

**SPEECH DELIVERED BY MR. LOUIS CASELY-HAYFORD,  
CHIEF EXECUTIVE OF THE VOLTA RIVER AUTHORITY**

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Your Excellency, the Chairman of the Provisional National Defence Council, Members of the P.N.D.C. Secretaries, Your Excellencies, Nananom, Distinguished Guests, Ladies and Gentlemen,

I am greatly honoured and privileged to welcome you on behalf of the Volta River Authority, to the formal inauguration of the Kpong Hydro-electric Project this morning.

Whilst extending our welcome, I must particularly thank you, Your Excellency, the chairman of the Provisional national Defence Council, for honouring this occasion with your presence. Your presence here this morning is a mark of the great significance, which the P.N.D.C. attaches to the Volta River Project, and for this the Authority is indeed grateful.

The economy, which we are about to witness today, is for a number of reasons and important landmark in the history of the VRA, whose operations have had a marked influence on the development of the country. I would just mention three of these reasons.

Firstly, it marks the end of nearly a decade of planning, activity and sacrifices by the people of Ghana to bring into fruition the start of the second phase of the development of the Volta River. As we all know, the Akosombo hydro-power project was conceived as the starting point of an overall programme to the integrated development of the Volta, covering the entire basin and involving the construction of other dams such as, Bui and Pwalugu in the North and of course Kpong in the South. Hand in hand with these were to be fishery development, shoreline agriculture, inland water transportation, bauxite mining, alumina production, and aluminium smelting.

Secondly, this occasion is important, because, as Ghanaians, we have every right to be proud of the faith which the people of this country have had in the Volta River Project, and of the part played by Ghanaian workers of all categories in the planning, execution and final completion of the Kpong hydro-electric project

Last but not the least, this occasion is also important because of the goodwill and co-operation shown by all the countries and international agencies who contribute to the financing and realization of the project; for the dedication and hard work shown by the consultants and the contractors and for the mutual trust and comradeship which grew amongst the Ghanaian and expatriate personnel in the process of working together over the five year construction period of the project.

The Volta River Project, by our calculations, has certainly been the largest single investment in Ghana since independence. Although the project is a many-sided economic development scheme, its electrical energy, initially from the Akosombo hydro-electric facilities, in sufficient quantity to meet Ghana's industrial, commercial and domestic needs. This development, as originally conceived, provided for a two-phased programme for the full development of the hydro-electric potential at Akosombo.

The first phase which was completed towards the end of 1965 consisted of the construction of the Akosombo Dam and Powerhouse, its ancillaries and an 800 km transmission system, with associated substations. Four of the Generating Units were installed under the first phase of the development and the remaining two were commissioned in 1972 when the Akosombo Expansion Programme was

completed. This brought the total installed capacity of the Akosombo Project up to 912 Megawatts.

At the same ceremony marking the completion of the Akosombo Expansion Programme the 'switch-on' of the Ghana-Togo-Benin Transmission Line also took place.

The idea of linking the Ghana system to other consumers in our sister neighbouring countries had been considered in the planning of the Volta Hydro-electric Project. In fact, it dates as far back to the period between 1962 – 1964, during the construction of the Akosombo Dam. The agreement for the supply of power to Togo and Benin was signed on 22<sup>nd</sup> August.1969.

Although power development at Kpong had been envisaged since the construction of Akosombo, and even before; the last studies and surveys culminating in our ceremony today, began in mid-1974. Field investigations and design studies made in 1975 by Acres International Limited and Shawinigan Engineering Company, both of Canada, with a grant from the Senchi and Kpong rapids for power production was to build a dam and spillway at the foot of these rapids and pass the river flow through a powerhouse forming part of the structure. It was established that such an arrangement would back up the river as far back as Akosombo, forming a headpond covering an area of about 3,645 hectares and that the headpond would submerge the Senchi and Kpong rapids and some of the riverside and island villages. The location of Kpong Project at this site of the Volta River is some 24 km downstream of the Volta Dam and Powerhouse at Akosombo.

The electricity generated from Kpong is fed into the national grid through two single circuit transmission lines, which terminate at the Akosombo Switchyard and Volta Substation near Tema.

