PARLIAMENTARY STATEMENT BY MINISTER OF ENERGY HONOURABLE JOSEPH KOFI ADDA (MP), ON THE CURRENT ENERGY SITUATION IN GHANA (June 6th 2007)

BACKGROUND

Mr. Speaker, I am profoundly grateful to you to be able to address this august House today on the energy situation that is currently affecting us all.

Mr. Speaker, as this problem has deep-seated implications for our nation's economy and our social well-being, and also as the nation has been through this experience before, it is imperative that we put things into perspective so that we can better appreciate the nature and scope of the problem and how the Government is taking measures to effectively address it.

Mr. Speaker, the nation's future in the energy sector is driven by a policy that is rooted in the overall development agenda of reducing poverty and becoming a middle income nation by 2015.

Mr. Speaker, as the driving force behind this policy, early last year, the Government committed itself to doubling the generation capacity of this country's energy resource within the next three-to-five years. Not long after this policy decision was taken, Mr. Speaker, His Excellency the President, in his typically visionary way, and realizing the need for a rapid injection of power into the

system to spur on the rate of development of the nation, further directed that the Energy Ministry should work with the relevant agencies to ensure the speedy addition of at least 1,000 megawatts (MW) of power within eighteen to twenty-four months.

Mr. Speaker, as the Ministry set itself on this task and began to take steps to carry out this directive, we were suddenly informed of the dangerously low level of the water in the Akosombo Reservoir and the need therefore to resort to a load shedding regime to conserve the water and protect the turbines. Mr. Speaker, from that time onwards, the general efforts of the power sub-sector have been dedicated to managing the situation as well as working to bring the load shedding to an end.

Mr. Speaker, as I speak, a lot of work has been done, resulting in the acquisition, installation and operationalization of relatively smaller emergency generating plants while also lining up much bigger power plants for the medium to long-term. Mr. Speaker, the details of these measures would be stated in due course but for now, Right Honourable Speaker, it is necessary to set the stage right for my Honourable colleagues as well as the nation at large, to be able to understand the issues fully and through that, to appreciate the policy measures being undertaken by Government.

GLOBAL DEVELOPMENTS

Mr. Speaker, a phenomenon known as global warming has over the past years become a subject of debate in as far as its

implications for climatic conditions and rainfall patterns are concerned. From indications it would seem that the situation that we have periodically faced with in terms of irregular rainfall and the low levels of inflows into the Akosombo Reservoir can be in part attributed to this global phenomenon.

Mr. Speaker, as we take note of this global situation, we should also be mindful take note of the power situation in our continent given the similarity in climatic conditions between our countries.

For instance, in la Cote d'Ivoire to the west, the low level of water at the Kossou Dam, coupled with other problems in their thermal plants has caused that country to resort to load shedding since April 2007. Farther afield, South Africa, Uganda, Kenya, Tanzania and Zimbabwe are other sister African countries that are facing similar problems with power generation capacity, and in those cases shedding power between twelve (12) hours every day and 36 hours continuously before power comes on for only twelve (12) hours.

Mr. Speaker, with this information, the point is clearly made that the Ghanaian situation is not unique. We are operating within this global phenomenon and Ghana is affected by it just like the other countries.

RENEWABLES, ENERGY POLICY AND STRATEGIC PLAN

Mr. Speaker, given this trend of unpredictable weather changes, based on global warming, a growing number of countries, both from the developed and developing world, are resorting to an increased use of renewables such as Solar, Wind and even Waste Conversion as well as the use of sea waves to generate additional power. In Europe, the Americas and the Far East, these sources are being tapped into not only for household use but also to be fed into the grid. Of course, these sources are understood to complement the thermal and hydro sources as well. Ghana, at this stage, has considered and indeed adopted all of these renewable sources of energy, except the sea wave option for now. The nuclear option is also being considered and the final decision would be based on the recommendations of a Special Presidential Committee's work.

Mr. Speaker, various levels of commitments have been entered into between the relevant agencies and private entities ranging from Memoranda of Understanding to Power Purchase Agreements to tap into these natural endowments that God has bequeathed onto us.

As a policy therefore, the Government is pursuing a generation mix that fully exploits all our potentials to ensure self-sufficiency and also to become a net exporter of power. The strategic plan that has been designed is set to pursue this objective with Short Term, Medium Term and Long Term perspectives.

