Volta Basin.



An Orchard of the FREP

Security

BPA has a well-resourced security unit. It has well trained personnel and modern equipment to enable the security work to be efficiently carried out. Galamsey carried out along the banks of the Black Volta poses the most serious threat to the Bui Dam.

Supporting agencies that assist our security operations are:

- a. National Security Secretariat
- b. Ghana Armed Forces
- c. Ghana Police
- d. Ghana National Fire Service
- e. Game and Wildlife
- f. BNI

Potential threats confronting us are:

- a. Fire/Arson attacks
- b. Attack by armed gangs on the highways
- c. Galamsey activities
- d. Illegal Fishing close to the Dam
- e. Local community agitations
- f. Farming activities along the riverbank
- g. Theft and pilferage

We have implemented various control measures to achieve a high level of security and safety.

Anti-Corruption

Our approach towards corruption is to:

- 1. Constantly maintain high ethical standards in the discharge of all business activities.
- 2. Institution of robust internal controls that will detect and punish every act of bribery and corruption.
- 3. Creation of an organizational culture that values honesty, integrity and transparency and require each stakeholder to adhere to same.
- 4. Continuously educate all our employees on how to detect corrupt business activities and how to report them.

- 5. Conduct a risk assessment of potential partners, to limit governance-related risk. Our risk assessments cover criminal records, breaching sanction and bribery and corruption.
- 6. Ensure that the Authority's high anti-corruption standards are clearly reflected in contracts with business partners.

We continue to raise awareness of corruption and the high expectations we want from our employees and business partners. We carry out internal audits to review our processes and initiatives to better position ourselves to operate in accordance with best practices.

Responsible Procurement

Procurement is one of the activities most vulnerable to corruption. This is because of the volume of transactions and the financial interests at stake.

Corruption risks are increased by complex processes, the close interaction between public officials and businesses, and the multitude of stakeholders.

We have embraced e-procurement to rein in unethical procurement. E-procurement has been lauded as a tool that helps curtail corruption. This is because e-procurement seeks to minimise human interference in the procurement process.

The government of Ghana in April 2019 launched the Ghana Electronic Procurement System (GHANEPS). GHANEPS is intended to deal with the lapses in the hitherto manual procurement system that seems to serve as a catalyst for corruption resulting in the abuse of public funds.

We are proud to be pioneers of e-procurement.

Welfare Projects

CLUBHOUSE (BPA-PCT-GSD-0014)



BPA as part of its efforts to improve upon the social life and recreational needs of Staff resident at the BGS is undertaking the construction of a clubhouse with sporting facilities. The project when completed will consist of recreational facilities such as a clubhouse, gym, multipurpose courts (lawn tennis, squash and badminton), swimming pool and kids' playground. The project commenced in December 2018 and was 49% complete as at December 31, 2019.

EXECUTIVE HOUSE (BPA-PCT-PED-0017)



The remote location of the BGS and the lack of a decent lodging facility within the Bui Enclave for overnight stay for top dignitaries necessitated the implementation of an Executive House Project. Dignitaries who undertake working visits which requires overnight stay usually lodge in Sunyani which is about 151km away from the BGS. The project when completed will provide a lodging facility for top dignitaries who visit the BGS. The project commenced in November 2018 and was 53% complete as at December 31, 2019.

LANDING SITE (BPA-PCT-GSD-0019)



The Bui reservoir and its environs have been plagued by illegal mining and logging which is detrimental to the Bui basin and the generating units at the BGS. The Ghana Armed Forces and the Ghana Navy have been helping BPA curb these threats within the Bui enclave. The vastness of the Bui reservoir (444km²) makes it most prudent to undertake patrols by river transport.

BPA is undertaking a Landing Site project to facilitate quick access to the reservoir and riverine patrols by the Ghana Navy detachment stationed at the enclave. A secondary reason for developing the landing site was for water transport and recreation. The project consists of a waiting area, carpark, access road and a floating jetty. The project commenced in April 2019 and was 23% complete as at December 31, 2019.

BPA HEIGHTS II (BPA-PCT-PED-0031)



BPA as part of its effort to solve the parking challenges at the BPA Heights decided to use its parcel of land next to BPA Heights for additional parking. The facility when completed would have a parking area of 3,200sqm (two underground and one ground level parking) and a rentable area of 4,000sqm.

The rentable area included in the project is part of BPA's plan to take advantage of the prime location of the land to generate some revenue as part of the quest to improving the parking situation at BPA Heights. The project commenced in December 2018 and was at 15.5% completion as at December 31, 2019.

Nuclear Power Ghana

Nuclear Power Ghana (NPG) is the project organisation set up to manage Ghana's nuclear power project. Currently, the activities of NPG are funded by the Volta River Authority (VRA) and Bui Power Authority (BPA). The Nuclear Power Institute (NPI) of the Ghana Atomic Energy Commission (GAEC) provides personnel with key nuclear expertise to support the organisation. NPG is housed at BPA Heights, Accra.

NPG is headed by an Executive Director, who is responsible for the day-to-day management of approved project activities. NPG comprises of 2 main sections: the Project Management section and Engineering Development section. BPA and VRA provide additional corporate services such as legal and finance to support the organisation.

Oversight responsibility for the management of NPG is exercised by a 7-member Board comprising of Heads of key institutions involved with the nuclear power project. The Board is constituted by:

- 1. Mr. Fred Oware, CEO Bui Power Authority (BPA) -Chairman
- 2. Hon. William Owuraku Aidoo, Deputy Minister (Power), Ministry of Energy-Member
- 3. Hon. Patricia Appiagyei, Deputy Minister, Ministry of Environment, Science, Technology and Innovation (MESTI) – Member
- 4. Mr. Emmanuel Antwi-Darkwa, Chief Executive, Volta River Authority (VRA) – Member
- 5. Prof. Benjamin J. Nyarko, Director-General, Ghana Atomic Energy Commission (GAEC) – Member
- 6. Dr. Robert Sogbaji, Deputy Director (Renewables & Nuclear), Ministry of Energy Member
- 7. Ing. Theophilus Nii Okai, Executive Director, Nuclear Power Ghana (NPG) – Member
- 8. Franklin Nana Addai Esq, Legal Counsel Secretary

Summary of activities undertaken by NPG in 2019 are:

• The Programme Comprehensive Report

Nuclear Power Ghana supported the Ghana Nuclear Power Programme Organisation (GNPPO) to prepare the Nuclear Power Programme Comprehensive Report. The Programme Comprehensive Report (PCR) is a document that presents a summary of a prefeasibility study to introducing nuclear power in Ghana. This document will serve as the basis upon which the Government of Ghana will make a knowledgeable decision to commit to the nuclear power programme. The PCR has been developed and finalised with the official submission to the Government of Ghana expected in early 2020.

• Phase 1 Integrated Nuclear Infrastructure Review Mission

The International Atomic Energy Agency (IAEA) in October 2019 visited Ghana to conduct an assessment of Ghana's progress in achieving the required conditions for Phase 1 of its nuclear power programme. In an earlier review mission, the IAEA gave 12 recommendations and 8 suggestions. The purpose of this follow-up was to assess Ghana's work towards implementing these suggestions and recommendations. Overall, the international experts noted that majority of the recommendations and suggestions have been addressed satisfactorily and that Ghana has completed the required studies needed to complete Phase 1 of the programme.



Integrated Management Systems



NPG commenced with the development of highlevel documents and some specific organisational processes, which will enhance the implementation of a process-based Integrated Management System. NPG management systems was developed based on the Ghana Nuclear Power Programme Organisation's (GNPPO) Management System guidelines and the IAEA's requirements for developing an Integrated Management System. In the year under review, NPG digitized its document management system and has initiated plans to implement its workflows on the same digital platform.

