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**The Energy Crisis and Growth
Performance of the Economy**

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THE ENERGY CRISIS AND GROWTH PERFORMANCE OF THE ECONOMY

1.0 Introduction

The Ghanaian economy continues to date to experience the very severe energy crisis that hit the entire country from the start of the second half of year 2006. Coming a decade after the drought-related hydropower crisis of 1997/98, this “energy crisis” necessitated the “embarrassing and expensive” load-shedding programme of the Volta River Authority (VRA) that commenced in August 2006 and is still ongoing with no fixed date as to when it will end. As in the 1997/98 crisis, the present crisis was largely the result of low water inflows into the Akosombo Dam which limited the generation of hydroelectric power from the Akosombo Power Station — the largest of two hydroelectric power generation plants in the country. Meanwhile, the adverse impact of the crisis has continued to be dreadful and unrelenting, escalating the operating costs of businesses and limiting production and hence output growth — particularly in energy-sensitive sectors of mining and manufacturing — all of which have serious implications for profits and employment as well as for government revenue targets.

It is somewhat ambiguous that while the official assessment of the growth performance of the economy in 2006 acknowledges a “slowdown” in the growth performance of energy-sensitive sectors such as mining and manufacturing, the Electricity and Water sub-sector — the source of the energy crisis — is reported to be the lead driver of the overall real GDP growth rate of 6.2 percent registered for 2006, with an incredible output growth of 23.0 percent in 2006 over the output of 2005.

This report, which is in two parts, is about the energy crisis and its impact on the economy. The first part of the report draws on the most current data and very recent studies to provide a more credible assessment of the growth performance of the economy for 2006 than has been reported in the 2007 Budget Statement. The second part of the report gives a background to the energy crisis, its impact on society and the economy, and some of the short- to medium-term proposals put forward to address the crisis.

2.0 Review of the Growth Performance of the Economy in 2006

In the Budget Statement and Economic Policy for 2007, which was presented to Parliament by the Minister of Finance and Economic Planning, the economy was reported to have grown at its fastest pace since the Second Republic — registering a real GDP growth of 6.2 percent per annum for 2006, and programmed to reach 6.5 percent per annum in 2007. This accelerated growth performance, according to the official statistics contained in the Budget Statement, was broad-based across all three major sectors, with the Industrial Sector outperforming — perhaps for the first time in a decade — both the Services and Agricultural sectors.

Using the official statistics to assess the sectoral and overall performance of the economy in 2006 calls for extreme caution. Among other things, the following observations are warranted:

- The growth estimates are only revised projections,
- They are based on partial data, perhaps covering only the first half of the year and certainly before the severity of the energy crisis and its impact could be objectively assessed, and
- They can only be preliminary and tentative because of the weaknesses of the statistical surveys on which they are based.

On the third point, the observation of the staff of the IMF in the Country Report No 02/38 of March 2002 is pertinent. To quote:

To improve the reliability of the national accounts, a comprehensive overhaul of the basic sources of data would be needed. The existing sector surveys that form the basis for the estimates are outdated. (Appendix IV paragraph 12, page 69, emphasis added)

Even in the best of circumstances, extrapolation beyond the period of the data must be undertaken with appropriate caveats duly served. To do so across a structural break as would be implied by the energy crisis is a most hazardous undertaking. Without doubt, the Ghana Statistical Service (GSS) would be forthcoming with at least provisional actual estimates now that the relevant data on the crisis, the consequent load shedding and the impact on the economy, are available. In all of this, it is of utmost importance that the GSS be given all the support and resources it would need to do its work. The data presented in the Budget Statement show inconsistencies among some tables and between the text and some tables.

Above all, the professional independence and integrity of the GSS must be safeguarded at all times and especially in the present circumstances.

