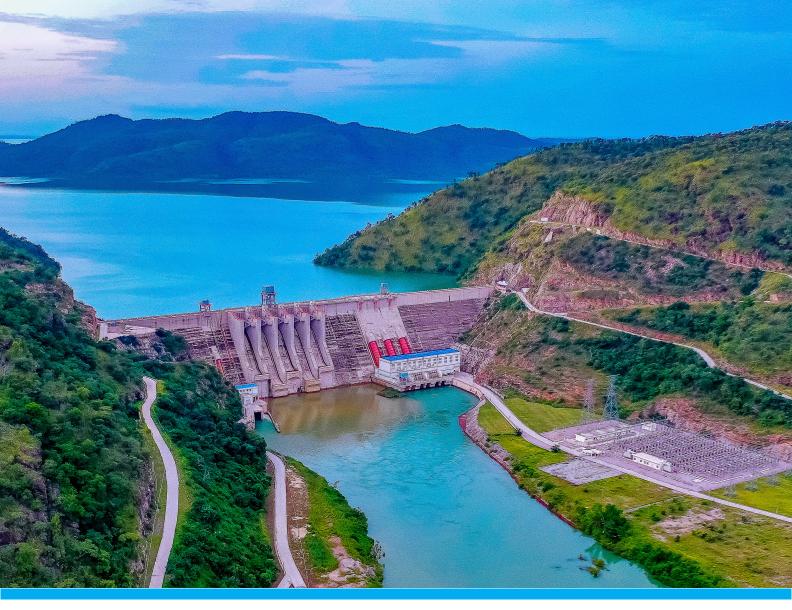


Renewable Energy Leaders





# 2022 CORPORATE ANNUAL REPORT





# **OUR MISSION**

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



# **OUR VISION**

To be the leader in the renewable energy industry in the sub-region.



# **OUR VALUES**

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

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# **KEY FACTS**

**ESTABLISHED** 

2007

#### **EMPLOYEES**

399

## **2022 REVENUES**

\$158.8m

# **INSTALLED CAPACITY**

404MW + 51MWp

# **YEAR 2022 GENERATION**



# **SOLAR PROJECTS**

250MWp

# **2022 HIGHLIGHTS**









Figure 1. Some Energy Awards and Certificates of Excellence

# **ACKNOWLEDGING EXCELLENCE - AWARDS & ACCOLADES**

#### **GHANA ENERGY AWARDS 2022**

- Energy Company of the Year (Renewable)
- Eco-Innovative Business of the Year
- · CEO of the Year (Power)

# NATIONAL GOVERNANCE AND BUSINESS LEADERSHIP AWARDS

- · Outstanding CEO of the Year (Public Sector) Hon. Samuel Kofi Ahiave Dzamesi
- Top 100 most Influential Leadership
- Personality of the Year Hon. Samuel Kofi Ahiave Dzamesi
- · Outstanding Public Sector Enterprise of the Year

#### WEST AFRICAN BUSINESS EXCELLENCE AWARDS

· Industry leaders (Power) Award

# NATIONAL BRANDS AND INNOVATIOVE AWARDS

- · Ghana top 100 brand across Industry
- Community Impact brand of the Year

### HEALTH ENVIRONMENT SAFETY AND SECURITY (HESS) AWARDS

- Best company in Employee Security
- Best company in Employee health and Well-being Initiatives
- · Best company in environmental management practice
- Sustainability and operational excellence
- Best company in HESS compliance, reporting and monitoring.

# NATIONAL COMMUNICATION AWARDS

· Corporate Affairs Team of the Year

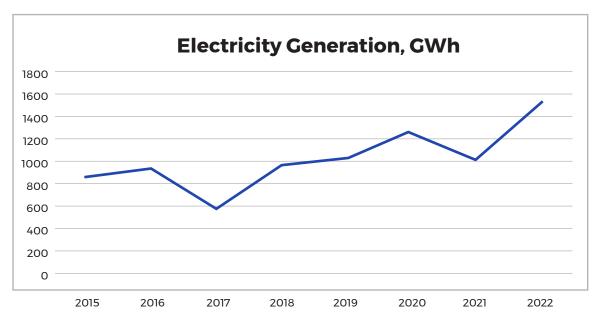


Figure 2 Electricity Generation (GWh)

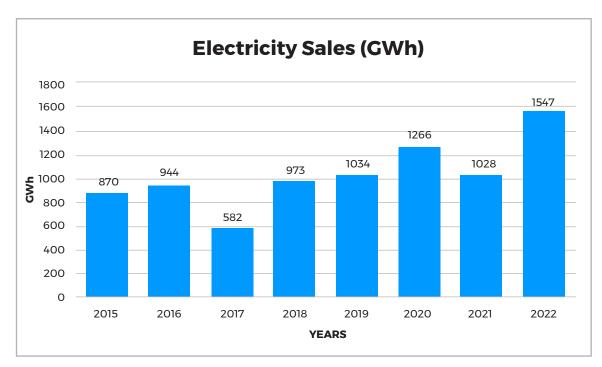


Figure 3. Consolidated Sales (GWh)

# **Operations Across Ghana**

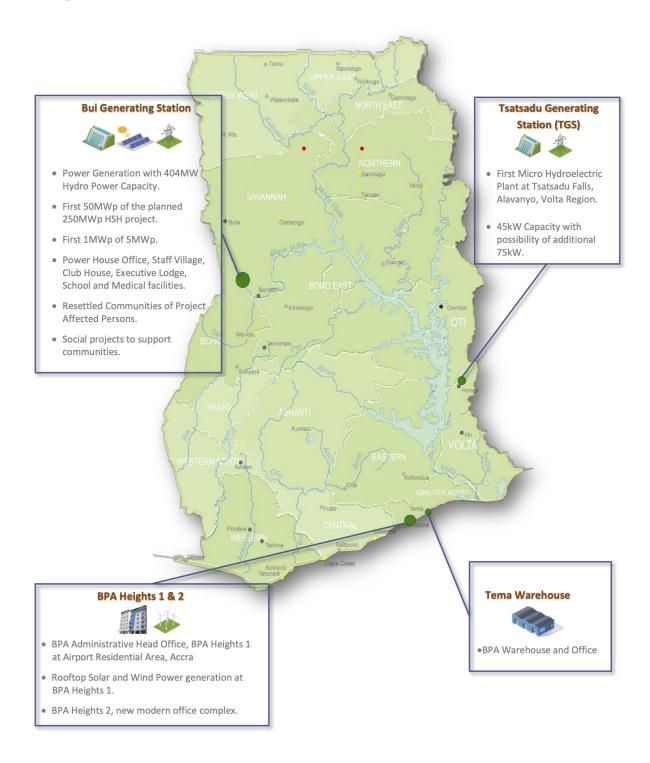


Figure 4: Bui Power Authority Sites and Operations

# **Key Financial Highlights**

FINANCIAL INDICATORS							
	Units	2022	2021	2020	2019	2018	2017
Electricity Generation	GWh	1,551	1,041	1,270	1,044	973	582
System Peak Demand	MW	3,469	3,246	3,089.5	2,804	2,525	2,192
Total Installed Capacity, Hydro	MW	404	404	404	404	404	404
Total Installed Capacity, Solar PV	MWp	50	50	-	-	-	-
Gearing Ratio	Times	1.35	1.49	1.62	1.73	1.84	1.96
Current Asset Ratio	Times	13.65	7.83	10.14	14.73	10.57	5.39
Return on Average Equity	%	16%	10%	16%	14%	18%	9%
Return on Average Total Assets	%	6%	4%	6%	5%	6%	3%
Gross Earning (Power Sale)	US\$M	159	110	130	106	99	59
Return on Capital Employed	%	6%	4%	6%	5%	6%	3%
Operating & General Expenses/ Sales Revenue	%	24%	28%	22%	19%	11%	15%
BPA's Electricity Generation (GWh)	GWh	1,551	1,041	1,270	1,044	973	582
Energy Sales (GWh)	GWh	1,547	1,028	1,267	1,034	966	574
Staff Strength	Employees	399	357	303	262	179	165
Labour Productivity	GWh/Emp	3.88	2.88	4.18	3.95	5.40	3.48
Energy Sales/Employee	USD/Emp	398,001	308,937	428,044	404,303	552,858	356,246

Table 1. Financial Indicators

BPA FINANCIAL STATEMENTS SUMMARY						
	Years					
	2022 2021 2020 2019					2017
	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000
Total Revenues	158,802	110,290	129,697	105,927	98,962	58,781
Cost of Sales	(32,324)	(29,427)	(28,353)	(29,389)	(19,253)	(18,863)
Gross Profit	126,478	80,863	101,345	76,538	79,708	39,917
Other income	3,343	4,455	1,536	1,311	1,745	769
General & Operating Expenses	(38,798)	(30,772)	(28,669)	(20,031)	(11,111)	(8,871)
Operating profit	91,024	54,547	74,211	57,818	70,343	31,816
Finance cost	(11,806)	(14,326)	(19,680)	(19,971)	(20,456)	(21,751)
Profit for the year	79,218	40,220	54,531	37,847	49,812	10,033
Property, Plant & Equipment	869,449	880,464	825,195	802,267	815,333	830,486
Current Assets	647,175	543,953	498,565	422,130	346,559	240,172
Current Liabilities	47,419	69,505	49,179	28,665	32,786	44,543
Retained Earnings	543,594	464,376	424,155	369,624	331,777	284,226
Long Term Loans	836,463	805,344	810,936	769,790	751,526	708,504

Table 2. BPA Summary of Financial Statements

# **Organization Structure**

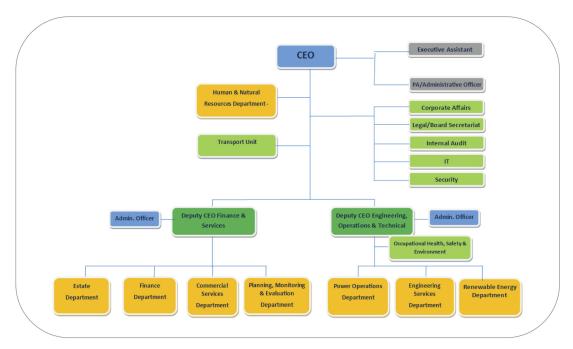
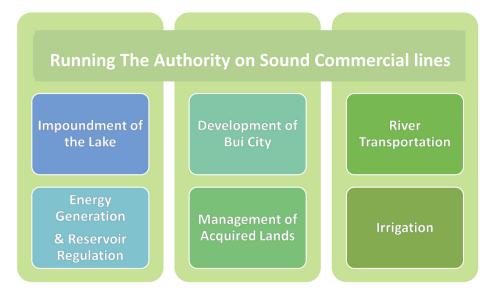


Figure 5: BPA 2022 Organogram



# **Our Mandate**

The Bui Power Authority Act, 2007 (Act 740) charged BPA with the development of a hydroelectric power project on the Black Volta River at Bui and any other potential hydroelectric power sites on the Black Volta River and for related matters.

Our mandate was amended by the Bui Power Authority Amendment Act 2020, (Act 1046) to include development of renewable energy and any other clean energy alternatives in the country and provide for related matters.

# **An Exciting Year**

It has indeed been an exciting year. One that has seen improved level of Operations, strict adherence to good Corporate Governance, enhanced safety and security, increased energy generation and improved Revenues. These could not have been achieved without a committed and motivated workforce as well as the support from the Board of Directors.

It is only with the determination and dedication of our people that we can generate long-term value, sustain our long-term survival, and contribute to the broader public good.



Figure 6. Hon. Samuel Kofi Ahiave DZAMESI
- CEO, Bui Power Authority

# **Our Team**

To uphold our vision of being the renewable energy leaders in the sub-region, we have empowered our team to encourage creativity and unconventional thinking to introduce the innovative ideas that minimizes our cost of operations and pursue new revenue streams to accelerate our development. Our people have been our greatest asset and we cherish their efforts towards the achievement of our Corporate Objectives.

We understand that investing in the growth and development of our people is key to achieving our corporate objectives. That's why we offer remarkable career options, fair remuneration, and a supportive work environment that enable our staff to do their best work. We believe in creating a workplace culture that is welcoming, safe, and secure, and that encourages our team members to reach their full potential. By looking out for the long-term interests of our company and our people, we are confident that we will continue to achieve even greater success in the future.

#### **Our Goals**

We place a high value on sound business decisions and transparent communication amongst our management team, Board of Directors, and other stakeholders in the interest of maximizing shareholder value. BPA is still dedicated to upholding the principles of sound corporate governance to minimize business risks and ensure the effective and sustainable use of our resources for the benefit of all our stakeholders. Our commitment to these values reflects our dedication to creating long-term value for our shareholders, staff, and the communities we serve.

# **Operations**

We recorded a total electricity generation of 1,551 GWh from BPA generating sources which was the highest annual generation since the commencement of commercial operations. This resulted in a net evacuation of 1,547 GWh to the National Integrated Transmission System (NITS), an increase of 50.48% compared to that of the prior year (1,028 GWh). This further boosted BPA revenues by 44% (\$48.5m) on the previous year when the Authority made \$110.3m from a generation of 1,028 GWh.

In line with BPA's strict maintenance schedule, we successfully completed Level-A Maintenance of Unit 1 and the Turbinette which included the dismantling, inspections, repairs, re-assembling and final commissioning in accordance with industry standards. The Start-Up test and Trial Run results were analyzed and observed to be in accordance with the as-built records. Our Operations & Maintenance team participated fully in the works to build capacity from knowledge transfer which offered the Staff the opportunity to improve their technical knowledge on the plant.

# **Financial Performance**

The Authority generated 1,547GWh of power, an increase of 44% over the previous year. This increase in power generation resulted in a 44% increase in revenue, from \$110.3 million to \$158.8 million. This is largely due to higher water inflows into the Bui reservoir, which allowed the BPA to generate more energy to meet increased energy demand. Profit after tax also increased significantly in 2022, from \$40.2 million to \$79.2 million representing an increase of 97%.

Furthermore, net worth increased by 14.6% in 2022, from \$540.9 million to \$620.1 million. However, the receivables position worsened from \$518.4 million to \$626.0 million. This indicates a net increase of 20.8%.

