

SENIOR STAFF ASSOCIATION

VOLTA RIVER AUTHORITY

AKOSOMBO

IMPACT OF CASH WATERFALL MECHANISM AND THE CALL FOR PRIVATIZATION

The Senior Staff Association (SSA) of the Volta River Authority (VRA), as major stakeholders in electricity generation and supply in Ghana, have observed the implementation of the Cash Waterfall Mechanism (CWM) and its impact on the operations of the Authority. We have also followed keenly, the discussions in the media and comments from political/opinion leaders on recent developments in the electricity sector and wish to bring our concerns to the attention of Ghanaians.

Mandate and Importance of Volta River Authority

The Volta River Authority was created by the Volta River Development Act, 1961 (Act 46) as amended, and was given the mandate to generate electrical power through hydro and other sources.

Section 10(a) of the Act states inter alia, *“the generation of electrical power for the operation of an aluminium industry and for general industrial and domestic uses in Ghana, by such means as the Authority may think fit, and in particular in the first instance, by the construction and operation of a dam and hydro-electric generating station in the vicinity of Akosombo”*.

Since the early 1960's when VRA started operating power stations, the Authority's reputation has travelled far and wide owing to her enviable ability to operate and maintain her power stations. The Authority has since its inception never reneged on its mandate to provide the people of Ghana with affordable quality electricity for domestic, commercial, and industrial use. In the era when many State-Owned Enterprises (SOEs) in the country suffered insolvency and had to fold up, VRA braced the storm at every turn to ensure that reliable power supply was available to the entire country and partners in the sub-region while keeping the business as a going concern.

As history would have it, VRA has and continues to play a vital role in the introduction of other sources of electricity generation such as hydro, thermal and solar, to mention a few. As the population of Ghana grows and demand for electricity continue to increase, VRA has consistently delivered on its mandate and has supported the efforts of successive governments to provide electricity to the people of Ghana.

The supply of electric power to our neighbouring countries namely Togo, Benin and Burkina Faso is based on the following:

- i. The environmental impact assessment carried out during the feasibility studies phase of the project indicated that, the construction of the dam would cause an inundation of the north-western plains of Togo and Benin. This situation caused the Government of Ghana (GoG)/VRA to sign a bilateral agreement with these two countries to supply them with electric power from the Akosombo Dam when the project was completed.

ii. Burkina Faso restricted the development of the Bagre Dam, to mainly agricultural activities instead of power generation in line with the bilateral arrangement with Ghana for power supply.

These agreements have been in existence since the commissioning and the operation of the Akosombo hydro-electric dam, and even during the country's electricity supply crisis since the 1980's. These arrangements have significantly enhanced energy and subregional security. Any attempt not to carry out our side of the agreement may lead to a judgement debt which will be paid by us, the people of Ghana who are already burdened with several other payments.

Impact of Revised Cash Waterfall Mechanism on VRA

The Cash Waterfall Mechanism (CWM) was introduced in 2020 to address the issue of payment delays, ensure financial stability, improve transparency, equity and accountability within the electricity sector. The CWM was revised in August 2023 following challenges with ECG complying with the existing CWM Guidelines. This was aimed at enforcing the Guidelines to enhance its effectiveness. In the revised CWM, the payment structure was categorized into Level A (Tier 1) and Level B (Tier 2). Level A consists of all the IPPs whereas Level B consists of the SOEs namely VRA, Bui Power, Ghana Gas and GRIDCo.

It is instructive to state that, per the revised CWM, ECG is required to pay a minimum of GHS1billion as Energy Sales revenue into the CWM every month to be shared among players in the sector. The revised CWM guarantees the payment of \$43million (equivalent to 587.38million Cedis at the exchange rate of GHS13.66/1US\$) to the ECG contracted IPPs monthly. The irony of this situation is that, some IPPs who are not generating any Megawatt (MW) onto the grid now, are also paid.

The SOEs especially VRA, are disadvantaged as they are not fully paid, and where they are even paid, are not adequately compensated for forex exchange losses.

This sadly defeats the objective of the revised CWM which was to ensure that revenues collected from the electricity market is allocated across the electricity market **equitably** and **transparently**. What is the basis of paying the IPPs a fixed amount of US\$43million monthly?