The energy crisis necessitated what has been described as an “expensive and embarrassing” load shedding exercise from August to December, 2006, which adversely affected production and output particularly in the energy-sensitive Mining and Quarrying, and Manufacturing sub-sectors. As indicated in Table 1, the official account of the sectoral growth performance shows that the Industrial Sector grew at 7.3 percent in 2006, led by the Electricity and Water sub-sector — with an incredible growth rate of 23.0 percent.

In the Budget Statement (2007), the Electricity and Water sub-sector — the source of the crisis — is described as “the major contributory sub-sector” of the Industrial Sector (paragraph 76, emphasis added). Moreover, the revised growth rate of the sector, though marginally lower than the 7.7 percent growth recorded in the previous year 2005, is nonetheless more than a full percentage point higher than the original 6.0 percent projected, in spite of the energy crisis. CEPA takes serious issue below with the revised growth rates in respect of the Electricity and Water as well as the Construction sub-sectors.

The Agricultural sector — including cocoa, forestry and logging — is the largest of the three sectors though its share in GDP has been falling over the years. In 2005, it constituted 36.0 percent of total GDP. Within the sector, thanks to the application of the high-tech measures and the resultant production boom, the share of the important cocoa sub-sector has risen sharply, and now constitutes 12.8 percent of the total Agricultural GDP. The official estimates reduced the sector’s growth rate from the 6.6 percent originally projected to 5.7 percent. According to the Budget Statement (2007), this was on account of the “the underperformance of the Cocoa Production and Marketing and the Forestry and Logging sub-sectors” (paragraph 73, page 23). The statistics show that the growth rate of the Crops and Livestock sub-sector was also lowered, though only marginally, from 6.2 percent to 6.0 percent.

Table 1: Economic and Sectoral Growth Performance, 2004-2007 (in percentages)

	Actual 2004	Actual 2005	Official Program 2006	Official Provisional Actual 2006	CEPA Provisional Actual 2006	Official Projection 2007
Real GDP Growth	5.58	5.8	6.0	6.2	5.3	6.5
Agricultural Sector	6.97	4.1	6.6	5.7	5.7	6.1
o/w Cocoa Production	29.90	13.2	12.2	8.7	8.7	6.0
Industrial Sector	4.83	7.7	6.0	7.3	4.0	7.7
Mining and Quarrying	3.02	6.3	6.3	3.0	3.0	6.0
Manufacturing	4.59	5.0	5.0	4.2	4.2	5.5
Electricity and Water	3.75	12.4	4.0	23.0	0.00	10.0
Construction	6.61	10.0	7.5	8.2	5.7	10.0
Services Sector	4.92	6.9	5.5	6.5	6.5	6.7
Miscellaneous Items						
Percentage Shares of GDP 1/						
Agricultural Sector	36.6	36.0	36.2	35.8	35.8	35.7
Cocoa Production	4.3	4.6	4.8	4.7	4.7	4.6
Industrial Sector	24.7	25.1	25.1	25.4	25.4	25.6
Mining and Quarrying	5.1	5.1	5.1	5.0	5.0	4.9
Manufacturing	9.0	8.9	8.9	8.8	8.8	8.7
Electricity and Water	2.5	2.7	2.6	3.1	3.1	3.2
Construction	8.1	8.4	8.5	8.6	8.6	8.9
Services Sector	29.9	29.9	29.8	30.0	30.0	30.1
Contribution to Growth						
Agricultural Sector	2.52	1.50	2.38	2.07	2.07	2.18
Cocoa Production	1.03	0.56	0.56	0.42	0.42	0.28
Industrial Sector	1.20	1.91	1.51	1.93	1.01	1.97
Mining and Quarrying	0.16	0.32	0.32	0.15	0.15	0.30
Manufacturing	0.42	0.45	0.45	0.37	0.37	0.48
Electricity and Water	0.09	0.33	0.10	0.70	0.00	0.32
Construction	0.54	0.81	0.63	0.70	0.49	0.89
Services Sector	1.47	2.06	1.64	1.94	1.94	2.01