THE GHANAIAN SITUATION

- History of Load Shedding

Mr. Speaker, this unpleasant experience that the people of Ghana are facing today is not the first time. Indeed in our short history as a nation, we have been through this situation twice; oncebetween 1983 and 1985 and another occurrence in 1998.

In 1983, power from the hydro power stations was reduced leading to load shedding. This was a result of prolonged drought in Volta River's catchment area. This curtailment occurred between 1983 and 1985, a clear two years. The water level then went as low as 235.76 feet by mid-June in 1984. The other load shedding exercise occurred in 1998 for the same reasons with the water level going as low as 236.93 feet. In both cases, the load shedding then was worse than what pertains in this current regime, with the lights being on effectively for one day and off for another twenty-four hours. Additionally, instead of the four zones arrangement now, the big cities were split into only two zones. In some cases, the entire northern half of the country was off.

It is instructive to remind ourselves that in 1983-1985, very little by way of additional capacity could be brought in as the revolutionary rhetorics which were the order of the day, did not allow the country to access the necessary funds to secure the extra generation capacity required to supplement the little coming from the hydro.

However, in the 1998 crisis, attempt was made to bring in thermal generation through a rental system which saw only two of the suppliers Aggreko and Cummins bring in some power. Note worthily, while Aggreko actually supplied the power, Cummins Power Generation was not fully operational before the crisis was over. But having signed a take-or-pay Power Purchase Agreement, the Government then was being called upon to pay.

Mr. Speaker, while the other three companies, namely Global Aero Design Company, Faroe Atlantic Company and Stone and Webster, did not generate any power, they also went ahead to sue the government for damages. Mr. Speaker, as I am delivering this Statement to this august House, I wish to state that after eight years this government is still battling in London on how to settle a mounting debt of about Twenty Million Dollars (US$20million) to Cummings one of the two companies mentioned earlier under a contract signed by the NDC administration. Mr. Speaker, this experience is a good lesson for us to tread cautiously so as not to throw away badly needed funds on faulty contracts hastily put together that might not solve our problems.

- **Recent Developments (2001-2007) Major Issues and Initiatives**

Mr. Speaker, since August 2006, the Ministry of Energy has instituted a nation wide load management programme to deal with the current deficit in the supply of power to consumers. It will be

recalled that the power shortage was precipitated by the following factors:

- Technical difficulties with the generating units at the Aboadze thermal power plant.
- Unavailability of power from la Cote d'Ivoire. This was due to difficulties in the power system in la Cote d'Ivoire.
- Low level of water in the Akosombo Lake and consequently inadequate generation.

This led to a deficit of about 300 MW or 21% of the demand for electricity at the time; consequently, the objective of the load management programme was to address this deficit. In addition the Ministry of Energy has since embarked on a programme to install additional generation to meet the medium to long term needs of the country.

Mr. Speaker, in the initial stages, the load management programme consisted of a twelve (12) hour outage every three days (in Accra etc.). Subsequently, after an improvement in the generating capacity at the Akosombo and Kpong generating stations after the rainy season in November 2006, the programme was revised to a 12 hour outage every five (5) days. Currently, the programme consists of a total of 24 hour outage every 4 days.

Mr. Speaker, since the load management programme was initiated, the Ministry of Energy has implemented a number of measures to address the situation. These measures include the

procurement of emergency power generation, demand side management and the procurement of medium term generation.

MEASURES TO ADDRESS THE CURRENT SITUATION

Mr. Speaker in summary, government has lined up the following additional generation capacity to bring the situation back to normalcy:

Government

- Emergency Plants - 126 MW – June ending
- Armed Forces Support - 10 MW – June
- Mining Consortium - 80 MW – July
- VRA/Government - 126 MW – September

Total Short-Term Govt. = 342 MW - September

Private

- The Wood Group - 50 MW - July

Total Private Short-Term: = 50 MW

GRAND TOTAL SHORT-TERM = 392 MW

- Energy Efficiency Dividends from introduction of CFLs – 200MW

- **Procurement of 126 MW of emergency generation.**

Mr. Speaker, the procurement of emergency generation is currently in progress. The orders have been confirmed and the equipment are being delivered and installed. Currently 70 MW of generation have been installed and are in operation. The rest of the equipment are currently being flown in and cleared from the

airport. It is expected that all the 126 MW of emergency generation will be operational in June 2007. Further, the Ghana Armed Forces are to operate 10 MW diesel power plant at Burma Camp/37 Military Hospital to augment our current power supply. The total generation under the emergency programme is therefore 136 MW.

