PRESS STATEMENT BY THE AFRICA CENTRE FOR ENERGY POLICY (ACEP) ON THE PRESIDENT'S STATE OF THE NATION ADDRESS PRESENTED BY DR. MOHAMMED AMIN ADAM, EXECUTIVE DIRECTOR AT A PRESS CONFERENCE IN ACCRA ON THE 2ND MARCH 2015

March 7, 2015

GENERATION CAPACITY ADDITION

1. Emergency Power Measures

The President of the Republic announced emergency measures to address the short-term challenges in the power sector. These measures focus on the deployment of emergency generation plants and include:

a. 450 MW Power Barges from Karpower

b. 250MW Generating Units from Dubai

c. 300MW Emergency plant by General Electric (GE).

i. The Power barges from Karpower

There are major problems that need to be resolved. And government is not coming clear on this. There are two escrows that the contractors are demanding – an escrow for the lease of the barges and another escrow for fuel supply. The contractor is going to lease the barges for 10 years and buy its own fuel but we need to provide guarantee for the fuel. We also know that GNPC has been asked to provide a guarantee of $100 Million. The deputy minister of power said last Saturday that this would cover the fuel security. Now how are we funding the lease guarantee? There will still be structural issues that need to be addressed even when the lease arrangement is completed. We need to establish the state of the machines, and prepare the place where they will be anchored offshore. The Tema site near the Fishing harbor is yet to be prepared for the mooring and operation of the plant. Experts say that this will be ready at best in the last quarter of 2015.

We also need to work on the transmission interconnection. If these arrangements have not been factored into the timetable for deploying the barges, I am afraid, it may be a dream.

ii. Generating Units from Dubai

This arrangement is a lease based on Build, Own, Operate and Transfer (BOOT) with a total of 250MW of emergency power from Ameri Energy Group of Dubai. The units consists of 10 sets of GE TM 2500 power plants each consisting of 25MW. The equipment supplier is APR Energy of the USA; a company specialized in the rental and operation of emergency power units.

The terms of the deal are:
a. The lease is for a five year period after which ownership will be transferred to Ghana;
b. The units will be leased to Ghana at about $120 million for a year. This in addition to $16 million for O&M will make the total cost for a year at $138 million. For the five years, it will amount to about $700 million. This excludes fuel cost. Our enquiries suggest that the total outright purchase cost for the same power plant from GE is between US$ 180-220 million.
c. Some may say government may not have all the money at a go to buy the plants. But if we have $138 million to pay for one-year lease, this could buy about 6 or 7 of the units outright for Ghana.

2 Whilst this deal is a bad one, there are even more worrying reasons to look at the deal once again:
i. It does not make economic sense to rent the plants for $700 million for 5 years before taking ownership when we could have bought them outright for $220 million;
ii. GRIDCO will have to bear the cost of transmission interconnection, which has not been budgeted for.
iii. The plant requires about 85MM scf/day of fuel. This is to be sourced from the Atuabo plant. On this basis, the gas meant for the T1 and T2 plants is to be displaced and run on the new 250 MWAPR plant. The estimated gas cost is estimated at US$20-25 million. The implication of the gas arrangement is that crude oil will have to be procured to run the T1 and T2. At current crude oil price of US$50/bbl, the monthly cost is US$25-30 million but the total consumption of T1 and T2 at full operation is approximately 20,000bbl/day. This makes it very difficult to run T1 and T2 given the history of VRA's financial challenges.
Our Proposals We call on Government to fully disclose all the terms associated with the power barges and justification of value for money in these transactions. We believe that if we can get funding for these projects, Government can equally get funding to complete the on-going projects – Kpone thermal plant (220MW), TICO Expansion (110MW) and to secure fuel for them as well as for TT1PP (120mw) and CENIT (100MW). In this case, we would need only about 150MW of emergency power not the 700MW long-term emergency power being contracted by the Government at huge cost to the state.

Also, Government must fast-track negotiation for the interconnection project between the Atuabo Gas
pipeline and the West Africa Gas Pipeline to reverse stranded gas from Takoradi to Tema for use by the power plants. This will address gas supply shortfalls from Nigeria and also ensure that TT1PP frees light crude oil for CENIT.

2. Medium term Generation Plan
The President further announced medium term plans in his determination to fix the energy crises and we commend him for that. A total of 3,800MW of additional generation capacity is being rolled out over a five year period. This will be unprecedented given that this capacity will be more than all our installed capacity of our country built over 50 years (from the era of Dr.

Kwame Nkrumah to date – 2846MW).

