VOLTA RIVER AUTHORITY

ANNUAL REPORTS AND FINANCIAL STATEMENTS
DECEMBER 31, 2022.

VOLTA
RIVER
AUTHORITY

VOLTA RIVER AUTHORITY

2022 ANNUAL REPORTS AND FINANCIAL STATEMENTS

Table of Contents **Page**

CORPORATE INFORMATION

BOARD OF DIRECTORS

Mr. Kofi Tutu Agyare-Chairman

Mr. Emmnuel Antwi-Darkwa - Chief Executive

Most Rev. Dr. Cyril Kobina Ben-Smith
Rev. Dr. Joyce Rosalind Aryee
Hon. Kwame Anyimadu-Antwi
Chief Musa Badimsugru Adam
Mr. Richard Obeng Okrah
Madam Janet Akosua Gyasiwaa
Mr. Solomon Adjetey Sowah

SECRETARY

Mrs. Claudia Gyeke-Aboagye

REGISTERED OFFICE

Electro Volta House
P. O. Box M.77
Accra

AUDITORS

Ghana Audit Service
P.O. Box M96
Accra

BANKERS

Access Bank Ghana Limited
Bank of Africa Ghana Limited
Bank of Ghana
ABSA Bank of Ghana Limited
CAL Bank Limited
Consolidated Bank Ghana Limited
Ecobank Ghana Limited
Fidelity Bank Ghana Limited
First Atlantic Bank Limited
GCB Bank Limtied
Ghana International Bank Plc
Guaranty Trust Bank Ghana Limited
Societe Generale Bank Ghana Limited
Stanbic Bank Ghana Limited
Standard Chartered Bank Ghana Limited
United Bank for Africa Ghana Limited
Universal Merchant Bank Limited
Zenith bank Ghana Limited

FINANCIAL REVIEW FOR THE YEAR ENDED 31 DECEMBER 2022

The financial review relates to the Group, unless stated otherwise.

VOLTA RIVER AUTHORITY

Power Production

The total electricity generated from both hydro and thermal sources increased by 601 GWh (3%) from 9,598 GWh in 2021 to 10,200 GWh in 2022; this includes generation and transmission substations use of 59GWh (2021: 50 GWh). Generation from hydro sources increased by 188 GWh (3%) from 6,529 GWh in 2021 to 6,717 GWh in 2022. Thermal generation also increased by 13% (413 GWh) from 3,069 GWh in 2021 to 3,483GWh in 2022. VRA's 2022 generation from solar plants was 21 GWh (2021: 6 GWh).

To supplement generation from VRA's own plants, gross power of 2,444GWh (2021: 1,998 GWh) was purchased from Takoradi International Company Limited (TICO) of Ghana representing an increase of 22% (446 GWh) from the 2021 power purchase from TICO. There was net inadvertent import of 37GWh from CIE in 2021 (2021: 43 GWh)

Summary of energy generated and purchased

	Change		2022		2021	
	GWh	%	GWh	%	GWh	%
VRA Hydro:						
Akosombo	191	3%	5,748	45%	5,557	53%
Akuse	(3)	0%	969	8%	972	9%
Total Hydro	188	3%	**6,717**	53%	**6,529**	62%
TTPS	350	16%	2,480	20%	2,130	20%
TTIPP	33	8%	437	3%	404	4%
TT2PP	(6)	-6%	85	1%	90	1%
KTPS	103	27%	481	4%	378	4%
AMERI	(67)	-100%	-	0%	67	1%
Total Thermal	413	13%	**3,483**	27%	**3,069**	29%
Total VRA Hydro & Thermal	**601**	6%	**10,200**	80%	**9,598**	91%
VRA Solar:						
Total Solar	15	247%	21	0%	6	0%
Total Energy by VRA	616	6%	**10,221**	80%	**9,604**	91%
Purchases & Imports						
TICO	446	22%	2,444	19%	1,998	14%
CIE	(6)	-14%	37	0%	43	1%
	440	22%	**2,481**	20%	**2,041**	15%
Total Energy Generated & Bought	**1,056**	**21%**	**12,702**	**100%**	**10,535**	**100%**

FINANCIAL REVIEW FOR THE YEAR ENDED 31 DECEMBER 2022

Revenue

Revenue from sale of electricity in 2022 increased by 36.02% (GH¢1,519.90 million) to GH¢5,739.88 million from the previous year's sales of GH¢4,219.99 million. This was mainly due to the combined effect of 9.98% (1,088GWh) increase in the volume of energy sold from 1,088 GWh in 2021 to 11,931GWh in 2022 and 24.13% increase in the average tariff of ECG from GH¢0.25175/kWh in 2021 to GH¢0.337957/kWh in 2022. The volume of energy sold to regulated customers decreased by 2.89% (188 GWh) from 6,516 GWh in 2021 to 6,328 GWh in 2022. The volume of electricity sold to deregulated customers which attract relatively higher tariff increased by 29.34% (1,271 GWh) from 4,332 GWh in 2021 to 5,603 GWh in 2022 largely on account of sales to Communaute Electrique Du Benin which increased from 574 GWh in 2021 to 743 GWh in 2022 representing an increase of 169 GWh (29.44%), and Sonabel Bolga-Ougadougou which increased from 900 GWh in 2021 to 1,177 GWh in 2022 representing an increase of 277 GWh (30.78%).

Cost of Sales

Cost of sales consisting of fuel usage, power purchase, depreciation, salaries, materials, repairs and maintenance and other operating cost, increased by GH¢1,737.45 million (49.66%) from GH¢3,498.07 million in 2021 to GH¢5,235.22 million in 2022.

There was 20.69% (9,003,000.07MMBtu) increase in overall volume of gas consumption from 43,513,527.70 MMBtu in 2021 to 52,516,527.77 MMBtu in 2022 analyzed as follows:

» Gas usage from N-gas increased from 9,993,063.13 mmbtu in 2021 to 19,915,625.69 MMBtu in 2022 leading to overall increase in Gas consumption.

» Thermal Generation from TICO increased by 22% from 1,998 GWh in 2021 to 2,444 GWh in 2022.

» 42.29% depreciation of the average GH¢/US$ exchange rate from GH¢5.8116/US$1 in 2021 to GH¢8.2695/US$1 in 2022 also contributed to the increase in cost of sales.

» Power import (actual and inadvertent) from CIE dropped by 13.95% (6 GWh) from 43 GWh in 2021 to 37 GWh in 2022.

Administrative Expenses

Administrative expenses increased by GH¢253.23 million (33.34%) from GH¢759.43 million in 2021 to GH¢1,012.66 million in 2022.
Repairs and maintenance increased from GH¢29.27 million in 2021 to GHS¢44.29 million in 2022 and Depreciation increased by 84.33% (GH¢29.27 million) from GH¢55.94 million in 2021 to GH¢103.11 million in 2022.

FINANCIAL REVIEW FOR THE YEAR ENDED 31 DECEMBER 2022

Other Operating Income

Other operating income increased by GH¢ 104.17 (39.21%) from GH¢ 265.64 million in 2021 to GH¢369.81 million in 2022. The increase was due to increases in income from Operating Units and subsidiaries such as VRA Schools, VRA Health Services Limited, Property Holding Company Limited (PROPCo), Akosombo Hotel Limited (AHL) and Volta Lake Transport Company Limited (VLTC).

Operating profit

The operating loss of the Group in 2022 was GHS138.45 million compared to a profit of GHS355.41 million in 2021. This was due to increase in Administrative Expenses ocassioned mainly by general increase in prices of goods and services.

Net Profit

The Group ended the year 2022 with a Net Loss of GHS277.18 million (2021:Net Proft of GHS60 million). This represents a decrease of 561.98% (GHS337.18 million). The decrease in proft for the year is due to increase in Cost of Sales (49.66%) from GHS3,498.07 million in 2021 to GHS5,235.22 million in 2022, increase in Administrative Expenses of 33.38% (GHS253.48 million) from GH¢ 759.43 million in 2021 to GHS1,012.92 million in 2022. Financial Expenses increased by 32.76% (GHS29.82 million) to GHS120.83 million in 2022 (2021: GH¢91.01 million).

2023 OPERATIONAL & FINANCIAL OUTLOOK

The forecast national system demand for 2023 is 26,243GWh, comprising customer demand of 25,020GWh, GRIDCo substation usage of 10GWh and transmission losses of 1,213GWh. The Authority plans to generate a total of 12,581GWh whilst Bui Hydro Plant 1,038GWh and the Independent Power Producers would generate 12,623GWh including Bui generation. The Authority's generation breakdown is as follows: 6,800GWh from hydro sources, 2,144GWh from the Takoradi Thermal Plant, 339GWh from the TT1PP, 406GWh from the Kpone Thermal Power Plant, 35GWh from the Solar Plants, and no power imports. The Takoradi International Company (TICO) is forecast to supply 2,415GWh. Thus, VRA is forecast to generate 48% of the national electricity load whilst Bui Hydro Generating Plant and the IPPs will supply 52% with no additional supply required. The forecast power sale revenue for 2023 is about GH¢8,711million assuming a Bulk Generation Tariff of GHp37.96/kWh. The Other income of about GH¢171.21 million, includes a premium of GH¢33.69 million revenue meant for administrative charges on gas supply to SAPP. The estimated direct operating cost to be incurred on system generation by the Authority and supply from TICO is estimated at GH¢7,735 million.

Interest expense is forecast at GHS137.93 million and net exchange loss is projected at GH¢378.40 million.

VOLTA RIVER AUTHORITY

Financial Summary (VRA)

	2018 GH¢'000	2019 GH¢'000	2020 GH¢'000	2021 GH¢'000	2022 GH¢'000
Income from Sale of Electricity	3,000,712	3,890,946	3,793,161	3,932,207	5,453,530
Other Operating Income	132,919	110,837	121,105	132,106	166,161
Operating and General Expenses including depreciation	3,079,293	3,310,366	3,161,441	3,618,285	5,086,251
Depreciation	432,317	424,903	535,675	365,613	780,270
Operating Profit/(Loss)	591,311	830,713	880,776	573,322	533,440
Financial Expenses	422,850	363,726	258,184	87,596	116,466
Financial Income	14,101	10,939	3,593	7,811	9,125
Exchange Fluctuation	(402,663)	(605,046)	(469,686)	(380,779)	(315,206)
Government Assistance/Subvention/Subsidy	536,973	139,296	127,951	127,294	-
Net Profit/(Loss)	(220,101)	(127,120)	156,499	112,757	110,893
Property, Plant and Equipment(Cost/Valuation)	15,062,532	17,778,816	18,914,285	24,627,519	35,784,821
Property, Plant and Equipment (Net Book Value)	7,502,118	8,469,329	8,648,585	16,832,940	24,063,689
Capital Work in Progress	743,927	815,969	827,780	961,369	1,285,719
Current Assets	7,495,142	8,864,931	9,201,999	8,631,569	11,751,611
Current Liabilities	6,419,391	7,626,322	7,812,410	6,861,038	8,659,534
Investment by the Rep. of Ghana	3,960,933	4,305,586	4,305,586	4,433,937	4,617,713
Capital Surplus	4,893,838	5,899,375	5,952,182	14,097,485	21,861,957
Retained Earnings	(1,526,999)	(1,326,931)	(750,510)	(279,085)	49,966
Principal portion of long term loans	962,447	824,691	845,598	946,521	1,352,008
Ghana Cedi (GH¢) to US$ Exchange Rate	4.8200	5.2150	5.7342	5.9961	8.3150

Financial Summary (VRA)

		2018	2019	2020	2021	2022
Return on Average Equity	%	9.07	10.2	9.54	4.12	2.38
Return on Average Net Fixed Assets -Plant in Operation	%	8.18	10.4	10.29	4.50	2.61
Current Assets Ratio	Times	1.17	1.16	1.18	1.26	1.36
Debt Service Ratio	Times	0.71	0.9	0.77	0.75	0.55
Gearing Ratio	%	27.11	9.25	8.86	9.85	8.70
GWh Generated and Purchased less Station Use (X 106)	GWh	9,597	11,364	10,476	11,586	12,643
Total Production Expense including depreciation per MWh	GH¢	407	291	302	312	402
Total cost of production including depreciation and interest but excluding Debt Fluctuation per MWh	GH¢	386	323	275.30	288	354
Average Revenue/MWh Generated and Purchased	GH¢	322	352	366.76	497	350
Total Installed Capacity	MW	2,684	2,520	2,651	2,651	2532
Ratio of gross hydro generation to firm capability of Akosombo and Kpong	%	96	117.13	113.65	116	117.08
System Peak Demand	MW	2,371	2,881	2,857	2886	3007
Ratio of System Peak Demand to Installed Capacity	%	88	114.33	107.77	108.86	119

REPORT OF THE DIRECTORS TO THE MEMBERS OF THE VOLTA RIVER AUTHORITY

The Directors present their report and the consolidated and separate financial statements of the Authority for the year ended 31 December 2022.

The Authority's Directors are responsible for the preparation of the consolidated and separate financial statements that give a true and fair view of the consolidated and separate financial statements of Volta River Authority, comprising the consolidated and separate statement of financial position at 31 December 2022, and the consolidated and separate statements of comprehensive income, changes in equity and cash flows for the year then ended, and the notes to the financial statements which include a summary of significant accounting policies and other explanatory notes, in accordance with International Financial Reporting Standards and in the manner required by the Volta River Development Act 1961, (Act 46), as amended by Act 692, (2005). In addition, the Directors are responsible for the preparation of the Report of the Directors

The Authority's Directors are also responsible for such internal control as the Directors determine 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 auditor is responsible for reporting on whether the financial statements give a true and fair view in accordance with the applicable financial reporting framework.

FINANCIAL STATEMENTS

The results for the year are as set out in the attached Financial Statements.

NATURE OF BUSINESS

The Authority's primary function is to generate and supply electrical energy for industrial, commercial and domestic use in Ghana. The Authority is also responsible for safe-guarding the health and socio-economic well-being of inhabitants of the communities alongside the lake, and management of any incidental issues including maintenance of the environment. The Authority also provides ferry and hospitality services through its subsidiaries.

There was no change in the nature of business of the Authority during the year.