Unlike Akosombo, the Kpong Powerhouse is enclosed and as you can see, located on the West Bank of the River. Adjacent to the Powerhouse is a gated spillway structure with 15 Radial type gates. The spillway is designed to pass the maximum possible flood from Akosombo. The Powerhouse, spillway structures and river Dam are flanked by earthen dykes which close off the headpond thus creating a reservoir 11 meters above sea level used for the Generation of Electricity.

Your Excellency, before Kpong, the main source of power in Ghana was the hydro-electric plant at Akosombo. And we are all aware of the part this power plant has played in supporting the economy in the face of the world-energy crunch. It is the pursuit of these objectives that the hydro-electric potential of the Senchi and Kpong rapids has been developed into the second hydro-electric facility at Kpong. As our system load grows, we are continuously developing plans for expanding our electric power generating capacity to meet the growing demand.

In our system plan therefore, Bui appears to be the next most technically and economically feasible project to embark on. We are also reviewing reports and data on other hydroelectric sites with a view to harnessing their electrical energy potentials. These sites include potential micro and mini hydro developments that would supply power to the rural communities. Our rural electrification programme is also proceeding satisfactorily. Our on-going rural project is the extension of the national grid to feed areas in the Volta Region, north of Asiekpe. At the feasibility stage too is the extension of our transmission system to Brong Ahafo, Northern and Upper regions.

It is therefore, our plan to eventually replace as many of the diesel stations as possible which are scattered around the country and the same time establish the basic infrastructure required for the distribution of electricity to all parts of Ghana that are presently not connected to the Volta Grid.

The Volta River Authority has also been keenly aware of the benefits of Regional Co-operation in the Energy sector within the framework of ECOWAS. The on-going project of Interconnecting the

Power Systems of Ghana and the Ivory Coast is also on schedule and due for completion next year. Discussions are also at an advanced state with our brothers from Nigeria with that of ours. If these studies confirm the benefits, which we anticipate, then the future will see a West African High Voltage Grid extending from Nigeria to the Ivory Coast from which all the people in the sub-region could obtain tremendous economic benefits.

The Kpong project as explained earlier, involved the creation of a headpond, which would inundate six main townships, farmsteads, and grazing grounds and leave homeless a total of 7,000 people.

The solution to the problem of resettlement and compensation of 1,000 people was undertaken as part of the main Kpong Hydro Project, as against the situation in the Akosombo Resettlement Programme. With the experience of resettling 80,000 people from the Akosombo reservoir in 1965, the Kpong Resettlement was planned and executed in such a manner, taking into account the social, cultural, economic and health requirements of the people. From the findings of elaborated social surveys carried out during the period 1974 – 1976, six resettlement townships were planned, taking into account such factors as acceptability by the prospective settlers, land tenure and cultural affinity, as well as requirements for agriculture, fishery and the control of endemic diseases such as Bilharzia. Landing stages have been provided at the water's edge near every village, to ward the villagers off from indiscriminate and unnecessary direct exposure to the shallow waters of the lake, and the risks thereby of contracting bilharzia. It must be observed that whilst the drowning of the Kpong and Senchi rapids will eradicate river blindness from the area, the warm shallow waters at the edge will probably encourage bilharzias and hence the need for the measures mentioned earlier aimed at preventing people from making physical contact with the water.

The townships are all around here, for us to see. They have been supplied with communal facilities, such as clinics, toilets, water supplies, electricity and roads.

I would now wish to touch a little on another aspect of the Resettlement Programme, namely, that bearing on agriculture and fishery. Our Previous experience on the Volta Lake resettlement agriculture where we placed emphasis on large holdings and mechanization, which later exposed inherent problems too difficult for quick and satisfactory solution, made us change our philosophy for Kpong project agriculture. Here we have concentrated on developing improved farming techniques for the small farmer and maintaining traditional patterns where appropriate. Land use surveys have revealed that farm yield in this area can be greatly increased by improved but simple farm practices, such as better bed preparation, optimum crop and seed selection, controlled weeding and irrigation, particularly from below the powerhouse. We have therefore, cleared land geared to the farmers' immediate needs, but with scope for expansion and flexibility to meet future requirements.

To date, 1,175 hectares of viable agricultural land have been cleared, prepared and allocated to all farmers displaced as a result of inundation. This marks the successful completion of the first phase of the agricultural resettlement programme. The Ministry of Agriculture, which participated in this phase are now fully responsible for the post-resettlement phase with emphasis on an effective extension programme.