Sources: Budget Statements and Economic Policy for 2004-2007 (Ministry of Finance and Economic Planning)

Notes: 1/ an estimated 4.5 percent share of GDP is on account of Net Indirect Taxes

Production data for 2006 point to a new record cocoa crop of about 780,000 metric tons (comprising a light crop of 90,786 metric tonnes and an estimated main crop of 689,214 metric tonnes) in 2006 compared to the previous record of 722,163 metric tonnes (comprising a light crop of 72,490 metric tonnes and main crop of 649,673 metric tonnes) in 2005 — an increase of 8.0 percent. This is somewhat lower than the official growth estimate of 8.7 percent for the sub-sector. CEPA, however, accepts the higher official growth rate, and with that the Agricultural sector growth rate of 5.7 percent for 2006.

It is evident from the cocoa production statistics above, however, that the reported underperformance of the cocoa sub-sector reflected more the over-optimism in the original growth projection of 12.2 percent rather than to the performance of the sub-sector — a new record.

In the Budget Statement (2007), the Minister referred to the underperformance of the agricultural sector, the mainstay of the economy and offered the following explanation:

“The contributory sub-sectors to the underperformance are the Cocoa Production and Marketing and the Forestry and Logging sub-sector” (paragraph 73, p. 23).

The growth projection of 5.6 percent for the Forestry and Logging sub-sector similarly appears unrealistic given national and international concerns with environmental degradation and specifically the rapid depletion of Ghana’s forest reserves. CEPA accepts the halving of the original target as perhaps more realistic.

In regards to the Services sub-sector, the revised growth projection of 6.5 percent is a full percentage point above the original target growth of 5.5 percent. Apart from the Community, Social and Personal Services sub-sector, in respect of which the original growth rate of 4.2 percent was retained, all the other sub-sectors had their projected growth rates revised upwards and by sizeable margins. The Wholesale and Retail Trade sub-sector growth rate was revised by 1.3 percentage points followed by that of Transport, Storage and Communication by 1.2 percentage points. Upward revisions ranging from 0.7 to 0.9 percentage points were applied to the remaining sub-sectors. In its projections, CEPA retained the revised estimate of 6.5 percent noting the record volume of non-oil imports valued to about US \$5.1 billion in 2006.

In the preliminary growth assessments for 2006, the official statistics acknowledge the slowdown in the growth performances of the Mining and Quarrying, and Manufacturing sub-sectors of Industry. Output growth in the Mining sub-sector was lowered from its target of 6.3 percent to 3.0 percent per annum in 2006, the same as that realized in 2004. By way of comparison, the reduced growth in 2004 was also 3.0 percent with a higher 6.3 percent in 2005. The growth rate of the Manufacturing sub-sector was also revised downwards to 4.2 percent compared to the target of 5.0 percent. Thus (given their shares in real GDP), instead of contributing the expected combined 0.76 percentage points to overall real GDP growth, they contributed only a combined

0.53 percentage points — a loss of 0.23 percentage points. These preliminary estimates, it must be emphasized, were made before the full impact of the crisis could have been assessed. And on the evidence, appear grossly optimistic.

As noted above, CEPA has strong reservations about the revised official growth rates for the Construction and the Electricity and Water sub-sectors, both of which were inexplicably increased over their original targets. In the official growth assessments, output in the Construction sub-sector is reported to have risen by 8.2 percent — some 0.7 percentage points above the original target of 7.5 percent. To quote from the Budget Statement (2007):

“Construction is projected to grow by 8.2 percent, exceeding the target for the year. This is attributable to the increased road construction and other infrastructural developments throughout the country. In addition, a total of 1,349,644 tonnes of cement was produced during the first eight months of 2006 against 1,276,571 tonnes produced during the corresponding period of 2005, an indication of robustness of construction activities.” (Budget 2007, paragraph 79, pp. 24-25)

Thus, on the basis of production data over the first eight months of 2006 — before the onset of the crisis — the annualized cement production growth was 5.7 percent.