STATE OF AFFAIRS OF THE AUTHORITY

The Directors consider that the challenges in the finances of the Authority and its Subsidiaries have started a gradual turn around as shown by the positive current ratio. They have also made an assessment of the Authority's ability to continue as a going concern. Given that the VRA is the State's sole electric generation utility, and Government's recent and on-going initiatives to remedy these financial challenges, the Directors are confident and believe the Authority will be a going concern in the years ahead.

The gradual improvement in the bottom line of the Authority emanated from Management's strategic decision to switch to the use of relatively cheaper natural gas for power generation as opposed to Light crude oil and Distillate crude oil. The Authority's adherence to strict budgetary limits led to a reduction in costs and also accounted for the improvement in the financial performance.

To further improve the liquidity position and avert the recurrence of a debt build up, the implementation of the Cashflow Waterfall Mechanism, which is being led by the Ministries of Energy and Finance, will ensure that all stakeholders in the power supply chain benefit proportionately from the total revenue collected by the distribution company, Electricity Company of Ghana (ECG) thereby reducing the liquidity risk concerns that have plagued the power sector in recent years.

APPROVAL OF THE FINANCIAL STATEMENTS

The financial statements were approved by the Board of Directors on 27th April, 2023 and are signed on their behalf by:

KOFI TUTU-AGYARE	**EMMANUEL ANTWI-DARKWA**
BOARD CHAIRMAN	**CHIEF EXECUTIVE**
27th April, 2023	27th April 2023

CORPORATE GOVERNANCE

Introduction

The Authority is committed to the principles and implementation of good corporate governance. The Authority recognizes the valuable contribution that it makes to long-term business prosperity and to ensuring accountability to its stakeholders. The Authority is managed in a way that maximises long term stakeholders value and takes into account the interests of all of its stakeholders.

The Authority believes that full disclosure and transparency in its operations are in the interests of good governance. As indicated in the statement of responsibilities of directors and notes to the accounts, the business adopts standard accounting practices and ensures sound internal control to facilitate the reliability of the financial statements.

The Board of Directors

The board is responsible for setting the Authority's strategic direction, for leading and controlling the Authority and for monitoring activities of executive management. The board presents a balanced and understandable assessment of the Authority's progress and prospects. The board consists of the Chairman, six non-executive directors and one executive director who is the Chief Executive. The board members, except the Chief Executive are independent of management and free from any constraints, which could materially interfere with the exercise of their independent judgement. They have experience and knowledge of the industry, markets, financial and other business information to make a valuable contribution to the Authority's progress. The Chief Executive is a separate individual from the chairman who implements the strategies and policies adopted by the board. The board meets at least four times each year.

The Risk and Audit Committee

The Risk and Audit committee as a sub-committee of the Board is made up of four non-executive directors. The main board determines its terms of reference and they report back to the board. The role of the Risk and Audit Committee among others includes providing oversight of the independence of financial reporting process and objectivity of the external auditor, internal financial process, compliance with laws and regulations and the safeguarding of assets.

Systems of Internal Control

The Authority has well-established internal control systems for identifying, managing and monitoring risks. These are designed to provide reasonable assurance that the risks facing the business are being controlled. The internal audit function of the Authority plays a key role in providing an objective view and continuing assessment of the effectiveness of the internal control systems in the business. The systems of internal control are implemented and monitored by appropriately trained personnel and their duties and reporting lines are clearly defined.

Code of Business Ethics

Management has communicated the principles in the Authority's Code of Conduct to its employees in the discharge of their duties. This code sets the professionalism and integrity required for business operations which covers compliance with the law, conflicts of interest, environmental issues, obligations of business partners, reliability of financial reporting, bribery and strict adherence to the principles so as to eliminate the potential for illegal practices.

Conflict of Interest

The Authority, as part of its progressive step to ensuring that there is no abuse of authority in the discharge of duties by the Directors, ensures full disclosure of directors with regards to their relationship with other competitors by virtue of other directorships held as well as other business engagements. With regards to internal dealings, none of the non- executive directors has placed himself or herself in situations that give rise to conflict of interest by virtue of being awarded a contract or taking up any significant role(s) in the general operations of the business.

Report on the Audit of the Volta River Authority's Consolidated and Separate Financial Statements

Opinion

We have audited the consolidated ("the Group") and separate ("VRA") financial statements of Volta River Authority, which comprise the consolidated and separate Statements of Financial Position at 31 December, 2022, and the Consolidated and separate Statements of Comprehensive Income, Statement of Changes in Equity and Statement of Cash Flows for the year then ended, and the notes to the Financial Statements which include a summary of significant accounting policies and other explanatory notes, as set out on pages 21 to 63.

In our opinion, these consolidated and separate financial statements give a true and fair view of the consolidated and separate financial position of Volta River Authority as at 31 December, 2022, and of its consolidated and separate financial performance and consolidated and separate cash flows for the year then ended in accordance with International Finance Reporting Standards (IFRS) and in the manner required by the Volta River Development Act, 1961 (Act 46), as amended by Act 692 of 2005 and the Companies Act 2019, (Act 992).

Basis for Opinion

We conducted our audit in accordance with International Standards for Supreme Audit Institutions. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated and Separate Financial Statements section of our report. We are independent of the Group in accordance with the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants (IESBA Code), together with the ethical requirements that are relevant to our audit of the financial statements in Ghana, and we have fulfilled our other ethical responsibilities in accordance with these requirements and the IESBA Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Other Information

The Directors are responsible for the other information. The other information comprises the information included in the Annual Report and the Report of the Directors as required by Volta River Development Act 1961, (Act 46), as amended by Act 692 of 2005, but does not include the consolidated and separate financial statements and our auditor's report thereon. Our opinion on the consolidated and separate financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated and separate 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 concluded 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 Consolidated and Separate Financial Statements

The Directors are responsible for the preparation of the Financial Statements that give a true and fair view in accordance with International Financial Reporting Standards and in the manner required by the Volta River Development Act 1961, (Act 46) as amended by Act 692 of 2005, and for such internal control as the directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated and separate Financial Statements, the Directors are responsible for assessing the Group and its subsidiaries' ability to continue as going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Directors either intend to liquidate the Group or to cease operations, or have no realistic alternative but to do so.

The Directors are responsible for overseeing the Group's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated and Separate Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with International Standards of Supreme Audit Institutions (ISSAIs), which is consistent with the Fundamental Auditing Principles (ISSAIs 100-999) of the International Standards of Supreme Audit Institutions, will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with International Standards of Supreme Audit Institutions (ISSAIs) which is consistent with the Fundamental Auditing Principles (ISSAIs 100-999) of the International Standards of Supreme Audit Institutions, we exercised professional skepticism throughout the audit. We also:

- Identify and assess the risk of material misstatement of the Consolidated and Separate Financial Statements, whether due to fraud or error, design and perform audit procedures responsive to those risk, and obtain evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal 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 Group's internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Management.

- 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 uncertain exists related to events or conditions that may cast significant doubt on the 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 Group 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 entities or business activities within the Group to express an opinion on the consolidated and separate financial statements. We are responsible for the direction, supervision, and performance of the Group audit. We remain solely responsible 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 controls that we identify during our audit.

We also provide the Directors with a statement that we have complied with relevant ethical requirement regarding independence and to communicate with them all relationship and other matters that may reasonably be thought to bear on our independence and where applicable related safeguard.

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 laws or regulations preclude public disclosures about the matter or when in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Report on other legal and Regulatory Requirements.

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

(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 and its subsidiaries, so far as appears from our examination of those books; and

(iii) the Authority's Balance Sheet (included in as the statement of financial position) and profit and loss account (included in as the Statement of Comprehensive Income) agree with the books of account.

(iv) We are independent of the Authority and its subsidiaries pursuant to section 143 of the Act

JOHN GODFRED KOJO ADDISON
DEPUTY AUDITOR-GENERAL/CAD
for: **AUDITOR-GENERAL**
ACCRA, GHANA

Dated 28 April 2023.

JOHN G. K. ADDISON
DEPUTY AUDITOR-GENERAL/CAD
AUDIT SERVICE, ACCRA

STATEMENT OF FINANCIAL POSITION
AS AT 31 DECEMBER 2022

VOLTA RIVER AUTHORITY

		VRA		GROUP	
		2022	2021	2022	2021
ASSETS	**Note**	**GH¢'000**	**GH¢'000**	**GH¢'000**	**GH¢'000**
Property, Plant and Equipment	8b	25,349,408	17,794,309	35,655,159	25,227,429
Intangible Assets	8d	-	-	-	-
Investment in Subsidiaries	9	460,825	460,276	-	-
Investment in Equity Securities	9b	-	-	856,270	14,104
Other long term investments	10	174,726	102,765	1,245,176	1,764,199
Trade and other Receivables	12	23,312	23,269	23,312	23,269
Non-current Assets		**26,008,271**	**18,380,619**	**37,779,917**	**27,029,001**
Inventory	11	502,485	431,712	567,883	479,482
Trade and Other Receivables	12	10,288,370	7,635,703	10,070,040	7,647,803
Current Tax Assets	7b	-	-	2,145	1,163
Short term investments	13	33,261	83,334	393,604	131,029
Cash and Cash Equivalents	14	927,495	480,820	1,779,544	975,299
Current Assets		**11,751,611**	**8,631,569**	**12,813,216**	**9,234,777**
Total Assets		**37,759,882**	**27,012,189**	**50,593,133**	**36,263,778**
Equity					
Investment by Republic of Ghana	17	4,617,713	4,433,937	4,617,713	4,433,937
Retained Earnings Account		49,966	(279,085)	(296,462)	(397,449)
Revaluation Surplus	18	21,861,957	14,097,485	33,135,435	22,308,332
Debt Contingency Fund Reserve	21	38,921	38,921	38,921	38,921
Government of Ghana Grant	20	-	-	2,598	1,232
Total Equity		**26,568,557**	**18,291,259**	**37,498,205**	**26,384,973**
Liabilities					
Employee Benefit Obligations	19	271,124	243,963	322,975	290,331
Trade and other Payables	15	270,067	269,740	270,067	270,615
Capital Grant	15	-	328	49,068	43,859
Deferred Tax	7c	-	-	272	411
Borrowings	16	1,990,600	1,345,862	2,150,247	1,445,696
Non-Current Liabilities		**2,531,791**	**1,859,892**	**2,792,630**	**2,050,911**
Trade and Other Payables	15	8,363,103	6,404,819	9,692,130	7,045,482
Current Tax	7b	-	-	473,384	426,024
Borrowings	16	296,431	456,219	136,783	356,387
Current Liabilities		**8,659,534**	**6,861,038**	**10,302,298**	**7,827,893**
Total Liabilities		**11,191,325**	**8,720,930**	**13,094,927**	**9,878,805**
Total Equity and Liabilities		**37,759,882**	**27,012,189**	**50,593,133**	**36,263,778**

The Financial Statements were approved by the Board of Directors on 27th April, 2023 and are signed on their behalf by:

KOFI TUTU-AGYARE

EMMANUEL ANTWI-DARKWA

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

VOLTA RIVER AUTHORITY

		VRA		GROUP	
		2022	**2021**	**2022**	**2021**
	Note	**GH¢'000**	**GH¢'000**	**GH¢'000**	**GH¢'000**
Revenue	2a	5,453,530	3,932,207	5,739,885	4,219,986
Cost of Sales	3	(4,358,801)	(3,054,944)	(5,235,220)	(3,498,073)
Gross Profit/(Loss)		1,094,729	877,263	504,665	721,914
Other Operating Income	2b	166,161	132,106	369,805	265,637
Government of Ghana Support on AMERI tariff shortfall	2c	-	127,294	-	127,294
Administrative Expenses	4	(727,450)	(563,341)	(1,012,915)	(759,433)
		(561,289)	(303,941)	(643,110)	(366,502)
Operating profit/(Loss)		**533,440**	**573,322**	**(138,445)**	**355,412**
Financial Income	5a	9,125	7,811	169,655	240,346
Financial Expenses	6	(116,466)	(87,596)	(120,833)	(91,015)
Net Exchange Loss		(315,206)	(380,779)	(88,479)	(389,454)
Profit / (Loss) before taxation		**110,893**	**112,757**	**(178,102)**	**115,289**
Taxation	7a	-	-	(99,081)	(55,290)
Profit / (Loss) for the year		**110,893**	**112,757**	**(277,183)**	**59,999**
Other Comprehensive Income					
Items that will not be reclassified to profit or loss:					
Revaluation of Property, Plant and Equipment	18	8,004,536	8,503,971	11,226,143	15,034,171
Other Comprehensive Income, net of tax		**8,004,536**	**8,503,971**	**11,226,143**	**15,034,171**
Total Comprehensive Income		**8,115,429**	**8,616,728**	**10,948,960**	**15,094,170**

VOLTA RIVER AUTHORITY

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

VRA	Rebublic of Ghana Contribution GH¢'000	Retained Earnings Surplus GH¢'000	Capital Surplus GH¢'000	Debt Contingency Fund Reserve GH¢'000	Total Equity GH¢'000
2022					
Balance at 1st January, 2022	4,433,938	(279,085)	14,097,485	38,921	18,291,259
* Prior Year Adjustment		(21,907)			(21,907)
Profit (Loss) for the year	-	110,893	-	-	110,893
Other Comprehensive Income	-	-	8,004,536	-	8,004,536
					-
Total Comprehensive Income	-	**110,893**	**8,004,536**	-	**8,115,429**
Additional Investments in VRA	183,776	-	-	-	183,776
Transfer to Retained Earnings (Note 18)	-	240,064	(240,064)	-	-
Transfer to Debt Contingency Fund Reserve	-				-
Balance at 31st December, 2022	**4,617,714**	**49,966**	**21,861,957**	**38,921**	**26,568,558**
2021					
Balance as at 1st January 2021	4,305,586	(750,510)	5,952,182	38,921	9,546,179
* Prior Year Adjustment	-	-	-	-	-
Profit (Loss) for the year	-	112,757	-	-	112,757
¥ Other Comprehensive Income	-	-	8,503,971	-	8,503,971
Total Comprehensive Income	-	**112,757**	**8,503,971**	-	**8,616,728**
Additional Investments in VRA	128,352	-	-	-	128,352
Transfer to Retained Earnings (Note 18)	-	358,668	(358,668)	-	-
Transfer to Debt Contingency Fund Reserve	-	-	-	-	-
Balance at 31st December, 2021	**4,433,938**	**(279,085)**	**14,097,485**	**38,921**	**18,291,259**