The Authority's strong financial performance in 2022 is a testament to the hard work of our employees and the sound management of its resources. The Authority is well-positioned to continue to generate significant revenues and profits in the years to come.

# Infrastructure Developments

Pursuant to the National objective of increasing the proportion of Renewable Energy in Ghana's Power mix, some significant inroads have been made on the 250MWp Hydro-Solar-Hybrid (HSH) Project which forms part of BPA's effort to explore the opportunity that exists for the technical complementation between hydro generation and solar power production. The Bui HSH scheme has the advantage of allowing the Plant to maintain its operations at peak times and provide system support at other times as may be required by System Operations. During the year, phases 2 and 3 of this project commenced and achieved completion rates of 34.7% and 8.0% respectively by the end of year.

The Authority has further earmarked sites in Bawku, Yendi, Tumu, Sawla, Buipe and Zebilla for various Solar PV projects. The contract for 50MWp Solar PV in Yendi was awarded in the end of the 2022.

BPA was appointed as the Employers representative to spearhead the development of 60MW hydroelectric plant on the lower reaches of the Pra River in view of our most recent experience with regards to the successful construction and operationalisation of the Bui Hydroelectric Project.

Also, following the success achieved with the piloting of small and Mini hydro plant at Tsatsadu, BPA initiated processes to replicate the project at Wli Waterfalls at Afegame in the Volta Region. Other areas, including the Western Rivers are being explored for future development.

The Rockfall Protection and Stabilization project was commissioned to prevent loose rocks from falling from higher abutment elevations posing danger to life and property at the Bui Generating Station. At the end of the year, the design, abutment improvement and protection works were at 72% completion stage.

# Community Relations and Corporate Social Responsibility (CSR)

During the year, BPA maintained its relevance as a good corporate organization by embarking on various community relations and CSR activities in the areas of Health, Sports, education and socio-cultural. We brightened the faces of several people by providing mechanized boreholes at various communities, scholarship schemes for the less privileged, renovation of classroom blocks, talent scouting for sports and donations to the Ghana Police, the fire service and other individuals and identifiable groups. We also procured and distributed waste bins to several households in the communities around BPA sites as well as schools in Resettlement parts A & B to improve their welfare and promote a clean and healthy environment.

It is heart-warming to note that our collaboration with the Robb Foundation to provide health screening for children within the environs of the Bui Generating Station was a great success.

# **Distinction Awards**

BPA received several awards in recognition of our outstanding performance in 2022. Amongst these are the prestigious Eco-Innovation Award which was received at the Ghana Energy Awards in recognition of BPA's action toward climate change mitigation through the Forest Resources Enhancement Program (FREP). Our focus on occupational health, the environment, employee and stakeholder safety and security were also recognized at the Health, Environment, Safety and Security (HESS) awards in June 2022 where we were awarded with Five (5) prestigious awards as follows:

- · Best Company in Employee Health & Wellbeing Initiatives,
- · Best Company in Employee Security & Management,
- · Best Company in Environmental Management Practice,
- · Sustainability & Operational Excellence Awards, and
- Best Company in HESS Compliance & Monitoring.

#### Other Awards include:

- Energy Company of the Year (Renewable)
- · Eco-Innovative Business of the Year
- CEO of the Year (Power)
- · Outstanding CEO of the Year (Public Sector) Hon. Samuel Kofi Ahiave Dzamesi
- · Top 100 most Influential Leadership
- · Personality of the Year Hon. Samuel Kofi Ahiave Dzamesi
- Outstanding Public Sector Enterprise of the Year
- · Industry leaders (Power) Award
- Ghana top 100 brand across Industry
- · Community Impact brand of the Year
- · Corporate Affairs Team of the Year

We congratulate our staff, management, and the Board of Directors for their contributions towards the heights attained by BPA. Our success could not have been complete without the oversight from the Ministry of Energy, State Interests and Governance Authority, Public Utilities and Regulatory Commission, Energy Commission etc. We are grateful for your support.

# Outlook for 2023

Looking into the year 2023, our goal is to fully overcome our mounting receivables challenge and transform our business model to establish ourselves as the leaders in renewable energy in the subregion. It will be a daunting endeavour but we are determined to move BPA to the next level and demonstrate to all stakeholders that we are up to the task.

It will also require us to maintain our focus on our impressive performance, source and secure investment partners with optimal solutions and capital to advance our solar projects in a way that is both safe and environmentally responsible. The year ahead will be a true test of our determination and commitment to this noble cause. Let's work together to make it a success!

# **Our People**



Figure 7: The CEO with some members of staff

Employees' success is heavily influenced by the visionary leaders they observe and learn from and that shapes their style and approach.

# **GENDER RATIO OF EMPLOYEES**

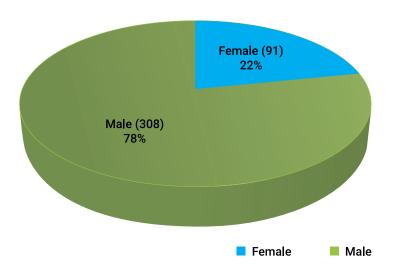


Figure 8: Gender Ratio of BPA Employees

BPA is a company that values its employees and creates a positive work environment. The company invests in employee growth and development, maintains a safe and healthy work environment, and has a near-zero annual staff turnover rate. BPA is confident that its employees will continue to grow and develop and plans to continue to make its workplace conducive to employee growth and development.

# **Our Ambitions and Goals**

We are devoted to increasing shareholder value by making sound business decisions and promoting open communication among management, the Board of Directors, and other stakeholders. We remain committed to adhering to the principles of good corporate governance with the aim to reduce business risk, maximize value, and make efficient and sustainable use of our resources. Our goal is to benefit our shareholders, employees, and all other stakeholders.

## **Shareholder Matters**

BPA was established by an Act of Parliament, Bui Power Authority Act, 2007 (Act 740) with a mandate to plan, execute and manage the Bui Hydroelectric Project. BPA's mandate was amended by the Bui Power Authority amendment Act, 2020 (Act 1046) in December 2020 by the Parliament of Ghana to enable BPA to develop renewable energy, any other clean energy alternatives and provide for related matters in line with Government's commitment to increasing renewable energy in Ghana's energy mix.

BPA is fully owned by the Government of Ghana. The Government implements its policies and programmes in the Authority through the Ministry of Energy, State Interests and Governance Authority (SIGA) and the Board of Directors of BPA.

# Enterprise Risk Management

Risk management is fundamental to organizational control and a critical part of providing sound corporate governance. In compliance with the requirements of the Public Financial Management Act, 2016 (Act 921) (PFMA), Bui Power Authority in 2020 laid the necessary foundation to enable it institutionalize risk management.

The Authority has established an ERM process to identify and manage risks. The ERM Committee oversees the process to identify the Authority's most pressing risks and emerging risks. Risk management is an ongoing process, and the Authority is committed to giving it the needed attention and monitoring.



Figure 9. Bui Power Cenerating Station at Night

# DELIVERING COMPETITIVE RENEWABLE ENERGY

In line with BPA's renewed mandate for the development of Renewable Energy (RE) projects, BPA is investing in renewable energy, with a focus on solar PV. The Authority has established a roadmap for the development of these projects, which includes signing Non-Disclosure Agreements (NDAs), conducting due diligence, and finalizing financial and technical terms of reference. Developers will be engaged on an EPC+F model with the option to undertake O&M of the plant. The Authority achieved a generation of 78.009GWh in 2022 with a total installed PV plant capacity of 51.608MWp. Additionally, the following Renewable Energy projects are at various levels of completion:

- 100MW HSH Plant (Phase 2)
- 50MWp Solar Plant (Phase 3)
- 4MWp Floating Solar

BPA maintains its solar PV systems with a strict maintenance regime to ensure that they operate efficiently and effectively. This includes cleaning of panels, managing vegetation, and inspecting the wiring and connections. Regular maintenance is essential to extend the lifespan of solar PV systems and prevent costly repairs or replacements.

Furthermore, BPA has initiated processes for Carbon Credit accumulation following the rising demand for Carbon Credits on the world Carbon trade market.

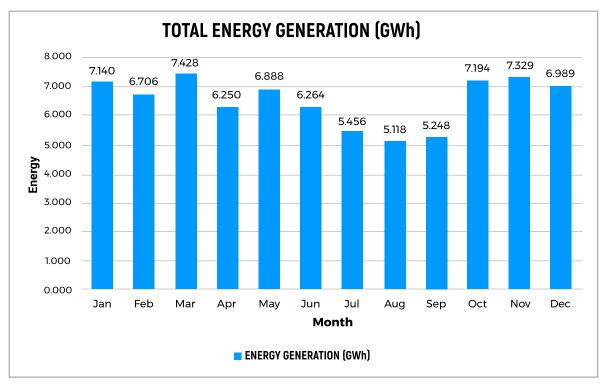


Figure 10: Total Energy Generated from January 1, 2022 - December 31, 2022

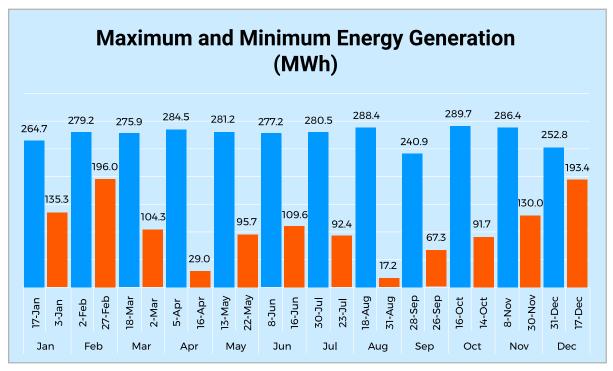


Figure 11: Max & Min. Energy generation for Good & Bad days

# **ENERGY GENERATION**

Electricity Supply to National Integrated Transmission System (NITS)

BPA's generating facilities operated well in 2022, with record-breaking electricity generation of 1,551 GWh representing a 50% increase on the prior year.

Month Monthly Electricity Generation (GWh)							
	Bui Hydro	Bui Solar PV	Tsatsadu Hydro	Total			
Jan-22	74.96	7.03	0.001	81.99			
Feb-22	103.12	6.60	-	109.72			
Mar-22	126.53	7.31	-	133.84			
Apr-22	56.34	6.15	-	62.49			
May-22	82.43	6.78	0.005	89.22			
Jun-22	42.31	6.17	0.008	48.49			
Jul-22	61.10	5.37	0.025	66.50			
Aug-22	79.44	5.04	0.021	84.50			
Sep-22	210.95	5.17	0.026	216.15			
Oct-22	295.07	7.08	0.026	302.18			
Nov-22	192.32	7.21	0.025	199.56			
Dec-22	149.71	6.88	0.014	156.60			
Total	1,474.27	76.77	0.151	1,551.19			

Table 3: Monthly Energy Generation from BPA Sources for 2022



Figure 12. The generator floor showing the three Units (i.e., unit 1, unit2 and unit3)

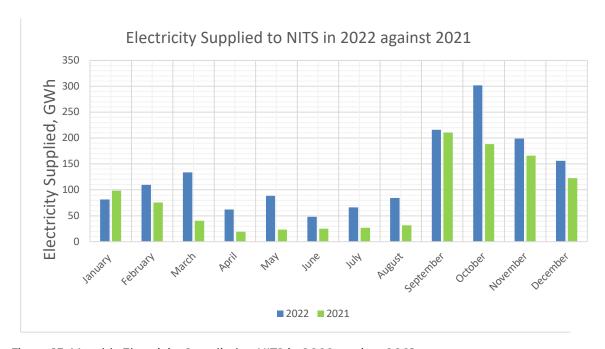


Figure 13: Monthly Electricity Supplied to NITS in 2022 against 2021

The Bui Main Hydro Plant and Turbinette recorded peak loads of 400 MW and 3.9 MW respectively, while the Bui Solar PV Plant recorded a peak load of 45.99 MW. However, there was no Synchronous Condenser Operation (SCO) at the Bui Generating Station for the period. Station consumption and losses was 4.05 GWh.

# Performance Statistics for Bui Hydro Generating Units

BPA maintained a strong consolidated availability rates of 92.24% on its generation units and 84.91% on the Turbinette. However, with the swift response from our maintenance team, overall downtime was maintained at a 1.85% which was within the annual target rate of 2%.

#### Level "A" Maintenance

As part of the T&M Agreement, Sinohydro Corporation Limited continued with the coordination of the total disassembling of the Plant and Equipment which culminated in the Level 'A' maintenance on the Units and afforded the Operations & Maintenance (O&M) Staff the opportunity to improve on their technical knowledge on the plant and generate a detailed database of required spares parts from the disassembled Plant and Equipment.



(Turbinette) which included the dismantling, inspection, cleaning and repair works, assembling and pre-commissioning checks of the various Unit components was successfully completed.

The Level 'A' Maintenance on Unit 1 and Unit 4

Figure 14: Painting of Spiral Case

The Unit was finally commissioned according to industry standards and the monitoring and test records gathered during the commissioning period were analysed to ensure the results conformed to as-built records.



Figure 15: Installation of new stem housing





Figure 16: Setting of run-out test



Figure 17: new stator wedge installed



Figure 18: Stator wedge not in place



Figure 19: 90% Load rejection governor curve

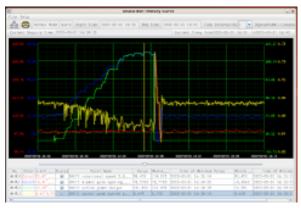


Figure 20: 90% Load Rejection Curve Performed

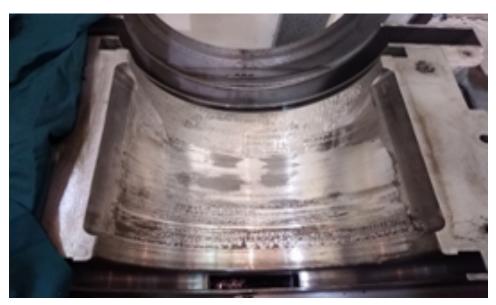


Figure 21: Abrasion on the radial bearing surface



Figure 22: Air admission pipe (worn)



Figure 23: Stainless steel pipe (welded)



Figure 24. Swearing in of the BPA Board of Directors - 3rd September 2021.