- **80 MW Power Plant by Mining Consortium/VRA**

Mr. Speaker, a consortium of four (4) mining firms in collaboration with the Volta River Authority (VRA) is installing an 80 MW power plant at Tema. This plant is scheduled to be completed in July 2007. This plant which is to be operated on a long term basis will significantly enhance the generating capacity of the country.

- **126 MW by VRA/Government**

The VRA with support from the Government is constructing a 126 MW power plant at Tema. This plant which will also be for long term operation is planned for completion in September 2007.

On the basis of the above projects, namely, emergency power units, the Mines/VRA plant and the VRA plant, the cumulative additions to the power generation system will be 342 MW by September 2007. This will result in a 20 % increase in our generating capacity and is also higher that the original deficit of 300 MW.

Mr. Speaker, these additions are separate from any incremental generating capability that will be obtained from our hydro sources when the current raining season is over.

- **50 MW by The Wood Group**

Mr. Speaker, we have recently concluded another arrangement with the Wood Group of UK to installed 50 MW capacity of power also at Tema.

- **Energy Conservation and Efficiency Improvement**

Mr. Speaker, the Ministry of Energy has ordered 6 million pieces of the more efficient compact fluorescent bulbs for distribution to the public. This is expected to result in a savings of about 200 MW during the peak hours i.e. 6-10 pm. This will reduce the overall energy consumed by the public.

Significant quantities of the bulbs have arrived and are currently being installed in public buildings. Subsequently the lamps will be offered to the general public.

Mr. Speaker, Colleague Members of Parliament, the Ministry of Energy in collaboration with the Energy Foundation has also embarked on a massive public education campaign to educate the public on the need to conserve energy.

Further, Mr. Speaker, in order to reduce power consumption in public buildings, the Office of the President has also directed all Ministries, Departments and Agencies (MDA) should use air conditioner systems in buildings and offices only between the hours of 10.00 am and 4.00 pm. It has also been further directed that to the extent practical, natural light is to be used as much as possible and all electric lights should be switched off during working hours.

MEDIUM AND LONG TERM PROJECTS

Mr. Speaker, in order to ensure that adequate generation capacity is available to meet the medium term requirements of the country, the Ministry of Energy is in the process of procuring additional power plants to be installed in the next 12-18 months. This forms part of the plan to have an installed capacity of over 3,000 MW by 2010. This programme will result in a substantial increase from the current installed capacity of 1,730 MW.

Mr. Speaker, the objective of the medium term programme is to develop sufficient generation reserves to ensure that the country does not go through this experience again in the future. The projects currently being implemented by the Ministry of Energy are:

- 220 MW power plant procured from ALSTOM of Switzerland. This plant is expected to be operational by September 2008. The plant will be converted into a 330 MW combined cycle plant in the future.

- 84 MW power plant procured from Ranhill of Malaysia. This is expected to be operational in July 2008.
- Operationalisation of the 125 MW Osagyefo Barge in 2008/9.
- The implementation of the 400 MW Bui hydroelectric power plant. Construction work is expected to commence in the 3rd Quarter of 2007 and is scheduled for completion in 2011/2012.
- The addition of 110 MW to convert the Takoradi International Company (TICo) plant to a Combine Cycle plant in 2009.

GENERATION BY INDEPENDENT POWER PRODUCERS (IPPs)

Mr. Speaker, Members of this august house, the Ministry of Energy is implementing a policy to allow Independent Power Producers (IPPs) to develop and operate power plants in the country. The objective is to allow the private sector to support part of the investment requirements of the power generation sector. This will enable the Government deploy the resources that would otherwise have been used for power generation for other sectors such health, education, road etc.

Mr. Speaker, in order to facilitate the entry of the IPPs, a new company, the Ghana Grid Company has been set up to be responsible for the operation of the transmission sector which hitherto was the responsibility of the VRA.