• Site Survey and Candidate Site Selection

NPG assisted the Nuclear Power Institute of GAEC to conduct siting activities. The siting process is intended to select suitable locations for the envisaged nuclear power plant. The siting process systematically applies a number of screening criteria to select only sites with attributes that contribute favourably to the safety of the power plant.

• GRID Studies

NPG supported the Ghana Grid Company (GRIDCo) in conducting a preliminary assessment of the electrical grid of Ghana. The national grid infrastructure was assessed to evaluate the impact of a 1000MW nuclear plant on the stability of the national grid under normal and fault conditions, for a number of possible sites. Results of the grid study provided cost estimates for any necessary upgrades needed to accommodate the proposed nuclear power plant.

Reactor Technology Assessment

In the year under review NPG, in collaboration with NPI, evaluated a number of potential nuclear power plant options that would comply with international standards and technical criteria set by Ghana. Large reactors (>300MW) and Small Modular Reactors (<300MW) were assessed using IAEA's RTA methodology. Four large reactors and five small modular reactors from various vendor countries across the world were assessed.

Industrial Assessment for the Nuclear Power Programme

NPG supported the Nuclear Power Institute of GAEC and the Ghana Statistical Services in appraising the industrial landscape of Ghana to identify possible areas for local involvement. A number of industries in the engineering, manufacturing, civil construction, heavy equipment handling and transportation fields were visited and assessed. The survey identified areas where local companies could be involved in the construction of the first nuclear power plant. It also highlighted areas where there is deficiency in local expertise. The industrial assessment will be continued in 2020, where in addition to further studies, a number of companies will be trained in meeting nuclear standards to position themselves as suppliers of goods or services for the nuclear power project.



• Stakeholder Engagement Activities

During the year, NPG conducted a number of stakeholder engagement activities in collaboration with the media. A number of training workshops were organised to train media personnel from multiple media houses across the country. It included media personnel from GTV, TV3, GNA, B&FT, Joy FM, Citi FM, UTV, Peace FM, Daily Graphic, The Insight newspaper, and Ghanaian Times newspaper. The aim of the training was to have competent media core with the requisite expertise to effectively communicate matters regarding nuclear power.

Additionally, a number of TV and radio appearances were made throughout the year. NPG is also using social media to reach its stakeholders. Currently a Facebook account is being managed by the communications unit. This medium is used for sharing information on NPG as well as to stream selected live events of the organisation.





Financial Statements 31 December 2019



Authority's Governing Board And Corporate Information

AUTHORITY'S GOVERNING BOARD

Amb. Afare Apeadu Donkor (Chairman) Mr. Fred Oware CEO (Member) Alhaji Abubakari Abdul-Rahman (Member) Mrs. Sylvia Maria Asare (Member) Hon. Gabriel Osei (Member) Dr. Adams Sulemana Achanso (Member) Mr. Kwaku Bowiansa Abrefa (Member)

No. 11 Dodi Link. Airport Residential Area, Accra Ghana

Alexender Amposah ESQ Adom Legal Consult P.O. Box 1479 Sunyani Brong Ahafo Region

Zenith Bank Ghana Limited Ecobank Ghana Limited Adb Bank GCB Bank **Fidelity Bank**

Kwame Asante & Associates **Chartered Accountants** P.O. Box 58 Trade Fair Centre Accra

BANKERS

AUDITORS

REGISTERED OFFICE

SOLICITORS

Report Of The Governing

Board

TO THE MEMBERS OF BUI POWER AUTHORITY

The Governing Board present the audited financial statements of the Authority for the year ended December 2019.

Governing Board's responsibility statement

The Authority's Governing Board is responsible for the preparation of financial statements that give a true and fair view of Bui Power Authority, statement of financial position at 31 December 2019, and the statements of profit or loss and other comprehensive income, changes in equity and cash flows for the year then ended, and the notes to the financial statements which include a summary of significant accounting policies and other explanatory notes, in accordance with International Financial Reporting Standard (IFRS) and in the manner required by the provision of the Bui Power Authority Act, 2007 (Act 740) section 21. In addition, the Authority's Governing Board are responsible for the preparation of the report of the financial statements.

The Authority's Governing Board is also responsible for such internal control as the Authority Governing Board determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error, and for maintaining adequate accounting records and an effective system of risk management.

The Authority's Governing Board have made an assessment of the ability of the company to continue as a going concern and have no reason to believe that the business will not be a going concern in the year ahead. The auditor is responsible for reporting on whether the financial statements give a true and fair view in accordance with the applicable financial reporting framework.

Financial statements

The financial results for the year ended 31 December 2019 is reflected in the accompanying financial statements.

Nature of business

The main activities of the Authority are to plan, execute and manage the Bui Hydroelectric Power Project so as to augment power supply of Ghana

State of affairs of the Authority

The Governing Board consider the state of affairs of the authority to be satisfactory and have made an assessment of the Authority's ability to continue as a going concern and have no reason to believe the Authority will not be a going concern in the year ahead.

Approval of financial statements

The financial statements of the Authority as indicated above were approved by the board of Authority's Governing Board on their behalf by:

DIRECTOR Date:

DIRECTOR Date:

Report Of The Independent Auditor

Opinion

We have audited the financial statements of Bui Power Authority, which comprise the statement of financial position balance as at December 2019, the statements of profit or loss and other comprehensive income, and statement of cashflows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the financial statements (pages 7 to 35) give a true and fair view of the financial position of Bui Power Authority as at 31 December 2019, and its financial performance and its cash flows for the year then ended in accordance with International Financial Reporting Standards (IFRS) and the Bui Power Authority Act, 2007 (Act. 740)

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 Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Authority in accordance with the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants (IESBD Code), and we have fulfilled our other ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statement of the year under review. These matters were considered in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. For the matter below, our description of how our audit addressed the matter is provided in that context. We have fulfilled the responsibilities described in the Authority's responsibilities for the audit of the financial statements section of our audit report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the financial statements.

The results of our audit procedures, including the procedures performed to address the matter below, provide the basis for our audit opinion on the accompanying financial statements.

Key audit matters

The Authority has not followed the International Financial Reporting Standard Six (IFRS 6) that deals with restoration of site which has been explored for power generation by the Authority.

The amount of the restoration cost per the assurance will have to be computed by an actuarist' to be able to determine the future restoration cost and same be reviewed annually and also be included as a note to the financial statements.

How the matter was addressed in the audit.

Bui Power Authority is of the opinion that there will be no future decommissioning costs associated with the Bui Dam. It is believed that the Authority, being a Government owned entity will not be liable for the restoration of the land as the land is also Government owned.

We are yet to be given a letter from the government absorbing Bui Power Authority from any future cost of restoration.

Other Information

The Governing Board is responsible for the other information. The other information comprises the Governing Boards' reports as required by the Bui Power

Authority ACT, 2007 (Act 740) the other information does not include the financial statements and our auditors' report thereon.

Our opinion on the financial statement does not cover the other information and we do express an audit opinion or any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and in doing so, consider whether the other information is materially inconsistent with the financial statement or pour knowledge obtain in the audit, or otherwise appears to be materially misstated. If based on the work we have performed, 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.

Responsibility of Authority's Governing Board for the Financial Statements

The Authority's Governing Board is responsible for the preparation of the financial statements that give a true and fair view in accordance with International Financial Reporting Statements (IFRS) and also in manner that required by the Bui Power authority act, 2007 (Act 740), and for such internal control as the Authority Governing Board determine 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 Authority's Governing Board is responsible for assessing the Authority's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Authority's Governing Board either intends to liquidate or to cease operations, or has no realistic alternative but to do so.