# STATEMENT FROM THE BOARD CHAIR

It is with immense pleasure that I present to you on behalf of the Board of Directors, the performance of Bui Power Authority (BPA) for the year 2022. The year was a very difficult one for many institutions including BPA.

However, with determination and resilience, we succeeded in making positive gains amidst the challenges associated with global economic hardship.

I shall highlight a few key activities that were undertaken in the year under review.

# **Operational Maintenance**

Operations of the Authority's Generating facilities in 2022 were generally impressive. Total energy generated from BPA's generating sources in the year 2022 was 1,551.19GWh, 1,474.27GWh from Hydro, 76.77GWh from Solar PV and 0.151 GWh from the Tsatsadu Micro Hydro Plant. This quantum of energy (1,547GWh) is the highest ever supplied to the National Interconnected Transmission System (NITS) since the inception of commercial operations in 2013.

The recorded peak loads for the Bui Main Hydro Plant and the Turbinette during the year were 400MW and 3.9MW respectively. The recorded peak load for the Bui Solar PV Plant was 45.99MW. The planned generation for the year was 990GWh but the Authority ended the year having supplied 1,547GWh to the NITS. The higher-than-projected energy generated in 2022 primarily resulted from the increased dispatch from the System Control Center due to system demand and from excessive water inflows into the reservoir. Specifically, Cumulative inflow of 156% of LTA (Long Term Average) was received.

The Bui Reservoir level at the beginning of 2022 was 177.58 masl. The reservoir elevation at the end of 2022 was 179.50 masl, which was 11.5 m above the minimum operating level (168 masl). The high inflows (about 18% more than the previous highest reading ever recorded at a hydrometric river gauging station located at Chache in the Savannah Region) allowed Bui Power Authority the opportunity to test the spillway gates in anticipation of their use as per the standard operating procedure during the wet season. Each of the spillway gates was tested at full gate opening from October 12 to 21, 2022. The maximum Bui Reservoir Level attained during the inflows of the wet season was 182.73 masl which occurred on October 26, 2022.

Underpinning the sterling operational statistics of the generating units at the BGS in year 2022, was the robust maintenance schedule that was strictly followed, to ensure the supply of quality and reliable power to the NITS (National Interconnected Transmission System. During the year, availability factors for 54G1, 54G2 and 54G3 were 84.14%, 94.40% and 98.17% respectively. The BGS plants, in total, achieved a consolidated availability of 92.24% with the 54G4 (Turbinette) scoring 84.91% availability.

#### Financial Health

For the year 2022, the Authority generated 1,547GWh of energy, resulting in a 44% (\$48,511,898) increase in revenue over the previous year, when the Authority generated 1,156GWh and made \$110,290,403 in revenue.

The increase in revenue was primarily due to high dam water levels, increased demand for power, and prudent cost control methods implemented by management, which enabled the Authority to achieve a profit after tax of \$79,218,134 for the year, compared to \$40,220,491 in 2021, representing an increase of 97%.

BPA's net worth increased by 15% in 2022, from \$540,889,778 in 2021 to \$620,107,912 in 2022.

#### Renewable Energy Development

In the year 2022, the Authority continued to expand its solar energy agenda by acquiring sites at Yendi and Buipe for solar energy development. A 50MW Solar PV Plant was awarded at the Yendi site and feasibility studies are being conducted at the Buipe site with some foreign investors.

The 100MWp Solar Plant at the Bui enclave progressed remarkably and 40MWp is due to be completed in 2023.

Besides solar, the Authority also explored the possibility of generating wind energy onto the national Grid. In this regard, the BPA engaged the Ghana Ports and Harbours Authority (GPHA) to pilot a 3.6 MWp wind power plant at the Tema port enclave. The outcome of this pilot project would serve as a guide for BPA in its pursuit to develop wind power in the country.

The three western rivers namely the Pra, Tano and Ankobrah, which the Authority has been mandated to develop and harness their hydro potential were not left out of the picture. The Authority commenced the procurement process to engage a credible consultant to undertake feasibility studies on the rivers to improve the database for an informed decision on the best technology to deploy and the generation capacities that could be derived from the rivers. The studies are expected to be conducted and completed in 2023.

# **Industrial Relations**

The industrial relations front of the Authority was anchored during the period because of the continuous engagement between Management and the workers, and the commitment of Management 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 measures and incentives to retain the competencies which have been developed over the years. In line with this objective, the Authority commenced the construction of eight, three-story, two-bedroom apartments for staff at the Bui Generating station to provide decent accommodation for our hardworking staff. Upon completion, ninety -six, two-bedroom apartments would be added to the already existing accommodation.

#### Land Administration

E.I. 70 as amended acquired and entrusted land measuring approximately 455,912 acres for BPA to manage. This is a huge mandate that must be executed with no excuses. With the growing challenge of encroachment and illegal mining (Galamsey), the Authority continued to monitor the acquired land through land, aerial and lake patrols. Aerial patrols were carried out at inaccessible areas such as the Lakeside areas and further away locations through Remote Sensing techniques such as the use of drones and image processing software.

The Authority expanded its Forest Resources Enhancement Program (FREP) by 1,000 acres of land during the raining season. By the end of the year 2022, a total of over 1,422 acres of plantations had been established in addition to the natural forest being conserved around the Bui Enclave with tree species such as Mahogany, Teak, Cascia, Gmelina, Dawadawa, Neem, Tamarin, Shea, Rosewood, and assorted fruit trees.

# **Corporate Social Responsibility**

The Authority continued to execute its Corporate Social Responsibility (CSR) in line with its CSR Policy. The CSR covered activities including the rehabilitating of dilapidated school buildings at Bongase, the construction of an astroturf facility in the Banda district, construction of a 20-seater toilet facility at Tsiaveme, scholarship schemes for brilliant students in the Bui Communities, harnessing of football talents in the Bui Communities and various initiatives to support the livelihood of Project Affected Persons.

#### **Awards**

In recognition of the Authority's performance, BPA won five (5) awards at the fourth edition of the Health Environment Safety and Security (HESS) Awards. The Authority was also awarded CEO of the Year in the Power Sector and Renewable Energy Company of the Year at the prestigious Ghana Energy Awards among others.

# Challenges

The year presented its share of challenges in the country as a whole and the energy sector which impacted the Authority's operations. The financial debt overhang brought about by the inability of the Electricity Company of Ghana (ECG) to pay for power supplied to them continues to remain a key concern for the Authority. Despite substantial profitability, the Authority faces huge liquidity challenges which poses a threat to our operations, especially in the area of maintenance. There are several projects and programmes that the Authority would have wished to undertake in the year but had to shelve because of liquidity challenges. It is our expectation that ECG and BPA will work out a solution to reduce the debt overhang.

#### Conclusion and Appreciation

I conclude by expressing my profound gratitude to my colleagues on the Board for their support and leadership. I thank the management and staff of the Authority for their hard work and commitment to the positive gains of the Authority.

We assure the Government of Ghana and all stakeholders that the Board will continue to offer the needed direction and leadership for the Authority to attain its objectives for the benefit of all Ghanaians.

# **BOARD DIRECTORS**



**Hon. Kwesi Ameyaw CHEREMEH**Board Chairman



**Hon. Samuel Kofi Ahiave DZAMESI**Board Member and Chief Executive Officer



**Hon. Salifu SAEED**Board Member



Nana Ama Tima BOAKYE Board Member



**Hon. Paul TWUM-BARIMAH**Board Member



**Dr. Mrs. Rebecca Acquaah-ARHIN**Board Member



**Mr. Kwame Appia KYEI**Board Member



**Mr. Franklin Nana ADDAI**Board Secretary

# HIGHLIGHTS OF ENGINEERING DEVELOPMENTS



50MWp HSH Solar PV completed.

1MWp Floating Solar Completed

4MWp Floating Solar PV under development on the Bui reservoir.

100MWp land based Solar PV under development.

Dam Civil Infrastructure performed satisfactorily.



Delivered 42,768 working hours without any fatalities.

Young and dynamic Engineering Services workforce.



About 400 indirect Jobs were created for ongoing projects

# 250MWp Hydro Solar Hybrid Project

BPA has embarked on a 250MWp Hydro-Solar-Hybrid (HSH) Project in a joint effort between the BPA and potential developers to explore the opportunity of technical complementation between hydro generation and solar power production. The project will allow the Bui Generating Station to maintain its operations at peak time and system support at other times as may be required by the System Operator. It will further help to diversify Ghana's energy mix and provide reliable and affordable electricity to the country.

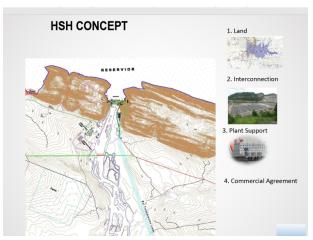


Figure 25: Hydro-Solar-Hybrid (HSH) Concept

On completion, the Bui Generating Station will still be capable of performing its normal evening-peak time operations and work together 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 plans to pursue this development through leveraging the experience of its engineers and Public Private Partnership models with potential developers. BPA will grant developers access to its switchyard facility and transmission assets for power evacuation.

Phase 1 which comprised of 50MWp of land based solar within the BPA enclave was completed in 2021. An additional 150MWp (phases 2 and 3) is under construction within the enclave.

The following are the detailed projects being undertaken under phases 2 and 3 of the 250MWp Hydro-Solar-Hybrid project:

- Solar PV Plant: This will be a 100MWp solar PV plant that will be located within the BUI enclave.
- Transmission Line: A new 225kV transmission line will be constructed to evacuate the power from the Solar PV Plant to the national grid.
- Switchyard: A new 225kV switchyard will be constructed to connect the Solar PV Plant to the transmission line.
- Other ancillary works: This includes civil works, electrical works, and environmental works.

BPA signed an Engineering, Procurement, Construction and Financing (EPCF) arrangement as follows:

- 100 MWp Solar PV Project Meinergy Technology Limited
- 50 MWp Solar PV Project Smart Fusion Trading Limited

These projects form part of BPA's 250MWp Solar Project and aims to increase the portion of variable renewable energy in Ghana's Energy mix to improve the reliability of the power supply in the sector.

As at the end of 2022, these projects were at 34.70% and 8% completion rates respectively.

# Solar PV Development in the 5 Northern Regions

BPA is currently exploiting the opportunity to harness the vast solar radiation resource in the Northern parts of the country by the expansion of existing substations owned by GridCo. Energy from the Solar PV plant is expected to be injected into the National Interconnected Transmission System (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.

The Authority has earmarked six (6) sites (Bawku, Yendi, Tumu, Sawla, Buipe and Zebilla) for various projects. A 50MWp Solar PV project is currently ongoing in Yendi in the Northern Region. The plant, when completed, will aid the alleviation of power issues in the immediate environs of Yendi as well as in the Northern parts of Ghana.

### Development of Small and Mini-Hydro Plants

Small Hydro plants are hydroelectric power plants with installed capacities of less than 10MW. Unlike conventional reservoir-based hydroelectric power schemes which usually inundates large portions of land, small hydroelectric power plants are more environmentally friendly and usually incorporate run-off-river schemes with little or no pondage. They are typically used to supply electricity to remote and rural areas where it may be difficult or expensive to connect to the national power grid.

Bui Power Authority recognizes the potential of small and mini-hydroelectric plants to provide reliable and sustainable electricity to remote and rural areas in Ghana, where grid connections may be difficult or expensive to establish. The development of these plants would contribute to the government efforts to increase electricity access and reduce the reliance on fossil fuels in the country.

Located on the Tsatsadu falls, the Tsatsadu Generating Station (TGS), which was completed in 2020, is the country's first mini-hydropower plant. It has a capacity of 45kW with plans for an upgrade to 120kW.

BPA plans to leverage on the experiences of the TGS to replicate similar small and Mini-hydro plants in areas such as Wli Waterfalls in the Volta Region.

# Hydroelectric Development

Bui Power Authority under the direction of the Ministry of Energy, is facilitating the development of other hydroelectric dams in Ghana to support the country's energy needs and promote sustainable development. The Authority recognizes the potential of hydroelectric power to provide clean reliable electricity and believes that the development of new hydroelectric points would have significant economic and social benefits, including increased access to electricity, job creation, and the promotion of local industries.

The Government of Ghana represented by the Ministry of Energy entered 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 Employers Representative to spearhead the development of the Project. The appointment was based on BPA's experience with regards to the successful construction and operationalisation of the Bui Hydroelectric Project.

The Project was developed to the Level 1 Design Drawings and Contract was signed in October 2014.

The key highlights of the project are:

- To produce an average of 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 Coast line or through the Akyempem Substation by constructing 54 km, double-circuit toucan lines from the Power Station to Akyempem Substation.
- CWE undertook preliminary studies in reducing the dam height to reduce the project inundation area and preserve the surrounding forest and farming resources.

# Infrastructure Development

As part of its mandate, the Bui Power Authority undertakes infrastructure projects at the Bui Generating Station to protect the dam infrastructure and ensure its long-term stability and safety. These infrastructure projects are designed to support the continued efficient and reliable operation of the Bui Generating Station and maintain the structural integrity of the dam.

In 2022, BPA embarked on a Rockfall Protection and Slope Stabilization project to stabilize the left abutment of the dam and mitigate other risk of falling rocks endangering life and property. It must be noted that, during the construction of the Bui Generating Station in 2007, several areas of the abutments within the Bui Gorge were cleared to provide access to various areas to construct the Bui Dam.

After completing the Bui Hydroelectric Project in 2013, several of these areas were engineered to prevent loose rocks from falling from higher elevations up to 260 masl onto the platform where most of the Dam infrastructure are located.

After 13 years of exposing these surfaces, internal parameters (rock type, discontinuities, slope morphology) and external influences (weather, erosion, human activities) have contributed to defeating some of the protection measures leading to a high risk of rockfall at the BGS. At the end of 2022, the project was about 72% complete.

# **Annual Hydrology Report**

The Bui Reservoir commenced 2022 with a year-start elevation of 177.58 masl. The Reservoir bottom-off at elevation 170.34 masl, peaked at elevation 182.73 masl and ended the year with a year-end elevation of 179.50 masl.