As regards fishing, the headpond is already proving to be a good fishing ground. We have been working very closely with the Fishery Department to see how best the fishing potential can be developed to the optimum. Part of this programme will involve the creation of fish farms and the training of the people to farm them. Our intention in developing these programmes has been to popularize these economic activities and to train the people in new and improved methods of agricultural production to enable them to fend fully for themselves.

The resettlement work for the Kpong Project including compensation is estimated to have cost total of ₵23 million. We in the VRA have a strong commitment to ensure the success of the resettlement programme, and it is our ardent hope that in the long run the settlers, in particular, and the entire sub-region in general, would have benefited from the programme.

I would now like to say a few words about the cost of the project and manner in which it has been financed.

The estimated completion cost of the Kpong Project including the associated transmission line re-enforcement, amounts to a total of over ₵725 million. This is made up of almost US \$200 million to cover the Foreign Exchange costs and ₵180 million for the total costs.

The Volta River Authority is very pleased and proud that this massive investment financed over the past five years has been accomplished without any recourse to Government for subventions or direct financial assistance. The financing of these costs was achieved through firstly, loans made to VRA, which with interest and other charges, will be repaid by VRA, and secondly, from direct contributions by the VRA from its own resources.

The foreign loans, which have been committed to the Kpong Project and related transmission re-enforcement by as many as eight lenders are as follows:

1. The Kuwait Fund for Arab Economic Development	\$46.7 M
2. The Saudi Fund for Development	\$34.2 M
3. The Arab Bank for Economic Development in Africa	\$10.0 M
4. The OPEC Special Fund	\$3.7 M
5. The Canadian International Development Agency	\$35 M
6. International Bank for Reconstruction and Development	\$39 M
7. European Investment Bank	\$11.7 M
8. European Development Fund	\$10.7 M

The Ghanaian public and financial institutions have supported the Authority by the purchase of ₵80 million in the Authority's first public bond issue.

We should mention that our debt service costs alone, on the Kpong Project, are now running at about \$17 million per annum in foreign exchange and our local debt service is running at approximately ₵25 million per annum. These figures do not include our debt service costs for Akosombo and expenditure for essential maintenance materials.

I am making this point partly to answer some of the questions which have been raised regarding what happens to the earnings from the sale of power to Valco, Togo and Benin and also to demonstrate the high degree of financial management and responsibility which the Authority has achieved over the years and must maintain into the future.

This brings me to the question of tariffs to our respective customers from which we pay the interest and repay our loans.

We are pleased to report that our brothers in Togo and Benin have recognized that the cost of obtaining secure supplies for the future, necessitates sharing with us, in the cost of Kpong, and with effect from April 1<sup>st</sup>, have agreed to an increase in their tariff by about 80% to approximately 25 US mills or 2½ US cents per kilowatt hour.

We regret to report that we have not thus far, after almost 18 months of negotiation, been able to reach an agreement with our major customer Valco. The Authority's position is that the minimum price for power to Valco, which is required under our international loan agreements and which is required under our international loan agreements and which is reasonable and realistic compared with any other world location, should be 12 US mills 15 US mills and 18 US mills per kilowatt-hour for 1981, 1982 and 1983 respectively.

We regret also to have to advise that the Authority is not immune to the problems of local inflation which have affected all Ghanaians. The increase in local prices estimated well over 100 percent since the beginning of 1981, has increased the Authority's recurrent and capital expenditures significantly. We have not increased our tariffs since January 1981 and can hold them until January 1983 but we shall thereafter require a tariff increase to our local customers. Even so, we shall be able to keep our increases well below inflation. We expect that with the co-operation of the sister organization, the Electricity Corporation of Ghana, there will be no increase at all to ordinary consumers, if a maximum increase of 10% is charged to major industry and a maximum of a 35% increase to the heaviest domestic consumers whose cost of power is under-priced compared to our neighbouring countries. It is pertinent to note that even with these modest proposed increases, the retail price of electricity in Ghana shall still remain the lowest in West Africa.

We would like to take this opportunity to express our profound gratitude and thanks to the various Lenders, for their understanding and willingness to come to our assistance. We were naturally pleased to learn from the Lenders during the loan negotiations that their willingness to provide the necessary financing was based, to a large extent, on the Authority's stewardship over the years, particularly as had been demonstrated in efficient management principally of the Akosombo project, and generally of related responsibilities imposed upon us; and are more importantly the Authority's record of reliability in the servicing of debts. It is also a yardstick of the interest that these Lenders have taken in the development of our country and the welfare of its people.