Ironically, there was anecdotal evidence that the difficulties with access to power and interruptions in power supply created production bottlenecks for cement manufacturing, at least in the last quarter of 2006, resulting in increased ex-factory price of the product on retail markets. The Press Release of the MPC of the Bank of Ghana confirmed this with its observation of *“notable declines of cement sales and industrial consumption of electricity, which have strong links with the ongoing electricity load management”* (MPC Press Release of March 19 2007; paragraph 4; page 2). Clearly, a 5.7 percent growth rate for the year 2006 would be an overestimate.

According to IMF Country Report of March 2002, the standard and traditional method used by the Ghana Statistical Service (GSS) for assessing real GDP growth originating from the Construction sub-sector is to equate it to the growth in domestic cement production. To quote from the Report:

“Calculation of construction investment is currently based on the estimated value of locally produced construction goods (with 1993 as base) This value is extrapolated over the following years based on the production of cement ... ” IMF Country Report No. 02/38, March 2002, paragraph 14, page 70 — emphasis added).

As noted above, cement production, based on output figures for the first eight months, is optimistically estimated to have grown by 5.7 percent. Following the established practice of the GSS cited above, and applying the same growth rate as for cement production, CEPA estimates the growth rate of the Construction sub-sector at no more than 5.7 percent in 2006.

CEPA also finds it puzzling that in the midst of combined water and power crisis a key driver of the impressive official account of performance of the Industrial Sector is the Electricity and Water sub-sector, where gross output reportedly increased by a staggering record 23.0 percent in 2006 over the output of 2005 — almost twice the rate of growth registered in 2005. Amazingly, this “super-performance” of the Electricity and Water sub-sector, moreover, is set to continue into 2007 even as the hydropower crisis deepens.

It is pertinent to note that in his presentation of the 2007 Budget to Parliament, the Minister of Finance observed as follows:

“... the year 2006 was a particularly difficult year for the energy sector as it was characterized by shortage of power supply and high prices of crude oil and petroleum products. The power supply shortage was largely the result of low water inflows into the Akosombo Dam which limited the generation of power from the Akosombo Power Station” (Budget 2007, paragraph 374, page 89 — emphasis added).

While lamenting the severe stress these developments have had on the national economy the Minister further noted:

“..the difficulties experienced in the year resulted in the implementation of an extensive nationwide load management programme at the end of August 2006. The programme is intended to lead to a reduction of about 300 MW which is about 21 percent of the current power demand of 1,400MW per day” (Budget 2007, paragraph 375, page 89 — emphasis added).

The official statistics are difficult to reconcile with the continued load shedding and unpredictable energy supply, which by one reckoning “is constraining economic activity, especially in energy-sensitive sectors, with the risk of potential output losses and cost-push pressures in the immediate horizon”.¹

¹ See, for example, MPC Press Release of December 18 2006, paragraph 19, page 5

Given the severity of the power crisis in the last five months of 2006, the CEPA estimate assumes that output performance of the Electricity and Water sub-sector in 2006 was at best equal to that of the previous year — implying zero growth for the sub-sector in 2006.

On the basis of the CEPA growth estimates for the Electricity and Water and the Construction sub-sectors, together with the retained official growth rates for the Mining and Quarrying and Manufacturing sub-sectors, the Industrial Sector growth is estimated at 4.0 percent for 2006, compared with the official growth rate of 7.3 percent — lower by 3.3 percentage points.

Accepting the Services sector growth of 6.5 percent and that of Agriculture (including cocoa) of 5.7 percent together with the Industrial Sector growth of 4.0 percent, an overall real GDP growth of about 5.3 percent for 2006 appears both more realistic and credible.