Auditor's 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 auditor's 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 ISAs 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 ISAs, we exercise professional judgment and maintain professional scepticism 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 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 Authority's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Authority Governing Board.
- Conclude on the appropriateness of the director's • 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 Company'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 Authority to cease to continue as a going concern.

64 | Financial Statement for the year ended 31 December 2019.

- 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.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Authority to express an opinion on the financial statements. We are responsible for the direction, supervision and performance of the Authority audit. We remain solely responsible for our audit opinion.

We communicate with the Audit Committee 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.

We also provide the Audit Committee with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate 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 Audit Committee, we determine 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 auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely 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.

Report on Other Legal and Regulatory Requirements

The Companies Act 2019 (Act 992) requires that in carrying out our audit we consider and report on the following matters. We confirm that:

 we have obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purposes of our audit; 2. in our opinion, proper books of account have been kept by the Authority, so far as it appears from our examination of those books; and

the balance sheet (statement of financial position) and profit or loss (statement of profit or loss and other comprehensive income) of the Authority is in agreement with the books of accounts.

The engagement partner on the audit resulting in this independent auditor's report is [R. Kwame Asante].

hance

Signed by: R. Kwame Asante (ICAG/P/111) For and on Behalf of: KWAME ASANTE & ASSOCIATES (ICAG/F/2020/056) CHARTERED ACCOUNTANTS NO 5TH CRESCENT ASYLUM DOWN Accra

Date 18th May 2020

Statement Of Profit Or Loss And Other Comprehensive Income For The Year Ended 31 December 2019

		2019 US\$'000	2018 US\$'000
Revenue		105,927	98,962
Cost of Congration	Z	20.201	10.050
Gross Profit	0	76,536	79,709
Other Operating Income	7	1,311	1,745
Operating Expenses		-7,886	-673
Administrative Expenses	9	-12,143	-10,438
Operating Profit		57,818	70,343
Finance Cost	10	-19,971	-20,456
Profit before Tax		37,847	49,887
Тах	11	-	-75
Profit after Tax		37,847	49,812
Other Comprehensive Income		-	-
Total Comprehensive income for the Year		37,847	49,812

Statement Of Financial Position At 31 December 2019

ASSETS	Notes	2019	2018
Non-Current Assets:		US\$'000	US\$'000
Property, Plant and Equipment		802,268	815,333
Intangible Assets	12	109	193
Investment in Subsidiary (NPG)	13	35	-
Total non – current assets		802,412	815,526
Current Assets			
Inventory	14	5,591	2,738
Trade & Other Accounts Receivables	15	385,260	301,453
Other Financial Assets	16	2,188	10,672
Restricted Cash	17	25,582	27,275
Cash & Bank Balance	18	3,508	4,420
Total Current Assets		422,129	346,558
Total Asset		1,224,541	1,162,084
Equity			
Accumulated Fund	19	76,514	76,514
Retained Earning		369,625	331,778
Total Equity		446,139	408,292
Non-Current Liabilities			
Loans and Borrowings	20d	749,466	720,717
Deferred Income	21	273	290
Total Non-Current Liabilities		749,739	721,007
Current Liabilities			
Loans and Borrowings	20d	20,325	30,809
Trade Accounts & Other Payable	22	7,844	1,630
Employees Benefit obligation	23	494	346
Total Current Liabilities		28,663	32,785
Total Liabilities		778,402	753,792
Total Liabilities & Equity		1,224,541	1,162,084

The Authority's Governing Board approved these financial statements on

AUTHORITY'S GOVERNING BOARD

AUTHORITY'S GOVERNING BOARD

The accompanying notes on pages 69 to 90 form part of these financial statements and should be read in conjunction therewith

Statement Of Changes In Equity For The Year Ended 31 December 2019

	Accumulated Fund	Retained Earnings	Total Equity
	US\$'000	US\$'000	US\$'000
Balance at 1 January 2019	76,514	331,778	408,292
balances as at 1 Jan. 2019	76,514	331,778	408,292
Profit for the year	-	37,847	37,847
Balance at 31 Dec 2019	76,514	369,625	446,139

Statement Of Changes In Equity For The Year Ended 31 December 2018

	Accumulated Fund	Retained Earnings	Total Equity
	US\$'000	US\$'000	US\$'000
Balance at 1 January 2018	76,514	284,227	360,741
Impact of IFRS 9		-2,261	-2,261
Adjusted balances as at 1 Jan. 2018	76,514	281,966	358,480
Profit for the year	_	49,812	49,812
Balance at 31 Dec 2018	76,514	331,778	408,292

Statement Of Cashflows For The Period Ended 31 December, 2019

	2019	2018
Operating activities	US\$'000	US\$'000
Profit/(Loss) from operations	37,847	49,887
Adjustments for:		
Depreciation of Property Plant & Equipment	18,874	18,587
Amortisation Charge	84	72
Unrealized exchange gain	-	954
Interest Income	-601	-1128
Interest Expense	19,971	20,456
Decrease /(Increase) in Inventories	-2,853	-978
Decrease in Restricted Cash	1,693	-26,237
(Increase)/Decrease in other Financial Asset	-	-6,183
(Increase)/Decrease in Accounts Receivables	-83,807	-70,286
Increase/Decrease in Accounts Payables	6,214	322
Increase/(Decrease) Deferred Income	-17	25
Increase in Employee benefit Obligation	148	116
	-2,447	-14,393
Cash Generated from Operating Activities	601	1,128
	-19,971	-20,570
Interest Received	-21,817	-33,835
Interest Paid		
Net Cash Generated from Operating Activities	-5,809	-3,434
Investing Activities	-	-10
Purchase of Property Plant & Equipment Purchase of Intangible Assets	35	-
Investment In Subsidiary		
	-5,844	-3,444
Net Cash Outflow from Investing Activities		
Financing Activities	18,265	42,908
Loans & Borrowings	-	-
Payments of Loans & Borrowings	18,265	42,908
Net Cash (used in) Generating Finance Activities		
Net Cash flow from Financing Activities		
Cash and cash equivalents at beginning of year 18b	15,092	9,463
Increase in cash and cash equivalents	-9,396	5,629
Increase/(Decrease) in cash & cash Equivalent at 31	5.696	15.092
December	_,	,

Notes To The Financial Statements

FOR THE YEAR ENDED 31 DECEMBER 2019

1. GENERAL INFORMATION

Bui Power Authority was established by an act of parliament, Bui Power Authority Act 2007, (Act 740) and it is domiciled in Ghana. The Authority's registered office is at No

11 Dodi link, Airport Residential Area, Accra Ghana. The principal activity of the Authority is primarily involved in planning, executing and managing the Bui Hydroelectric Project.

2. BASIS OF PREPARATION AND ACCOUNTING POLICIES

2.1 BASIS OF PREPARATION

2.1.1 Statement of compliance

These financial statements have been prepared in accordance with the International Financial Reporting Standard (IFRS) as issued by the International Accounting Standards Board (IASB) and in the Financial statements have been prepared on a historical cost basis and represented in the United States of America Dollars and rounded to the nearest thousands except otherwise indicated.

The preparation of financial statements in conformity with IFRS requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities as well as disclosures of contingent assets and liabilities at the reporting date and the reported amount of revenue and expenses during the period. However, actual outcome could differ from those estimates.