The graph below shows the Bui reservoir surface level for 2022.

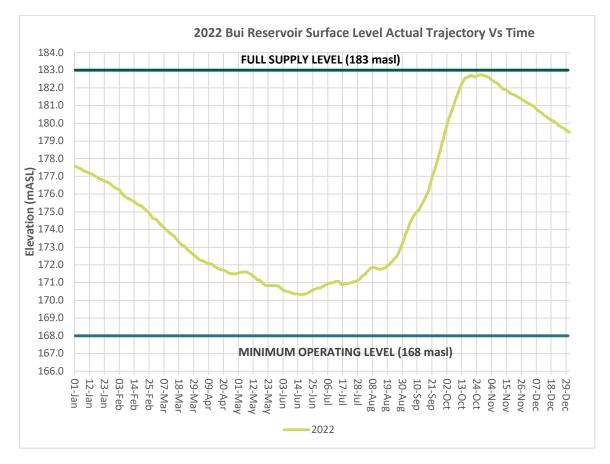


Figure 26: 2022 Bui Reservoir Surface Level Actual Trajectory vs Time

#### Performance of Dam Civil Infrastructure

- The analysis of the Dam instruments indicated a satisfactory performance by the dams, powerhouse, and appurtenant structures.
- The 2022 Low Water Level and High-Water Level Inspection was conducted between July 21 - 29 2022 and October 24 - 28, 2022 respectively. The essence of the periodic visual and sounding inspection exercise was to assess the safety of the Dams and Auxiliaries by identifying early triggers to avert the possibility of catastrophic failures. The exercise was successfully carried out in compliance with best Dam Safety Industry practices.

# CORPORATE SOCIAL RESPONSIBILITY (CSR)

The Authority's Corporate Social Responsibility (CSR) policy aims to enhance its partnership with the communities by prioritizing and supporting these areas in the implementation of its CSR programs. In view of our focus on strengthening existing relationships, BPA seeks to extend its efforts beyond just meeting our mandate to create a positive impact on society and be committed to extending our CSR initiatives to other areas that align with its mission and values.

BPA's CSR focuses on Socio-Cultural Support, Education, Health/Medical, Sports, etc. The following are key highlights of CSR activities in 2022:

#### Socio-Cultural

- Support for technical assessment of Hydrometric Stations in the Black Volta Basin
- · Donation & Felicitations with the Traditional Authority of the Dagbon Trad. Area
- Mechanised Borehole Alavanyo Abehenease
- Mechanisation of Boreholes Four Resettlement Communities (Jama, Akanyakrom, Bator, Jama New Town).
- · Construction of Office Accommodation Banda Ahenkro

#### Education

- · BPA Scholarship Scheme
- Renovation of Bongasi Classroom Block
- · Donation of desks to school Teselima community

# Health/Medical

- · Sensitization on Massaging Heads of Babies with hot water and ointments
- · Surgery of Ishmael Obuu- Akanyakrom Resident.
- FOIC Menstrual Hygiene & Girls' Empowerment Program
- · Community Screening and Sensitization on Down Syndrome in the BGS Enclave

# **Sports**

- BPA Community Sports (Fun Games) Day
- · John Paintsil Football Talent Scouting Day

#### **Other Sectors**

- · Ghana Armed Forces: Establishment of Forward Operating base in Bui
- Chana National Fire Service: Refurbishment of a Freight Liner Fire Tender
- · Donation of Motor Bikes to the Ghana Police Service

# BPA Partners with Robb Foundation to Undertake Health Screening Within the Resettlement Townships



The BPA and Robb Foundation organized a health screening exercise for children in the communities surrounding the Bui Generating Station. The exercise was conducted in response to the ostracization of a child with Down Syndrome.

Over 1,000 children were screened for health abnormalities, and Robb Foundation also donated clothes and learning materials to the children. BPA donated GHS 20,000 to Robb Foundation in support of their work.

The health screening exercise was a success in raising awareness about Down Syndrome and other child disabilities, and in ensuring that all children in the community had access to quality health care.

The BPA and Robb Foundation are committed to continuing to work together to improve the health and well-being of children in the communities surrounding the Bui Generating Station











Figure 27: Various stages of medical consultation

# **BPA KICKS OFF TALENT DEVELOPMENT PROGRAM**

The Bui Power Authority (BPA) launched a talent development program in 2022 to discover and nurture talented young footballers in the Bui catchment area. The program was led by former Ghana international John Paintsil, who was at Bui for a week to scout for talents.

Five players were selected to join the John Paintsil Football Academy for a one-year period.

The BPA is committed to continuing the talent development program, and they hope to find even more talented footballers in the Bui catchment area in the future.



Figure 28: The Fantastic Five with John Paintsil

# Other CSR Activities

The Bui Power Authority (BPA) has been working hard to improve the welfare of the communities it serves. In 2022, the BPA donated waste bins to the communities, schools, and health facilities in Resettlement Part A & B, as well as the Alavanyo Traditional Area.

The BPA also constructed mechanized boreholes in Resettlement Townships A & B and the Alavanyo Traditional Area to provide a consistent supply of potable water. In addition, the BPA



Figure 29: Presentation of "My First Day at School" items to Bui School

donated snacks to kindergarteners on their first day at school in Bui and Jama Newtown primary schools. The BPA's efforts to improve the welfare of the communities it serves are greatly appreciated by the people.



Figure 30: Waste Bins donated to the Alavanyo Traditional Area







Figure 31: Mechanized boreholes being tested



Figure 32: Mechanized borehole in use



Figure 33: Bui Chief Nana Kojo Wuo, flanked by BPA Dirs. Kuunifaa and Salifu in an address to the audience.

# **EXECUTIVE MANAGEMENT**



Hon. Samuel Kofi Ahiave DZAMESI Chief Executive Officer



**Dr. George TETTEY**Deputy Chief Executive Officer
Finance and Services



**Ing. Anthony Boye OSAFO-KISSI (MGhIE),**Deputy Chief Executive Officer of
Engineering, (Rtd)



**Ing. Samuel K. Ansah**Deputy Chief Executive Officer
Engineering Operations and Technical



**Ing. Samuel NIMAKO-BOATENG**Director Power Operations



**Mr. Pascal KANBONNABAH**Director Commercial Services



**Ing. Kwaku Sarpong AKOSA**Director Engineering Services



Mrs. Jemima FAYAH
Director Finance



**Mr. Wisdom Ahiataku-TOGOBO**Director Renewable Energy



Mr. Maxwell WUMBILLA
Director Estate



**Brig. Gen Martin Owusu-ABABIO (Rtd)**Security Coordinator

# OCCUPATIONAL HEALTH, SAFETY & ENVIRONMENT

The Bui Power Authority, for the second time, received Five (5) prestigious awards at the 4th edition of the Health, Environment, Safety and Security (HESS) awards, held in June, 2022 at the Movenpick Ambassador Hotel, Accra. The awards received were:

- · Best Company in Employee Health & Wellbeing Initiatives,
- · Best Company in Employee Security & Management,
- · Best Company in Environmental Management Practice,
- · Sustainability & Operational Excellence Awards, and
- Best Company in HESS Compliance & Monitoring.

The HESS award is designed to identify, publicly recognize and celebrate outstanding companies for exceptional performances and innovations focused on occupational health, the environment, employee and stakeholder safety and security.



Figure 34: HESS AWARDS 2022

In addition to the above, the prestigious Eco-Innovation Award was received in recognition of BPA's efforts toward climate change mitigation action through the Forest Resources Enhancement Program (FREP), at the 2022 Ghana Energy Awards held in November, 2022 at the Labadi Beach Hotel, Accra,



Figure 35: BPA received Eco-Innovation Award from Ghana Energy Awards

# Preparedness and response to coronavirus (covid-19) pandemic

As part of measures to prevent contagious diseases within the Authority, BPA continued to monitor and implement the Preparedness and Response Plan as part of the Authority's Management Systems. Despite the decline of COVID-19 infections in the country, hygienic practices were still being encouraged.

BPA regularly disinfected facilities at the BGS Plant, Turbinette, Guesthouse, Vehicles etc against viral, bacterial, and fungal infections.

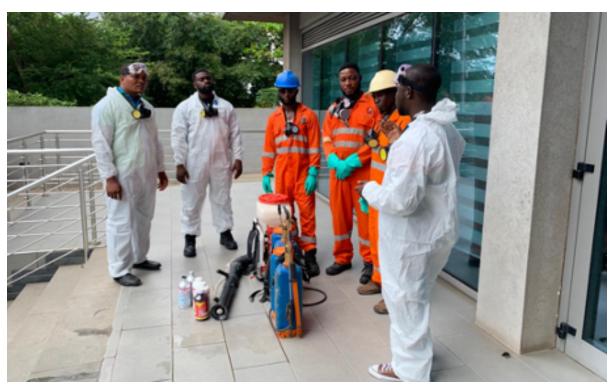


Figure 36: OHSE Briefing prior to the Disinfection Exercise at BPA Heights

# Operation of BPA Hospital at the BGS

The Bui Power Authority (BPA) engaged the services of New Leaf Hospital (NLH) to operate the BPA Hospital at the Bui Generating Station (BGS). The Chief Executive Officer (CEO) of BPA, Mr. Samuel Kofi Ahiave Dzamesi, paid a working visit to the hospital and was impressed with the set up and primary health care being provided. He presented medical equipment, drugs, and other supplies to the hospital on behalf of the Staff and Board of Directors. The CEO urged the staff of the hospital to maintain high standards in their service delivery at all times.





Figure 37: Presentation of Medical Items and tour of the BPA Hospital by the Chief Executive Officer

#### Other OHSE Activities

The Bui Power Authority (BPA) has a comprehensive first aid program in place. First aid kits are regularly inspected and replenished, and anti-snake venom is maintained on site at the BPA hospital and the Bui CHPS Compound. The BPA ambulance service also provides support to several health facilities in the BGS enclave, and responded to 55 emergencies in 2022.

In addition, the BPA administers Ivermectin, a WHO-approved prophylactic against Onchocerciasis (river blindness), to its staff. This initiative is carried out in conjunction with the Banda District Health Directorate of the Ghana Health Service.



Figure 38: Inspection of First Aid Items



Figure 39: Routine Fumigation Session

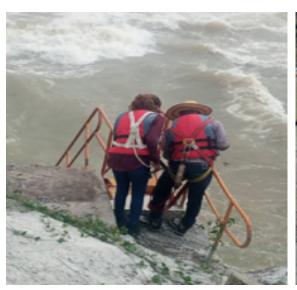




Figure 40: Staff In their PPE for downstream condition monitoring during the Wet Test

The Bui Power Authority (BPA) conducted a successful spillway radial gate test in 2022. The test was conducted according to industry standards and was designed to ensure the safety of the dam, the environment, and downstream areas.

BPA has also established a fire station at the Bui Generating Station (BGS) in collaboration with the Ghana National Fire Service (GNFS). The fire station has 16 personnel, consisting of two officers and fourteen other ranks. A dual-purpose fire tender has also been stationed at the BGS.



Figure 41: CEO inspecting guard of Honour from GNFS Deployed





Figure 42: The GNFS received at the BGS

# Forest Resource Enhancement Program (FREP)

As part of efforts to improve the conservation of the forest within the BPA enclave, the Authority expanded its Forest Resource Enhancement Program by 1,000 acres. By the end of 2022, over 1422 acres of trees had been planted in addition to the natural forest being conserved. The Bui Power Authority (BPA) attended COP-27 to showcase its climate change initiatives and to engage with potential partners and donors. The BPA presented its work on energy transition to net zero emission through renewable energy deployment and climate change adaptation and mitigation actions through the flagship Forest Resources Enhancement Program (FREP). The BPA also networked with donors and multinational companies to solicit support for its climate change initiatives.





# BPA FREP Activities during the year 2022





Figure 43: Creation and supervision of fire belts by the grader behind Zone





Figure 44: Contractors undertaking line and pegging on the field





Figure 45: The OHSE and GNFS helping put out wild bush fires.

# BPA Climate Change Issues at the COP - 27, Sharm El Sheikh, Egypt

The Bui Power Authority (BPA) attended COP-27 to showcase its climate change initiatives and to engage with potential partners and donors. The BPA presented its work on energy transition to net zero emission through renewable energy deployment and climate change adaptation and mitigation actions through the flagship Forest Resources Enhancement Program (FREP). The BPA also networked with donors and multinational companies to solicit support for its climate change initiatives.



Figure 46: Agric minister, CEO and staff of BPA at the COP-27 in Egypt



Figure 47: The second lady of Ghana, Energy Minister, Board members and Staff of BPA at the COP-27 in Egypt

#### **BPA ESTATES**

BPA efficiently manages its facilities to provide a secure, operational, and comfortable work environment for its staff. In 2022, BPA adhered to its strict maintenance schedule to ensure the facilities were safe, clean, and functional for its staff. Additionally, the BPA estates ensured that staff and other dignitaries visiting the Bui Generating Station (BGS) received prompt and adequate catering services.

#### **SECURITY**

The security unit at BGS has well trained personnel who have been equipped with modern security gadgets to help them carry out their work productively. Illegal mining carried out along the banks of the Black Volta still pose a threat to BGS. The Ghana Armed Forces and the Ghana Police provided the needed support to quell the onset of Galamsey activities. Also, the Ghana Fire Service supported in dealing with bush fires as they occur. Other allied agencies that support us are the Game and Wildlife, Ghana Immigration Services, and the Bureau of National Investigation.

#### BUSINESS ETHICS AND ANTI-CORRUPTION

BPA is committed to zero tolerance for corruption and unethical business practices. We have several policies and procedures in place to promote business integrity, including:

- Maintaining high ethical standards in all business activities.
- Instituting robust internal controls to detect and punish bribery and corruption.
- · Creating an organizational culture that values honesty, integrity, and transparency.
- Educating employees on how to detect corruptive business activities and how to report them.
- Conducting a risk assessment of potential partners to limit governance-related risk.

BPA's commitment to integrity is essential to our success as a company. By upholding these standards, we can build trust with our stakeholders and ensure that our business is conducted in a fair and ethical manner.