VOLTA RIVER AUTHORITY

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

VOLTA RIVER AUTHORITY

GROUP	Rebublic of Ghana Contribution	Retained Earnings Surplus	Revaluation	Debt Contingency Fund Reserve	Government of Ghana Grant	Other Reserves	Total Equity
	GH¢'000	GH¢'000	GH¢'000	GH¢'000	GH¢'000	GH¢'000	GH¢'000
Balance at 1st January, 2022	4,433,938	(397,449)	22,308,331	38,921	1,232	-	26,384,973
Profit / (Loss) for the year	-	(277,183)	-	-		-	(277,183)
Other Comprehensive Income	-	-	11,308,697	-		-	11,308,697
Total Comprehensive Income	-	**(277,183)**	**11,308,697**	-	-	-	**11,031,514**
Additional Investments in VRA	183,776	-	-	-	-	-	183,776
*Prior year adjustments	-	378,170	**(85,264)**	-	-	-	292,906
Government of Ghana Grant	-	-		-	1,366	-	1,366
Transfer to Retained Earnings (Note 18)	-		(396,329)	-	-	-	(396,329)
Balance at 31st December, 2022	**4,617,714**	**(296,462)**	**33,135,435**	**38,921**	**2,598**	-	**37,498,205**
2021							
Balance at 1st January, 2021	4,305,586	(876,109)	7,701,960	38,921	1,232	-	11,171,590
Profit / (Loss) for the year	-	59,999	-	-	-	-	59,999
Other Comprehensive Income	-		15,034,171	-	-	-	15,034,171
Total Comprehensive Income	-	**59,999**	**15,034,171**	-	-	-	**15,094,170**
Additional Investments in VRA	128,352			-	-	-	128,352
*Prior year adjustments	-	(1,653)	(7,486)	-	-	-	(9,139)
Government of Ghana Grant		-		-	-	-	-
Transfer to Retained Earnings (Note 18)	-	420,314	(420,314)	-	-	-	-
							-
Transfer to Debt Contingency Fund Reserve	-	-	-	-	-	-	-
Balance at 31st December, 2021	**4,433,938**	**(397,449)**	**22,308,331**	**38,921**	**1,232**	-	**26,384,973**

** relates to tansfer of capital reserves to retained earnings in 2022*

STATEMENT OF CASH FLOWS
FOR THE YEAR ENDED 31 DECEMBER 2022

		VRA		GROUP	
		2022	2021	2022	2021
	Note	GH¢'000	GH¢'000	GH¢'000	GH¢'000
Net Cash from Operating Activities	22	**637,248**	**646,220**	**964,059**	**1,021,557**
Cash Flows from Investing Activities					
Interest Received		-	-	5,552	4,679
Purchasing of Property, Plant and Equipment		(6,481)	(45,998)	(121,227)	(70,350)
Proceeds from sales of Property, Plant and Equipment	8c	546	48	546	48
Deferred expenditure		-	-	-	-
Acquisition of short term investment		-	-	353,412	-
Acquisition of long term investments		(549)	(14,218)	(549)	(14,218)
Payments towards Capital Works-In-Progress		(324,350)	(133,589)	(324,334)	(133,520)
Net Cash used in investing activities		**(330,834)**	**(193,757)**	**(86,600)**	**(213,360)**
Cash flows from Financing Activities					
Net inflows from increase in stated capital		183,776	-	185,142	1,351
Proceeds from loans and borrowings		69,836	72,283	84,249	51,225
Repayment of borrowings		(163,426)	(241,739)	(224,867)	(215,540)
Payment of finance lease obligations		-	(497,344)	-	(496,038)
Shareholders advance		-	-	7,583	4,019
Net Cash used in financing activities		**90,186**	**(666,800)**	**52,107**	**(654,983)**
Net increase/(decrease) in Cash and cash equivalents		**396,600**	**(214,337)**	**929,566**	**153,213**
Cash and cash equivalents at the beginning of the year	14	564,155	778,491	1,106,328	962,225
Exchange rate fluctuation on cash and cash equivalents		-	-	137,253	(9,111)
Cash and cash equivalents at the end of the year		**960,756**	**564,155**	**2,173,147**	**1,106,328**

1.0 REPORTING ENTITY

The Authority was incorporated by the Volta River Development Act 1961, (Act 46), as amended by Act 692, (2005) and it is domiciled in Ghana. These consolidated financial statements comprise of the Authority and its subsidiaries (together referred to as the "Group") for the year ended 31st December 2022 and the Group's interest in associates. The separate financial statements as at and for the year ended 31st December, 2022 comprise the financial statements of the Authority.

1.1 Basis of measurement

The Consolidated and separate Financial Statements ("Financial Statements") have been prepared on the historical cost basis, except for property, plant and equipment and available-for-sale financial assets that have been measured at fair value.

1.2 Statement of Compliance

The Financial Statements have been prepared in accordance with the International Financial Reporting Standards (IFRS) and its interpretations adopted by the International Accounting Standards Board (IASB) in the manner required by the Volta River Development Act, (Act 46), as amended by Act 692, (2005).

1.2.1 Functional and Presentation Currency

The financial statements are presented in Ghana Cedis which is the Authority's functional currency. All financial information presented in Ghana Cedis have been rounded to the nearest thousand, except where otherwise indicated.

1.2.2 Use of judgements and estimates

In preparing these consolidated and separate Financial Statements, Management has made judgements, estimates and assumptions that affect the application of the Group's accounting policies and the reported amounts of assets and liabilities, income and expenses. Actual results may differ from these estimates.
Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions in estimates are recorgnised prospectively.

Information about judgements made in applying accounting policies that have the most significant effects on the amounts recognised in the Consolidated Financial Statements is included in the following notes:

- Note 16d - leases: whether an arrangement contains a lease.
- Note 16d - lease classification.
- Note 10 - consolidation: whether the Group has significant influence even though it holds less than 20 per cent of the voting rights of another entity.

Information about judgements made in applying accounting policies that have the most significant effects on the amounts recognised in the Consolidated Financial Statements is included in the following notes:

- Note 19c -measurement of defined benefit obligation: key actuarial assumptions.
- Note 1.8.2.9 - impairment losses.

Indexation revaluation of property, plant and equipm ent

In line with international best practice, it has been the Authority's policy to have its assets revalued by independent, professional valuers every five years. However, in order to avoid sudden large changes in the value of the assets base, and consequently in the return that the Authority is covenanted to achieve for both the International Lending Agencies and the Government of Ghana, the Authority applies indices to revalue its assets monthly.

Indexation revaluation of property, plant and equipment

The composite index used for the annual revaluation is therefore based on the premise that the Authority's assets base increase by the general price levels in the US Dollar and translated into Ghanaian Cedi terms for finance reporting. The computation of a composite index is based on the exchange rate between the GH¢ and the US dollar, and the annual CPI in the US. The assumption underlying the selection of the US inflation base is that the Authority's assets base is about 85% foreign-currency procured from the United States and Europe. Furthermore, most of the items are obtained from advanced countries like the United States, Europe and Asia (China) where price levels are fairly stable or increase marginally. The Authority thus assumed that the US inflation rates fairly represents the general price levels for foreign purchases made by the VRA.

1.3 Basis of Consolidation

The Authority's 2022 Consolidated Financial Statements include the results of the Authority and its subsidiaries.

Business combinations

Business combinations are accounted for using the acquisition method when control is transferred to the Group. The consideration transferred in the acquisition is measured at fair value, as are the identifiable net assets acquired . Any goodwill that arises is tested annually for impairment. Any gain on a bargain purchase is recognized in profit or loss immediately. Transaction costs are expensed as incurred, except where they relate to the issue of debt or equity securities.

The consideration transferred does not include amounts that relate to the settlement of pre-existing relationships, such amounts are generally recognized in profit or loss.

Any contingent consideration payable is measured at fair value at the acquisition date. If the contingent consideration is classified as equity, then it is not re-measured and settlement is accounted for within equity. Otherwise, subsequent changes in the fair value of the contingent consideration are recognised in profit or loss.

Subsidiaries

Subsidiary is an entity which the Group has power over, rights to variable returns and the ability to use its power to affect those returns. The accounting policies of subsidiaries have been changed when necessary to align them with the policies adopted by the Group. The financial statements of subsidiaries are included in the consolidated financial statements from the date on which control commences until the date when control ceases. The financial statements of the subsidiaries used to prepare the consolidated financial statements were prepared as of the Authority's reporting date. The subsidiaries consolidated are Volta Lake Transport Company (VLTC), Akosombo Hotel Limited (AHL), Northern Electricity Distribution Company (NEDCo), Takoradi Power Company Limited (TAPCO), VRA Health Services Limited (VHSL), and VRA Property Holding Company Limited (PROPCo).

Transactions eliminated on Consolidation

Intra-group balances and transactions, and any unrealized income and expenses (Except foreign currency transaction gains or losses) rising from intra-group transactions, are eliminated in preparing the consolidated financial statements. Unrealized gains arising from transactions with equity-accounted investees are eliminated against the investment to the extent of the Group's interest in the investee. Unrealized losses are eliminated in the same way as unrealized gains, but only to the extent that there is no evidence of impairment.

Loss of Control

When the Group loses control over a subsidiary, it derecognizes the assets and liabilities of the subsidiary, any related non-controlling interests and other components of equity. Any surplus or deficit arising on the loss of control is recognized in profit or loss. Any retained interest in the former subsidiary is accounted for as an equity-accounted investee or in accordance with the Group's accounting policy for financial instructions.

Interests in investees

The investment in associates is recorded at historical cost. Any distribution from profits or dividends are recognized as income

Separate financial statements

In the separate financial statements, investments in subsidiaries and associates are accounted for at cost less impairment. Cost also includes direct attributable costs of investment.

1.4 New standards and interpretations not adopted
IFRS 4 Insurance Contracts

IFRS 14 "Insurance Contracts" applies, with limited exceptions to all insurance contracts (including reinsurance contracts) that an entity issues and to reinsurance contracts that it holds. In light of IASB's comprehensive project on insurance contracts, the standard provides a temporary exemption from the requirements of some other IFRSs, including the requirement to consider IAS 8 "Accounting Policies, Changes in Accounting Estimates and Errors" when selecting accounting policies for insurance contracts.The IASB tentatively decided to defer the effective date of IFRS 17, Inaurance Contracts to annual periods beginning on or after January 1, 2022. The IASB also tentatively decided to defer the fixed expiry date so that all insurance entities must apply IFRS 4 for annual periods on or after January 01, 2023.

IFRS 17

IFRS 17 establishes the principles for the recognition, measurement, presentation and disclosure of insurance contracts within the scope of the standard. The objective of IFRS 17 is to ensure that an entity provides relevant information that faithfully represents those contracts. This information gives a basis for users of the financial statements to assess the effect that insurance contracts have on the entity's financial position, financial performance and cash flows. The IASB also tentattively decided to defer the fixed expiry date so that all insurance entities must apply IFRS 17 for annual periods on or after January 01, 2023.

1.5.0 SUMMARY OF SIGNIFICANT ACCOUNTING STATEMENTS

1.5.1 Revenue

(i) Sale of Electricity

Revenue from sale of electricity is recognised when the significant risk and rewards of ownership have been transferred to the customer, recovery of the consideration is probable, the associated costs and possible return of goods can be estimated reliably, there is no continuing management involvement with the goods and the amount of revenue can be measured reliably. Revenue from the sale of electricity is measured net of returns, trade discounts, taxes and volume rebates. Revenue from the sale of electricity is recognised when the electricity is transmitted to the customer.

1.5.2 Income from rendering of services

Revenue from rendering of services is recognised when the services have been rendered, recovery of the consideration is probable and the amount of revenue can be measured reliably.

1.5.3 Finance income and expenses

The Group's finance income and finance expenses include:

- interest income on funds invested or held in bank accounts
- interest expenses on loans and borrowings
- interest cost on finance lease obligation
- interest on delayed invoices

Interest income and expense is recognised, as it accrues in profit or loss, using the effective interest method.

1.5.4 Government Grant

Grant and assistance from the government are recognised as deferred income at fair value if there is reasonable assurance that the grant will be received and that the Group will comply with the conditions associated with the grant; they are then recognised in profit or loss as other income on a systematic basis over the useful life of the asset. A grant tied to non-current asset is deducted from the gross cost of the related asset to get the carrying value of the asset. A grant intended to cover expenses is reported in profit or loss on a systematic basis in the periods in which the expenses are recognised.

1.5.5 Foreign currency translations

Foreign currency transactions are translated into the functional currency using exchange rates prevailing at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions, and from the translation at year-end exchange rates of monetary assets and liabilities denominate in foreign currencies, are recognised in profit or loss.

Non-monetary assets and liabilities are translated at historical exchanges rates, if held at historical cost or exchange rates at the date that fair value was determined, if held at fair value and the resulting foreign exchange gains and losses are recognised in profit or loss.

(i) **Foreign Operations**

The assets and liabilities of foreign operations are translated into Ghana Cedi at the spot exchange rates at the reporting date. The income and expenses of foreign operations are translated into Ghana Cedi at the average exchange rates for the period.

Foreign currency differences arising on the translation of assets and liabilities of foreign operations are recognised in other comprehensive income and presented within equity.

When a foreign operation is disposed off, the cumulative amount in equity related to that foreign operation is reclassified to profit or loss as part of the gain or loss on disposal.

1.5.6 Financial Instruments

The Group classifies non-derivative financial assets into the loans and other receivables category and classifies non-derivative financial liabilities into the other financial liabilities category.

The Group initially recognises loans and receivables and debt securities on the date when they originate and all other financial assets and financial liabilities on the date of trade when the entity becomes a party to contractual provisions of the instrument.

The Group derecognises a financial assets when the contractual rights to the cash flow from the asset expire, or it transfers the rights to receive the contractual cash flows in a transaction in which substantially all risk and rewards of ownership of the financial asset are transferred, or it retain control over the transferred asset.

Any interest in such derecognised financial asset that is created by the Group is recognised as a separate assets or liability. The Group derecognises a financial liability when its contractual obligation are discharged, cancelled or expire. The Authority's financial assets include cash and bank balances, trade and other receivables, short term investment and investments in equity securities.

1.5.7 Financial Assets

Loans and receivables comprises Cash and Bank Balances, short term investments, shareholder advances to subsidiaries and trade and other receivables.