2.1.2 Basis of measurement

The financial statements have been prepared on the historical cost basis.

2.1.3 Functional and presentation currency

The financial statements are presented in United States of America Dollars (US\$) which is the Authority's functional currency. All amounts have been rounded, unless otherwise indicated.

2.1.4 Use of estimates and judgments

In preparing the financial statements, management has made judgments, estimates and assumptions that affect the application of the Authority's accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to estimates are recognized prospectively.

3. SIGNIFICANT ACCOUNTING POLICIES

3.1 Revenue recognition

Revenue from sale of electricity is recognised when electricity is supplied to off takers. Revenue is recognised to the extent that it is probable that economic benefits will flow to the Authority and the amount of revenue can be reliably measured at a rate approved by the Public Utility Regulatory Commission (PURC) as per the power

purchase agreement. Revenue is stated at the fair value of the consideration received/receivable.

Power Supply Income: Bui Power Authority recognise electricity supply income from amount of revenue arising from agreement between the Authority and the off takers. Revenue is recognised upon delivery of electricity to the off taker.

3.2 Borrowing Costs

Borrowing cost consist of interest and other cost that an entity incurs in connection with the borrowing of funds. Borrowing cost directly attributable to the acquisition of an asset that necessarily takes a substantial period of time to get ready for its intended use or sale are capitalized as part of the cost of the asset.

All borrowing costs in relation to construction of the dam and other civil works have been capitalised.

All other borrowing costs are recognised in profit or

loss in the period in which they are incurred.

3.3 Income Tax

Income tax expense represents the sum of the tax currently payable and deferred tax. The tax currently payable is based on taxable profit for the year.

The Authority asserts that is a Government Agency established by an Act of parliament, they are exempt from the payment of corporate taxes.

Revenue, expenses and assets are recognised net of the amount of VAT except where the value added tax incurred on a purchase of goods and services is not recoverable from the taxation authority, in which case the value added tax is recognised as part of the cost of acquisition of the asset or as part of the expenses item as applicable.

The net amount of value added tax from or payable to the Ghana Revenue Authority is included as part accounts receivable or payables in the statement of financial position.

3.4 Property, Plant and Equipment

Items of property, plant and equipment are measured at cost less accumulated depreciation and any accumulated impairment losses.

Depreciation is charged so as to allocate the cost of assets less their residual values over their estimated useful lives, using the straight-line method.

The initial cost of an assets comprises its purchases price or construction cost, any costs directly attributable to bringing the asset into operation, the initial estimate of any decommissioning obligation. If any and for qualifying assets, the borrowing cost. The purchase price or construction cost is the aggregate of the amount paid and the fair value of any other consideration given to acquire the asset.

The straight line method is adopted to depreciate the cost of items of property, plant and equipment less any estimated residual value of the assets over their expected useful life. Bui Power Authority estimates the useful life of other assets in line with their beneficial period. Where parts of an item of property, plant and equipment have different useful life and is significant to the total cost, the cost of that item is allocated on a component basis among the parts and each part is depreciated separately.

The following annual rates are used for the depreciation of property, plant and equipment:

Land Dam Power House	25-100	years
Generating Plant & Machinery	15-40	years
Power Distribution Network	15-25 years	
Motor Vehicle	2-5 years	
Marine Equipment	10 years	
Office Equipment	1-5 years	
IT & Communication Equipment	1-5 years	Office
Furniture, Fixtures. & Fittings	1-5 years	
Household Equipment	1-5 years	
Household Fixtures & Fittings	1-5 years	
Miscellaneous Equipment	3-20years	
Building	15-50 yea	rs

If there is an indication that there has been a significant change in depreciation rate, useful life or residual value of an asset, the depreciation of that asset is revised prospectively to reflect the new expectations.

The cost of assets built by the Authority includes the cost of material and direct labour as well as any other costs directly attributable to bringing the assets to a working condition as intended by management. Once the assets are available for use, depreciation commences

Costs associated with routine servicing and maintenance of assets are expensed as incurred. Subsequent expenditure is only capitalized if it is probable that future economic benefits associated with the item will flow to the Authority.

The carrying values of property and equipment are reviewed for indications of impairment annually, or when events or changes in circumstances indicate the carrying value may not be recoverable. If any such indication exists and where the carrying values exceed the estimated recoverable amount, the assets are written down to their recoverable amount.

Anitem of property, plant and equipment is derecognized upon disposal or when no future economic benefits are expected to arise from the continued use of the asset. Residual values, useful life methods of depreciation for property and equipment are reviewed, and adjusted if appropriate, at each financial year end.

Intangible assets

Computer Software

Acquired computer software licenses are capitalized on the basis of the costs incurred to acquire and bring to use the specific software. These costs are amortized over 5 years.

3.5 Impairment of Non-financial assets

At each reporting date, property, plant and equipment, intangible assets, and investments in associates are reviewed to determine whether there is any indication that those assets have suffered an impairment loss. If there is an indication of possible impairment, the recoverable amount of any affected asset (or any related assets) is estimated and compared with its carrying amount. If estimated recoverable amount is lower, the carrying amount is reduced to its estimated recoverable amount, and an impairment loss is recognized immediately in profit or loss.

Similarly, at each reporting date, inventories are assessed for impairment by comparing the carrying amount of each item of inventory (or group of similar items) with its selling price less costs to complete and sell. If an item of inventory (or group of similar items) is impaired, its carrying amount is reduced to selling price less costs to complete and sell, and an impairment loss is recognized immediately in profit or loss.

If an impairment loss subsequently reverses, the carrying amount of the asset (or any of related assets) is increased to the revised estimate of its recoverable amount (selling price less costs to complete and sell, in the case of inventories), but not in excess of the amount that would have been determined had no impairment loss been recognized for the asset (any of related assets) in prior years. A reversal of an impairment loss is recognized immediately in profit or loss.

3.6 Financial Instruments

A Financial instruments is any contract that gives rise to a financial asset of one party and a financial liability or equity instrument of another party. All financial instruments are classified into one of the following categories: held for trading, held-to-maturity investments, loans and receivables, available for sale financial assets or other financial liabilities.

Transaction cost on financial instruments are expensed when incurred. Purchased and sales of financial assets are accounted for at trade dates.

Financial instruments include disclosures on their liquidity risk and the inputs to value measurement, including their classifications within a hierarchy that priorities those inputs.

Offsetting of financial Instruments

Financial assets and financial liabilities are offset and the net amount reported in the statement of financial position only when there is currently a legally enforceable right to offset the recognised amounts and there is an intention to settle on a net basis, or to realise the assets and settle the liability simultaneously. Income and expenses are not offset in the statement of profit or loss unless required or permitted by any accounting standard or interpretation, and as specifically disclosed in the accounting policies of the Authority.

De-recognition Of Financial Liabilities

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 the derecognition of the original liability and the recognition of a new liability. The difference in the respective carrying amount is recognised in profit or loss.

De-recognition of financial assets

A financial asset (or, where applicable, a part of a financial asset or part of a group of similar financial assets is primarily derecognized (i.e., removed from the statement of financial position) when:

The rights to receive cash flows from the asset have expired. Or It has transferred its rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to 72 | Financial Statement for the year ended 31 December 2019.

a third party under a 'pass-through' arrangement and either: 4.2 the Authority has transferred substantially all the risks and rewards of the asset, or

(b) the Authority has neither transferred nor retained substantially all the risks and rewards of the asset but has transferred control of the asset.