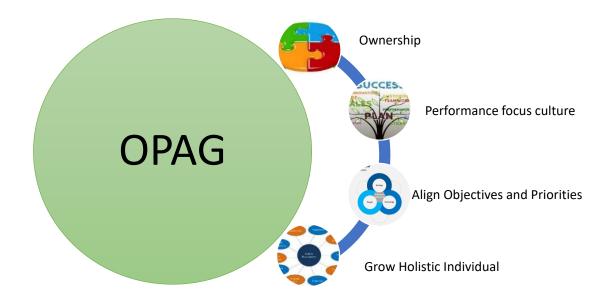
#### RESPONSIBLE PROCUREMENT

BPA is committed to responsible procurement, which means conducting procurement activities in an ethical and sustainable manner. The procurement unit upholds the foundational principles of responsible procurement, including integrity, transparency, professionalism, the pursuit of excellence, teamwork, avoidance of corrupt practices, promoting SME success, encouraging local content participation, and minimizing environmental risks and promoting environmental sustainability. By doing so, the BPA can help to eliminate corruption, environmental degradation, and other unethical behaviour, and promote ethical and sustainable practices in its supply chain.

#### **NUCLEAR POWER GHANA**

Nuclear Power Ghana (NPG) was established in 2018 as the Owner/Operator of Ghana's first proposed Nuclear Power Plant and was duly registered under the Companies Code of Ghana as a Limited Liability Company in July 2019 with Ghana Atomic Energy Commission (GAEC), Volta River Authority (VRA), and Bui Power Authority (BPA) as shareholders.

NPG's strategic goals are built on four main pillars (OPAG).



The Ghana Nuclear Power Programme development is based on guidance from the International Atomic Energy Agency (IAEA) on developing a national infrastructure for nuclear power.

The Government of Ghana, in July 2022, issued a declaration on the inclusion of nuclear technology into Ghana's power generation mix and reiterated Government and the people of Ghana's commitment to peaceful uses of nuclear technology. NPG is in the process of site selection and characterization and partnership with a strategic and reliable vendor to develop and implement the nuclear power project.

# FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2022

# **GENERAL INFORMATION**

**Board of Directors** Hon. Kwasi Ameyaw-Cheremeh

Hon. Samuel Kofi Ahiave Dzamesi

Dr. Mrs. Rebecca Acquaah-Arhin

Nana Ama Tima Boakye

Kwame Appia Kyei

Hon. Paul Twum Barimah

Hon. Salifu Saeed

Chairman

Member- CEO

Member

Member

Member

Member

Member

Registered Office No. 11 Dodi Link,

Airport Residential Area

Accra, Ghana

**Auditor** Donaldy Associates

Chartered Accountants 3rd Floor, House of Excellence Annex Harper Road, Adum

Kumasi

**Solicitor** Kwabena Asare Atuah ESQ

Henewa Chambers

H/No. D 47/2

Dominase Sunyani

Bono Region

**Bankers** Zenith Bank Ghana Limited

Ecobank Ghana Limited Agriculture Development

Bank

Ghana Commercial Bank

Fidelity Bank Prudential Bank First Atlantic Bank

# **CORPORATE GOVERNANCE OVERVIEW**

Bui Power Authority is committed to the principles and implementation of good corporate governance in accordance with the principles and practices in the Corporate Governance manual for Governing Boards/Councils of the Ghana Public Service.

The objectives of the Authority's corporate governance are:

- i. To recognize the valuable contribution that it makes to long-term business prosperity;
- ii. To promote the interest of stakeholders by enhancing performance and accountability;
- iii. To promote and maintain public trust and confidence; and
- iv. To adopt standard accounting practices to ensure sound internal control to facilitate the reliability of the financial statements.

These objectives have been articulated in a number of corporate documents, including the Bui Power Authority Act, 2007 (Act 740), board charter, rules of procedures for boards, a code of conduct for directors, and rules of business ethics for staff.

#### The Board of Directors

The board is responsible for setting the Authority's strategic direction, leading and controlling the institution, and monitoring the activities of management. As of 31 December 2022, the board of directors of Bui Power Authority consisted of six (6) Non-Executive Directors and one (1) Executive Director in compliance with section 2 of the Bui Power Authority Act, 2007 (Act 740). The board members, except the Chief Executive Officer, are independent of management and free from any constraints which could materially interfere with the exercise of their independent judgement. The board members have wide experience and in-depth knowledge in management, industry, technology, and financial markets which enables them to make informed decisions and valuable contributions to the Authority's progress. The Chief Executive Officer is a separate individual from the Chairman who implements the strategies and policies adopted by the board. The board met four times (4) times during the year, which meet the minimum required meetings of the Corporate Governance manual for Governing Boards/Councils of the Ghana Public Services and section 4 of the Bui Power Authority, 2007 (Act 740).

Schedule of Board meetings held in 2022 Attendance at the meetings is as follows:

Member	Board Meeting
Hon. Kwasi Ameyaw - Cheremeh	4/4
Hon. Samuel Kofi Ahiave Dzamesi	4/4
Dr. Mrs. Rebecca Acquaah-Arhin	4/4
Nana Ama Tima Boakye	3/4
Kwame Appia Kyei	3/4
Hon. Paul Twum Barimah	3/4
Hon. Salifu Sa-eed	4/4

Financial Statements 31 December 2022

The board has the overall responsibility of the Authority, including approving and overseeing the implementation of the strategic objectives, risk, strategy, corporate governance, and corporate values.

The board is responsible for appointing and providing oversight of senior management and ensures a well-structured and rigorous selection process in line with the fit and proper directive in place.

#### The Board and its committees

The board is accountable for the long-term success of the Authority and it is responsible for ensuring leadership, approving strategy, and ensuring that the Authority is suitably resourced to achieve its strategic aspirations. In doing so, the board considers its responsibilities, and the impact of its decisions on its stakeholders including, employees, customers, suppliers, the environment, and the communities the Authority operates in.

The board also delegates certain responsibilities to its committees to ensure its independent oversight. In addition, the board also delegates authority for the operational management of the Authority to the chief executive officer and management in respect of matters which are necessary for the day-to-day running of the Authority.

The board remains very diverse with a distinctive mixture of backgrounds, experience, and skills. Risk and governance, government and stakeholder relationships, strategy and budget, financial performance oversight, business development, and people were some of the key activities the board focused its time on during the year as it provided guidance to management in steering the Authority.

# **Board roles and key responsibilities:**

#### **Chairman**

The chairman is responsible for leading the board and its overall effectiveness and governance, leading in evaluating and monitoring compliance with the Authority's policies and governance processes, promoting a high standard of integrity, and ensuring effective communication between the board, management, and other stakeholders.

#### **Chief Executive Officer**

The chief executive officer is responsible for managing all aspects of the Authority's businesses, developing strategies in conjunction with the chairman and the board, and leading its implementation.

Financial Statements 31 December 2022

#### **Board of Directors**

The board enquires about the success of the Authority by setting the strategic direction, establishing the risk appetite, and continuously monitoring and improving the board's performance.

#### **Board Committees**

The board made a conscious decision to delegate a broader range of issues to the board committees, namely finance, audit, technical, resource and environment, and general services committees. The linkages between the committees and the board are critical for the smooth running of the Authority. The board duly received minutes and updates from each of the committee's meetings throughout the reporting period. The Authority has an effective mechanism in place to ensure that there are no gaps or unnecessary duplication between the remit of each committee. The main board also determines the terms of reference for all subcommittees and they report back to the board.

#### **Finance Committee**

The finance committee is mandated to assist the board in providing strategic direction for the Authority and see to the implementation of the Authority's strategy in relation to finance and procurement-related matters. It also reviews the financial, operational, and business performance of the Authority and makes recommendations to the board on ways to improve the performance of the Authority.

The Committee assesses the financial performance of the Authority, advice on investment, monitor and manages the impact on the Authority's liquidity of significant income and expenditure items, recommend changes to the financial policies and controls, review the Authority's annual budget and makes recommendations for the board's approval, financial forecasts, and annual or interim financial statements and monitor operational financial performance against business plan among others. The Finance committee is made up of members who are non-executive directors.

#### **Audit Committee**

The committee is made up of two (2) non-executive directors and three (3) external members appointed in line with the Public Financial Management Act, 2016 (Act 921). The audit committee is mandated to assist the board to discharge its responsibilities of safeguarding the company's assets, maintaining adequate accounting records, developing and maintaining effective systems of internal control, providing oversight of the independence of the financial reporting process and objectivity of the external auditor, internal financial process and monitor the Authority's compliance with applicable regulations and legislation. The Committee provides a report at each meeting of the board.

#### **Resource & Environment Committee**

The resource & environment committee has oversight responsibilities on behalf of the board to advise on environmental issues and usage of the acquired land. The roles of this committee include but are not limited to the following: to propose ways in which the Authority can foster an increased awareness of environmental issues within the Bui enclave, advise on environmental-related policies and activities of the Authority on behalf of the Board to ensure that the Authority is in compliance with the appropriate laws and legislation to share and adopt best practice on environmental issues. The resource & environment committee is made up of members who are non-executive directors.

#### **Technical Committee**

The technical committee is responsible for advising on operating, maintenance, and project activities. The committee assists the Board in fulfilling its obligations and responsibilities by engaging in discussions related to the technical aspects of the operations of the Authority to aid the board to have informed technical knowledge. The committee also oversees on behalf of the Board the setting and delivery of the technology and operations strategies and ensures these strategies support the Authority's business strategy. The technical committee is made up of members who are non-executive directors and provides a report at each meeting of the board.

#### **General services committee**

The role of this committee includes but is not limited to the following: oversee and review the implementation of the Authority's workforce strategy to ensure it aligns with the vision, mission, and values of the Authority; review and recommend to the board for approval any significant changes to the workforce strategy; advise on the Authority's corporate social responsibility strategies; provide guidance on the implementation of legal, human resources and corporate affairs policies. The General Services committee is made up of two (2) members who are non-executive directors and provides a report at each meeting of the board on their deliberations.

#### **Code of conduct**

As part of the Authority corporate governance practice, the board has imposed upon themselves a code of conduct which defines the personal conduct of members, relationship with the organization and its staff members, especially management, attendance and active participation at meetings by members, adherence of the oath of secrecy, oath of office and unauthorized disclosure of information.

# Recruitment, induction and training of new directors

Individuals selected to be members of the board have an appropriate diversity of skills and come from professional backgrounds necessary to provide the needed direction for the

Financial Statements 31 December 2022

Authority. All new directors to the board are provided with a letter of appointment stating clearly the terms which shall govern their appointment after all the necessary regulatory approvals have been received with respect to the changes. The term of the directors is governed by the provision of the law establishing the Authority. New board members participate in a comprehensive induction program covering the Authority's financial, strategic, operational, and risk management overviews.

# **Board qualifications and composition**

In accordance with the Corporate Governance manual for Governing Boards/Councils of the Ghana Public Services, all board members are qualified for the position and remain qualified through training for their positions. They have a clear understanding of their role in corporate governance and are able to exercise sound and objective judgement about the affairs of the Authority. They also possess, individually and collectively, appropriate experience, competencies, and personal qualities, including professionalism and integrity.

#### **Remuneration structure**

The directors receive fixed fees or allowances determined by the board in accordance with the prevailing guidelines issued by the Minister of Finance for serving on the board and its sub-committees.

# **Board performance evaluation**

The board hereby certifies that it has complied with the directives on board performance evaluation as stated in the Corporate Governance manual for Governing Boards/Councils of the Ghana Public Services.

# **Business strategy**

In the year under review, the board approved and monitored the overall business strategy of the Authority, taking into account the long-term financial interest of the Authority, its exposure to risk, and its ability to manage risk effectively. This was in line with the Corporate Governance manual for Governing Boards/Councils of the Ghana Public Services.

# **Risk management and internal controls**

The board has put an effective internal control system in accordance with the Public Financial Management Act, 2016 (Act 921) and has risk management in place. The key management personnel holding these roles have sufficient authority, independence, resources and access to the board. Internal controls have been designed to ensure that each key risk has a policy, process, or other measures, as well as a control to ensure that such policy, process, or other measure is being applied and works as intended.

Financial Statements 31 December 2022

# **Key management oversight**

The oversight responsibilities of the board include among others working with management to determine the organization's mission and long-term strategy and policies including the risk tolerance/appetite; promoting sustainable and cost-efficient activities of the organization; establishing and promoting the objectives, business, and integrity of the organization; establishing internal control over financial reporting, and assessing the organization's risks and strategies for risk mitigation; monitoring the performance of management in achieving set objectives of the organization and requesting appropriate reports from management. The board has established a management structure that promotes accountability and transparency and oversees the implementation of appropriate systems for managing risks – both financial and non-financial to which the Authority is exposed.

The Authority has engaged skilled and competent staff and provides training and development opportunities to sustain the delivery of short and long-term business objectives and the risk management framework that protects the reputation of the Authority.

# **Corporate culture and values**

The Authority has established a corporate culture and values that promote and reinforces norms for responsible and ethical behaviour in terms of the Authority's risk awareness, risk-taking, and risk management. This is achieved by the Authority through its board members' setting and adhering to corporate values for itself. Key management and employees also create expectations that business should be conducted in a legal and ethical manner at all times. The corporate values and professional standards set together with supporting policies and appropriate sanctions for unacceptable behaviour are communicated to all employees.

#### **Separation of powers**

There is clearly in place a division of responsibilities between the positions of the board chair and the chief executive officer in accordance with the Corporate Governance manual for Governing Boards/Councils of the Chana Public Services.

#### **Conflict of interest**

The Authority's directors have a statutory duty not to place themselves in a position that gives rise to a real or substantial possibility of conflict of interest or duty about any matter which is, or is likely to be brought before the board. At no time during the year did any director hold a material interest in any contract of significance with the Authority. The board reviews actual or potential conflicts of interest annually.

# **Compliance declaration**

The board declares that the Authority has complied with the corporate governance directive for the corporate governance manual for Governing Boards/Councils of the Ghana Public Services.

# REPORT OF THE GOVERNING BOARD TO THE MEMBERS OF BUI POWER AUTHORITY

The directors present their report together with the audited financial statements of the Authority for the year ended 31 December 2022.