In the recent validation of the ECG account by the Pricewaterhouse & Coopers (PwC), the report mentioned that an analysis of their bank statements noted a net difference of GHs690m between total collection declared on the CWM approved schedules and the inflows consolidated from the account statement. The total collections from the CWM were lower than the two bank statements. These under-recoveries are due to ECG's failure to declare full payment into the CWM, and has resulted in huge under-recoveries for VRA and threatening the financial survival of the Authority.

This notwithstanding, VRA has never relented on its mandate to provide reliable and sustainable electric power to Ghanaians. Will the IPPs accept this kind of treatment meted to VRA?

Between August 2023 and March 2024, although VRA billed ECG GHS1,096,360,408.53, only GHS 354,379,637.04 representing 32% was considered under the CWM. The outstanding amount of GHS741,980,771.49 remains unpaid. As at March 2024, ECG through the CWM owed VRA GHS147,585,482.08. This situation has significantly created liquidity challenges for VRA.

As of May 10, 2024, the IPPs have 2150MW available capacity, but generating only 856MW representing 39.8%, whilst VRA with 2165MW of available capacity is generating a total of 1777MW representing 82%. This means that the IPPs are contributing 32.5% to the National grid, whilst VRA is contributing 67.5% onto the grid.

Currently, all VRA available plants are running 24/7. The same cannot be said about the IPPs, yet at the end of the month they are given US\$43m which is more than half of all the payments made into the CWM by ECG.

The table below shows the amount of money allocated to VRA and the corresponding payments made as well as the outstanding payment owed VRA by the CWM as at March, 2024.

NEW CASH WATERFALL MECHANISM- ECG TO VRA

Month	Amount Allocated VRA	Payment by ECG (Energy & Fuel)	Amount Outstanding (GH¢)
Aug-23	83,987,798.53	70,000,000.00	13,987,798.53
Sep-23	77,271,474.33	50,000,000.00	27,271,474.33
Oct-23	13,846,649.25	-	13,846,649.25
Nov-23	13,625,817.71	-	13,625,817.71
Dec-23	32,645,410.20	-	32,645,410.20
Jan-24	28,953,843.58	-	28,953,843.58
Feb-24	42,254,488.48	25,000,000.00	17,254,488.48
Mar-24	61,794,154.96	61,794,154.96	-
Total	354,379,637.04	206,794,154.96	147,585,482.08

In the situation where VRA supplies power to ECG in excess of the estimated generation plant allocated by the Electricity Market Oversight Panel (EMOP), the excess of the plant allocation is not catered for under the CWM. This defeats the objective of the CWM in preventing the build-up of receivables in the electricity sector, as this will eventually result in huge receivables in the books of VRA and hence poses liquidity challenges.

The CWM in its present form and shape, favours the IPPs to the disadvantage of VRA and the other SOEs in the electricity sector, hence requires major reforms as soon as possible to enable the Mechanism achieve its set objectives.

The Role of Sector Players

The Ghana Government Power Sector Reforms in 2005 created an enabling environment for the introduction of Independent Power Producers (IPPs). The reforms led to the separation of the Transmissions Systems Department of VRA to form GRIDCo as a transporter of power. Within this context, we see IPPs as partners in developing this country but we are perturbed at the position of the CEO of the Independent Power Generators, Ghana, (IPGG), Dr. Elikplim Apetorgbor, and wonder if his recent statements on ‘electricity export’ by VRA and privatization of VRA’s thermal assets in the media are his personal sentiments or the views of the group he purports to represent.

We are aware of the clandestine efforts of some IPPs to take over VRA's export market and thermal assets, therefore, we are not the least surprised at such suspicious outbursts from the representative of our supposed partners. Dr. Elikplim Apetorgbor and like-minded fellows should be educated on the following:

VRA's Record on Providing Reliable and Quality Electric Power

Within the West African Sub-region and beyond, VRA's brand occupies an enviable place in the minds of stakeholders due to the many years of consistent generation of reliable and quality power as well as the level of expertise that is demonstrated by staff. The case of the government handing over of the erstwhile Ameri Plant to VRA, to be relocated, reconstructed and repowered solely by VRA staff is worthy of note. The 150MW Anwomaso Thermal Power Station (ATPS) was successfully commissioned by His Excellency, Nana Addo Danquah Akuffo Addo in Kumasi on April 17, 2024. It is available and generating onto the grid.