Further, Mr. Speaker the Ministry of Energy has received proposals from a number of IPPs who are in the process of establishing power plants in Ghana. These are:

-	CenPower	-	300 MW
-	Shenzhen group	-	200MW (PPA with ECG)
-	GECAD	-	up to 300 MW
-	Ranhill Consortium	-	up to 300 MW
-	Brazilian Consortium	-	up to 300 MW
-	Ranhill of Malaysia	-	up to 300 MW

The Ministry of Energy is facilitating the development of these projects.

WASTE TO ENERGY POWER PLANT

Mr Speaker, construction work has recently started on the first waste to energy plant in Kumasi. This will produce up to 50 MW of electricity from the combustion of municipal waste collected in the Kumasi metropolis. The project is planned for completion in 2008.

IMPROVEMENT IN THE POWER DISTRIBUTION SYSTEM

Mr. Speaker, as part of the arrangements to improve the delivery of power to consumers, the Government has made an allocation of ¢ 300 billion in the 2007 Budget to the Electricity Company of Ghana (ECG) to support critically needed investments in the power

distribution sector. These projects when completed will result in a significant improvement in the operations of the ECG.

The Sector has also been allocated US$ 172 million in the 2007 budget to enable them carry out other improvements required in the power system.

OTHER RELATED ISSUES

Mr. Speaker, with your kind permission, I wish to turn my attention to some major issues that have been debated in the public domain in recent times so as to give my honourable colleagues and the general public a sense of the government's position on them or the status of development in those areas.

- **Investments in the Energy Sector**

Mr. Speaker, it is been said in certain circles that this Government has not invested substantially to augment generation capacity in the country. The context within which this is said should always take into consideration how President Kufuor's administration started its tenure. Any objective analyst would not fail to appreciate the fact that a country heavily burdened in debt, would be severely constrained in terms of making significant investments in all areas of the economy at the same time within a comparatively short in office. Mr. Speaker it was not too long ago when as a nation we adopted the HIPC initiative because of huge debts that hung on our necks at the time. Manifestly, at the outset, the New Patriotic

Party's administration faced these serious investment constraints. Mr. Speaker, had it not been for the prudent and pragmatic decision by His Excellency President John Agyekum Kufuor to take the HIPC path, we probably would not be having the benefits of multi donor debt relief today to be able acquire some of the generating plants that we are procuring now.

Mr. Speaker, that not withstanding, one can list the completion of the retrofitting that added 108 MW to Akosombo, the investment in the West African Gas Pipeline that is now attracting IPP investors in the energy sector. The ability of this government to pay demurrage and invest in the pond construction as well as other related costs to facilitate the bringing down of the Osagyefo Barge which had been rotting away in Italy, as well as the Performance Enhancement of the Takoradi Thermal 1 Power Station are also other examples of financial outlays by the NPP administration led by His Excellency President Kufuor.

Mr. Speaker, to conclude on the investment issue, let me state that we just got out of HIPC; we are now getting our debts cancelled. We are barely two years into this chapter of debt cancellation and my appeal is that Ghanaians should exercise a little bit of patience. Before long, the fruits of the NPP government's endeavours will become crystal clear.

- **VALCO**

Mr. Speaker, a lot has been said about VALCO and the view of some seems to be that we should not own that vital asset or that we should not give Ghanaians jobs.

Mr. Speaker while others may have the right to their own views let me remind this Honourable House that during the two previous load shedding programmes I referred to in the eighties and nineties, VALCO was out of commission before the programmes started. This means that the situation then would have been worse off than it is now if VALCO was running at these various times. In our time, we bought back VALCO, put people to work and sold products globally. In my view the power was well used. It is unfortunate that VALCO had to be shut down. In any case Mr Speaker, I am glad to announce that VALCO is exploring its dedicated source of power to enable it resume operations and that the government of the NPP would assist it so that we can get Ghanaians employed and run the asset to our benefit as a nation.

- **West Africa Gas Pipeline Project**

Mr. Speaker, the Government of the New Patriotic Party has dedicated US$118 million of investible funds into this project to help increase generation capacity due to the relatively lower cost of gas as opposed to other fuels. This project will definitely add on to the generating capacity of the country.

Mr. Speaker, the laying of the pipelines as well as the cross-shoring pipes work have been completed and the metering and regulating stations would be ready soon. The necessary regulatory instruments to facilitate operationalization of the secondary gas market are at the Cabinet stage and should be coming to this august House soon. It is expected within the next three to four months that the first uncompressed flow of the gas would occur, with the compressed gas to follow soon thereafter.