When it has neither transferred nor retained substantially all of the risks and rewards of the asset, nor transferred control of the asset, the Authority continues to recognise the transferred asset to the extent of the Authority's continuing involvement. In that case, the Authority also recognises an associated liability. The transferred asset and the associated liability are measured on a basis that reflects the rights and obligations that the Authority has retained.

Continuing involvement that takes the form of a guarantee over the transferred asset is measured at the lower of the original carrying amount of the asset and the maximum amount of consideration that the Authority could be required to repay.

Financial assets (excluding derivatives) Classification

The appropriate classification of a financial asset is determined on acquisition of the financial asset and is based on:

whether or not the contractual terms of the financial asset give rise to contractual cash flows that are solely payments of principal and interest; and

The objective of the business model in which the financial asset is held at a portfolio level that best reflects the way the business is managed.

Financial assets are not reclassified subsequent to their initial recognition unless the authority changes its business model for managing financial assets, in which case all affected financial assets are reclassified on the first day of the first reporting period following the change in the business model.

The Authority may irrevocably designate a financial asset on initial recognition that otherwise meets the requirements to be measured at amortised cost or at fair value through other comprehensive income as at fair value through profit or loss if doing so eliminates or significantly reduces an accounting mismatch that would otherwise arise. The Authority may also irrevocably elect on initial recognition of an equity investment that is not held for trading to present subsequent changes in the investment's fair value in other comprehensive income. This election is made on an investment-byinvestment basis.

The Authority did not designate any financial assets at fair value through profit or loss and has not elected to present equity investments at fair value through other comprehensive income.

Financial assets are classified into the following categories: Amortised cost

A financial asset is measured at amortised cost if it meets both of the following conditions and is not designated as at fair value through profit or loss:

its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding; and it is held within a business model whose objective is to hold assets to collect contractual cash flows Fair value through other comprehensive income.

A financial asset is measured at fair value through other comprehensive income if it meets both of the following conditions and is not designated as at fair value through profit or loss:

its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding; and

it is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets

Fair value through profit or loss

Allfinancialassetsnotclassified as measured at amortised cost or fair value through other comprehensive income are measured at fair value through profit or loss.

Measurement Initial recognition

Financial assets are initially measured at fair value on the date of commitment to purchase (trade date). The transaction price is generally the best indicator of fair value. If a contract with a customer has a significant financing component, the related financial asset is
initially measured at the transaction price excluding the time value of money.

Where the fair value of a financial asset is different to the transaction price, a day-one gain or loss may arise. If the fair value has been determined based on marketobservable data the whole day-one gain or loss is recognised immediately in profit or loss. If the fair value has not been based on market-observable data the dayone gain or loss is deferred in the statement of financial position and amortised over the term of the instrument in profit or loss.

Any directly attributable transaction costs are included in the initial measurement of financial assets except for financial assets at fair value through profit or loss where directly attributable transaction costs are recognised in profit or loss.

After initial recognition

Amortised cost (previously loans and receivables) financial assets at amortised cost are measured at amortised cost after initial recognition using the effective interest rate method less any accumulated impairment losses. Interest income, foreign exchange gains and losses and impairments are recognised in profit or loss. Loss allowances for financial assets measured at amortised cost are deducted from the gross carrying amount of the assets.

Fair value through other comprehensive income (previously available-for-sale)

Financial assets at fair value through other comprehensive income are measured at fair value after initial recognition. Interest income calculated using the effective interest method, foreign exchange gains and losses and impairments are recognised in profit or loss. Other net gains and losses are recognised in other comprehensive income.

The loss allowance for financial assets at fair value through other comprehensive income is recognised in profit or loss. Impairment Current year (in terms of IFRS 9) Loss allowances are recognised for expected credit losses on financial assets measured at amortised cost or fair value through other comprehensive income. Loss allowances are calculated using the general or simplified approach.

The general approach requires impairment to be measured using a 12-month or lifetime expected credit loss. The lifetime expected credit loss method will be used if, after initial recognition, there is a significant increase in the credit risk of a financial asset or if it becomes credit-impaired. The simplified approach requires impairment to be measured using a lifetime expected credit loss. The simplified approach is applied to trade and other accounts receivable.

The Authority recognises an allowance for expected credit losses (ECLs) for all debt instruments not held at fair value through profit or loss. ECLs are based on the difference between the contractual cash flows due in accordance with the contract and all the cash flows that the Authority expects to receive, discounted at an approximation of the original effective interest rate. The expected cash flows will include cash flows from the sale of collateral held or other credit enhancements that are integral to the contractual terms.

For trade accounts receivable and contract assets, the Authority applies a simplified approach in calculating ECLs. Therefore, the Authority does not track changes in credit risk, but instead recognises a loss allowance based on lifetime ECLs at each reporting date. The Authority has established a provision matrix that is based on its historical credit loss experience, adjusted for forward-looking factors specific to the debtors and the economic environment.

3.7 Employee Benefits – Social Security & Provident Funds

The Authority contributes to the national pension fund (defined contribution) governed by the Social Security & National Insurance Trust Fund law on behalf of employees. All employer contributions are charged to the income statement as incurred and are included under staff costs.

A provision is recognised for end of service benefit entitlements of management. This is accrued for each completed year of service. An expense is recognised and a corresponding provision accrued each reporting year end.

Provision has been made for end of service benefits of the Chief executive officer of the Authority as well as

the Governing Board's members of the Authority.

This has been calculated using the simplified projected unit credit method as stipulated by IAS 19 Employee Benefit on other Long term employee benefit.

3.8 Inventories

Bui Power Authority's inventories are stated at the lower of cost and net realisable value. Costs of inventories are determined on weighted average basis. Net realisable value represents the estimated selling price for inventories less all cost necessary to make the sale.

3.9 Trade Receivables

Trade receivables are recorded at their original amount less provision for impairment. In accordance with the provision of IFRS 9, Bui Power Authority provide for 1% of the previous year's aged receivables balances which are more than 360 days past due. Adjustments to the policy may be made due to specific or exceptional circumstances when collection is no longer considered probable. The carrying amount of the receivable is reduced through the use of a provision account and movements in the provision are recognized in the income statement within cost of sales. When a previously provided trade receivable is uncollectable, it is written off against the provision.

3.10 Cash and Cash Equivalents

Cash comprises cash in hand and demand deposits. Cash equivalents are short-term highly liquid investments with an original maturity of three months or less that are readily convertible to known amounts of cash and subject to insignificant risk of changes in value. In the statement of cash flows, cash and cash equivalents are shown net of short-term overdrafts which are repayable on demand and form an integral part of the Authority's cash management.

Restricted Cash Flows

Amount held in the Bui Power Authority's accounts with China Export and Import Bank (CEXIM) are not considered to be a part of the Authority's cash and cash equivalents balance. Rather, they are considered separately due to their maturity and nature of restriction.

Available-for-Sale Financial Assets

For available-for-sale financial investments, the Authority assesses at each balance sheet date whether there is objective evidence that an investment or Company of investments is impaired.

In the case of equity investments classified as availablefor-sale, objective evidence would include significant or prolonged decline in the fair value of the investment below its cost. Where there is evidence of impairment, the cumulative loss (measured as the difference between the acquisition cost and the current fair value, less any impairment loss on that investment previously recognized in the income statement) is removed from equity and recognized in income statement. Impairment losses on equity investments are not reversed through the same income statement. Increases in fair value after impairment are recognized directly in equity.

In the case of debt instruments classified as available-forsale, impairment is assessed based on the same criteria as financial assets carried at amortized cost. Interest continues to be accrued at the original effective interest rate on the reduced carrying amount of the asset and is recorded as part of 'Interest and similar income. If, in a subsequent year, the fair value of a debt instrument increases and the increase can be objectively related to an event occurring after the impairment loss was recognized in the income statement, the impairment loss is reversed through the income statement.