VRA's Record on Stabilizing the Grid

It is worthy of note that grid security and stability are the responsibility of conventional power generators. The integrity of the system is preserved when the entire power system remains intact with no tripping of generators or loads, except for those disconnected by isolation of faulted elements or intentionally tripped to preserve the continuity of operation of the rest of the system. In instances of power system disturbances, VRA Plants (Hydro and Thermal) go into spinning mode, whereas all the IPP Plants disconnect from the grid and shut down. The spinning mode of VRA plants is what enables GRIDCo to quickly restore the entire power system to normalcy by gradually picking loads.

Additionally, while most of our neighboring countries suffer huge dips in frequency due to inadequate spinning reserve and no or slow response of frequency speed droops, VRA power plants are run with huge spinning reserves and faster frequency speed droops to keep the system within normal operation.

Moreover, VRA Plants generate close to 800MVAR at full capacity to provide the needed Volt-Ampere Reactive (VAR) to maintain voltage stability at no cost. In essence, what VRA has done over the years is to create a foundation or platform for grid stability so that the power system can be operated smoothly. Any Private investor wishing to operate a power plant in the subregion knows that operating in a stable grid is vital for the performance of their plants and the success of their businesses. This is a major contributing factor to the reason for IPPs preference to establish their power plants in Ghana.

This all-important role of VRA providing grid stability via its generation mix, will be lost if VRA is privatized as suggested in some quarters.

Social Interventions and Economic Growth

VRA is one of Ghana's strategic national assets and we have always run our power plants with the objective of powering the economy and raising the living standards of the people in Ghana and West Africa.

While we have over the years welcomed the presence of IPPs to complement our generation, we have never viewed them as competitors, but rather as partners. There have been several instances where IPPs have threatened shutting down their plants due to delayed payment or non-payment. Although VRA faces similar challenges, we have always delivered power to the people of Ghana.

Due to the strategic nature of VRA in driving socio-economic growth in the country, VRA had to venture into the installation and management of several projects especially in the Northern parts of the country. Even though, these projects clearly do not present positive Net Present Values (NPV), VRA has always worked together with successive governments with the view of improving livelihoods in the Northern part of our motherland. Some of these projects include rural electrification projects and solar mini grids.

VRA's tariffs are relatively lower, compared to that of the IPPs. It is worth noting that VRA provides the most affordable power to ECG at 2.5cents/kwh, as against the IPPs who sell power to ECG at 10 cents/kwh. In spite of these lower tariffs, VRA buys its own fuel while the IPPs do not; their fuel is a "**pass-through cost**" thus, the IPPs use fuel procured or supplied to them by VRA/GoG.

The question that begs asking is; if the agenda being pushed by Dr. Apetorgbor and his cohorts are to be heeded to, is it VRA through its lower tariffs that must buy the fuel and hand it over to IPPs to generate and sell to the export market they are covertly fighting hard to get access to?

Participation in WAPP Synchronization

The West African Power Pool (WAPP) began a Power System Stability (PSS) test six (6) years ago with the view to getting the WAPP region synchronization of all generators. However, when the IPPs were called upon to nominate their Plants for testing, all the IPPs refused except one.

The WAPP Secretariat had indicated then, that many Power Plants who refused to join the project would try to jump-in once the whole exercise became successful. Although many of us also anticipated this would happen, we did not envisage that some individuals under the guise of representing IPPs will try to get on the WAPP market by pulling down VRA and call for privatization of its thermal assets to pave way for their selfish interests.

Following many years of challenges, the synchronization of the first part of the region was completed in July 2023. After VRA had invested so much in the projects, those IPPs who refused to invest in the exercise are now parading the corridors of power and shouting on roof tops to have access to the WAPP market. They want to reap where they have not sown. The IPPs should understand that VRA's Power Plants are the center of the success of the synchronization due to their immense contribution to grid stability that was observed during the PSS test period.

Shutdown Threats

The IPPs have operated for almost two (2) decades in Ghana. Over this period, they have issued countless threats to shut down due to delayed payment. The question that should pique the interest of Ghanaians is how VRA has been able to successfully manage the sector for well over sixty-three (63) years without issuing shutdown threats. Would Ghana's power sector have reached this far if all the players were private entities?

The IPPs must be made to understand that this is the time that the country requires them to partner VRA to provide power to the people of Ghana. They should exhibit a bit of concern for the situation the country is confronted with rather than their unbridled profit motive agenda.

VRA's position in driving economic growth cannot be overemphasized especially during periods of power challenges. In all challenging times, and during periods of little or no gas availability, most IPPs have refused to run on liquid fuel even though, their plants are dual fired plants. Yes, it

is for the simple reason that they want to avoid risking the challenges associated with switching from gas to liquid fuel and vice versa.