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. These assets are initially measured at fair value plus any directly attributable transaction cost. Subsequent to initial recognition, they are measured at amortised cost using the effective interest method. Short-term receivables with no stated interest rate are measured at the original invoice amount if the effect of discounting is immaterial.

Impairment

Financial assets not classified at fair value through profit or loss are assessed at each reporting date to determine whether there is objective evidence of impairment.

Objective evidence that financial assets are impaired includes default or delinquency by a debtor, restructuring of an amount due to the Group on terms that the Group would not consider otherwise, indications that a debtor will enter bankruptcy, adverse changes in the payment status of borrowers, economic conditions that correlate with defaults.

Impairment (continued)

An impairment loss in respect of a financial asset measured at amortised cost is calculated as the difference between the asset's carrying amount and the present value of the estimated future cash flows discounted at the asset's original effective interest rate. Losses are recognised in profit or loss and reflected in an allowance account against loans and receivables. When the Group considers that there are no realistic prospects of recovery of the asset, the relevant amounts are written off. Interest on the impaired asset continues to be recognised. When an event occurring after the impairment was recognised caused the amount of impairment loss to decrease, the decrease in impairment loss is reverse through profit or loss.

The Group considers evidence of impairment for these assets at both individual and collective level. All individually significant financial assets are assessed for impairment on an individual basis. Those found not to be impaired are then collectively assessed for any impairment that has been incurred but not yet individually identified. Assets that are not individually significant are collectively assessed for impairment. Collective assessment is carried out by grouping together assets with similar risk characteristics.

In assessing collective impairment, the Group uses historical information on the timing of recoveries and the amount of loss incurred, and makes an adjustment if current economic and credit conditions are such that the actual losses are likely to be greater of lesser than suggested by historical trends.

1.5.8 Financial Liabilities

Non-derivative financial liabilities are initially measured at fair values less any directly attributable transaction cost. Subsequent to initial recognition, these liabilities are measured at amortised cost using the effective interest method.

Other financial liabilities comprise of loans and borrowing and trade and other payables.

1.5.9 Offsetting of financial instruments

Financial assets and financial liabilities are offset and the net amount reported in the statement of financial position if, and only if, there is a currently enforceable legal right to offset the recognised amounts and there is an intention to settle on a net basis.

1.5.10 Property, Plant and Equipment

(i) Recognition and Measurement

Property, Plant and Equipment are measured at revalued amount less accumulated deprecation and any accumulated 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 relate equipment is capitalised as part of that equipment. When parts of an items of property, plant and equipment have different useful lives, they are accounted for a separate items (major components).

Any accumulated depreciation at the date of revaluation is adjusted to equal the difference between the gross carrying amount and the carrying amount of the assets after taking into account accumulated impairment losses. An increase in the carrying amount of property, plant and equipment as a result of a revaluation is recognised in other comprehensive income and accumulated in equity under revaluation reserve.

(i) **Recognition and Measurement (continued)**

However, the increase is recognised in profit or loss to the extent that it reverses a revaluation decrease of the same asset previously recognised in profit or loss.

A revaluation decrease is recognise in profit or loss. However, the decrease is recognised in other comprehensive income to the extent of any credit balance existing in the revaluation reserve in respect of that asset. The surplus on revaluation is transferred to retained earnings as the relevant revalued assets is used. The amount transferred is the difference between depreciation based on the revalued carrying amount of the asset and depreciation based on the asset's original cost.

Valuations are performed with sufficient regularity to ensure that the fair value of a revalued asset does not differ materially from, its carrying amount.

Any gain or loss on the disposal of an item of property, plant and equipment (calculated as difference between the proceeds from disposal and carrying amount of the item) is recognised in profit or loss.

(ii) **Subsequent cost**

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 Authority and its cost can be measured reliably. The costs of the day-to-day servicing and maintenance of property, plant and equipment are recognised in profit or loss as incurred.

(iii) **Depreciation**

Depreciation is calculated and 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. Freehold land is not depreciated.

Depreciated is charged in the year in which an asset is acquired or a capital work-in-progress is available for use. The annual depreciation rate and estimated useful lives for the current and comparative years of significant items of major classes of depreciation property, plant and equipment are as follows;

	Rate of Depreciation (%)	**Useful life**
Dam, Powerhouse and Civil Works	Between 0.67 and 2.2	45 - 150
Transmission Network	Between 2.2 and 3.3	30 -45
Akosombo/Akuse Township	2.5	40
Buildings	2.5	40
Hydro Generating Plant and Machinery	Between 2.2 and 3.0	33 - 45
Aviation and Marine Equipment	12.5	8
Motor Vehicles	Between 10.0 and 25.0	4 -10
Equipment and Furniture	Between 12.5 and 25.0	4 -8
Meters/Consumer Connections		20 - 25
Thermal Generating Plants and Machinery	Between 4.0 and 10.0	10 - 25
Distribution Network	Between 2.5 and 4.0	25 -40
Computer Equipment	Between 20.0 and 25.0	4 -5
Communication Equipment	Between 3.3 and 6.7	15 -30

(iii) **Depreciation (continued)**

Leased assets are amortised over the useful life of the asset. However, if there is no reasonable certainty that the Group will obtain ownership by the end of the lease term, the asset is amortized over the shorter of the estimate useful life or leased term.

Depreciation methods, useful lives and residual values are reassessed at each reporting date and adjusted if appropriate.

(iv) **Capital work-in-progress**

Property, plant and equipment under construction are stated at initial cost and depreciated from the date the asset is available for use over its estimated useful life. Cost of capital work-in-progress include the cost of materials and direct labour, and any other cost directly attributable to bringing the asset to a working condition for its intended use.

Assets are transferred from capital work-in-progress to an appropriate category of property, plant and equipment when they become ready for its intended use.

(v) **Impairment of Non-financial Assets**

The carrying amount of the Group's non-financial assets, other than inventories and deferred tax assets 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. An impairment loss is recognised if the carrying amount of an asset or Cash Generating Unit (CGU) exceeds its recoverable amount.

For impairment testing, assets are grouped together into the smallest group of assets that generated cash inflows from continuing use that are largely independent of the cash inflows of other assets.

The recoverable amount of the asset is the greater of its value in use and its fair value less cost to sell. Value in use is based on the estimated future cash flows, discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and risks specific to the asset of CGU.

An impairment loss is recognised if the carrying amount of the asset or CGU exceeds its recoverable amount.

All impairment losses are recognised in profit or loss. They are allocated to reduce the carrying amount of assets in the CGU on a pro rata basis.

An impairment loss is reversed only to the extend that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortisation, if no impairment loss had been recognised.

1.5.11 **Intangible Assets**

Software acquired by the Group is stated at cost less accumulated amortisation and accumulated impairment losses.

1.5.11 Intangible Assets

Subsequent expenditure on software assets is capitalised only when it increased the future economic benefits embodied in the specific asset to which it related. All other expenditure is expensed as incurred. Amortisation is recognised in profit or loss on a straight-line basis over the estimated useful life of the software, from the date that it is available for use. The estimated useful life of software is up to five-years.

1.5.12 Borrowing Costs

Borrowing costs are recognised, as an expense, in the period in which they are incurred, except to the extent that they are capitalised. Borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying asset are capitalised as part of the cost of that asset when it is probable that they will result in future economic benefits to the entity and that the costs can be measured reliably.

Borrowing cost that are not directly attributable to the acquisition, construction or production of a qualifying asset are recognised in profit or loss using the effective interest method.

1.5.13 Inventories

Inventories are measured at the lower of cost and net realizable value. The cost of inventories is based on the weighted average principle, and includes expenditure incurred in acquiring the inventories and bringing them to their existing location and condition.

Net realizable value is the estimated selling price in the ordinary course of business, less estimated costs of completion and the estimated costs necessary to make the sale.

1.5.14 Cash and Cash Equivalents

In the statement of cash flows, cash and cash equivalents includes short term investments and bank overdrafts that are repayable on demand and from an integral part of the Group's cash management. Cash and short-term deposits in the statement of financial position comprises cash at bank and on hand and short-term deposits with an original maturity of three months or less.

1.5.15 Employee Benefits

Short-term employee benefit obligations are measured on an undiscounted basis and are expensed as the related service is provided. A liability is recognised for the amount expected to be paid under short-term cash bonus or profit-sharing plans if the company 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.

Defined Contribution Plans

A defined contribution plan is a post-employment benefit plan under which the Group pays fixed contributions to a separate entity and will have no legal or constructive obligation to pay further amounts. Obligations for contributions to defined contribution pension plans are recognised as an expenses in profit or loss in the periods during which services are rendered by employees.

Defined Contribution Plans (continued)

The Group has the following defined contribution schemes:

Social Security and National Insurance Trust

Under the national pension scheme, the Group contributes 13% of employees' basic salary to the Social Security and National Insurance Trust (SSNIT) for employee pensions. The Group's obligation is limited to the relevant contributions, which have been recognised in the financial statements. The pension liabilities and obligations, however, rest with SSNIT.

Provident Fund

The Group has a Provident Fund Scheme for all employees who have completed their probation period with the Group. The Group contributes 10% of their basic salary to the Fund. Obligations under the plan are limited to the relevant contributions which have been recognised in the financial statements and are settled on due dates to the fund manager.

Defined benefit plans

The Group's obligation in respect of defined benefit plans is calculated separately for each plan by estimating the amount of future benefits that employee have earned in the current and prior periods, discounting that amount and deducting the fair value of any plan assets.

The calculation of defined benefit obligations is performed annually by a qualified actuary using the projected unit credit method. Re-measurements of the net defined benefit liability, which comprise actuarial gains and losses is recognised immediately in other comprehensive income.

The Group determines the net interest expense (income) on the defined benefit liability for the period by applying the discount rate used to measure the defined benefit obligation at the beginning of the annual period to the defined benefit liability at the period end, taking into account any changes in the defined benefit liability during the period as a result of contributions and benefit payments.

Net interest expenses and other expenses related to defined benefit plants are recognised in personnel expenses in profit or loss. When the benefits of a plan are change or when a plan is curtailed, the resulting change in benefits that relate to past services or the gain or loss on curtailment is recognised immediately in profit or loss. The Group recognises gains and losses on the settlement of a defined benefit plan when the settlement occurs.

The Group has the following defined benefit plans:

Long-service awards

The defined benefit scheme entitles employee to a benefit package at the end of their service with the Group. This benefit package is paid at the point of exit on scale that have been graduated based on the length of services ranging from 10 to 40 years and more.

Severance benefits

This relate to reward (packages) paid to employees who attain certain milestone with the Group and exit before their due date of retirement.

Post-retirement medical benefit

There is no contribution by the employee toward this benefit and no insurance scheme. The employer simply bears the medical costs (no cap defined) of the retiree and their spouse for as long as the retiree is alive. After the death of the retiree, the spouse will be taken care of for 6 months after which they will be removed from the scheme.

1.6.0 **Leases**

The Group has adopted IFRS 16 using the modified retrospective approach and therefore the comparative information has not been restated and continues to be reported under IAS 17 and IFRIC 4. The standard introduces a single lessee accounting model and requires a lessee to recognise assets and liabilities for all leases with a term of more than 12 months, unless the underlying asset is of low value.

The Authority as a lessee

A lease is defined as 'a contract, or part of a contract, that conveys the rights to use an asset (the underlying asset) for a period of time in exchange for consideration'. The Group assesses whether the contract meets the key evaluations which are whether:
•the contract contains an identified asset, which is either explicitly identified in the contract or implicitly specified by being identified at the time the asset is made available to the Group.
•the Group has the right to obtain substantially all of the economic benefits from use of the identified asset throughout the period of use
•the Group has the right to direct the use of the identified asset throughout the period of use.

Measurement and recognition of leases as a lessee

At lease commencement date, the Group recognises a right-of-use asset and a lease liability on the balance sheet.

The right of use asset is measured at cost, which is made up of the initial measurement of the lease liability, any initial direct costs incurred by the Group, an estimate of any costs to dismantle and remove the asset at the end of the lease, and any lease payments made in advance of the lease commencement date (net of any incentives received).

The Group depreciates the right-of-use assets on a straight-line basis from the lease commencement date to the earlier of the useful life of the right-ofuse asset or the end of the lease term. The Group also assesses the right-of-use asset for impairment when such indicators exist.
At the commencement date, the Group measures the lease liability at the present value of the lease payments unpaid at that date, discounted using the interest rate implicit in the lease if that rate is readily available or the Group's incremental borrowing rate.

Lease payments included in the measurement of the lease liability are made up of fixed payments (including in substance fixed), variable payments based on an index or rate, amounts expected to be payable under a residual value guarantee and payments arising from options reasonably certain to be exercised.

Leasehold Improvements

Leasehold improvement are measured at cost less accumulated depreciation and any accumulated impairment losses. Subsequent expenditure is capitalised only if it is probable that the future economic benefits associated with the expenditure will flow to the Group. Ongoing repairs and maintenance are expensed as incurred. Leasehold improvement are capitalised and depreciated over the shorter of the useful lives of the assets and the lease term.

1.6.1 Tax Expense

Tax expense comprise current and deferred tax. Income tax is recognise in profit or loss except to the extent that it relates to items recognised directly in equity or in other comprehensive income.

(a) Current Tax

Current tax comprises the expected tax payable or receivable on taxable incomes or losses for the year and any adjustment to the tax payable or receivable in respect of previous years. It is measured using tax rates enacted or substantively enacted at the reporting date. Current tax also includes any tax arising from dividends.

(b) Deferred Tax

Deferred tax is recognised in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the corresponding amounts used for taxation purposes. However, deferred income tax is not accounted for if it arises from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss.

Deferred tax is measured at tax rates that are expected to be applied to temporary difference when they reverse, using tax rates enacted or substantively enacted at the reporting date. A deferred tax asset is recognised only to the extent that it is probable that future taxable profit will be available against which the asset can be utilised. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the related tax benefit will be realised.

Deferred tax assets an liabilities are offset if there is a legally enforceable right to offset current tax liabilities and assets, and they relate to taxes levied by the same tax authority on the same taxable entity, or on different tax entities, but they intend to settle current tax liabilities and assets on a net basis or the tax assets and liabilities will be realised simultaneously.