We wish to thank also the Consultants Messrs Acres International Limited and Shawinigan Engineering Company of Canada for a job well done. We would also like to take this opportunity to pay special compliments to Mr. Len Allen the Consultants' Resident Manager who is recognized by us as the architect and father of the Kpong Scheme. Len and his wife Elizabeth will always be remembered for the loving care they devoted to every aspect of this project and their personal efforts the made to create the happy and beautiful environment we see around us.

Our appreciation and thanks also go to the following Contractors who undertook the various jobs:

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| 1. Impregilo-Recchi Joint Venture from Italy              | Civil Works Contract.  |
| 2. Messrs Toshiba and Boving from Japan and great Britian | Generators, Turbines and Power Crane Contract                                  |
| 3. Oy Stromberge from Finland                             | Generator Transformer Contract.  |
| 4. Canron Incorporated from Canada                        | Powerhouse Gates Contract  |
| 5. Dominion Bridge – Sulzer Incorporated from Canada      | Spillway Gates Contract  |
| 6. Melin Gerlin from France                               | Switchyard Equipment Contract  |
| 7. Sadelmi-Cogepi from Italy                              | Powerhouse Mechanical And Electrical Services and Transmission Lines Contract. |

Furthermore, our thanks go to the Government of Ghana of its encouragement, to the Chief and people of this area for their understanding and ready support of the project, to the Ministry of

Finance and Economic Planning whose tireless support made it possible for us to be here today to inaugurate one of the very important projects in the country since the completion of the Akosombo Dam. We are grateful also to the Ministry of Agriculture; the University of Ghana, and the University of Science and Technology, the Administration of the Eastern and Volta Regions, the Survey Department, the Lands Department and all other organizations too numerous to mention, both in the public and private sectors, who in one way or another, assisted us during the construction period. We hope to have the same co-operation during the years ahead on similar projects.

Lastly, we wish to thank our various customers for their patronage, which we value very much.

We are confident that the activity, which the kpong project has injected into the area, will be recycled into the country's economy. At the end of this ceremony we shall leave behind not only a modern power station, but also an important infrastructure, which should attract additional development. Agriculture will be boosted in the area by the presence of a group of re-oriented small farmers, using more improved practices, including irrigation.

Your Excellency, the Chairman of the PNDC, Members of the PNDC, Secretaries, Your Excellencies, Nananom, Distinguished Guests, Ladies and Gentlemen; with the inauguration ceremony today, the Authority has not overlooked the other multiple-use aspects arising out of the Akosombo development and for which it is specifically charged. In the discharge of these other responsibilities we have pioneered the development of freight and passenger traffic on the lake. As at now we are engaged on a Programme for the Improvement and Expansion of the Volta Lake Transport System, thanks to a generous loan of DM 75.2 million from the Government of the Federal Republic Germany. Tenders for the civil works for this project shall be opened next week. Research work on hydro-biology of the lake, and fishing development are in advanced stages. The Akosombo Township has virtually become a cosmopolitan industrial center, and we are still actively engaged in finding ways and means of improving on the living conditions of the resettled populations.

The Authority has been able to carry out these functions only through hard work, loyalty and devotion to duty of all its workers. We have been lucky, indeed, to have a dedicated body of highly qualified professional Ghanaian Engineers, Administrators, Finance Men, and Accountants, Lawyers, Technicians and skilled workers who quietly and without seeking the lime-light, have diligently and efficiently carried out their difficult and specialized tasks as a team. Every worker, no matter what his task, has in the process, developed his skills and become a specialist in his field. Our workers have by their devotion, competence, and service earned the respect of international bodies and organizations all over the world. With such devotion and loyalty we can face the future with confidence and continue to contribute effectively to the welfare and advancement of Ghana. Your Excellency, the Chairman of the PNDC, Members of the PNDC, Secretaries, Your Excellencies, Nananom, Distinguished Guests, Ladies and Gentlemen; we thank you once again, for honouring our invitation to grace this ceremony with your presence. It is our prayer that by the Grace of Providence, this Project, our united endeavour, will be blessed to prosperity.

Thank you.