In a recent Report, the World Bank estimated that on account of the combined loss in output in the mining and manufacturing sub-sectors as a result of the power crisis, there would be a reduction in overall real GDP growth of between 0.7 and 0.9 percent. To quote from the Report:

“The combined impact of the crisis and lower water levels on mining and manufacturing are expected to reduce real GDP growth in 2006 by about 0.7 to 0.9 percent.” (World Bank, Ghana’s Growth Story: How to accelerate growth and achieve MDGs? April 2007, page 17, footnote 4 — emphasis added)

This estimate of the World Bank refers only to the impact of the crisis in energy-sensitive Mining and Quarrying and Manufacturing sub-sectors of Industry. It does not include the consequences for production in the Electricity and Water sub-sector itself, nor does it include the consequences for the Construction sub-sector of the lower output growth of Manufacturing — specifically, of cement. In spite of this, we would use this conservative assessment of the crisis and its impact, pending the expected official assessment of the Ghana Statistical Service.

CEPA’s adjustments in respect of the Electricity and Water and the Construction sub-sectors meant a 0.9 percent loss in contribution of these sub-sectors to overall GDP growth. This is the upper limit of the range derived from the World Bank assessment. Thus, the World Bank assessment provides support for the CEPA estimate of overall real GDP growth in 2006.

An alternative way of viewing the World Bank assessment is in terms of growth rates. Applying the derived range of 0.7 percent to 0.9 percent to the official target of the overall real GDP growth of 6.0 percent for 2006 places real GDP growth in a range of between 5.1 percent and 5.3 percent. Again, the World Bank assessment provides support to the CEPA overall real GDP growth estimate of 5.3 percent — the upper limit of the range.

3.0 The Energy Crisis and its Impact on the Economy in the Near-Term

CEPA's analysis in the previous section on economic and sectoral growth rates in 2006 was predicated on the recognition of the profound short-term impact of the "power crisis" on production conditions, particularly in the energy-sensitive sectors of Industry. At the heart of this crisis was the power supply shortage resulting from low water inflows into the Akosombo Dam — one of two domestic sources for the generation of hydro-electric power. This section provides a background leading to the crisis, the short to medium term interventions taken to address the crisis, and the impact of the crisis on society and the economy.

3.1 Background

The Akosombo Dam was commissioned in January 1966. It started with four turbines, and a total installed generation capacity of 588 MW. Two additional turbines were added in 1972, and this brought installed capacity to 912 MW. The retrofit project of 1992 aimed to modernize, upgrade and improve performance, reliability, maintenance and operations of the plant. The low water necessitating restriction to only two out of six turbines at a time has created a shortage of 600 MW. The Volta River Authority (VRA), and for that matter the entire nation, is in dire straits.

The Government has recognized the energy crisis the country is facing, the adverse impact that the power rationing is having on industry, and the threat these pose to economic growth targets. In his Sessional State of the Nation Address to Parliament on February 8 2007, President Kufuor enunciated short to medium term proposals "*to put an end to the embarrassing and expensive load shedding which society and industry have been subjected to over the past six months*". The proposals, he hoped, would go a long way to reducing the anxiety and the fears of the business community and the public in general. To prepare the ground for possible tariff increases, the President also drew the attention of the nation to the fact that thermal plants — even of the size of Aboadze — fuelled by crude oil are "extremely costly to run".

Consequently, the critical elements of the crisis being both quantity and cost of supply have been laid bare. Any assessment of the response to the crisis would therefore have to consider the consequences of both elements for society and the economy — assuming that the proposed response passes the test of technical feasibility.

3.2 Short to Medium Term Proposals

President Kufuor announced various short to medium term proposed interventions to minimize the disruptive effects of the power crisis on productive capacity. These included:

- An emergency power programme comprising the Ministry of Energy's 60 MW of power and the VRA's component of 50 MW;
- An investment of US\$470 million in the energy sector over the next three years to improve energy generating capacity of the country;
- West African Gas Pipeline Project — delayed from December 2006 on account of construction difficulties — is now due in August 2007. US\$40 million has already been paid up as equity;
- Supply from the West African Power Pool arrangement, with Nigeria supplying 80 MW and la Cote d'Ivoire supplying 120 MW — an IDA loan guarantee will support Ghana's participation;
- VRA and the Ministry of Energy will procure an 80 MW power plant to be operational by April 2007;
- The Osagyefo Power Barge to be operational by August 2007 to produce 125 MW;
- 126 MW power plant to be procured by VRA by August 2007 (the entire MDRI for 2006 has been earmarked for this);
- Construction and expansion of Takoradi International Company Plant (110 MW) to commence in 2007;
- consortium of three American companies to produce up to 110 MW by end-April 2007;
- 300 MW power plant to be installed in Tema by 2009;
- consortium of mining companies to supply 80 MW by June 2007;
- Bui hydro-electric dam to be built with funds from the Chinese Government, to add 400 MW to the power generating capacity of the country; and
- a private Ghanaian-Chinese joint venture to add 600 MW in two phases;

A few of these interventions on which information is available to CEPA are discussed in what follows.

A. Emergency Power Programme

According to the Coordinator of the Ministry of Energy this comprises a total of 60 MW — i.e., 40 MW at the Tema Sub-station and 20 MW at Kumasi. Apart from this there is a projected 50 MW VRA component. Already, 38 generators with capacity to generate 44 MW have been commissioned. For a number of reasons, however, actual generation only averaged 25 MW — less than 60 percent of the installed capacity. Problems with domestic fuel supplies, switches and mechanical faults have been blamed for the initial hiccups: “Fuel in Ghana is very dirty requiring filtration to clean it. Filters sometimes clog up which could cause the pumps to cease and burn the motor.” To ensure full production adequate provisions would have to be made to supply the required diesel fuel on a sustained basis. The danger is that of real or speculative scarcities that could play havoc in the transportation sector.

As the President warned in his Sessional Address, diesel-powered generators are very expensive to run. One of these generators guzzles about 84 gallons of fuel an hour. Thus the fuel cost of operations alone is estimated at ¢2.76 billion a day for the 38 generators. At current exchange rates this works out to 24 US cents per unit of one kWh. By way of comparison this is:

- twice the cost of thermal power at Aboadze; or
- twelve times the cost of power at Akosombo.

The present situation of load shedding is indeed as embarrassing as it is expensive. The VRA component of the Emergency Power Programme, in full gear, would supply 50 MW — making up for about one-twelfth of the estimated 600 MW shortfall. Therefore its impact is relatively small. The real issue with it, however, is whether utility prices would be adjusted upwards and if not whether the VRA would be directed to absorb the losses which would be unsustainable — a quasi fiscal operation which is contrary to the present policy stance of the government — or whether in line with the stated social policy of government budgetary subsidies would be provided to cover the costs. This latter could mean larger deficits and possibly increased domestic borrowing by government, which could keep the domestic debt/GDP ratio off its planned trajectory, with possible consequences in higher inflation and interest rates.

B. West African Power Pool

It would appear that Presidents Kufuor and Obasanjo discussed a deal which Nigeria would directly or indirectly supply power to Ghana “on the sideline of the African Union (AU) Summit held at Addis Ababa”. It is not clear where, but some discussions with President Gbagbo of la Cote d’Ivoire appear to have also taken place. As a result of these discussions a total of 200 MW — i.e., 80 MW from Nigeria and 120 MW from la Cote d’Ivoire — was to be supplied to Ghana under the aegis of the West African Power Pool.

According to a Press Statement, signed by Press Secretary and Presidential Spokesman: We have help from Nigeria by February 23, 2007 in tapping into the Nigerian power system almost immediately. One version of the Nigerian connection — the direct route — is the supply of 80 MW to Ghana. The other — more credible indirect route — is the retrieval of 80 MW which Ghana supplies to Togo and Benin and which would be substituted for in equivalent amount in view of the new energy source, namely Nigeria.

The West African Power Pool is estimated to have the potential capacity of 600 MW and appears to be a project between oil-rich Nigeria on the one hand and Benin and Togo on the other for the supply of energy to the two countries.