- **TICO Expansion Project**

Mr. Speaker, it is a fact that if the TICO expansion were undertaken, we would have an additional 110 MW through the combined cycle mechanism. However, the Government did not consider the cost presented by our then partners as acceptable. Simply put, we did not think it wise to pay US$110 million for 220 MW and now have to pay US$215 million for only 110MW. The delay resulted from our search for acceptable financing to carry out this expansion. We were also of the view that we would be paying for a project that would raise the value of the asset only for it to be sold at a premium by our partners. Today, we are vindicated as our partners did not regard even the sovereignty of our country when they sold their stake to TAQA, an Abu Dhabi company without offering us the first right of refusal. The matter has been taken up seriously and every effort would be made to ensure that we are not only treated fairly but that we would get our due share and still get additional generation capacity from the venture. As I

speak, Mr Speaker, there are plans to even expand this to 1,000 MW.

- **Osagyefo Barge**

Mr. Speaker, the much advertised movement of the Barge to Tema has not taken place because we missed the weather window last year due to prolonged negotiation to get reasonable funding for that move. As we speaker, a number of companies have expressed interest in operating the barge where it is and we are in negotiations with them and hope that this would happen in the course of the year.

- **Nigeria**

Mr. Speaker, the President, His Excellency, J.A. Kufour, requested the Government of Nigeria in February 2007 to supply up to 80 MW to Togo/Benin. This request was within the framework of the West African Power Pool (WAPP). The objective was for Ghana to "claw back" 80 MW which it contractually supplied to Togo/Benin.

Mr. Speaker, this arrangement has been fulfilled and Nigeria currently supplies Togo/Benin with 70-80 MW of electricity. The VRA has consequently reduced its power supplies to Togo/Benin thereby making more power available to Ghanaians.

Mr Speaker, the direct supply of power from Nigeria to Ghana will be dependent on the resolution of the technical issues regarding the joint operation of the two power systems.

Mr Speaker, a technical team from Ghana is currently in Cotonou, Benin assisting their Nigerian and Beninois counterparts to resolve the problem. It is my understanding that they are close to a solution.

- **La Cote d'Ivoire**

Mr. Speaker, the arrangement with la Cote d'Ivoire for the supply of 120 MW of power did not materialise as they had difficulties with their power facilities and the natural gas infrastructure. The Ivorians are currently in the midst of a load curtailment programme as stated earlier and are therefore unable to supply us the required levels of power to help us in this time of need.

- **Togo and Benin**

Mr. Speaker, we have been compelled by the circumstances to withdraw a substantial level of the power we supply to Togo and Benin. Out of a total of 80 MW, we are now giving them only 20 MW essentially to Togo while Nigeria is supplying power to Benin through a special 'looping' arrangement and not through the transformer system.

- **Rural Electrification**

Mr. Speaker, let me also assure this house that based on the confidence of this government that there will be adequate generation in the near future, we are continuing with the rural electrification and indeed would even endeavour to speed it up while also working on intensification of distribution in the urban areas.

CONCLUSION

Mr. Speaker, it is clear from earlier sections of this statement that this is not the first time that Ghana is going through a load shedding arrangement. Indeed the past ones were more severe than this one.

Mr. Speaker, as I have enumerated, the Government is tackling the energy crisis with all the seriousness that it deserves. The Government has also committed substantial funds to support the resolution of the energy problem. While some of my colleagues may continue to make political capital out of the current energy situation, we firmly believe we are on top of the situation and are confident we shall be out of it within the next three to four months if all things go as planned.

Mr. Speaker, the government has a very clear and effective programme to deal with this situation in the Short, Medium and

Long Term. The programme is backed by a policy and Energy Strategic Plan to lead the country into the future and guarantee its OUR FUTURE ENERGY SECURITY. We are confident that the policy of becoming self-sufficient in our energy supply requirement and eventually becoming a net exporter will be a successful one.

Mr. Speaker, within six years in office, the NPP government has invested substantial funds in the energy sector and we are convinced that within the next two/three years Ghana would be in a position to ensure that this situation does not recur again.

Thank you, Mr. Speaker for this opportunity.