Financial Liabilities

Financial liabilities are measured at amortized cost using the effective interest rate method. A financial liability is derecognized when the obligation under the liability expires, is discharged or cancelled.

3.11 Trade Payables

Trade payables are non-interest-bearing and are stated at their nominal value.

Borrowing costs

Borrowing costs attributable to the acquisition or construction of property, plant and equipment or in respect of software projects that necessarily take a substantial period of time to prepare for their intended use, or sale, are capitalized as part of the asset cost. Borrowing costs consist of interest and other costs that an entity incurs in connection with the borrowing of funds.

Provisions

Provisions are recognized when the Authority has a present legal or constructive obligation as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation. Where the Authority expects some or all of a provision to be reimbursed, the reimbursement is recognized as a separate asset but only when the reimbursement is virtually certain the expense relating to any provision is presented in the income statement net of any reimbursement.

If the effect of the time value of money is material, provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and, where appropriate, the risks specific to the liability. Where discounting is used, the increase in the provision due to the passage of time is recognized as a borrowing cost.

Contingent liabilities and contingent assets are not recognized in the financial statements but are disclosed. Contingent liabilities are initially measured at fair value at the acquisition date. At the end of subsequent reporting periods, such contingent liabilities are measured at the higher of the amount that would be recognised and the amount initially recognised less cumulative amortisation recognised.

4. Critical accounting judgments and key sources of estimation uncertainty

In the application of the Authority's accounting policies, which are described in note 2, the Authority Governing Board are required to make judgments, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized 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 Key sources of estimation uncertainty

The following are the key assumptions concerning the future, and other key sources of estimation uncertainty at the end of the reporting period, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year.

4.2 Useful life of property, plant and equipment

Bui Power Authority reviews for impairment, the estimated useful life of property, plant and equipment at the end of each reporting period. During the current year, the Authority Governing Board determined that the useful life of certain items of equipment should be shortened, due to developments in technology.

4.3 Foreign exchange transactions

The financial statement are presented in United States of America Dollars, which is also the functional currency of the Authority, unless otherwise indicated, all amount are presented to the nearest US dollar.

Transactions and Balances

Transactions in foreign currency are initially recorded by the Authority at their respective functional currency spot rate at the date the transaction first qualifies for recognition.

Monetary assets' and liabilities denomination in foreign currencies are translated at the functional currency spot rate of exchange at the reporting date. Differences arising on settlement or transition of monetary items are recognised in the statement of profit or loss

Revenue

Bui Power Authority sells electricity generated by its hydroelectric plant to the Electricity Company of Ghana (ECG). Per the power purchase agreement between the Ministry of Energy, (on behalf of Bui Power Authority) and the Electricity Company of Ghana, power is sold to ECG using prices as determined by the Public Utility Regulatory Commission (PURC).

5. Revenue

		Power Generated
	US\$'000	Kilowatt Hour
		In Thousands
Revenue From Sale Of 201 Electricity	9 105,927	1,034,375
Revenue From Sale Of 201 Electricity	8 98,962	966,422

6. Cost of Generation

	2019 US\$'000	2018 US\$'000
Direct Labour Cost	3,070	2,079
Direct Consumables Expenses	9,112	11
Direct Operational & Maintenance	15	13
Depreciation Charges (COG)	17,194	17,150
	29,391	19,253

7. Other Operating Income

	2019	2018
	US\$'000	US\$'000
Rent Income	391	444
Exchange Difference	-	5
BPA Children's Garden/ Nursery	7	1
Income From Sale of Lumber	-	159
Interest on Accounts	601	1,128
Forestry	7	8
Other Income	305	
	1,311	1,745

Income from sale of lumber resulted from sale of tree in the catchment area upon clearing of the land for the purposes of constructing the dam. BPA Children's garden and nursery on the other hand, relate to income earn from BPA Nursery School at the Bui Dam Site. Interest on accounts refers to interest accruing from fixed deposit and bank accounts held with financial institutions.

8. Operating Expenses

	2019	2018
	US\$'000	US\$'000
Repairs & Maintenance-General	151	184
Corporate Meetings	25	19
Casual Labour	50	24
Printing, Stationery-Expenses	62	1
IT Equipment Spare & Consumables	190	9
Vehicle Maintenance	244	226
Repairs & Maintenance-Plant Equipment	850	8
IT Support & Maintenance	106	2
General Materials	5,542	22
Building Maintenance Materials	7	-
Freight, Penalty, Demurrage & Others	8	10
Regulatory & Supervisory Coast	190	147
Project Affected People	336	-
Auto Equipment Spare	98	20
Oil and Lubricant	27	1
	7,886	673

9. Administrative Expenses

	2019	2018
	US\$'000	US\$'000
Audit Fees	16	75
Bank Charges	49	79
Board Expenses	179	128
Communications	105	43
Depreciation & Amortisation - Indirect	1,764	1,509
Environmental Expenses	1	20
Fuel	304	241
Impairment Provision	843	765
Insurance	711	357
Land Administration	-	4
Licenses & Permits	17	31
Office Expenses	45	28
Other Consumables	496	414
Personnel Expenses - Indirect	9a 5,901	4,278
Public Relation & Marketing	21	16
Professional Fees	129	210
Rent & Rates	1	1
Training & Development	98	359
Travel & Transportation	282	536
Unrealised Exchange Difference	697	954

9. Administrative Expenses Continued

	2019 US\$'000	2018 US\$'000
Utilities	86	130
Legal Fees	13	3
Subscriptions	22	13
Recruitment Expenses	10	3
Protocol	-	31
Programs & Special Events	15	9
Corporate Social Responsibility (CSR)	107	114
Seminars, Workshops & Conferences	166	87
Rent Withholding Tax Expenses	65	-
	12,143	10,438

Rent Withholding Tax Expenses represent a nonrefundable final tax expenses held on rent income. Professional fee are largely made up of IT and engineering services.

9a. Personnel Expenses

	2019	2018
Included in Cost of Generation	US\$'000	US\$'000
Salaries & Wages	3,070	2,079
Included in Administrative Expenses	2,697	1,170
Salaries & Wages Allowances	1,684	1,785
Long term Employee Benefit SSNIT and	175	148
Provident Fund Con't Bonuses to Staff	877	650
Other Staff Cost	444	332
	24	193
Total Personnel Expenses	5,901	4,278
	8,971	6,357

9b. Depreciation & Amortisation

	2019	2018
Included in Cost of Generation:	US\$'000	US\$'000
Depreciation Charges	17,194	17,150
Included in Administrative Expenses:		
Depreciation Charges	1,680	1,437
Total Depreciation Charged	18,874	18,587
Total Amortisation Charged	84	72
Total Depreciation & Amortisation Charged	18,958	18,659
10. Finance Cost		
	2019	2018
Included in Cost of Generation:	US\$'000	US\$'000
Interest on Borrowings (Effective	19,971	20,456
	19,971	20,456

11. The Authority is exempt from corporation taxes but not withholding taxes.

The Authority asserts that, as a Government agency established by an Act of Parliament, they are exempt from the payment of corporate taxes. Neither income tax expenses nor deferred taxes has been assessed for the reporting years.