We believe that the energy crises have been historical, and “shortermism” has never provided a permanent solution to the crises. It is therefore refreshing that a long-term approach is being adopted to addressing the energy sector challenges. However, we see the promise by our president to be a BIG DREAM. 3,800MW in 5 years is indeed a BIG DREAM. Ghanaians are skeptical like us about the realization of these generation projects. A number of factors work against our ability to add 3,800MW in 5 years.

i. With new generation of 3,800MW expected over the next 5 years, of which 700 is expected to be fired with coal, the total expected gas fired generation will be 2100MW. This will require additional gas supplies of about 500mmscfd and will take to almost 900 mmscd the total gas requirement for power generation in Ghana. However, gas availability by 2019 (5 years time) from our indigenous sources (Atuabo, TEN and Sankofa) will be 420mmscfd. This excludes Nigeria Gas, which has been erratic and has averaged 50mmscfd. How the government will address the problem of security of fuel is not clear.

ii. About 85% of the planned generation capacity is expected from private sector operators. And we are certain that if the ECG we have to day will continue to be the off-taker, there is no way these projects will be realized. It is also not clear how long it will take to turn ECG around to become financially viable to pay for power purchased from the private sector.

iii. About 15% of the promised projects are expected from VRA – VRA KTPP (220MW); VRA T4 (185MW); VRA TT1PP Steam (100MW); and VRA KTPP Steam (100MW). But given that it has taken VRA 6 years without completing the KTPP (220MW) project due to financial challenges, we can say without any contradiction that the promised generation projects are dead on arrival.

iv. Some of the IPPs such as Jacobsen (360MW), Amandi (240) and Asogli (1110MW) are yet to reach financial closure. Since it often takes longer periods to reach financial closure for energy projects in Ghana, the realization of these projects under 5 years remain uncertain.

Our Proposals

We recommend that Government should evaluate the various projects to determine their financial requirement especially the VRA generation projects and to develop a strategy to support the timely closure to financing and delivery of the projects. Government should also assess the fuel requirement of these projects and publish a fuel security strategy. Since these projects are undoubtedly the most challenging programme of the President and for which generations will hold him accountable, we propose that the President sets up a high level panel to coordinate and implement these projects under the leadership of the Ministry of Power.

POWER SECTOR REFORMS

1. Restructuring of VRA and Bui under one management

ACEP supports the proposal to put VRA and Bui Authority under one management. However, this implies that Bui will just be another VRA plant. The concept behind Bui was to use it as catalyst for development in the area – Bui city, a University and housing development; and this must not be forgotten.

It is important to note that the management of VRA and especially its thermal plants has been challenged by financial constraints, and we do not see how a merger of VRA and Bui addresses the financial challenges particularly when PURC gives IPPs higher tariffs for thermal than it gives VRA thermal.

We propose further that as part of the reforms, Government should separate VRA thermal into a subsidiary of VRA with between 30-49% shareholding for the state whilst the rest is offloaded to the private sector. This ensures that VRA thermal operates under the same conditions as other IPPs to improve on the Authority’s finances and efficiency in the management of its thermal plants.

2. MCC Compact II

We support the express determination of the Government to implement the conditions of MCC II. A credible off-taker of electricity is the surest condition for the fulfillment of all the President’s promises of additional generation capacity. Government must be steadfast about the institutional changes in ECG to make it efficient and financially viable. We call on the Government to publish Request for Proposal for Private Sector Participation in ECG as demonstration of its commitment to the reform programme.

We are energized by the President’s open declaration of his determination to fix the energy problem;

and we hope that political expediency will not delay ECG’s reforms any longer since the President will be judged by this declaration.

3. Renewable Energy Support

The President also announced Government’s plan to introduce 200,000 rooftop solar systems and the decision to fund the programme by increasing the Energy Fund levy from Gp0.05 to Gp1.0 part of which will be used to operationalize the Renewable Energy Fund. Government will also introduce a charge of Gp1.0kwh of electricity transmitted on ancillary service to support the solar photovoltaic system. This renewed attention for renewable energy deployment is commendable and must be encouraged.

However, we are worried as usual about the transparency and financing arrangement for the programme that will involve significant amount of money. For example, with a transmission of 12,000Gwh as was

done in 2014, a Gp1.0/kwh could generate ghs120 million. Government must publish guidelines on
how this money will be disbursed and the transparency framework that will govern its management.

4. The introduction of Coal in the fuel mix

For the first time, Government has announced a 750MW coal plant project to be undertaken by Asogli.
We know that the strong coal lobby led by the Minister of Power has finally won. Government must
realize that coal is an industry and you do not approve its deployment ahead of the development of
industry regulations, industry standards, pricing, technology, waste disposal plan and environmental
mitigation. We also need port infrastructure. The approval and announcement of a coal Plant as one of
the promised generation projects by the President therefore amounts to a skewed logic.
Given that Asogli is likely to bring in the plants from China where most of their old coal plants have
been decommissioned, the danger could be more serious. We therefore call on Government to hasten
slowly in order not to put our power sector in danger. Government must also introduce Electricity Law
similar to the Renewable Energy Act to provide options for electricity generation including the
legalization of the different types of fuel for use in generation. The law should also address issues of
electricity transmission and distribution.