# **Director's responsibility statement**

The directors are responsible for the preparation of financial statements that give a true and fair view of Bui Power Authority, comprising the statement of financial position at 31 December 2022, the statements of profit or loss and other comprehensive income, changes in equity and cash flows for the year then ended, and notes to the financial statements which include a summary of significant accounting policies and other explanatory notes, in accordance with International Financial Reporting Standards (IFRS) and in the manner required by the Bui Power Authority Act, 2007 (Act 740) as amended by Bui Power Authority Act 2020 (Act 1046).

The directors are also responsible for such internal control as they 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 directors have made an assessment of the ability of the Authority to continue as a going concern and has no reason to believe that the business will not be a going concern in the year ahead.

# **Results of operations**

The results of the operations for the year ended 31 December, 2022 are as set out in the statement of Profit or Loss and Other Comprehensive Income, Statement of Financial Position, the Statement of Cash Flows and the Notes to the Financial Statements.

The operations for the year resulted in a surplus of US\$79.22 million as against US\$40.22 million for 2021. Total assets as at 31 December, 2022 was US\$1.52 billion as against US\$1.42 billion in 2021.

# **Nature of business**

The main activities of the Authority are to plan, execute and manage the Bui Hydroelectric Power Project which comprises the generation of electrical power, the construction of a transmission system and the supply of the electrical power. There was no change in the nature of business of the Authority during the year.

# REPORT OF THE GOVERNING BOARD

# TO THE MEMBERS OF BUI POWER AUTHORITY (CONTINUED)

# **Directors in office**

The directors in office at the date of signing these financial statements are:

Hon. Kwasi Ameyaw-Cheremeh

Hon. Samuel Kofi Ahiave Dzamesi

Dr. Mrs. Rebecca Acquaah-Arhin

Nana Ama Tima Boakye

Kwame Appia Kyei

Hon. Paul Twum Barimah

Hon. Salifu Saeed

Chairman

Member-CEO

Member

Member

Member

# **Going concern**

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

# **Events after the reporting date**

The board confirms that no matter has arisen since 31 December, 2022 which materially affects the financial statements as presented.

# **Approval of the financial statements**

The financial statements were approved by the board of directors on 15th June, 2023 and signed on their behalf by:

Hon. Kwasi Ameyaw-Cheremeh Board Chairman Hon. Samuel Kofi Ahlave Dz Chief Executive Officer Financial Statements 31 December 2022

DA
Donaldy Associates
Chartered Accountants
Souse of Excellence Annex
Adum - Lumasi

# INDEPENDENT AUDITORS' REPORT TO THE MEMBERS OF BUI POWER AUTHORITY ON THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2022

# **Our Opinion**

In our opinion, the accompanying financial statements give a true and fair view of the financial position of Bui Power Authority as at 31 December 2022, and of its financial performance and cash flows for the year ended in accordance with International Financial Reporting Standards (IFRS) and in the manner required by the Bui Power Authority Act, 2007 (Act 740) as amended by Bui Power Authority Act, 2020 (Act 1046).

#### What we have audited

We have audited the financial statements of Bui Power Authority for the year ended 31 December, 2022.

The financial statements comprise:

- the statement of financial position as at 31 December 2022;
- the statement of profit or loss and other comprehensive income for the year then ended;
- the statement of changes in equity for the year then ended
- · the statement of cash flows for the year then ended; and
- the notes to the financial statements, which include a summary of significant accounting policies.

# **Basis for opinion**

We conducted our audit in accordance with International Standards of 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 believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### **Independence**

We are independent of the Authority in accordance with the International Code of Ethics for Professional Accountants (including International Independence Standards (the Code) issued by the International Ethics Standards Board for Accountants that are relevant to our audit of the financial statements. We have fulfilled our other ethical responsibilities in accordance with the Code.

# **Key Audit Matters**

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements of the current period. These matters were addressed in the context of our audit of the Authority's financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key Audit Matter	How the matter was addressed in the audit
Impairment of trade receivables	We evaluated the design and tested the operating effectiveness of controls around the revenue and receivables.
Gross trade receivables as at 31 December 2022 amount to US\$615.98 million of which an impairment loss allowance of US\$6.15 million has been recognized.	We tested the ageing analysis of trade receivables to assess the appropriate classification.
Management applied a simplified approach (provision matrix) to determine the impairment loss allowance which is based on expected credit loss (ECL).	We agreed on inputs in the ECL calculation to historical data.
Management exercises significant judgements and makes assumptions in the impairment exercise	We assessed the appropriateness and adequacy of assumptions and judgements made by management and the related disclosures made in the financial statements.

# **Other Information**

The directors are responsible for the other information. The other information comprises General Information, Chairman's Statement, Directors' Report, and the Corporate Governance Overview. The other information does not include the financial statements and our auditor's report thereon.

Our opinion on the financial statements does not cover the other information and we do not 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 statements or our knowledge obtained 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.

# **Responsibilities of the Directors for the financial statements**

The directors are responsible for the preparation of financial statements that give a true and fair view in accordance with International Financial Reporting Standards (IFRS) and in the manner required by the Bui Power Authority Act, 2007 (Act 740) and for such internal control as the governing board determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the directors are 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 governing council either intends to recommend to liquidate the Authority or to cease operations or have no realistic alternative but to do so.

The directors are responsible for overseeing the Authority's financial reporting process.

# **Auditor's responsibility**

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 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 judgement and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risk of material misstatements of the financial statements, whether due to fraud or error, and design and perform audit procedures that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls;
- 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 directors;

- Conclude on the appropriateness of the directors' 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 Authority'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;
- 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 Authority to express an opinion on the financial statements. We are responsible for the direction, supervision and performance of the audit. We remain solely for our audit opinion.

We communicate with the directors 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 directors with a statement that we have complied with relevant ethical requirements regarding independence, and have communicated with them all relationships and other matters that may reasonably be thought to bear on our independence, and have communicated with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, action is taken to eliminate threats or safeguards applied.

From the matters communicated with the directors, 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 Bui Power Authority Act, 2007 (Act 740) as amended by Bui Power Authority Act, 2020 (Act 1046) requires that in carrying out our audit we consider and report on the following matters. We confirm that:

i) We have obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purpose of our audit;

- ii) In our opinion proper books of account have been kept by the Authority, so far as appears from our examination of those books; and
- iii) The Authority's statement of financial position and statement of profit or loss and other comprehensive income are in agreement with the books of account.

The engagement partner on the audit resulting in this independent auditor's report is Dr. Robert Donaldy (ICAG/P/1113).

Donaldy Associates (ICAG/F/2022/100)

**Chartered Accountants** 

House of Excellence Annex, Adum

Kumasi, Ghana

22nd June, 2023

# STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME FOR THE YEAR ENDED 31 DECEMBER 2022

# STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

		2022	2021
	Note	US\$'000	US\$'000
Revenue	5	158,802	110,290
Cost of generation	6	(32,324)	(29,427)
Gross profit		126,478	80,863
Other income	7	3,343	4,455
Operating expenses	8	(4,291)	(4,119)
Administrative expenses	9	(34,506)	(26,653)
Operating profit		91,024	54,546
Finance costs	10	<u>(11,806)</u>	(14,326)
Profit before tax		79,218	40,220
Tax	11		
Profit after tax		79,218	40,220
Other comprehensive income			
Total comprehensive income for the year		79,218	40,220

# STATEMENT OF FINANCIAL POSITION FOR THE YEAR ENDED 31 DECEMBER 2022 STATEMENT OF FINANCIAL POSITION

		2022	2021
	Note	US\$'000	US\$'000
Non-current assets			
Property, plant and equipment	12	869,449	880,464
Investment in an Associate	13	6	6
Total non-current assets		<u>869,455</u>	880,470
Current assets			
Inventories	14	15,085	15,301
Trade and other receivables	15	626,043	518,371
Short term investments	16	-	323
Escrow Account	17	1	6,452
Cash and bank balances	18(a)	<u>6,046</u>	<u>3,505</u>
Total current assets		<u>647,175</u>	543,952
Total assets		1,516,630	1,424,422
Equity			
Ghana government investment fund	19	76,514	76,514
Retained earnings		<u>543,594</u>	<u>464,376</u>
Total equity		620,108	_540,890
Non-current liabilities			
Loans and borrowings	20(d)	805,122	760,020
Trade payables	21	33,411	45,588
Bui Land Compensation Provision	22	10,000	10,000
Deferred Income	23	499	426
Deferred Grant/Donor Partner	24	72	76
Total non-current liabilities		<u>849,104</u>	<u>816,110</u>
Current Liabilities			
Loans and borrowings	20(d)	31,341	45,324
Trade and other payables	25	10,091	21,368
Employee benefit obligations	26	5,986	730
Total current liabilities		<u>47,418</u>	<u>67,422</u>
Total liabilities		<u>896,522</u>	<u>883,532</u>
Total equity and liabilities		1,516,630	1,424,422

The financial statements were approved by the Board on 15th June, 2023 and were signed on their behalf by:

Hon Kwasi Ameyaw-C Board Chairman hereméh

Hon. Samuel Kofi Ahiave Ezames Chief Executive Officer

# **STATEMENT OF CHANGES IN EQUITY FOR THE YEAR ENDED 31 DECEMBER 2022**STATEMENT OF CHANGES IN EQUITY

	Ghana Government Investment fund	Retained earnings	Total
	(US\$'000	US\$'000	US\$'000
Balance at 1 January 2022	76,514	464,376	540,890
Profit for the year		79,218	<u>79,218</u>
Balance at 31 December 2022	76,514	543,594	620,108
Balance at 1 January 2021	76,514	424,156	500,670
Profit for the year		40,220	40,220
Balance at 31 December 2021	76,514	464,376	540,890

# **STATEMENT OF CASH FLOWS**STATEMENT OF CASH FLOWS

	Note	2022	2021
		US\$'000	US\$'000
Operating activities			
Profit before tax		79,218	40,220
Adjustments for:			
Depreciation of property, plant & equipment		24,350	22,001
Amortization of intangible assets		-	25
Interest income		(118)	(3,522)
Interest expense		<u>11,806</u>	14,326
Operating profit before working capital changes		115,256	73,050
Changes in inventories		216	(7,520)
Changes in escrow account		6,451	19,399
Changes in trade and other receivables		(107,672)	(75,879)
Changes in trade and other payables		(23,454)	49,264
Changes in deferred income		72	291
Changes in deferred Grant/ Donor Partner		(4)	(4)
Changes in employee benefit obligation		<u>5,257</u>	53
Cash (used in)/generated from operations		(3,878)	58,654
Interest received		118	3,522
Interest paid		<u>(11,806)</u>	(14,326)
Net cash (used in)/generated from operating activities		(15,566)	<u>47,850</u>
Investing activities:			
Purchase of property, plant, and equipment		(13,335)	(77,270)
Bonds received from the Government of Ghana			<u>16,202</u>
Net cash used in investing activities		<u>(13,335)</u>	<u>(61,068)</u>
Financing activities			
Receipt/(Payment) of government loans		31,119	(5,592)
Net cash /(used in)generated from financing activities		31,119	(5,592)
Net Increase/(decrease) in cash and cash equivalents		2,218	(18,810)
Cash and cash equivalents as at 1 January	17b	_3,828	22,638
Cash and cash equivalents as at 31 December	17b	6,046	3,828

# NOTES TO THE FINANCIAL STATEMENTS 31 DECEMBER 2022 NOTES TO THE FINANCIAL STATEMENTS

# 1. Corporate information

Bui Power Authority was established by an Act of Parliament under 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. The Bui Power Authority Act 2007, (Act 740) was amended in 2020 to also assume the functions of the Renewable Energy Authority proposed under section 53 of the Renewable Energy Act, 2011 (Act 832) and function assigned by the Minister Responsible for Energy in the area of renewable energy. These functions were added to the original functions of BPA under section 11 of the amended Act.

# 2. Basis of preparation

# 2.1 Statement of compliance

The financial statements of Bui Power Authority have been prepared in accordance with the International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB) and in the manner required by the Bui Power Authority Act, 2007 (Act 740) as amended.

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, the actual outcome could differ from those estimates. Significant estimates and assumptions are included in Note 4.

# 2.2 Basis of measurement

The financial statements have been prepared on the historical cost basis except when otherwise stated.

# 2.3 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 to the nearest thousand unless otherwise indicated.

# 2.4 Use of estimates and judgements

In preparing these financial statements, management has made judgements,

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 ongoing basis. Revisions to estimates are recognised prospectively.

# 3. Significant accounting policies

The significant accounting policies set out below have been applied consistently to all periods presented in these financial statements

### 3.1 Revenue

Revenue from the sale of electricity is recognised when electricity is supplied to off-takers. To determine whether to recognise revenue, Bui Power Authority follows a 5-step process:

- 1. Identifying the contract with a customer
- 2. Identifying the performance obligations
- 3. Determining the transaction price
- 4. Allocating the transaction price to the performance obligations
- 5. Recognising revenue when/as performance obligation(s) are satisfied.

Revenue is recognised when the performance obligation with the off-takers has been met and the transaction price can be reliably measured at a rate approved by the Public Utility Regulatory Commission (PURC) as per the power purchase agreement.

**Power Supply Income:** Revenue is recognised upon delivery of electricity to the off-taker and it is stated at the fair value of the consideration received/receivable. Bui Power Authority recognises electricity supply income from the amount of revenue arising from the agreement between the Authority and the off-takers

# 3.2 Inventories

Inventories are measured at the lower of cost and net realizable value. Cost comprises expenditure incurred in the normal course of business. Net Realisable Value (NRV) is the estimated selling price in the ordinary course of the business less estimated selling expenses. Provision is made for obsolete, slow moving and defective stocks as and when determined.

# 3.3 Borrowing costs

Borrowing costs consist of interest and other costs that an entity incurs in connection with the borrowing of funds. Borrowing costs directly attributable to the acquisition or construction of an asset that necessarily takes a substantial period 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 the construction of the dam and other civil works have been capitalized. Other borrowing costs are expensed in the period in which they occur.