Cost /Valuation	Dams, Powerhouse & Civil works	Transmission Networks	Land Buildings, Roads, Civil Works	Generation plant & Machinery	Motor Vehicles	IT & Communication equipment	Residential Equipment, Furniture & Fittings	CWIP Projects	Total
	000,\$SN	US\$'000	US\$'000	000,\$SU	000,\$SN	000,\$SN	US\$'000	000,\$SN	000,\$SN
Balance 01/01/19	340,205	118,485	258,673	142,213	3,506	1,019	3,979	28,944	897,024
Additions					847	146	152	4,664	5,809
Balance at 31/12/19	340,205	118,485	258,673	142,213	4,353	1,165	4,131	33,608	902,833
Accumulated Depreciation									
Balance 01/01/19	18,331	22,642	12,560	23,180	2,319	627	2,032	ı	81,691
Charge for the Year	3,949	4,878	3,106	5,002	748	258	933		18,874
Balance at 31/12/19	22,280	27,520	15,666	28,182	3,067	885	2,965	T	100,565
NBV At 31/12/19	317,925	90,965	243,007	114,031	1,286	280	1,166	33,608	802,268

12a. Property Plant & Equipment

Cost/Valuation	Dams, Powerhouse & Civil works	Transmission Networks	Land Buildings, Roads, Civil Works	Generation plant & Machinery	Motor Vehicles	IT & Communication equipment	Residential Equipment, Fittings	CWIP Projects	Total
	000,\$SN	000,\$SN	US\$'000	000,\$SN	US\$'000	US\$'000	US\$'000	000,\$SU	US\$'000
Balance01/01/18	340,205	118,485	258,673	142,213	3,486	966	3,967	25,565	893,590
Additions					20	23	12	3,379	3,434
Balance at 31/12/18	340,205	118,485	258,673	142,213	3,506	1,019	3,979	28,944	897,024
Accumulated Depreciation									
Balance 01/01/18	14,382	17,762	9,453	18,178	1,739	415	1,175	ı	63,104
Charge for the Year	3,949	4,880	3,107	5,002	580	212	857		18,587
Balance at 31/12/18	18,331	22,642	12,560	23,180	2,319	627	2,032		81,691
NBV At 31/12/18	321,874	95,843	246,113	119,033	1,187	392	1,947	28,944	815,333

12b. Property Plant & Equipment

13. Intangible Assets

	2019	2018
Computer Software: Cost	US\$'000	US\$'000
As at 1 January	466	456
Addition		10
Write Off		-
As at 31 December	466	466
As at 1 January	273	201
Charge for the year	84	72
As at 31 December	357	273
Total Intangible Asset	109	193

Intangible assets comprise software purchased for recording and keeping of inter organizational communications

14. Inventories

	2019	2018
	US\$'000	US\$'000
Spare Parts and Tools (Consumables)	3,779	2,433
Stationary	120	107
Safety Material	174	151
Other Inventory		
	5,591	2,738

There have been no write offs of inventory in the period under review. (2019: nil)

15. Trade & Other Accounts Receivable

	2019	2018
	US\$'000	US\$'000
Trade Receivable	383,017	299,544
Other Receivables	2,119	1,724
Prepayment	124	185
	385,260	301,453

The average credit period on sales of electricity generated is 60 days. No interest is charged on trade receivables for the first 360 days from the date of the invoice. Thereafter, no interest is charged on the outstanding balance. The Authority has recognised an allowance for impairment.

Allowances for impairment are recognised against trade receivables between 360 days and 540 days based on estimated irrecoverable amounts determined by reference to past default experience of the counterparty and an analysis of the counterparty's current financial position

16. Other Financial Asset

	2019	2018
	US\$'000	US\$'000
Fixed Deposit	2,188	10,672
	2,188	10,672

Treasury bills are held for 182 days of maturity. Fixed deposits held by Bui Power Authority are in the form of call accounts, hence they are considered as cash equivalents as they are highly liquid and are being held for cash management purposes.

17. Restricted Cash Flows

	2019	2018
	US\$'000	US\$'000
CEXIM Escrow Accounts	25,582	27,275
	25,582	27,275

These represent accounts held with the China Export Import (CEXIM) specifically for the repayment of loan facilities and the administration of fund received draw down.

18a. Cash & Bank Balances

	2019	2018
	US\$'000	US\$'000
Cash Balance	1	7
Bank Balance	3,507	4,413
	3,508	4,420

These amounts are payable on demand and do not attract any interest

18b. Cash & Cash Equivalent

	2019	2018
	US\$'000	US\$'000
Cash Balance	1	7
Bank Balance	3,507	4,413
Fixed Deposit	2,188	10,672
	5,696	15,092

19. Accumulated Fund

	2019 US\$'000	2018 US\$'000
Investment from GOG	76,514	76,514
	76,514	76,514
20. Loans & Borrowings		

		2019	2018
		US\$'000	US\$'000
Government on Lent facilities	20a	379,820	376,197
Buyers Credit Facilities	20b	180,188	207,513
Agency Accounts (GOG)	20c	209,783	167,816
		769,791	751,526

20a. Government on Lent Facilities

	2019	2018
	US\$'000	US\$'000
Concessional Loans	301,237	297,615
Preferential Buyers Credit	78,583	78,582
	379,820	376,197

Concessional loan and preferential buyer's credit facilities engaged in 2008 and 2012 respectively by the government of Ghana and the Chinese Government for the construction and operation of the Bui Hydroelectric power Project have been lent to the Authority.

Currently, there is an on lending agreement between the Ministry of finance and the Bui Power Authority.

20b. Buyers Credit Facilities

	2019	2018
	US\$'000	US\$'000
Buyers Credit Facilities	180,188	207,513
	5,696	15,092

Buyer's credit facilities were granted by the chines Export Import bank in 2007 and 2012, the loan facilities were in US\$ and amounted to US\$293,506,062 and US\$76,206,939 in 2007 and 2012 respectively.

20c. Agency Accounts of (GOG)

Government Accounts	of	Ghana	Agency	2019 US\$'000 209,783		2018 US\$'000 167,816	
			I	209.783	_	167.816	

This represents amount contributed by Ghana COCOBOD as part of a cocoa sales agreement intended to assist in the loan repayment through the sale of cocoa beans to Genertec International Corporation, a Chines produce buying Company.

20d. Interest Bearing Loans & Borrowings

	2019	2018
	US\$'000	US\$'000
Non-Current Portion	749,466	720,717
Current Portion	20,325	30,809
	769,791	751,526

20e. Interest Bearing Loans & Borrowings

	Interest Rate	Maturity		
			2019 US\$'000	2018 US\$'000
Buyers Credit Facility	5.9445%	21/11/2025	143,051	166,166
Buyers Credit Facility	LIBOR+4%	21/11/2025	37,137	41,348
			180,188	207,514
Concessional loan	2.7%	15/07/2037	301,237	297,615
Preferential Buyers Credit facility	2.7%	15/07/2037	78,583	78,582
			379,820	376,197
Government of Ghana Agency Accounts Facilities			209,783	167,816
Total Non-Current Loans & Borrowing			769,791	751,526
Other loans & Borrowings		On Demand	-	-
Interest Payable		On Demand	1,308	1,452
			1,308	1,452

Interest payable is interest due on Buyers Credit Facilities. The 2007 Buyers credit attracts interest at 5.94475%. The 2012 Buyers credit Facility also attract an interest rate of LIBOR+4%

21. Deferred Income

	2019	2018
	US\$'000	US\$'000
Deferred Income	273	290
	273	290

22. Trade & Other Accounts Payable

	2019	2018
	US\$'000	US\$'000
Trade Accounts Payable	6,371	100
Accrued Expenses	440	823
Payroll Liabilities	761	446
Other Accounts Payables	202	217
Withholding Accounts Payable	70	44
	7,844	1,630

Payroll liabilities are made up of Tier 1 and Tier 2 pension payables, credit Union and Welfare dues and other employee accounts payable.