Some scepticism has been shown towards the credibility of the Nigerian window. First, a spokesperson of the Peoples’ Democratic Party (PDP) — the ruling party in Nigeria — was quoted to have observed that Nigeria’s total supply of 1,200 MW is woefully inadequate to keep Nigeria itself going. The spokesperson was therefore reported to have questioned the basis for the supply of 80 MW to Benin and Togo in order to free Ghana from the obligation to supply same.

Secondly, and in similar vein, the GNA from Addis Ababa on January 29 2007 cited an article “Nigeria to Supply Ghana Energy?” as follows:

Nigeria has agreed to supply 80 MW of electricity to Ghana as part of a deal to help the country address its current energy crisis. Additionally, it has accepted to take over the supply of power to Benin and Togo, to take off the burden on Ghana and bring some relief to the country. President Kufuor made this announcement when answering a question on how Ghana was tackling the energy problems it was facing, when he

presented the country's implementation report on the APRM recommendations at the Sixth Summit of the APRM Heads of State and Government Forum.

The blogger continued: Isn't this an irony? Someone please tell me. I find this news item ironical power outage has become a norm rather than an exception in Nigeria. No one complains anymore. The power supply and distribution in Nigeria is POOR! The Government of Nigeria is fully aware that the energy generated through the national grid is woefully inadequate.

According to the Finance Committee of Parliament, under the West African Power Pool, a number of transmission lines and power-related works could be constructed in the country to form the backbone for the trading and exchange of power within the ECOWAS sub-region. Two of these are the following:

(i). Coastal Transmission Backbone Project — IDA Loan

On March 1 2007 Parliament approved a US\$45 million loan agreement from cross-border electricity trade within ECOWAS. The agreement was between the Government of Ghana and the IDA of the World Bank. The project is part of the regional infrastructure development programme of ECOWAS to ensure the interconnection of power. The loan has a repayment period of 30 years — September 15 2006 to March 15 2046 — with a ten-year grace period. Key aspects of the project include:

- Upgrading of the Akosombo Volta sub-station;
- Switchgear at Kpong Generation Station; and
- Construction of a third bulk supply point for the Accra/Tema local centres.

(ii). Grid Interconnectivity — AfDB Loan

The Board of the African Development Bank approved two loans totalling US\$48.6 million — US\$22.4 million for Ghana and US\$26.2 million for Benin — to connect the power grids between Ghana, Togo and Benin. The project also aims at increasing transmission capacity between Ghana, Togo, Benin and Nigeria which would, among other things:

- Improve the reliability of supply;
- Reduce supply costs; and
- Meet supply shortfalls of hydro-power during periods of drought.

The loan which represents 45 percent of the total cost of the project would finance 338 km of 330 kV single circuits from Ghana through Togo to Benin. In addition, it would finance the following:

- Extension of 330 kV sub-station near Tema;
- A new 330 kV sub-station located in Togo; and
- Extension of a 300 kV sub-station in Benin.

Studies have shown that a 330 kV transmission line interconnecting the electricity grids of the three neighbouring countries would be technically feasible and would be a step towards the creation of the West African Power Pool — a unified electricity market covering the ECOWAS sub-region.

C. Osagyefo Barge

A number of firms have apparently expressed interest to operate the Osagyefo barge, where it is now, under lease agreement. The government appears to have changed its mind about relocating the barge at Tema and is said to be now willing to leave the barge where it is since “the objective is to get power”. Apparently the cost of relocation has proved much higher than expected and hence the decision to explore the leasing-out option.

3.3 Impact on Society and the Economy

Government is committed to full cost recovery and therefore absorption of increases in the price of electricity is only temporary. The Public Utilities and Regulatory Commission (PURC) reportedly undertook a major review of the formula for utility tariffs to ensure full cost recovery. The main conclusion was that the pro-poor element in the tariff structure was misguided as they did not benefit the poor and therefore will be eliminated with no further cross-subsidization as from May 2006. The elimination of the subsidy and consequent increase in tariffs of 20 points for electricity and 15 points for water in May 2006, however, was to be facilitated by the planned refurbishment and investment in the utilities to improve services, the quality of which is poor.