# 3.4 Cash and cash equivalents

Cash and cash equivalents in the statement of financial position comprise cash on hand and short-term deposits in banks that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value, with original maturities of three months or less.

Short-term investments that are not held for the purpose of meeting short-term cash commitments and restricted margin accounts are not considered 'cash and cash equivalents.

For the purpose of the statement of cash flows, cash and cash equivalents consist of cash and cash equivalents as defined above, net of outstanding bank overdrafts when applicable.

### **Escrow account**

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

# 3.5 Provisions

# **General**

Provisions are recognized when the Authority has a present obligation (legal or constructive) as a result of a past event and 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.

### 3.6 Taxation

# **Current income tax**

The Authority asserts that as a government agency established by an Act of Parliament, it is exempt from the payment of corporate taxes.

# Other taxes

Revenues, expenses and assets are recognised net of the amount of Value Added Tax (VAT) except where the VAT incurred on a purchase of goods and services is not recoverable from the tax authority, in which case the VAT is recognised as part of the cost of acquisition of the asset or as part of the expense item as applicable;

The net amount of VAT recoverable from, or payable to, the Ghana Revenue Authority is included as part of accounts receivable or payable in the statement of financial position.

# 3.7 Foreign exchange transactions

The financial statements are presented in United States Dollars which is also the functional currency of the Authority. Unless otherwise indicated all amounts are presented to the nearest thousand.

# **Transactions and balances**

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

Monetary assets and liabilities denominated in foreign currencies are translated at the functional currency spot rates of exchange at the reporting date. Differences arising in settlement or translation of monetary items are recognised in profit or loss.

# 3.8 Intangible assets

Intangible assets acquired separately are measured on initial recognition at cost. Following initial recognition, intangible assets are carried at cost less any accumulated amortization and accumulated impairment losses.

Internally generated intangibles, excluding capitalized development costs, are not capitalized and the related expenditure is reflected in profit or loss in the period in which the expenditure is incurred.

The useful lives of intangible assets are assessed as either finite or indefinite.

# 3.9 Property, plant and equipment

# (i) Recognition and measurement

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

Cost includes expenditures that are directly attributable to the acquisition of the asset. Purchased software that is integral to the functionality of the related equipment is capitalised as part of that equipment.

When parts of an item of property, plant and equipment have different useful lives, they are accounted for as separate items (major components).

# (ii) Subsequent costs

The cost of replacing part of an item of property, plant and equipment is recognised in the carrying amount of the item if it is probable that the future economic benefits embodied within the part will flow to the company and its cost can be measured reliably. The costs of the day-to day-servicing of property, plant and equipment are recognised in profit or loss, as incurred.

Spare parts, stand-by and servicing equipment held by the Authority generally are classified as inventories. However, if major spare parts and stand-by equipment are expected to be used for more than one period or can be used only in connection with an item of property, plant and equipment, then they are classified as property, plant and equipment.

The Authority derecognises the carrying amount of a part of an item of property, plant and equipment if that part has been replaced and the company has included the cost of the replacement in the carrying amount of the item.

# (iii) Depreciation

Depreciation is recognised in profit or loss on a straight -line basis over the estimated useful lives of each part of an item of property, plant and equipment. The estimated useful lives for the current and comparative periods are as follows:

Dams, powerhouse & civil works	25 - 100 years
Generating plant and machinery	15 - 40 years
Transmission network	15 - 25 years
Motor vehicles	2 - 5 years
Marine equipment	10 years
Office equipment	1 - 5 years
IT and communication equipment	1 - 5 years
Office furniture and fittings	1 - 5 years
Household equipment	1 - 5 years
Household fixtures and fittings	1 - 5 years
Miscellaneous equipment	3-20 years
Buildings	15 - 50 years

Depreciation methods, useful lives and residual values are reassessed at each reporting date. Gains and losses on disposal of property, plant and equipment are determined by comparing proceeds from disposal with the carrying amounts of property, plant and equipment and are recognised in profit or loss.

# (iv) Capital work in progress

Property, Plant and Equipment under construction is stated at initial cost and depreciated from the date the asset is made available for use over its estimated useful life. Assets are transferred from capital work in progress to an appropriate category of property, plant and equipment when commissioned and ready for its intended use.

# Impairment of non-financial assets

Property, plant and equipment are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated. For the purpose of measuring recoverable amounts, assets are grouped at the lowest levels for which there are separately identifiable Cash Generating Units (CGUs). The recoverable amount is the higher of an asset's fair value less costs to sell and value in use (being the present value of the expected future cash flows of the relevant asset or CGUs). An impairment loss is recognized for the amount by which the asset's carrying amount exceeds its recoverable amount.

The Authority evaluates impairment losses for potential reversals when events or circumstances may indicate such consideration is appropriate. The increased carrying amount of an asset shall not exceed the carrying amount that would have been determined (net of depreciation) had no impairment loss been recognized for the asset in prior years.

# 3.10 Employee benefits obligation

# (a) Short-Term Benefits

Short -term employee benefit obligations are measured on an undiscounted basis and are expensed as the related service is provided. A provision is recognized for the amount expected to be paid under short- term cash bonus or profit-sharing plans if the Authority has a present legal or constructive obligation to pay this amount as a result of past service provided by the employee and the obligation can be estimated reliably.

# (b) Defined Contribution plans

A defined contribution plan is a post-employment benefit plan under which an entity pays fixed contributions into a separate entity and will have no legal or constructive obligation to pay further contributions if the fund does not hold sufficient assets to pay all employee benefits relating to employee service in the current and prior periods. Obligations for contributions to defined contribution schemes are recognized as an expense in profit or loss in periods during which services are rendered by employees.

# Tier 1 and Tier 2 Contributions

Under a national pension scheme, the Authority contributes 13% of employee's basic salary for employee pensions whereas the employee contributes 5.5% of basic salary. The Authority obligation is limited to the relevant contributions, which have been recognized in the financial statements.

The national pension scheme is made up of two mandatory tiers. The first tier which receives 13.5% of the total contribution is managed by the Social Security and National Insurance Trust (SSNIT) whereas the second tier which receives 5% of total contribution is managed by a private trustee. The pension liabilities and obligations for these contributions rest with SSNIT and the private trustee.

# Tier 3 - Provident Fund

The Authority has a voluntary Tier 3 provident fund scheme for staff to which the company contributes 10% and 15% of the basic salaries of the senior staff and 12% for the junior staff. Obligations under the plan are limited to the relevant contributions, which are charged to profit or loss as and when they fall due.

# (c) Defined benefit plans

A defined benefit plan is a post-employment benefit plan other than a defined contribution plan. The liabilities of the Authority arising from the defined benefit obligations and related current service costs are determined on an actuarial basis using the projected unit of credit method. The company uses this method to determine the present value of defined benefit obligations, related current service costs and where applicable, past service costs. Actuarial gains or losses, which arise mainly from changes in actuarial assumptions and differences between actuarial assumptions and what actually occurred are recognized immediately in other comprehensive income.

The Authority determines the net interest expense on the net defined benefits liability for the period by applying the discount rate used to measure the defined obligation at the beginning of the annual period to the then - defined benefit liability during the period as a result of contributions and benefits payments. Net interest expense and other expenses related to defined benefit plans are recognized in profit or loss.

# 3.11 Financial Instruments

A financial instrument 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.

Financial instruments classified as held-to-maturity investments, loans and receivables, or other financial liabilities are measured at fair value upon initial recognition and subsequently measured at their amortised cost using the effective interest method.

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

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

# Offsetting of financial instruments

Financial assets and financial liabilities are offset and the net amount is 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 profit or loss unless required or permitted by any accounting standard or interpretation, and as specifically disclosed in the accounting policies of the Authority.

# **Derecognition of financial liabilities**

A financial liability is derecognised 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 amounts is recognised in profit or loss.

# **Derecognition 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 derecognised 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 a third party under a 'pass-through' arrangement and either:

(a) 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.

# 4. SIGNIFICANT ACCOUNTING JUDGMENTS, ESTIMATES AND ASSUMPTIONS

The preparation of the Authority's financial statements requires management to make judgements, estimates, and assumptions that affect the reported amounts of revenues, expenses, assets and liabilities and the disclosure of contingent liabilities. Uncertainty about these assumptions and estimates could result in outcomes that require a material adjustment to the carrying amount of assets or liabilities affected in future periods.

# 4.1 Estimates and assumptions

In the process of applying the Authority's accounting policies, management has made various judgements. Those which management has assessed to have the most significant effect on the amounts recognised in the financial statements have been discussed in the individual notes of the related financial statements line items.

The key assumptions concerning the future and other key sources of estimation uncertainty at the reporting date, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year, are also described in the individual notes of the related financial statements line items below. The Authority based its assumptions and estimates on parameters available when the financial statements were prepared. Existing circumstances and assumptions about future developments, however, may change due to market changes or circumstances arising that are beyond the control of the Authority. Such changes are reflected in the assumptions when they occur.

# 4.2 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.

# Useful lives 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.

# 5. Revenue

	Revenue from sale	Power generated
	of electricity	Kilowatt hour
2022	US\$'000	in thousands
Revenue from Sales of Electricity	158,427	1,547,117
Revenue from Sales of Reactive Power	-	-
Transmission Assets Investment Recovery Charge	<u>375</u>	
	158,802	1,547,117
2021		
Revenue from Sales of Electricity	105,283	1,028,155
Revenue from Sales of Reactive Power	5,007	127,987
Transmission Assets Investment Recovery Charge		
	110,290	1,156,142

The Authority sells electricity generated by its hydroelectric plant to the Electricity Company of Ghana (ECG). The Authority's reactive power is sold to Ghana Grid Company Limited (GRIDCO). Per the power purchase agreement between the Ministry of Energy (on behalf of Bui Power Authority), the Electricity Company of Ghana and Ghana Grid Company Limited, all forms of power are sold using prices as defined by the Public Utility Regulatory Commission (PURC). The transmission assets recovery charge relates to the recovery of Bui Power Authority's transmission asset investment costs incurred. The recovery charge is based on approved tariff of electricity transmitted by Ghana Grid Company Limited.

# 6. Cost of Generation

	2022	2021
	US\$'000	US\$'000
Direct Labour Costs	5,608	5,322
Direct Consumables Expenses	3,388	3,141
Direct Operational and Maintenance Expenses	245	-
Depreciation Charge (COS)	23,083	20,964
	32,324	29,427

These costs are directly attributable to the generation of hydroelectric power.

# 7. Other Income

		2022	2021
		US\$'000	US\$'000
Rent Income		966	713
Foreign Exchange Differences		2,044	70
BPA Children's Garden/Nursery		27	18
Interest on Accounts		118	3,522
Miscellaneous Income		184	128
Grant	Note(24)	4	4
		3,343	4,455

# 8. Other Operating Expenses

	2022	2021
	US\$'000	US\$'000
Repairs & Maintenance-General	265	241
Corporate Meetings	23	11
Casual Labour	18	18
Printing & Stationery	99	40
IT Equipment Spare & Consumables	528	258
Vehicle Maintenance	184	202
Repairs & Maintenance-Plant Equipment	2,415	1,509
IT Support & Maintenance	70	85
General Materials	354	846
Building Maintenance Materials	99	171
Freight, Penalty, Demurrage & Others	1	175
Regulatory & Supervisory Cost	197	203
Project Affected People	2	266
Auto Equipment Spare	36	81
Oil and Lubricant	<del>-</del>	13
	4,291	4,119

# 9. Administrative Expenses

	2022	2021
Note	US\$'000	US\$'000
Audit Fees	27	24
Bank Charges	75	753
Board Expenses	189	204
Communications	29	109
Depreciation & Amortization - Indirect 9b	1,870	1,062
Environmental Expenses	1	-
Cleaning & Sanitation	84	118
Courier & Postal Services	1	1
Fuel	653	466
Impairment Provision	1,061	663
Insurance	1,551	1,179
Land Administration	-	-
Licenses & Permits	32	50
Office Expenses	24	23
Other Consumables	642	601
Personnel Expenses - Indirect 9a	15,616	11,321
Public Relation & Marketing	44	76
Professional Fees	2,206	76
Rent & Rates	1	1
Training & Development	382	195
Travel & Transportation	318	270
Foreign Exchange Difference	7,160	7,743
Utilities	67	94
Security	201	184
Legal fees	-	7
Subscription	121	116
Recruitment Expenses	9	5
Programs & Special Events	80	127
Corporate Social Responsibility (CSR)	910	945
Seminars, Workshops & Conferences	1,051	225
Compensation Expense	<u>101</u>	<u> 15</u>
	34,506	26,653

# 9a. Personnel Expenses

	2022	2021
	US\$'000	US\$'000
Included in Cost of Generation:		
Salaries and wages	<u>5,608</u>	<u>5,322</u>
	5,608	5,322
Included in Administrative Expenses:		
Salaries and wages	4,112	4,629
Allowances	4,460	4,458
Long-term Employee Benefit	5,589	313
SSNIT and Provident Fund Contribution	841	925
Bonus	493	789
Other staff costs	<u>121</u>	_207
	<u>15,616</u>	<u>11,321</u>
Total Personnel Expenses	21,224	16,643

# 9b. Depreciation and Amortisation

	2022	2021
	US\$'000	US\$'000
Included in Cost of Generation		
Depreciation Charge	23,083	20,964
Included in Administrative Expenses		
Depreciation Charge	1,870	1,037
Total depreciation charged for the year	24,953	22,001
Amortization Charge		25
Total Depreciation and Amortization	24,953	22,026

Depreciation charged to cost of sales is attributable to items of property, plant and equipment that are used in the direct operations of the Bui Hydroelectric Power Dam.

# **10.** Finance Costs

	2022	2021
	US\$'000	US\$'000
Interest on Borrowings	11,806	14,326

# 11. Taxation

The Authority as a Government Agency established by an Act of Parliament is exempt from the payment of corporate taxes. Hence, neither income tax expense nor deferred taxes have been computed and recognised in the current year and previous years.