Meanwhile, in such challenging times, VRA has always accepted to run to ensure that there is enough power available to Ghanaians and has boldly shouldered all the associated risks that have arisen out of all these instances.

VRA'S Support for the Power Sector

Consistently, VRA has persevered in supporting power Generation, Transmission and Distribution in the country.

Generation

The Authority has invested so much in identifying various sources of energy generation (Hydro, Thermal, Solar, Wind, Coal and Nuclear) all in the interest of Ghanaians. VRA carried out most of the pre-construction activities of the Bui Dam prior to the establishment of the Bui Power Authority (BPA). VRA has built Solar Plants in Navrongo, Kaleo and Lawra. The Authority also invested heavily in the construction of the West Africa Gas Pipeline Company (WAGPCo) which transports gas to Ghana from Nigeria and owns 16.3% shares.

A significant amount of the gas VRA procures from Nigeria Gas through WAGPCo is given to some of the IPPs for power generations.

The essence of this exposition is to show that VRA has invested significantly in the sources of fuel that the IPPs today draw their revenue from. Any attempt to dismantle VRA is likely to affect the electricity system reliability. Dr. Eliklim Apetorgbor and likeminded persons, cannot bite the finger that feeds them!

As noted earlier, for every unit of power produced by the IPPs, VRA generates additional reactive power, Volt-Ampere Reactive (VAR) to push the power and maintain grid stability. The generation of VAR puts stress on the generators, for which reason no IPP is willing to generate additional VARS. Impliedly, the IPPs ride on the back of VRA to achieve their electricity supply objectives.

Transmission

VRA was very instrumental in extending the Electricity Transmission Network (161KV) to the northern part of Ghana and contributed significantly by investing in the West Africa Power Pool (330KV) line. The Authority continues to play a key role as host of the Association of Power Utilities in Africa (APUA) Desk and partners GRIDCo to improve the evacuation and transmission network.

Distribution

The Volta River Authority (VRA) in 1987 established the Northern Electricity Department (NED, now NEDCo) to distribute electricity in the then Brong-Ahafo, Northern, Upper East and Upper West Regions of Ghana as part of the 161kV transmission grid extension. Since NEDCo became a wholly owned subsidiary, VRA has continuously provided both financial and logistical support.

There is an existing Memorandum of Understanding between VRA and NEDCo that guarantees VRA's continuous support in terms of power supply and the expansion of other infrastructure. Even though NEDCo has major challenges with receivables due to its socio-economic, and geopolitical environment, VRA has continued to honor its obligations to ensure that our brothers and sisters in the northern part of the country enjoy electricity consistently without any hindrance.

Energy Security and National Security

The existence of VRA greatly contributes to Ghana's energy security. VRA has over the years ensured the sustainable supply of power to the country and beyond. VRA as a strategic national asset has never threatened to shut down even in the face of cashflow/liquidity challenges.

The Volta River Authority has successfully expanded and operated all our generating plants effectively and efficiently to support the country's energy needs for the past sixty-three (63) years and has built a vast wealth of experience, competencies, and capabilities in managing electricity generation plants. These competences have been at the disposal of both IPPs in Ghana and other Power entities in the West African sub-region and should not be allowed to be denigrated.

Energy Security can further be guaranteed only if there is a mix of generation portfolios owned by the people of Ghana. Any attempt to disintegrate the Volta River Authority will have dire consequences on the energy security and for that matter the national security of the country.

Ghanaians should be reminded of the Ebola outbreak (2014) in some West African countries where all private hospitals owned and operated by foreigners closed down and ran away leaving only the government hospitals to save the nationals. This singular situation should serve as a warning to us, as Ghanaians or any country not to privatize their strategic national assets like Power Generating Plants.

VRA's role in WAGPCo in the transport of gas, support to NEDCo and GRIDCo attests to the importance VRA attaches to Energy Security and for that matter, National Security.

Merger/Privatization of VRA/NEDCo

The Management of the Volta River Authority with help from successive governments acknowledged the need to diversify the generation mix of the Authority in line with its mandate as per Section 10(a) of the Volta River Development Act, 1961 (Act 46) as amended.