Local manufacturing costs, as would be expected, have already risen as a result of the load-shedding exercise leading to significant increases in their cost build-up. The country’s largest manufacturer, Unilever is said to be spending about US\$45,000 per month on energy generation. Companies that use energy intensively, especially in the metals and plastic sub-sectors, are

similarly reported to spend huge sums of money on fuel to run generators. There are reports quoting business surveys that production costs have risen by 20-30 percent. Wahome Steel in the metals sub-sector is reported to have cut production by 50 percent and sent 200 of its workers home.

Aluworks Limited is scheduled to import aluminium, its main raw material, to augment reduced supplies from VALCO. The latter has closed down as a result of the energy crisis. The imported aluminium, on account of transportation and other charges would be more expensive. Moreover, Aluworks' own costs of production would go up on account of the energy crisis. Consequently the clients of the company would also be faced with higher prices, in addition to their own higher energy costs. The situation is not different at the Ghana Aluminium Company Limited (GHANAL) which has also had to grapple with importing aluminium coils from Nigeria as a result of Aluworks' reported failure to satisfy its demands following the closure of VALCO.

The production difficulties and escalated costs of business, as well as the consequences for profits and employment could also have serious implications for government revenue targets. The Commissioner of the Internal Revenue Service (IRS) is reported to have already remarked that:

“Government has lost in excess of ₵140 billion in revenue as a result of a fall in production in various sectors including manufacturing, mining and quarrying. The IRS is targeting to rake in ₵8.8 trillion for the year but the load shedding exercise might negatively affect the Service's revenue mobilization drive.”

Given the rising production costs and loss of productive man-hours on account of the energy crisis, domestic prices could go up, though judging from the official inflation statistics this has apparently not happened yet. Business managers are reportedly constrained by fear of pricing themselves out of the market. This fear stems from the fact that the market is flooded with cheaper imported substitutes. Their customers may shift to the cheaper imports if prices of competing locally manufactured goods go up. Already, as may be seen in the downward revision of manufacturing sector growth rate in 2006, there has been some loss of price competitiveness of Ghanaian products on account of the real exchange rate overvaluation emanating from the disinflation monetary policy of the Bank of Ghana. As so often happens when the domestic currency is overvalued, non-traditional exports such as domestic

manufactured goods could lose grounds in international markets while import-competing domestic products lose out to cheaper imports at home.

Alternatives to price increases currently under consideration include:

- review of production targets for the year;
- cost-cutting measures such as reduction in wages of employees;
- reduced working hours; and
- forced leave (in advance pending measures to resolve the energy crisis).

A Business and Financial Times survey reportedly carried out at Tema found that “*although most industries have made contingency plans to avert any adverse impact on their production some industries have been forced to undertake job cuts*”. Unless appropriate remedies are found to contain the escalating production costs there would unfortunately be more closures as enterprises fail to cover their variable input costs.

3.4 Conclusion

In spite of the various proposals and initiatives, there is no quick end in sight. The immediate problem is to coordinate efforts and intensify the search for increased supply of electricity to productive users. The nation would also have to place higher emphasis on conservation, elimination of unproductive and wasteful use of power. Increased power generation, however, must also pay greater attention than now to the costs implications. Bringing forward the start-up dates for the interventions that would generate upwards of 200 MW, wherever feasible, should be given utmost priority. The feasibility of sharing the cost burden between the business community and the budget would depend critically on how short the short-term is; in other words on how quickly we can reach the medium to long-term solutions. A good rule of thumb when faced with a cost-escalating shock is to fund it if it is of short duration but to make appropriate behavioural adjustments if it is likely to persist into the medium term.