# 12a. Property, Plant and Equipment - 2022

						6			1000
	bams, power house & civil works	ransmission networks	Land, buildings, roads, civil works	Ceneration, plant and machinery	vehicles	equipment	Kesidential equipment, furniture & fittings		lota
Cost	000.\$SN	US\$'000	US\$'000	000,\$SD	US\$'000	000.\$SN	000,\$\$0	US\$'000	US\$'000
As at 1 January 2022	340,205	133,364	294,341	200,038	5,728	5,997	7,867	36,431	1,023,971
Additions	1	1	1	1,497	538	1,892	404	6,607	13,938
Transfers	ı	1	1	1	1	t	1,283	(1,283)	ı
Disposal	1			1	(603)	1	4	'	(603)
As at 31 December 2022	340,205	133,364	294,341	201,535	5,663	7,889	9,554	44,755	1,037,306
Accumulated Depreciation As at 1 January 2022	30,179	39,437	22,653	39,893	3,746	2,977	4,622	•	143,507
Charge for the Year	3,949	5,519	3,931	7,999	899	1,685	1,202	1	24,953
Disposal	1				(603)	11	'		(603)
As at 31 December 2022	34,128	44,956	26,584	47,892	3,811	4,662	5,824		167,857
Carrying Amount- 31/12/22	306,077	88,408	267,757	153,643	1,852	3,227	3,730	44,755	869,449
Carrying Amount- 31/12/21	310,026	93,927	271,688	160,145	1,982	3,020	3,245	36,431	880,464

12b. Property, Plant and Equipment- 2021

	Dams, power house & civil works	Transmission networks	Land, buildings, roads, civil works	Generation, plant and machinery	Motor	IT & comm. equipment	Residential equipment, furniture & fittings	Capital work in progress projects	Total
Cost	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000
As at 1 January 2021	340,205	128,611	262,723	142,298	4,092	5,798	4,370	58,604	946,701
Additions	1	ı	33	1	LL9,L	152	1,687	73,787	77,270
Transfers	1	4,753	31,585	57,740	25	747	1,810	(096'56)	
As at 31 December 2021	340,205	133,364	294,341	200,038	5,728	5,997	7,867	36,431	1,023,971
Accumulated depreciation									
As at 1 January 2021	26,230	34,017	19,035	33,189	3,410	1,705	3,920	•	121,506
Charge for the Year	3,949	5,420	3,618	6,704	336	1,272	702	']	22,001
As at 31 December 2021	30,179	39,437	22,653	39,893	3,746	2,977	4,622		143,507
Carrying Amount- 31/12/21	310,026	93,927	271,688	160,145	1,982	3,020	3,245	36,431	880,464
Carrying Amount- 31/12/20	313,975	94,594	243,688	109,109	754	4,093	450	58,604	825,195

# 13. Investment in an Associate

	2022	2021
	US\$'000	US\$'000
Nuclear Power Ghana Limited	6	6
	6	6

The investment in Nuclear Power Ghana Limited represents shares held by the Authority conferring the right to exercise 33% of casting votes at general meetings. Nuclear Power Ghana Limited is a company incorporated in Ghana to construct, own, operate, maintain, and de-commission nuclear power plant for the purpose of providing base-load electricity for economic and social development.

# 14. Inventories

	2022	2021
	US\$'000	US\$'000
Spare Parts and Tools	13,746	14,685
Stationery	193	207
Safety Materials	280	354
Other Inventories	866	55
	15,085	15,301

There were no write-offs of inventories during the year (2021: nil).

# 15. Trade and Other Receivables

	2022	2021
	US\$'000	US\$'000
Trade Receivables (Net)	609,831	508,312
Other Receivables	15,181	9,437
Prepayments	1,031	622
	626,043	518,371

Allowance for impairment is recognised against trade receivables based on estimated irrecoverable amounts by reference to the past default experience of the counterparty and an analysis of the counterparty's current financial position.

# 16. Short-Term Investments

	2022	2021
	US\$'000	US\$'000
Fixed Deposits		_323
		323

Short-term investments held by BPA are in the form of short-term deposits. They are considered cash and cash equivalents as they are highly liquid and are being held for cash management purposes.

# 17. Escrow Account

	2022	2021
	US\$'000	US\$'000
CEXIM Escrow Account	1	<u>6,452</u>
	1	6,452

This represent an account held with the China Export-Import Bank (CEXIM) specifically for the repayment of loan facilities and the administration of funds from loan drawn downs.

# 18a. Cash and Bank Balances

	2022	2021
	US\$'000	US\$'000
Cash Balance	-	1
Bank Balances	<u>6,046</u>	<u>3,504</u>
	6,046	3,505

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

# 18b. Cash and Cash Equivalents

	Note	2022	2021
		US\$'000	US\$'000
Cash Balance	18a	-	1
Bank Balances	18a	6,046	3,504
Fixed Deposits	16		323
		6,046	3,828

# 19. Ghana Government Investment Fund

	2022	2021
	US\$'000	US\$'000
Investment from Government of Ghana	76,514	76,514

This represents Government of Ghana contribution towards the construction of Bui Hydroelectric Dam.

# 20. Loans and Borrowings

		2022	2021
		US\$'000	US\$'000
Government On-lending Facilities	20a	390,899	387,171
Buyers' Credit Facilities	20b	91,659	116,170
Agency Account-Government of Ghana	20c	<u>353,905</u>	<u>302,003</u>
		836,463	805,344

# 20a. Government of Ghana On-lending Facilities

	2022	2021
	US\$'000	US\$'000
Concessional Loans	312,316	308,588
Preferential Buyer's Credit	78,583	<u>_78,583</u>
	390,899	387,171

Concessional loans and preferential buyer's credit facility were entered into in years 2007 and 2012 respectively by the Government of Ghana and the Chinese Government for the construction and operation of the Bui Hydroelectric Power Project. An on-lending agreement exists between the Ministry of Finance and the Bui Power Authority.

# 20b. Buyers' Credit Facilities

	2022	2021
	US\$'000	US\$'000
CEXIM Buyers' Credit Facilities	91,659	116,170

Buyer's credit facilities were granted by the China Export-Import Bank in 2007 and 2012. The facilities were granted in the United States Dollars and approval limits were US\$293,506,062 and US\$76,206,939 in 2007 and 2012 respectively.

# 20c. Agency Accounts-Government of Ghana

	2022	2021
	US\$'000	US\$'000
Government of Ghana Agency Account	353,905	302,003

This represents amounts contributed by Ghana Cocobod as part of a cocoa sales agreement intended to assist in loan repayments through the sale of cocoa beans to Genertec International Corporation, a Chinese produce buying company.

# **20d. Loans and Borrowings**

	2022	2021
	US\$'000	US\$'000
Non-Current Portion	805,122	760,020
Current Portion	31,341	_45,324
	836,463	805,344

Current interest-bearing loans and borrowings consists of short-term loan facilities contracted from China Export-Import bank. Interest is payable on demand.

# **20e.** Loans and Borrowings - Interest and Maturity Analysis

Loans and Borrowings	Interest Rate p.a.	Maturity	2022	2021
			US\$'000	US\$'000
Buyers Credit Facility-2007	5.94475%	21/11/2025	72,353	90,048
Buyers Credit Facility-2012	LIBOR+4%	21/11/2025	<u>19,306</u>	26,123
			<u>91,659</u>	116,170
Concessional Loan	2.75%	15/07/2037	312,316	308,588
Preferential Buyers' Credit	2.75%	15/07/2037	<u>78,583</u>	<u>78,583</u>
			390,899	387,171
Government of Ghana Agency Account	=	ī	<u>353,905</u>	302,003
Total Non-Current Loans and Borrowings			836,463	805,344
<b>Current Interest-Bearing Loans and Borrowings</b>				
Interest payable	-	On-demand	<u>1,489</u>	<u>1,388</u>
			1,489	1,388

Interest payable is the interest due on Buyers Credit facilities. The 2007 Buyers Credit attracts interest at 5.94475%. The 2012 Buyers Credit facility also attracts an interest rate of LIBOR+4%.

# 21. Trade Payables

	2022	2021
	US\$'000	US\$'000
Trade Creditors	33,411	<u>45,588</u>

This represents balance outstanding to Meinergy Technology Limited for the construction of 40MW Solar Farm at Bui Generation Station. The amount is payable in 6 years ending May 2029.

# 22. Bui Land Compensation Provision

	2022	2021
	US\$'000	US\$'000
Land Compensation	10,000	10,000

This represents a provision made with regard to compensations payable to owners of the site land used for the construction of the Bui Generation Station.

# 23. Deferred Income

	2022	2021
	US\$'000	US\$'000
BPA Floor Area	499	426

This represents unearned income/advance payments received from tenants for renting out the BPA floor area.

# 24. Deferred Grant/Donor Partner

	2022	2021
	US\$'000	US\$'000
Balance at 1 January		
Transfer to Other Income	76	80
Balance at 31 December	(4)	<u>(4)</u>
	72	76

This represents generating equipment received from UNDP for generating power at Tsatsadu Generation Station. The deferred grant is recognised in the profit or loss as other income over the useful life of the asset.

# 25. Trade and Other Payables

	2022	2021
	US\$'000	US\$'000
Trade Payables	9,112	17,510
Accrued Expenses	268	903
Payroll Liabilities	583	620
Other Payables	95	2,300
Withholding Tax Payables	33	35
	10,091	21,368

# 26. Employee Benefit Obligation

	2022	2021
	US\$'000	US\$'000
Balance at 1 January	730	677
Current Service Costs	<u>6,260</u>	<u>313</u>
Exchange Difference	(100)	(23)
Payments	(904)	(237)
Balance at 31 December	5,986	730

Employee benefit obligation relates to award of end-of-service benefits to management and all staff of the Authority.

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

	2022	2021
	US\$'000	US\$'000
Net benefit expense recognized in profit or loss		
Current Service Costs	6,260	<u>313</u>
Exchange Difference	<u>(100)</u>	(23)
	6,160	290

# 27. Financial Risk Management

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

The Authority's risk management is under the responsibility of the 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 risks to which the Authority is exposed are described below.

# **Market risk**

The Authority is exposed to market risk through the use of financial instruments and specifically to interest rate risk and currency risk which results from operating and investing activities.

### Interest rate risk

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:

		Effect on profit
	in basis points	before tax
		US\$'000
2022	+100	+8,365
	-100	-8,365
2021	+100	+23,823
	-100	-23,823

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

# 27. Financial risk management objectives and policies (Continued)

# 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.

		Effect on profit
		before tax
		US\$'000
2022	+35%	+29,024
	-35%	-29,024
2021	+25%	+18,631
	-25%	-18,631

# **Credit risk analysis**

### **Trade accounts receivable**

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

	31 December	31 December
	2022	2022
	US\$'000	US\$'000
Expected Credit Loss Rate	1%	1%
Gross Carrying Amount	615,975	508,388
Life Time Expected Credit Loss	6,145	5,084

	31 December	31 December
	2022	2022
	US\$'000	US\$'000
IFRS 9 Expected Credit Loss as at 1 January	5,084	4,421
Change for the Year	1,061	<u>663</u>
Lifetime Expected credit Loss as at 31 December	6,145	5,084

# 27. Financial risk management objectives and policies (Continued)

# 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 payables.

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

Year ended 31 December 2022	On-demand	Less than 3 months	3 to 12 months	1 to 5 years	>5 years	Total
	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000
Interest-Bearing Loans and Borrowings	-	-	31,341	-	805,122	836,463
Trade Payables	-	-	-	-	33,411	33,411
Trade and Other Payables			10,091			<u>10,091</u>
			41,432		838,533	879,965

Year ended 31 December 2021	On demand	Less than 3 months	3 to 12 months	1 to 5 years	>5 years	Total
	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000
Interest-Bearing Loans and Borrowings	-	-	45,324	-	760,020	805,344
Trade Payables	-	-	-	-	45,588	45,588
Trade and Other Payables		<u></u>	21,368			<u>21,368</u>
			66,692		850,608	872,300

# 28. Related Party Disclosures

Bui Power Authority was established by an Act of Parliament, (Bui Power Authority Act, 2007 (Act 740)), as amended by (Bui Power Authority Act, 2020 (Act 1046)) and it is solely a government-controlled entity.

# **Related party transactions**

The following pertains to transactions carried out with related parties for the years 2022 and 2021 respectively.

- i) The government of Ghana invested US\$76,514,075 into the setup and operations of the Bui Power Authority at its inception.
- ii) 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 with the Ghana COCOBOD. Amounts contributed so far is detailed below:

	2022	2021
	US\$'000	US\$'000
Government of Ghana Agency Account	<u>353,905</u>	<u>302,003</u>

The agency account relates to government on-lend concessional loans and preferential buyers credit facilities to Bui Power Authority. Repayment of these facilities will begin on 15 July 2023 after a seven (7) year moratorium. (Note 19)

### iii) Nuclear Power Ghana Limited

The Authority is an associate of Nuclear Power Ghana (NPG) Limited. Total financial and operational support to NPG as at the close of the year was US\$641,725 (2021: US\$727,181) and it is included in the trade and other receivables.

# iv) Key management personnel

Key management personnel are defined as those having authority and responsibility for planning, directing and controlling the activities of the Authority and comprise the directors and senior management short-term and post-employment benefits.

	2022	2021
	US\$'000	US\$'000
Short-term benefit	2,792	2,675
Post-Employment Benefit	1,381	313
	<u>4,173</u>	<u>2,988</u>

# 29. 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.

# **30.** Going Concern

The financial statements are prepared on the basis of accounting policies applicable to a going concern. This basis presumes that cash flows arising from the normal course of business will be available to finance future operations of the Authority and that the realization of assets and settlement of liabilities will occur in the ordinary course of business.

# **31. Subsequent Events**

There were no events after reporting date that require disclosure in these financial statements.

# **32.** Decommissioning Liability

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

# 33. Capital Commitments

The Authority has advanced US\$5,000,000 to Meinergy Technology Limited towards the construction of 100MVP Hydro Solar PV Hybrid Farm at Bui Generating Station which commenced in 2022 and is expected to be completed in 2023.

# 34. Contingent Liabilities

Contingent liabilities, in respect of possible claim and lawsuit at the reporting date amounted to US\$51,561 (2021: US\$69,549). Judgement in respect of this case has not been determined as at 31 December 2022 and no provision has been made against this claim.



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