1.7.0 Determination of fair values

A number of the Group's accounting policies and disclosures require the measurement of fair values, for both financial and non-financial assets and liabilities.

Significant valuation issues are reported to the Group's Board of Directors.

When measuring the fair value of an asset or a liability, the Group uses observable market data as far as possible. Fair values are categorised into different levels in a fair value hierarchy based on the inputs used in the valuation techniques as follows:

1.7.0 **Determination of fair values (continued)**

- Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities
  asset or liability, either directly (i.e. prices) or indirectly (i.e. derived from prices).
- liabilities
  Level 3: inputs for the asset or liability that are not based on observable market data
- (unobservable inputs).

If the inputs used to measure the fair value of an asset or a liability fall into different levels of the fair value hierarchy, then the fair value measurement is categorised in its entirety in the same level of the fair value hierarchy as the lowest level input that is significant to the entire measurement.

The Group recognises transfers between levels of the fair value hierarchy at the end of the reporting period during which the change occurred.

1.8.0 **Business and Financial Risk Management**

The Group's operations are exposed to a number of risks. To address these risks. The Authority has established a risk management process that is based on the following components:

- Standardised risk definition
- Reliable methods for measuring risks
- Identifying the origination of risks
- Effective risk management for manageable risks
- Reporting in accordance with established routines
- Management in accordance with establish strategies and fixed rules

1.8.1 **Risk Mandate and Risk Management Structure**

The Board of Directors has overall responsibility for internal control and risk management at Volta River Authority. The Board has, in turn, given Volta River Authority's Management a risk mandate. Management allocates this mandate to Volta River Authority's business units in accordance with a delegation structure. Each unit manages its own risks and has some room to manoeuvre within its respective mandate. The results achieved by the units are followed up on a continuous basis and reported to the executive management by an independent risk control function, Internal Audit, which is also responsible for monitoring the Group's overall risk mandate.

1.8.2 **Risk**

Political risks, operational risks, environmental risks and legal risks are general in nature and exist in all units throughout the Group. Insurable risks are managed centrally by Volta River Authority 's Legal Services Department. The more specific risks in each part of the value chain are discussed below:

1.8.2.1 **Political Risk**

This refers to the commercial risk that can arise as a result of political decisions. Examples of this are price regulations in electricity distribution and transmission, uncertainty regarding changes in government, or changes in finance and energy policies.

1.8.2.1 **Political Risk (continued)**

A change in the rules governing the energy industry is another type of political risk faced by the group. These may include factors such as changes in taxation, introduction of environmental surcharges and changes in the political goals in respect of the energy sector. This type of risk is more difficult to predict and manage. To mitigate this, the group conducts active business intelligence activities and maintains contacts with key decision makers and relevant stakeholders. The group also belongs to various national and international trade organisations.

1.8.2.2 **Operational Risk**

Operation risk refers to the risk of incurring financial loss, or loss of trust, due to errors or defects in the company's administrative routines. Operational risk can be divided into the following categories:

- Administrative risk - the risk of loss due to defects in the Group's division of responsibility, competence, reporting routines, risk measurement and evaluation models, an controls and follow-up routines.
- Legal risks - this includes risk of loss arising from the non-fulfilment of contracts due to shortcomings in documentation, counterparties lacking the right to enter into contracts or uncertainties regarding contract validity.
- IT risks - the risk of loss due to defects in IT systems.
- Safety risks - the risk of outages due to deficient safety work.

1.8.2.3 **Electricity Price Risk**

Electricity Price Risk is the risk that has the greatest bearing on the Group's operations. Electricity prices are determined by the Public Utilities Regulatory Commission (PURC) for the regulated market.

To determine the value of electricity price risk in electricity generation, the Group simulates an anticipated outcome in the electricity tariffs. Forecasts of anticipated generation levels are drawn up, which then serve as the basis for how much is to be anticipated as losses due to tariffs.

1.8.2.4 **Price Category Risk**

Price Category risk arises when the price of electricity differs between various customer categories. Volta River Authority's price categories risk is controlled centrally and is managed by the Group's Commercial Services Department.

1.7.2.5 **Volume Risk**

Volume Risk consists of deviations in anticipated and actually delivered volumes to a customer. This is manage by improving and developing forecasts of electricity consumption. In addition, volume risk is considered when drawing up the terms of contracts with customers.

1.7.2.6 **Fuel Price Risk**

Measurement and management of fuel price risk is conducted within the Finance Department. Fuel prices are affected by macroeconomic factors, among other thing. The Group manages fuel price risk by forecasting and analysing price trends.

1.8.2.7 **Investment Risk**

The Group is a highly capital-intensive institution and, consequently, has an extensive capital investment program. Prior to every investment decision, a risk analysis is performed by simulating outcomes of price, cost, delays and cost of capital, the risk associated with each individual investment are assessed.

1.8.2.8 **Plant Risk**

The Group's largest insurable risks are associated with the operation of power generation plants. The Group's plants can be damaged as a result of incidents and breakdowns which, as a rule, give rise to substantial costs due to shutdowns. Such plant risks are minimised through loss-prevention measures, good maintenance, training and effective administrative outlines. The plants are also insured against unforeseen occurrence.

1.8.2.9 **Credit Risk**

Credit Risk is the risk of financial loss to the Authority if a customer or counter party fails to meet its contractual obligations and arises principally from the Authority's receivables from customers.

The Group's principal exposure to credit risk is in its trade and other receivables, and loans to related parties. Trade receivables principally represent amounts owing to the Authority by their customers and credit risk is managed at that level. Credit evaluations are performed on all customers requiring credit over a certain amount. The Group has no significant concentration of credit risk, with exposure spread over a large number of customers.

Exposure to Credit Risk

The carrying value of the Group's financial assets represents its maximum exposure to credit risk. The maximum exposure to credit risk at the reporting date was:

	VRA		Group	
	2022	2021	2022	2021
	GH¢'000	GH¢'000	GH¢'000	GH¢'000
Trade Receivables	5,751,756	4,161,037	7,192,180	5,816,172
Receivables from related parties	1,780,910	1,690,782	-	-
from Government of Ghana but excluding fuel receivable from Tema Oil Refinery	1,724,616	1,817,006	1,740,285	1,834,400
Staff Debtors	41,175	37,948	47,598	43,102
Cash and cash equivalents (excluding cash-on-hand)	927,495	480,820	1,779,544	975,299
Long-term investments	174,726	60,839	1,245,176	1,764,199
Short-term investments	33,261	83,334	393,604	131,029
	10,433,939	8,331,766	12,398,387	10,564,200

The maximum exposure to credit risk for trade receivables at the reporting date by type of counter party was:

	VRA		Group	
	2022	2021	2022	2021
	GH¢'000	GH¢'000	GH¢'000	GH¢'000
Wholesale (ECG)	1,949,762	1,949,762	1,949,762	1,949,762
Distribution to end-users	3,801,994	2,211,275	5,242,418	3,866,409
	5,751,756	4,161,037	7,192,180	5,816,172

Impairment Losses

The ageing of trade receivables at the reporting date was:

VRA	**Gross**	**Impairment allowance**	**Gross**	**Impairment allowance**
	31-Dec-22	**31-Dec-22**	**31-Dec-21**	**31-Dec-21**
	GH¢'000	**GH¢'000**	**GH¢'000**	**GH¢'000**
Not past due nor impaired	598,609	-	598,609	-
Past due 30-60 days	319,701	-	319,701	-
Past due 60-90 days	115,582	-	115,582	-
Past due 90-120 days	515,039	-	515,039	-
Past due 120 days and above and impaired	4,202,825	230,666	2,612,107	286,406
	5,751,756	230,666	4,161,038	286,406

GROUP	**Gross**	**Impairment allowance**	**Gross**	**Impairment allowance**
	31-Dec-22	**31-Dec-22**	**31-Dec-21**	**31-Dec-21**
	GH¢'000	**GH¢'000**	**GH¢'000**	**GH¢'000**
Not past due nor impaired	695,902	-	1,346,844	-
Past due 30-60 days	356,924	-	356,924	-
Past due 60-90 days	150,700	-	150,700	-
Past due 90-120 days	551,930	-	551,930	-
Past due 120 days and above and impaired	4,060,717	292,484	4,060,717	321,451
	7,192,180	292,484	6,467,114	321,451

Impairment losses have been recognized for specific customers whose debts are considered impaired.

Management believes that the unimpaired amounts that are past due by more than 30 days are still collectible in full, base on historical payment behaviour and extensive analysis of customer credit risk.

1.8.2.10 **Liquidity Risk**

Liquidity risk is the risk that the Authority will not be able to meet its financial obligations as and when they fall due. The Authority has had liquidity challenges and defaulted in some repayment obligations.

December 31, 2022 - VRA

	Total amount	Less than 6 months	6-12 months	1-2 years	3-4 years	More that 5 years
	GH¢'000	**GH¢'000**	**GH¢'000**	**GH¢'000**	**GH¢'000**	**GH¢'000**
Trade payables	8,046,568	8,024,264	22,304	-	-	-
Payable to related parties	275,783		275,783	-	-	-
Accrued Expenses	5,613	5,613	-	-	-	-
Sundry creditors, excluding statutory obligations	13,719	9,603	4,116	-	-	-
Borrowings, excluding finance	2,284,560	519,442	336,016	307,275	875,827	246,000
Other payables- non-current	270,067	-	-	270,067	-	-
Finance Lease Obligations	2,470	2,470	-	-	-	-
	10,898,780	8,561,392	638,219	577,342	875,827	246,000

December 31, 2021 - VRA

	Total amount	Less than 6 months	6-12 months	1-2 years	3-4 years	More that 5 years
	GH¢'000	**GH¢'000**	**GH¢'000**	**GH¢'000**	**GH¢'000**	**GH¢'000**
Trade payables	6,315,782	6,242,111	22,304	-	-	-
Payable to related parties	74,388		74,388	-	-	-
Accrued Expenses	3,444	3,444	-	-	-	-
Sundry creditors, excluding statutory obligations	14,649	10,254	4,395	-	-	-
Borrowings, excluding finance lease obligations	1,799,610	85,859	336,016	307,275	875,827	246,000
Other payables- non-current	270,615	-	-	270,615	-	-
Finance Lease Obligations	2,470	2,470	-	-	-	-
	8,480,957	6,344,138	437,103	577,890	875,827	246,000

December 31, 2022 - GROUP

	Total amount	Less than 6 months	6-12 months	1-2 years	3-4 years	More that 5 years
	GH¢'000	**GH¢'000**	**GH¢'000**	**GH¢'000**	**GH¢'000**	**GH¢'000**
Trade payables	8,805,101	7,247,026	1,558,075	-	-	-
Payable to related parties	-	-	-	-	-	-
Accrued Expenses	5,613	5,613	-	-	-	-
Sundry creditors, excluding statutory obligations	837,293	760,622	76,671	-	-	-
Borrowings, excluding finance lease	2,284,560	808,171	216,292	307,275	866,202	86,620
Other payables- non-current	270,067	-	-	270,067	-	-
Finance Lease Obligations	2,470	2,470				-
	12,205,105	8,823,902	1,851,038	577,342	866,202	86,620

December 31, 2021 - GROUP

	Total amount	Less than 6 months	6-12 months	1-2 years	3-4 years	More that 5 years
	GH¢'000	**GH¢'000**	**GH¢'000**	**GH¢'000**	**GH¢'000**	**GH¢'000**
Trade payables	6,911,799	5,353,724	1,558,075	-	-	-
Payable to related parties	-	-	-	-	-	-
Accrued Expenses	14,649	14,649	-	-	-	-
Sundry creditors, excluding statutory obligations	268,750	192,079	76,671	-	-	-
Borrowings, excluding finance lease	1,764,683	288,294	216,292	307,275	866,202	86,620
Other payables- non-current	251,269	-	-	251,269	-	-
Obligations	1,260,058	499,237	168,914	309,155	282,752	-
	10,471,208	6,347,982	2,019,953	867,699	1,148,954	86,620

1.8.2.11 **Market Risk**

Market risk is the risk that changes in market prices, such as foreign currency and interest rates etc. will affect the Authority's income or the value of its holdings of financial instruments. The objective of market risk management is to manage and control market risk exposures within acceptable parameters, while optimising the return on risk.

(i) **Currency Risk**

Currency risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate due to the changes in the foreign exchange rates.

Exposure to Currency Risk

Group's exposure to foreign currency risk was as follows based on notional amount:

2022-in thousands	USD	EUR	SDR	KD	CHF	GBP	SKR	CAD	ZAR	UA
Account receivable	707,970									-
Cash and Bank balances	95,352	1,862				-				
Investments	14,329									-
Account payables	(946,864)	(9,721)	-	(261)	-	(37)	(286)	(15)	(11)	-
Borrowings	(172,713)	(71,398)		(4,325)						-
	(301,926)	(79,257)	-	(4,586)	-	(37)	(286)	(15)	(11)	-

2021-in thousands	USD	EUR	SDR	KD	CHF	GBP	SKR	CAD	ZAR	UA
Account receivable	630,888									-
Cash and Bank balances	91,101	1,829				-				
Investments	16,818									-
Account payables	(1,160,905)	(6,568)	-	(261)	-	(34)	(286)	(79)	(11)	-
Borrowings	(151,210)	(48,765)		(4,234)						-
	(573,308)	(53,504)	-	(4,495)	-	(34)	(286)	(79)	(11)	-

December 2022	USD	EUR	SDR	KD	CHF	GBP	SKR	CAD	ZAR	UA
Reporting date spot rate	8.3150	8.8558	13.6074	33.3232	8.9907	10.0084	0.7950	6.1373	0.4902	11.4133
Average rate	8.2695	8.6484	11.9647	29.2965	8.6421	10.1236	0.8104	6.3203	0.5013	11.5590

December 2021	USD	EUR	SDR	KD	CHF	GBP	SKR	CAD	ZAR	UA
Reporting date spot rate	5.9961	6.7983	8.6527	20.4309	6.5648	8.1053	0.6637	4.6912	0.3756	8.4061
Average rate	5.8116	6.8678	8.4261	19.6152	6.3447	7.9861	0.6754	4.6285	0.3950	8.2804

Sensitivity

A 5% strengthening of the GH¢, as indicated below, against the currencies above at 31st December, 2022 would have increased (decreased) profit or loss and equity by the accounts shown below. This analysis is based on foreign currency exchange rate variances that the Authority considered to be reasonably possible at the end of the reporting period. The analysis assumes that all other variable, in particular interest rates, remain constant. The analysis is performed on the same basis for 2021, albeit that the reasonably possible foreign exchange rate variance were different, as indicated below:

Effect in thousands of GH¢

	USD	EUR	SDR	KD	CHF	GBP	SKR	CAD	ZAR	UA
2022	(124,839)	(34,272)	-	(6,718)	-	(19)	(12)	(5)	(0)	-
2021	(166,592)	(18,373)	-	(4,408)	-	(14)	(10)	(18)	(0)	-

A 5% weakening of the Ghana Cedi against the currencies above at 31st December 2022 would have had the equal but opposite effect on the amounts shown above.