23. Employee Benefit Obligation

	2019 US\$'000	2018 US\$'000
As at January	346	214
Current Service Cost	148	116
Exchange Difference	-	16
Payment	-	-
As at 31 January	494	346

Employee benefit obligation relates to Bui Power Authority's award of end of service benefit to directors and chief Executive Officer of the Authority. Members of the Governing Board are entitled to two (2) months of their basic salary for each completed year, upon the end of their service to the Authority. This increase to 4 months of their basic salary from the fifth (5) completed year of service. The Chief Executive Officer is, however entitled to four (4) months of his basic salary for each completed year of service.

Net benefit expenses recognised in the statement of profit or loss in relation to other long term employee benefit are as follows:

Net Benefit Expenses Recognised In Profit Or Loss

	2019	2018
	US\$'000	US\$'000
Current Service Cost	148	116
Exchange Difference	-	16
	148	132

24. Financial Risk Management Objectives and Polices

The Authority is exposed to various risk in relations to financial instruments. The main types of risk are market risk, credit risk and liquidity risk

The Authority's risk management is managed by the Finance Director, in close cooperation with the Governing Board, and focuses on actively securing the Authority's short to medium-term cash flows by minimizing the exposure to volatile financial markets. Short-term financial investments are managed to generate lasting returns. The most significant financial risk to which the Authority is exposed are described below.

Market Risk Analysis

The Authority is expected to

The Authority is exposed to market risk through its use of financial instruments and specifically to currency risk, interest rate risk which result from both its operating and investing activities.

Interest Rate Sensitivity

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. The Authority's exposure to the risk of changes in market interest rates relates primarily to loans and borrowings obligations with floating interest rates.

The following table demonstrates the sensitivity to a reasonably possible change in interest rates on that portion of loans and borrowings. With all other variables held constant, the Authority's profit before tax is affected through the impact on floating rate borrowings, as follows:

	Increase/Decrease in basis points	Effect on profit before tax
		US\$'000
2019	+100	+9,346
	-100	-9,346
2018	+100	+8,499
	-100	-9,499

The assumed movement in basis points for interest rate sensitivity analysis is based on the currently observable market environment, showing a significantly higher volatility than in prior years.

Foreign Currency Risk

Foreign currency risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates. The Authority's exposure to the risk of changes in foreign exchange rates relates primarily to the Authority's operating activities (when expenditure is denominated in a different currency from the Authority's functional currency.

	Changes in US\$ rates	Effect on profit before tax
		2019 US\$'000
2019	+5.8	+8.4
	-5.8	-8.4
2018	+7.5	+16
	-7.5	-16

25. Credit Risk Analysis

Trade Accounts Receivable

Credit risk is the risk that counterparty fails to discharge an obligation to the Authority. The Authority's main exposure for credit risk to Electricity Company of Ghana, the Authority's single customer. The Authority has no significant concentration of credit risk, since Government of Ghana has planned to avail loans for settling the outstanding accounts receivable of ECG.

Set out below is the information about the credit risk exposure on the Authority's trade accounts receivable and contract assets using a loss rate.

	31 December	1 January
	2019	2019
	US\$'000	US\$'000
Expected Credit Loss Rate	1%	1%
Gross carrying Amount	386,886	302,569
Life Time Expected Credit Loss	3,869	3,026
		2019
		US\$'000
IFRS 9 Expected Credit Loss as at 31 January 2019		3,026
Change for the Year		843
Life time Expected credit Loss as at 31 December 2019		3,869

26. Liquidity Risk Analysis

The Authority's objective is to maintain a balance between continuity of funding and flexibility through the use of loans from the Chinese Government and other accounts payable.

The table below summarises the maturity profile of the Authority's financial liabilities based on contractual undiscounted payments (including interest payments):

Year ending 31 December 2019	On Demand	Less than 3 Months	3-12 Months	1-5 Years	5 Years	Total
	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000
Interest-bearingloans and					828.040	828.040
borrowings					020,040	020,040
Trade and other						
Accounts Payable		7,688			-	7,688
		7 4 9 9			828.040	925 709
		7,000			020,040	035,720
Year ending 31	On	Less than	3-12	1-5 Years	5 Years	Total
December 2018	Demand	3 Months	Months			
	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000
Interest-bearingloans						
and borrowings					801,302	802,673
and borrowings				_		
Trade and other						
Accounts Payable	1,371				1,371	
	1,371				801,302	804,044

27. Related Party Disclosures

Bui Power Authority was established by an Act of Parliament, Bui Power Authority Act, 2007(Act 740). Bui Power Authority is solely a government-controlled entity.

Related Party Transactions

The following pertains to transactions carried out with related parties for the years 2019. Government of Ghana invested US\$76,514,075 into the set up and operations of Bui Power Authority at the inception of the Authority.

A Cocoa Sales Agreement was undertaken to assist in loan repayment through the sale of cocoa beans to Genertec International Corporation, a Chinese produce buying company. This agreement is partnered by the Ghana COCOBOD. Amounts contributed so far as detailed below:

	2019	2018
	US\$'000	US\$'000
Agency Accounts- (GOG)	209,783	167,816
	209,783	167,816

Government on lent concessional loan and preferential buyers credit facilities to Bui Power Authority. These facilities were thus moved from equity where they had been previously recognized to liabilities. Repayment of these facilities will begin on 15 July 2023 after a seven (7) year moratorium.

Transaction with Electricity Company of Ghana (ECG). All Kilowatt power generated by the company was sold to the Electricity Company of Ghana.

Key Management Staff

	2019	2018
	US\$'000	US\$'000
Short-term Benefit	625	476
Post-employment Benefit	494	345
Other Allowance During the Year	126	128
	1,245	949

28. Fair Value Measurement

Financial assets and financial liabilities measured at fair value in the statement of financial position are grouped into three levels of a fair value hierarchy. The three levels are defined based on the observability of significant inputs to the measurement, as follows:

Level 1:

quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2:

inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly.

Level 3:

unobservable inputs for the asset or liability.

The carrying amount of the Authority's financial instrument approximates their fair values.

29. Post-Reporting Date Events

Subsequent to the balance sheet date,

The Authority is constructing BPA Height Office building II at a cost of US\$19,922,825. The construction is being done by Amandi Investment Limited.

Bui Power Authority went into an agreement with Meinergy Technology Limited for the construction of 40MVP Hydro Solar PV Hybrid Project at Bui Generating Station (Bui) totaling US\$36,930,000.00. 27.

30. Decommissioning Liability

Bui Power Authority is of the opinion that there will be no future decommissioning costs associated with the Bui Dam. It is believed that the Authority, being a Government owned entity will not be liable for the restoration of the land as the land is also Government owned.

31. Commitments

The Authority has made an advance payment of US\$1,992,282.50 to Amandi Investments Limited being 10% advance payment towards the construction of BPA Height Office building II.

The total contract sum for the construction of Bui Power Authority Height office building II is US\$19,922,825.

Bui Power Authority has made an advance payment of US\$5,685,036.05 to Meinergy Technology Limited towards the construction of 40MVP Hydro Solar PV Hybrid Project at Bui Generating Station which commenced in April 2019 is expected to be operational in 2020.

32. Contingent Assets and Liabilities

The Bui Power Authority is currently in arbitration with Ghana Grid Company Limited (GRIDCO) at the Public Utility and Regulatory Commission over the issue of transmission line charges dispute, which may result in either a liability or an asset by the Authority.

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