Based on professional analysis of cyclical drought experienced by the country, and the realization that the country's growing energy needs could not be met from hydro sources alone, Management saw the need for a proper business analysis of the synergy of diversified generation portfolio, by introducing thermal generation and solar complementation. Meanwhile conscious efforts are being made to add wind power to the generation. Again, VRA is in collaboration with the Bui Power and the Ghana Atomic Energy Commission to introduce power generation through nuclear sources.

The Volta River Authority with its level of professionalism and the competence of its crop of staff, has shown beyond reasonable doubt that it is capable of managing the affairs of the Authority. The recent Engineering and Construction (E&C) of the Anwomaso Thermal Power Station (ATPS) (erstwhile Ameri Plant) located at Anwomaso near Kumasi attests to the ability of the VRA staff to turn the business of the Authority around to make it profitable if all other policies are fairly implemented.

The proposal from certain quarters for VRA to operate only hydro within the power operation context is absurd at best. This is mainly due to the large year-to-year variations in the rainfall pattern and the vulnerability it imposes on a power entity which depends solely on the weather (a natural event) for its operations and consequently, revenue. This is more significant since multi-year droughts are a known feature of our climate, and our power system has been subjected to its effects severally.

Examples can be cited in 1998, where planned power cuts were introduced due to low inflows (Lake Level-236.93ft) into the Akosombo Reservoir. Also, in 2007, power rationing due to low inflows (Lake Level: 234.96ft). Similarly, in 2012-2016, the prolonged period of power outages due to low inflows (Lake Level -235.01ft).

It is largely due to this climate related vulnerability that previous studies and analytical work, after seasons of drought recommended that a diversified hydro/thermal power complementary system should be operated by VRA. It also defies every modern business logic to put all VRA's "eggs into one basket".

Any decision that aims at separating the Authority's thermal assets under the guise of privatization, will mean a reversal of progress made by the Authority in diversifying its power generation business and will lead to Ghanaians paying more in the form of availability and capacity charges.

In conclusion, we wish to reiterate that VRA is the only strategic state-owned power utility providing and guaranteeing the energy security for the people of Ghana and for that matter none of its assets must be put on sale.

The Authority is efficient in operating and managing its assets and thus should be allowed to operate its diverse generation mix, devoid of any unwarranted privatization.

Government and the respective agencies must review the existing CWM to ensure fairness and equity in its implementation to guarantee VRA and all other SOEs in the power sector the receipt of their fair share of funds in the kitty.

The Staff of VRA and our colleagues in the other SOEs *shall* fearlessly resist and use all legitimate means at our disposal to ensure that the people of Ghana are not robbed of affordable electric power under the **guise of privatization**. We believe that Ghanaians must be advised by the lessons learnt in the privatization of SOEs in the past.

We wish to advise all individuals and groups discrediting the importance of VRA, aimed at decimating the Authority in order to sell it to their kith and kin that, they shall not succeed and that posterity will surely call for accountability one day.

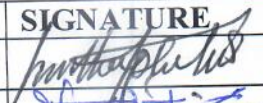
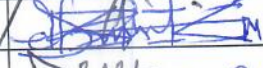




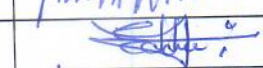



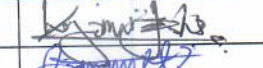
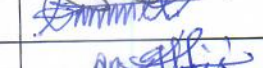



Long Live VRA

Long Live Ghana

God Bless Us All

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VOLTA RIVER AUTHORITY
NATIONAL SECRETARIAT
AKOSOMBO**

NATIONAL EXECUTIVE COUNCIL

NO.	NAME	DESIGNATION	SIGNATURE
1	Theophilus Tetteh Ahia	National Chairman	
2	Francis Kwami Deku	National Vice Chairman	
3	Daniel D. Datsomor	National Advisor	
4	Jerry Nelson-Nettey	National Treasurer	
5	John Chobbah	General Secretary	
6	Victoria Jemima Mends	National Women's Coordinator	
7	Robert Kwame Yeboah	Deputy General Secretary	
8	Edwin Kwamina Adams	Assistant National Treasurer	
9	William Kwame Asare	NEDCo Branch Chairman	
10	Samuel L. Annan	Accra Branch Chairman	
11	Eric Addo-Djan	Akosombo Branch Chairman	
12	Festus Ewusi-Sekyi	Akuse Branch Chairman	
13	Mawutor Hudson Addipah	Tema Branch Chairman	
14	Evans Kwame Amoah	Western Branch Chairman	
15	George Frimpong Antwi	National Co-ordinator	

12/05/2024
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