(ii) **Interest rate Risk**

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate due to the changes in market interest rates.

At the reporting date the interest rate profile of the Group's interest-bearing financial instruments was:

	VRA		Group	
	2022	**2021**	**2022**	**2021**
	GH¢'000	**GH¢'000**	**GH¢'000**	**GH¢'000**
Fixed Rate Instruments				
Financial Liabilities	2,470	2,470	2,470	1,260,058
Variable rate Instruments				
Financial Assets	33,261	83,334	393,604	131,029
Financial Liabilities	2,284,560	1,799,610	2,284,560	542,026

Fair value sensitivity analysis for fixed-rate instruments

The group does not account for any fixed rate financial assets or financial liabilities at fair value through profit or loss. Therefore, a change in interest rate at the reporting date would not affect profit or loss.

Cash flow sensitivity analysis for variable-rate instruments

A reasonably possible change of 10 basis points in interest rates at the reporting date would have increased (decreased) profit or loss by the amounts shown below. This analysis assumes that all other variables, in particular foreign currency exchange rates, remain constant.

	VRA		Group	
	10 bp increase	**10 bp decrease**	**10 bp increase**	**10 bp decrease**
	GH¢'000	**GH¢'000**	**GH¢'000**	**GH¢'000**
31st December, 2022				
Financial Liabilities	247	(247)	247	(247)
31st December, 2021				
Variable rate instruments	228,456	(228,456)	228,456	(228,456)

Changes in market interest rates would not have any effect on equity.

VOLTA RIVER AUTHORITY

Revenue

	VRA				GROUP			
	2022		2021		2022		2021	
	GWh	GH¢'000	GWh	GH¢'000	GWh	GH¢'000	GWh	GH¢'000
2a. Sale of Electricity								
Electricity Company of Ghana	4,990	1,352,447	4,342	1,105,530	4,990	1,352,447	4,342	1,105,530
Mines	1,496	1,256,858	1,410	816,434	1,496	1,256,858	1,410	816,434
Akosombo Textiles	3	1,343.00	3	1,333	3	1,343	3	1,333
Aluworks	2	1,557.00	6	2,700	2	1,557	6	2,700
Diamond Cement	26	13,038.00	35	15,740	26	13,038	35	15,740
Volta Aluminium Co. Ltd.	772	171,993.00	772	123,522	772	171,993	772	123,522
Others	157	30,195	141	29,161	157	30,195	141	29,161
GRIDCo (Transmission Loss Recoveries)	922	156,960	1,105	265,203	922	156,960	1,105	265,203
Substation Use (GRIDCo.)	11	3,023	10	2,935	11	3,023	10	2,935
Northern Electircity Dist. Co.(NEDCo)	1,824	716,132	1,753	596,406	1,110	1,002,487	1,059	884,186
Local Customers	**10,203**	**3,703,546**	9,577	2,958,964	**9,489**	**3,989,901**	8,883	3,246,744
Communaute Electrique Du Benin	743	476,779	574	282,628	743	476,779	574	282,628
Compagne Ivoirienne d'Electricité	267	270,965	197	138,059	267	270,965	197	138,059.42
Société National D'elect Du Burkina	20	19,466	20	13,617	20	19,466	20	13,617
Sonabel Youga Mines	7	5,323	42	29,208	7	5,323	42	29,208
Sonabel Bolga-Ougadougou	1,177	885,083	900	431,534	1,177	885,083	900	431,534
Free Zone Companies	228	92,368	232	78,196	228	92,368	232	78,196
Foreign Customers	**2,442**	**1,749,984**	1,965	973,242	**2,442**	**1,749,984**	1,965	973,242
Total Sale of Electricity	**12,645**	**5,453,530**	11,542	3,932,207	**11,931**	**5,739,885**	10,848	4,219,986

2b Other Operating Income

	VRA		Group	
	2022	2021	2022	2021
	Gh¢'000	Gh¢'000	Gh¢'000	Gh¢'000
Real Estates	15,710	11,905	15,710	11,905
Health Services	-	-	37,950	29,819
Schools	26,749	12,221	26,749	12,221
Service Charge	64,461	41,970	64,461	41,970
Profit on Sale of Fixed Assets	546	48	546	48
Gas Sales Proceeds	36,633	22,735	36,633	22,735
PROPCo	-	-	8,308	-
Other Income	22,062	43,227	144,394	114,696
Ferry Services	-	-	24,066	24,447
Hospitality Services	-	-	10,988	7,796
		-	-	-
Total	**166,161**	**132,106**	**369,805**	**265,637**

2c Government of Ghana support on AMERI Shortfall

This relates to expected refund from the Government of Ghana on account of the AMERI tariff shortfall on the Build Own Operate Transfer (BOOT) arrangement between Government of Ghana and AMERI. The Ministry of Energy has confirmed that it would support VRA's application to the Ministry of Finance for the refund.

	VRA		Group	
	2022	2021	2022	2021
	Gh¢'000	Gh¢'000	Gh¢'000	Gh¢'000
	-	127,294	-	127,294
	-	127,294	-	127,294

3 Cost of Sales/ Operating Costs

	VRA		Group	
	2022	2021	2022	2021
	Gh¢'000	Gh¢'000	Gh¢'000	Gh¢'000
Analysis by budget center:				
Generation: Hydro	93,042	61,161	93,042	61,161
Thermal	1,829,477	1,475,620	1,829,477	1,441,167
Distribution(NEDCo)	-	-	440,205	352,232
Purchase of Electricity	1,739,147	1,189,007	1,757,309	1,213,907
Depreciation	697,135	329,157	1,115,186	429,606
Total	4,358,801	3,054,944	5,235,219	3,498,073
Analysis by cost element:				
Salaries and Related Expenses	209,650	162,657	424,694	338,075
Materials and Spares Consumed	-	-	38,869	13,612
Repairs and Maintenance	161,491	65,658	171,946	81,926
Fuel Handling and Usage	1,501,097	1,306,803	1,501,097	1,272,350
Purchase of Electricity	1,739,147	1,189,007	1,757,309	1,213,908
Transmission Service Charge	-	-	151,258	125,196
Depreciation	697,135	329,157	1,115,187	429,606
Other Operating Costs	50,281	1,663	74,859	23,400
Total	4,358,801	3,054,944	5,235,220	3,498,072

4 Administrative Expenses

	VRA		Group	
	2022	2021	2022	2021
	Gh¢'000	Gh¢'000	Gh¢'000	Gh¢'000
Analysis by budget center:				
Central Services	442,590	404,826	604,916	517,681
Schools	50,157	38,676	50,157	38,676
Real Estates	104,661	83,383	104,661	83,383
Health Services	-	-	77,907	63,756
Depreciation	83,135	36,456	103,112	55,938
Impairment Loss on Receivables	46,907	-	72,162	-
Total	727,450	563,341	1,012,915	759,433

4 **Administrative Expenses**	**VRA**		**Group**	
	2022	**2021**	**2022**	**2021**
	Gh¢'000	**Gh¢'000**	**Gh¢'000**	**Gh¢'000**
Analysis by cost element :				
Salaries and Related Expenses	397,651	316,634	555,811	436,164
Repairs & Maintenance	38,047	24,400	44,291	29,266
Other Administrative Cost	148,681	174,172	220,799	221,631
Depreciation	83,135	36,456	103,112	55,938
Employees Benefits	12,088	11,162	15,162	13,925
Audit Fees	-	-	32	24
Audit Expenses	218	218	344	312
Directors Remuneration	723	299	1,202	639
Impairment Loss on Receivables	46,907	-	72,162	1,534
Total	727,450	563,341	1,012,915	759,433
Total Operating & Admin Cost	**5,086,251**	**3,618,285**	**6,248,135**	**4,257,506**

5a. **Financial Income**	**VRA**		**Group**	
	2022	**2021**	**2022**	**2021**
	Gh¢'000	**Gh¢'000**	**Gh¢'000**	**Gh¢'000**
Interest & Investment Income	9,125	7,811	169,655	240,346
	9,125	7,811	169,655	240,346

6 **Financial Expenses**	**VRA**		**Group**	
	2022	**2021**	**2022**	**2021**
	Gh¢'000	**Gh¢'000**	**Gh¢'000**	**Gh¢'000**
Interest on Long Term Loans	7,159	3,496	7,159	3,496
Interest on Medium Term Loans	36,944	39,751	36,944	39,751
Interest on Short Term Loans	2,423	4,753	6,790	8,172
Finance Cost on Ameri Finance Lease	-	1,308	-	1,308
Finance Cost on Defined Benefit Obligations	33,287	29,836	33,287	29,836
Interest on Delayed Invoices	36,653	8,452	36,653	8,452
Total	116,466	87,596	120,833	91,015

7 Taxation (Group)

The tax position in the financial statements represent that of the subsidiaries of the Authority.

7a. Income Tax Expense

Income tax expense recognized in profit or loss includes:

	Group	
	2022	2021
	Gh¢'000	Gh¢'000
Current Tax Expense - Note 7 (b)	99,220	55,431
Deferred Tax Expense - Note 7 c.	(139)	(141)
	99,081	55,290

7b Current Tax

Movement in current tax balance are shown below:

2022	Bal.at Jan 1 Gh¢'000	Payment Gh¢'000	Charge for the year Gh¢'000	Adjustments Gh¢'000	Bal. at Dec.31 Gh¢'000
Before 2019	185,710				185,710
2019	84,309				84,309
2020	48,714				48,714
2021	55,431				55,431
2022	-	-	99,220		99,220
	374,164	-	99,220	-	473,384

2021	Bal.at Jan 1 Gh¢'000	Payment Gh¢'000	Charge for the year Gh¢'000	Adjustments Gh¢'000	Bal. at Dec.31 Gh¢'000
Before 2018	181,112				181,112
2018	56,458				56,458
2019	84,309				84,309
2020	48,714				48,714
2021	-	-	55,431	-	55,431
	370,593	-	55,431	-	426,024

The Group does not have the right to offset tax assets and liabilities. The current tax balance is made up of:

	Group	
	2022	2021
	Gh¢'000	Gh¢'000
Current tax payable	473,384	426,024
Current tax receivable	(2,145)	(1,163)
Total	471,239	424,861

7c Deferred tax

Movements in deferred taxes are shown below.

	Group	
	2022	2021
	Gh¢'000	Gh¢'000
Balance at 1 January	411	552
Charged to profit or loss	(139)	(141)
Balance at 31st December	272	411

8a Capital Work- in-Progress

GROUP

2022	Generation Assets	Power Distribution Network	Others	Total
	Gh¢'000	Gh¢'000	Gh¢'000	Gh¢'000
Balance as at Jan 1, 2022	695,514	193,657	228,908	1,118,079
Reclassification	-	-	-	-
	695,514	193,657	228,908	1,118,079
Additions during the year	279,818	81,831	1	361,650
Write off	-	-	-	-
Transfers	-	(61,852)	(37,299)	(99,151)
Balance as at Dec 31, 2022	975,332	213,636	191,610	1,380,578

2021	Gh¢'000	Gh¢'000	Gh¢'000	Gh¢'000
Balance as at Jan 1, 2021	690,779	196,619	106,110	993,507
Reclassification	-	-	0	-
Additions during the year	151,541	5,014	134,866	291,421
Write off	-	-	(700.34)	(700.34)
Transfers	(146,806)	(7,976)	(11,367)	(166,149)
Balance as at Dec 31, 2021	695,514	193,657	228,908	1,118,079

VRA

2022	Generation Assets	Power Distribution Network	Others	Total
	Gh¢'000	Gh¢'000	Gh¢'000	Gh¢'000
Balance as at Jan 1, 2022	695,514	39,759	226,096	961,369
Reclassification	-	-	-	-
	695,514	39,759	226,096	961,369
Additions during the year	279,818	81,831	-	361,649
write off	-	-	-	-
Transfers during the year	-	-	(37,299)	(37,299)
Transfer to NEDCo	-	-	-	-
Balance as at Dec 31, 2022	975,332	121,590	188,797	1,285,719

2021	Gh¢'000	Gh¢'000	Gh¢'000	Gh¢'000
Balance as at Jan 1, 2021	690,779	34,745	102,256	827,780
Reclassification	-	-	-	-
Additions during the year	151,541	5,014	134,533	291,088
write of	-	-	(700)	(700)
Transfers	(146,806)	-	(9,993)	(156,799)
Transfer to NEDCo	-	-	-	-
Balance as at Dec 31, 2021	695,514	39,759	226,096	961,369

8b. Property, Plant and Equipment

VRA 2022	Dam Power House and Civil Works Gh¢'000	Generating Plant & Machinery GH¢'000	Townships Gh¢'000	Building Gh¢'000	Floating Craft Gh¢'000	Motor Vehicles Gh¢'000	Equipment& Furniture Gh¢'000	Total Gh¢'000
A. VALUATION								
Balance as at Jan 1, 2022	11,548,808	11,408,923	818,533	394,048	125,235	201,913	130,059	24,627,519
Transfer & Adjustments								-
Disposal						-		-
Revaluation surplus	5,024,023	5,432,671	333,411	235,223	59,355	38,781	27,357	11,150,821
Additions (including transfers from CWIP	-	-	-	-		6,263	218	6,481
Balance as at Dec. 31, 2022	**16,572,831**	**16,841,594**	**1,151,944**	**629,271**	**184,590**	**246,957**	**157,634**	**35,784,821**
B. DEPRECIATION								
As At Jan.1, 2022	3,372,955	3,823,644	229,618	24,120	94,190	139,876	110,175	7,794,578
Disposal/Transfers						-		-
Charge for the period	182,053	511,384	38,645	20,478	5,060	14,413	8,236	780,269
Revaluation surplus	1,130,397	1,820,743	101,036	18,461	44,573	12,048	19,027	3,146,285
Balance as at Dec 31, 2022	**4,685,405**	**6,155,771**	**369,299**	**63,059**	**143,823**	**166,337**	**137,438**	**11,721,132**
C. Carrying Amount								
Balance as at Dec. 31, 2022	**11,887,426**	**10,685,823**	**782,645**	**566,212**	**40,767**	**80,620**	**20,196**	**24,063,689**
Work-in-Progress as at Dec 31, 2022 (Note 8a)								**1,285,719**
								25,349,408

8b. Property, Plant and Equipment

	Dam Power House and Civil Works Gh¢'000	Generating Plant & Machinery GH¢'000	Townships Gh¢'000	Building Gh¢'000	Floating Craft Gh¢'000	Motor Vehicles Gh¢'000	Equipment& Furniture Gh¢'000	Total Gh¢'000
VRA 2021								
A. **VALUATION**								
Balance as at Jan 1, 2021	9,813,766	7,627,575	744,561	440,686	102,092	124,006	61,598	18,914,285
Disposal						(112)		(112)
Revaluation surplus	1,735,042	3,775,894	67,217	(52,422)	23,143	51,057	67,416	5,667,347
Additions (including transfers from CWIP	-	5,453	6,755	5,784		26,961	1,044	45,998
Balance as at Jan 31, 2021	11,548,808	11,408,923	818,533	394,048	125,235	201,913	130,059	24,627,519
B. **DEPRECIATION**								
As At Jan.1, 2021	5,509,179	4,058,095	392,896	38,092	102,015	113,065	52,359	10,265,701
Disposal/Transfers						(112)		(112)
Charge for the period	131,962	190,956	24,179	10,172	28	5,571	2,745	365,613
Revaluation surplus	(2,268,187)	(425,407)	(187,458)	(24,143)	(7,853)	21,352	55,071	(2,836,624)
C. as at Dec 31, 2021	3,372,955	3,823,644	229,618	24,120	94,190	139,876	110,175	7,794,579
Carrying Amount								
Balance as at Dec. 31, 2021	**8,175,854**	**7,585,278**	**588,915**	**369,929**	**31,044**	**62,037**	**19,884**	**16,832,940**
Work-in-Progress as at Dec 31, 2021 (Note 8a)								**961,369**
								17,794,308

8b. Property, Plant and Equipment

GROUP 2022	Dam Power House and Civil Works Gh¢'000	Generating Plant & Machinery GH¢'000	Power Distribution Network Gh¢'000	Townships Gh¢'000	Building Gh¢'000	Floating Craft Gh¢'000	Motor Vehicles Gh¢'000	Equipment& Furniture Gh¢'000	Total Gh¢'000
A. Valuation									
Balance as at Jan 1, 2022	11,548,808	11,408,923	9,662,243	835,883	634,936	576,322	354,189	200,513	35,221,817
Transfers/Adjustments			61,852	(4,803)	53	-	1,670	-	58,771.58
Disposal							-		-
Revaluation surplus	5,024,023	5,432,671	4,630,663	320,864	304,821	59,355	88,212	39,169	15,899,778
Additions (including transfers from CWIP		511	-	-	455	497	2,228	1,924	5,614
Bal as at Dec. 31, 2022	16,572,831	16,842,105	14,354,758	1,151,944	940,264	636,174	446,298	241,606	51,185,980
B. Depreciation									
As at Jan. 1, 2022	3,372,954	3,759,143	2,820,816	243,287	68,533	456,406	237,198	154,130	11,112,467
									-
Disposal/Transfers							-		-
Charge for the period	182,053	512,175	396,391	38,792	26,465	27,801	30,566	15,441	1,229,683
Revaluation Adjustment	1,130,397	1,820,743	1,400,652	88,133	26,457	44,573	31,832	26,462	4,569,249
as at Dec 31, 2022	4,685,404	6,092,061	4,617,859	370,212	121,455	528,780	299,596	196,032	16,911,399
C. NET BOOK VALUE									
As at Dec 31, 2022	**11,887,429**	**10,750,044**	**9,736,899**	**781,732**	**818,809**	**107,394**	**146,703**	**45,573**	**34,274,581**
									1,380,578
									35,655,159

NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31ST DECEMBER 2022 CONTINUED

8b. Property, Plant and Equipment-cont.

GROUP 2021	Dam Power House and Civil Works	Generating Plant & Machinery	Power Distribution Network	Townships	Building	Floating Craft	Motor Vehicles	Equipment& Furniture	Total
A. Valuation	**Gh¢'000**	**Gh¢'000**	**Gh¢'000**	**Gh¢'000**	**Gh¢'000**	**Gh¢'000**	**Gh¢'000**	**Gh¢'000**	**Gh¢'000**
Balance as at Jan 1, 2021	9,813,766	7,627,576	4,355,256	761,636	624,921	553,169	214,243	99,765	24,050,332
Transfers/Adjustments				275	-	10		(285)	-
Disposal							(112)	-	(112)
Revaluation surplus	1,735,042	3,775,894	5,290,617	67,217	1,845	23,143	112,602	95,094	11,101,454
Additions (including transfers from CWIP	-	5,453	16,370	6,755	8,169	-	27,456	5,939	70,142
Balance as at Dec 31, 2021	11,548,808	11,408,923	9,662,243	835,883	634,936	576,322	354,189	200,513	35,221,817
B. Depreciation									
As at Jan. 1, 2021	5,509,179	3,993,594	3,866,355	406,419	97,179	452,861	189,032	75,998	14,590,616
Prior Year Adjustment		-							-
Disposal/Transfers			-		-		(112)	-	(112)
Charge for the period	135,552	190,956	59,693	24,326	12,752	11,398	13,490	6,512	454,679
Revaluation surplus	(2,271,777)	(425,407)	(1,105,232)	(187,458)	(41,397)	(7,853)	34,787	71,619	(3,932,717)
as at Dec 31, 2021	3,372,954	3,759,143	2,820,816	243,287	68,533	456,406	237,198	154,130	11,112,467
C. NET BOOK VALUE									
As at Dec 31, 2020	**8,175,855**	**7,649,780**	**6,841,427**	**592,596**	**566,402**	**119,916**	**116,991**	**46,384**	**24,109,350**
Work-in-Progress as at Dec 31, 2021 (Note 8a)									**1,118,079**
									25,227,429

8b **Property, Plant and equipment-continued**

The net carrying amount of generating plant and machinery acquired under finance leases at the end of the year was Gh¢1,473.04 million (2020: Gh¢1,316.12 million)

There were no restrictions on the Group's title to items of property, plant and equipment at the end of the year. No equipment had been pledged as security for liabilities.

8c **Disposal of Property, Plant and Equipment**

	VRA		Group	
	2022	**2021**	**2022**	**2021**
	Gh¢'000	**Gh¢'000**	**Gh¢'000**	**Gh¢'000**
Cost	399	112	399	1,025
Accumulated Depreciation	(399)	(112)	(399)	(1,025)
Carrying amount	-	-	-	0
Revaluation on disposed assets	-	-	-	-
Net Carrying Amount	-	-	-	-
Proceeds from Disposal	546	48	546	48
Adjustment	-	-	-	-
Profit /(loss) on disposal	546	48	546	48

8d **Intangible Assets**

Cost				
Balance as at Jan 1	-	-	160	159
Additions	-	-	-	-
Balance as at Dec. 31	-	-	160	159
Amortization				
Balance as at Jan 1	-	-	160	129
Charge for the year	-	-	-	29
Balance as at Dec 31	-	-	160	159
Carrying Amount	-	-	-	-

9a. **Investment in Subsidiaries**

TAPCO(100% owned)	169,113	169,113	-	-
VLTC(100% owned)	1,123	1,123	-	-
AHL (100% owned)	5,624	5,625	-	-
PROPCO (100%)	36,046	36,046		
NEDCo(100 %)	200,000	200,000	-	-
VHSL (100% Owned)	48,919	48,369		
	460,825	460,276	-	-

All the subsidiaries are incorporated in the Republic of Ghana.

9b. **Investment in Equity Securities managed by TAPCo**

TICO (10% Owned)	4,516		4,516	
WAGPCo (16.38% Owned)	851,754		9,588	
	856,270		14,104	

10 **Other Long Term Investments**

	VRA		Group	
	2022	**2021**	**2022**	**2021**
	Gh¢'000	**Gh¢'000**	**Gh¢'000**	**Gh¢'000**
Debt Contingency Fund	119,146	60,839	119,146	60,839
Other Long Term Investment	55,580		1,126,030	1,703,360
	174,726	60,839	1,245,176	1,764,199

This represents the Group's investment in foreign currency money market instruments to enable the group meet its debt obligations during periods of operational difficulties

11 **Inventories**

	VRA		Group	
	2022	**2021**	**2022**	**2021**
	Gh¢'000	**Gh¢'000**	**Gh¢'000**	**Gh¢'000**
Inventory and spare parts	268,017	245,632	333,415	293,402
Write down for obsolescence	-	-	-	-
	268,017	245,632	333,415	293,402
Fuel for Thermal Plant	234,468	186,080	234,468	186,080
	502,485	431,712	567,883	479,482

Cost of inventory is determined by using the weighted average cost formula.

12 **Trade and other Receivables**

	VRA		Group	
	2022	**2021**	**2022**	**2021**
		Gh¢'000	**Gh¢'000**	**Gh¢'000**
Trade Receivables	5,751,756	4,161,037	7,192,180	5,816,172
Provision for expected credit losses	(230,666)	(183,759)	(292,484)	(220,338)
	5,521,090	3,977,278	6,899,696	5,595,833
Prepayments	112,191	135,959	217,096	197,359
Amounts due from related parties	1,780,910	1,690,782	56,976	379
Amount due from Government of Ghana in respect of the AMERI transaction - Note 2(c)	1,131,700	-	1,131,700	-
Other Receivables	1,724,616	1,817,006	1,740,285	1,834,400
Staff Advances	41,175	37,948	47,598	43,102
	10,311,682	7,658,972	10,093,352	7,671,073
Current	10,288,370	7,635,703	10,070,040	7,647,803
Non-current	23,312	23,269	23,312	23,269
	10,311,682	7,658,972	10,093,352	7,671,073

13 **Short-term Investments**

Short-term investments are made up of investments in Government of Ghana treasury bills and money market instruments held with financial institutions.

14 Cash and Bank	VRA		GROUP	
	2022	2021	2022	2021
	Gh¢'000	Gh¢'000	Gh¢'000	Gh¢'000
Foreign Currency	809,341	343,473	817,563	343,473
Local Currency	117,647	137,073	961,215	624,505
Cash on Hand	507	274	766	7,321
Cash and cash equivalents in the statement of financial position	927,495	480,820	1,779,544	975,299
Short term investments	33,261	83,334	393,604	131,029
Bank overdraft	-	-	-	-
Cash and cash equivalents in the statement of cash flows	960,756	564,154	2,173,147	1,106,328

*Short-term investment included as cash and cash equivalents in the Group's financial statements are investments in Government of Ghana treasury bills and other money market instruments with maturities of 3 months or less.

15 Payables	VRA		GROUP	
	2022	2021	2022	2021
	Gh¢'000	Gh¢'000	Gh¢'000	Gh¢'000
Current Portion				
Trade Payables	8,046,568	6,315,782	8,805,101	6,911,799
Amount due to related parties	275,783	74,388	-	-
Sundry Payables	13,719	14,649	837,293	129,030
Capital Grant		-	44,122	1,209
Accruals and Provisions	27,034	-	5,613	3,444
	8,363,104	6,404,819	9,692,130	7,045,482
Capital Grant	-	-	-	-
Non-Current Portion				
Other Payables	270,067	269,740	270,067	270,615
Deferred Tax	-	-	272	411
Capital Grant (Note 20)	-	328	49,068	43,859
	270,067	270,068	319,407	314,884
Total Payables	8,633,171	6,674,887	10,011,537	7,360,366

16a Borrowings	VRA		GROUP	
	2022	2021	2022	2021
	Gh¢'000	Gh¢'000	Gh¢'000	Gh¢'000
Current Portion				
term loans	159,648	99,835	-	-
Finance lease obligations due within 1 year	2,470	2,470	2,470	2,470
Bank Overdrafts	-	-	-	3
Loan interest and commitment charges	71,950	326,305	71,950	326,305
Short-term borrowings	62,363	27,609	62,363	27,609
	296,431	456,219	136,783	356,387
Non-Current Portion				
Finance lease obligations due after 1 year	-	-		-
Amount due after one year but before five years	638,591	399,340	798,239	499,175
Amount due after five years but before ten years				
Amount due after ten years	1,352,008	946,521	1,352,008	946,521
	1,990,599	1,345,861	2,150,247	1,445,696
Total Borrowing	2,287,030	1,802,080	2,287,030	1,802,083

VOLTA RIVER AUTHORITY

16b. **Borrowings - Movement in loan balances**

The following shows the movement in loan balances during the year

VRA

	Balance as at 1-01-2022 GH ¢'000	Drawings GH ¢'000	Repayments GH ¢'000	Adjustment GH ¢'000	Exchange Variation GH ¢'000	Balance as at 31-12-2022 GH ¢'000
Long Term Loans						
Kpong Hydro Project						
Kuwait Fund - 339	16,093				10,155	26,248
Kuwait Fund	70,405				47,481	117,886
Societe General - T3	416,629				158,875	575,504
AFD(Kpong GS Retrofi	287,621		(31,050)		84,037	340,608
KfW GoG 17MW Photovoltaic System	108,177	33,753			26,313	168,243
KfW GoG 12MW Photovoltaic System II	16,774	42,396			(4,164)	55,006
EIB (Kpong GS Retrofit)	30,822	24,737			12,954	68,513
Subtotal: Long Term Loans	**946,521**	**100,886**	**(31,050)**	**-**	**335,651**	**1,352,008**
Medium Term Loans						
ABSA/STANDBIC $120M		732,324	(193,262)		259,178	798,239
Afrexim $185m	499,175		(509,575)		10,400	-
Subtotal: Medium Term Loan	**499,175**	**732,324**	**(702,837)**		**269,578**	**798,239**
Total: Long and Medium	**1,445,696**	**833,210**	**(733,887)**	**-**	**605,229**	**2,150,247**
Loans interest and commitment charges	326,305		(254,355)		-	71,950

NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31ST DECEMBER 2022 CONTINUED

16b. **Movement in loan balances continued (VRA)**
The following shows the movement in loan balances during the year

VRA

	Balance as at 01.01.2022 GH ¢'000	Drawings GH ¢'000	Repayments GH ¢'000	Exchange Variation GH ¢'000	Balance at at 31-12-2022 GH ¢'000
Short Term Loans					
GHIB	27,609	94,415	(32,973)	(26,688)	62,363
Subtotal: Short Term Loans	**27,609**	**94,415**	**(32,973)**	**(26,688)**	**62,363**
Finance lease obligations - Note 16c	2,470	-	-	-	2,470
Total Borrowings	**1,802,080**	**927,625**	**(1,021,215)**	**578,541**	**2,287,031**

16b. **Borrowings - Movement in loan balances**

The following shows the movement in loan balances during the year

GROUP

	Balance as at 1-01-2022 GH ¢'000	Drawings GH ¢'000	Repayments GH ¢'000	Adjustment GH ¢'000	Exchange Variation GH ¢'000	Balance as at 31-12-2022 GH ¢'000
Long Term Loans						
Kpong Hydro Project						
Kuwait Fund - 339	16,093	-	-	-	10,155	26,248
Kuwait Fund	70,405	-	-	-	47,481	117,886
Societe General - T3	416,629	-	-	-	158,875	575,504
AFD(Kpong GS Retrofit)	287,621	-	(31,050)	-	84,037	340,608
KfW GoG 17MW Photovoltaic System	108,177	33,753	-	-	26,313	168,243
KfW GoG 12MW Photovoltaic System II	16,774	42,396	-	-	(4,164)	55,006
EIB (Kpong GS Retrofit)	30,822	24,737	-	-	12,954	68,513
Subtotal: Long Term Loans	**946,521**	**100,886**	**(31,050)**	**-**	**335,651**	**1,352,008**
Medium Term Loans						
ABSA/STANDBIC $120M	-	732,324	(193,262)	-	259,178	798,240
Afrexim $185m	499,175		(509,575)	-	10,400	-
Subtotal: Medium Term Loan	**499,175**	**732,324**	**(702,837)**	**-**	**269,578**	**798,240**
Total: Long and Medium Term Loans	**1,445,696**	**-**	**(733,887)**	**-**	**605,229**	**2,150,248**
Loans interest and commitment charges	326,305	-	(254,355)	-	-	71,950

16b. **Movement in loan balances continued (VRA)**
The following shows the movement in loan balances during the year

GROUP

	Balance as at 01.01.2022 GH ¢'000	Drawings GH ¢'000	Repayments GH ¢'000	Exchange Variation GH ¢'000	Balance at at 31-12-2022 GH ¢'000
Short Term Loans					
GHIB	27,609	94,415	(32,973)	(26,688)	62,363
Subtotal: Short Term Loans	**27,609**	**94,415**	**(32,973)**	**(26,688)**	**62,363**
Finance lease obligations - Note 16c	2,470	-	-	-	2,470
Total Borrowings	**1,802,080**	**927,625**	**(1,021,215)**	**578,541**	**2,287,030**

16b. Long Term Loans

Details of the long term loans are shown below:

Loan	Currency	Contract Amount	Interest Rate	Maturity Date
KUWAIT 339	KWD	787,680	4%	2029
SOCIETE GENERAL-T3	USD	67,960,462	2.08%	2024
KUWAIT FUND	KWD	3,446,000	4%	2029
IDA 4356	SDR	5,232,026	5.30%	2047
AFD(Kpong GS Retrofit Project)	EUR	23,609,533	1.99	2041

16c. **Finance Lease Obligations**

Finance lease liabilities are payable as follows:

VRA	**Minimum Lease Payments**		**Interest**		**Present Value of Minimum Lease Payment**	
	2022	**2021**	**2022**	**2021**	**2022**	**2021**
	GH¢'000	**GH¢'000**	**GH¢'000**	**GH¢'000**	**GH¢'000**	**GH¢'000**
Less than one year	2,469	2,469	-	-	2,469	2,469
Between one and five years						
	2,469	2,469	-	-	2,469	2,469

Group	**Minimum Lease Payments**		**Interest**		**Present Value of Minimum Lease Payment**	
	2022	**2021**	**2022**	**2021**	**2022**	**2021**
	GH¢'000	**GH¢'002**	**GH¢'000**	**GH¢'000**	**GH¢'000**	**GH¢'000**
Less than one year	3,344	3,344	-	-	3,344	3,344
Between one and five years	-	-	-	-	-	-
	3,344	3,344	-	-	3,344	3,344

16c. Finance Lease Obligations -continued

In 2016, the Government of Ghana entered into a Build Own Operate and Transfer (BOOT) arrangement with Africa and Middle East Resources Investment Group (AMERI Energy) LL C for the provision of a 250MW fast track power generation solution. The Government of Ghana assigned its rights under the arrangement to VRA. The BOOT was re-negotiated in August 2018 which resulted in the waiver of the variable and operating charge and the extension of the repayment period for the capacity charge. The Authority also bears the cost of gas supplied to AMERI for the production of power.

The Government of Ghana has the option to purchase the equipment for USD1 at the end of the lease term.

17 Investment by the Republic of Ghana

	VRA		GROUP	
	2022	**2021**	**2022**	**2021**
	GH¢'000	**GH¢'000**	**GH¢'000**	**GH¢'000**
Balance at beginning of the year	4,433,937	4,305,586	4,433,937	4,305,586
Addition during the year	183,776	128,352	183,776	128,352
Balance at close of the year	4,617,713	4,433,937	4,617,713	4,433,937

18 The revaluation surplus arises as a result of revaluation of property, plant and equipment

	VRA		GROUP	
	2022	**2021**	**2022**	**2021**
	GH¢'000	**GH¢'000**	**GH¢'000**	**GH¢'000**
Balance at beginning of the year	14,097,485	5,952,182	22,305,621	7,701,961
Surplus for the year	8,004,536	8,503,971	11,226,143	15,034,171
Adjustments				(7,486)
Transfer to Retained Earnings	(240,064)	(358,668)	(396,329)	(420,314)
Balance at close of the year	21,861,957	14,097,485	33,135,435	22,308,332

The revaluation surplus is not distributable to owners of the parent

19 Employee Benefits

a. Defined benefit obligations-schemes funded

VRA operates the following defined benefit schemes:

i Long- Services awards

This defined scheme entitles employees to a benefit package at the end of their service to the Authority. The benefit package is paid at the point of exit on a graduated scale based on the length of service ranging from 10 to 40 years.

ii. Severance benefit

This relates to rewards (package) paid to employees who attain certain milestone with the Authority and exit before their due date of retirement

iii Post-Retirement Medical Benefit

There is no contribution by the employee towards this benefit and no insurance scheme. The employer simply bears the medical costs (no cap defined) of the retiree and their spouse for as long as the retiree is alive. After the death of the retiree the spouse will be taken care of for 6 months after which they will be removed from the scheme.

The present value of the benefits at the end of the year are as shown below:

	VRA		GROUP	
	2022	2021	2022	2021
	GH¢'000	GH¢'000	GH¢'000	GH¢'000
Long-service award	49,749	46,460	74,408	69,073
Severance Benefit	26,450	25,122	37,223	34,458
Post-Retirement medical benefit	194,925	172,381	211,344	186,801
	271,124	243,963	322,975	290,331

b. Defined benefit obligations- movement in net defined benefit liability

The following tables show recompilations from the opening balances to the closing balances for the net defined benefit liability and its components of the various employee benefit schemes:

Long-service award

	VRA		GROUP	
	2022	2021	2022	2021
	GH¢'000	GH¢'000	GH¢'000	GH¢'000
Balance at 1 January	46,459	40,655	69,072	58,908
Included in profit or loss:				
Current service cost	4,895	4,746	6,795	6,481
Past service cost	-	-		
Net interest	6,676	5,902	10,129	9,798
	11,571	10,648	16,924	16,279
Included in other comprehensive income:				
Actuarial loss (gain arising from):				
Actuarial loss (gain arising from) Demographic/Financial Assumptions	(684)	3,362	(360)	4,448
Other sources				
	(684)	3,362	(360)	4,448
Benefits paid	(7,597)	(8,207)	(11,227)	(10,563)
Balance at 31 December	49,749	46,459	74,409	69,073

Severance Benefit

	VRA		GROUP	
	2022	**2021**	**2022**	**2021**
	GH¢'000	**GH¢'000**	**GH¢'000**	**GH¢'000**
Balance at 1 January	25,122	20,635	34,458	28,119
Included in profit or loss:				
- Current service cost	1,444	1,349	2,057	1,887
- Past services cost				
- Net interest	3,454	2,858	4,934	4,438
	4,898	4,206	6,991	6,325
Included in other comprehensive income:				
actuarial loss (gain arising from)			-	-
- Demographic/Financial assumptions	635	4,371	1,168	4,904
- Other sources	-	-		
	635	4,371	1,168	4,904
Benefits paid	(4,205)	(4,090)	(5,394)	(4,890)
Balance at 31 December	26,450	25,122	37,223	34,458

Post-retirement medical benefit	VRA		GROUP	
	2022	**2021**	**2022**	**2021**
Balance at 1 January	172,381	157,054	186,801	172,516
Included in profit or loss:				
- Current service cost	5,749	5,066	6,308	5,556
- Past services cost				
- Net interest	23,156	21,076	25,364	23,461
	28,905	26,142	31,672	29,018
Included in other comprehensive income:				
actuarial loss (gain arising from)	-	-	-	-
Demographic/Financial assumptions	(612)	(5,476)	(6,049)	(9,124)
other sources				
	(612)	(5,476)	(6,049)	(9,124)
Benefits paid	(5,749)	(5,339)	(1,081)	(5,608)
Balance at 31 December	194,925	172,381	211,343	186,801

Total	VRA			
	2022	2021	2022	2021
	GH¢'000	GH¢'000	GH¢'000	GH¢'000
Balance at 1 January	243,963	218,344	290,331	259,543
Included in profit or loss:				
- Current service cost	12,088	11,162	15,162	13,925
- Past services cost	-	-		
- Net interest	33,286	29,836	40,426	37,697
	45,374	40,998	55,588	51,622
Included in other comprehensive income:				
Actuarial loss (gain arising from)				
- Demographic/Financial assumptions	(662)	2,256	(273)	227
- Other sources				
	(662)	2,256	(273)	227
Benefits paid	(17,551)	(17,635)	(22,671)	(21,061)
Balance at 31 December	271,124	243,963	322,975	290,331

c. ***Defined benefits obligations-actuarial assumptions***

The following are the principal assumptions at reporting date

	VRA		GROUP	
	2022	2021	2022	2021
Inflation rate	10.00%	13.00%	10.00%	13.00%
Discount rate	13.00%	16.00%	13.00%	16.00%
Nominal inflation gap	3.00%	3.00%	3.00%	3.00%
Withdrawal Rate	2.50%	2.50%	2.50%	2.50%
Retirement age	60 years	60 years	60 years	60 years

Mortality in 2022 was assumed to follow the mortality rates according to the SA85-90 table. This assumption was the same as what was used in 2021 to reflect the the SSNIT mortality.

20 Government Grant

These are grants in the form of crafts and other assets received by Volta Lake Transport Company Ltd from the Government of Ghana during the year to support the company's operations.

21 Debt contingency fund reserve

The debt contingency fund reserve was established by the Authority to enable the Authority meet its debt obligations during periods of operational difficulties. The fund is supported by investments in foreign currency money market instruments. At the end of every year, an amount (equal to the change in the value of the investments) is transferred from retained earrings to the debt contingency fund service.

Changes in the value of the investment are attributable to interest earned and foreign exchange gains/losses.

22 Reconciliation of Operating Profit/(Loss) to Operating Cashflow

	VRA		GROUP	
	2022	2021	2022	2021
	GH¢'000	GH¢'000	GH¢'000	GH¢'000
Profit (Loss) after Tax	110,893	112,757	(283,231)	59,857
Adjustments for:				
Depreciation & amortization	780,270	365,613	1,218,267	451,120
Exchange (Gain) / Loss	315,206	380,779	71,223	287,431
Profit on disposal of Property, Plant and Equipment	(546)	(48)	(546)	(48)
Investment Income	(9,125)	(7,811)	(162,017)	(136,150)
Finance expense	116,466	87,596	116,466	87,596
Capital Work-in-progress written off				
Prior year adjustments	-	-	-	-
Amortization of grant	-	-	(1,209)	(1,209)
Tax Expense	-	-	98,383	55,430
	1,313,164	938,887	1,057,336	804,028
Changes in:				
- Inventories	9,227	8,775	(8,400)	(1,500)
- Receivables	577,433	343,948	696,751	575,196
- Payables	(1,289,737)	(671,008)	(814,125)	(386,340)
- Provisions and defined benefits	27,161	25,619	32,644	30,788
Cash Generated from Operating activities	637,248	646,220	964,206	1,022,173
Tax paid	-	-	(146)	(615)
Interest paid	-	-	-	-
Net cash from operating activities	**637,248**	**646,220**	**964,059**	**1,021,557**

23 Going concern consideration

The Authority recorded a net profit of GH¢ 110.89 million for the year ended 31 December, 2022 (2021: GH¢ 112.76 million) and as at the date, the current assets exceeded current liabilities by GH¢ 3,092.08 million (2021: current liabilities exceeded assets by GH¢1,770.53 million)

24 Capital Commitments

There was capital commitments of GHS33.44 million for the year. (2021: GHS12.85 million). The group had a contract with Zakhem Construction Ghana Limited for the engineering, procurement and construction of a single-cycle power plant at Tema and Synohydro

25 Contingent liabilities

As at the reporting date, the Authority had other legal cases pending judgment. The Directors believe that the outcome of these cases will be favorable to the Authority.

26 Related parties

Related party transactions

	VRA		GROUP	
	2022	**2021**	**2022**	**2021**
	GH¢'000	**GH¢'000**	**GH¢'000**	**GH¢'000**
Sale of Power				
NEDCo	716,132	596,406	716,132	596,406
Purchase of Power				
TICO	335,538	335,538	335,538	335,538