



## GHANA'S ENERGY SECTOR; THE EXPECTATIONS AND WAY FORWARD



A Round Table Discussion organised by  
The Institute of Green Growth Solutions  
in partnership with  
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## Background and Objectives of Event

Energy supply has proven to be pivotal to any economy's transformation and Ghana's is no exception, as it is needed to power industries, generate employments, and supports medium and small scale enterprises. The 2006/2007 crisis is estimated to have cost the nation a loss in GDP growth of about 1%.<sup>1</sup> Again, the 2010 Wholesale Power Reliability Assessment Report has estimated losses of between 2 to 6% of GDP annually.<sup>2</sup> Furthermore, the energy crisis in 2012 is reported to have contributed to a GDP growth slowdown in 2013, estimated at 7.4% compared to 7.9% in 2012. A recent report by Databank Financial Services Ltd also indicates that companies are compelled to incur unplanned operating costs of about \$62 million per month adding up to about \$744 million per annum due to the use of privately acquired generators.<sup>3</sup>

Ghana has signed up to the **sustainable energy for all** (SE4ALL) by 2030 initiative by the UN, and this calls for the need to take immediate and pragmatic steps to ensure improved access to efficient energy, and even more, greater access to renewable energy. If projection from the National Energy Policy is anything to go by, then Ghana should have an installed generating capacity of 5000MW by the year 2020 of which 50% will be gas based, and 10% from renewable energy sources like solar, wind and biomass amongst others. This rather audacious ambition also suggest that we should add more installed capacity within the next six years than we have done since the Akosombo dam was built in 1966.

Though the Second Compact of the Millennium Challenge Account recently signed between the governments of Ghana and USA has laid some emphasis on energy, the questions still remain; *is it all we need to bring about the necessary transformation? What have we done wrong or continue to do wrong as far as energy is concerned? What adjustments do we have to make as a nation?* Among many other unanswered questions. It is in view of this that the Institute of Green Growth Solutions (IGGS) put together this round table discussion to seek answers to these questions and to specifically;

- ✚ Explore alternatives for energy supply
- ✚ Discuss the critical imperatives of sustainable energy issues
- ✚ Discuss the role of the private sector in meeting our energy needs
- ✚ Explore innovative means of mobilizing private capital for key investments
- ✚ Provide advocacy for further policy discussions
- ✚ Explore industry best practices for Ghana
- ✚ Discuss the way forward for an efficient, sustainable energy sector

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<sup>1</sup>See [https://energypedia.info/wiki/Ghana\\_Energy\\_Situation](https://energypedia.info/wiki/Ghana_Energy_Situation)

<sup>2</sup>See <http://www.gridcogh.com/site/downloads/27a623e256c7d94a7dce43d5ef82d3e3GridCoReportFinal.pdf>

<sup>3</sup>See <http://www.citifmonline.com/2014/06/02/de-lighting-ghanaians-the-state-of-ghanas-power-sector/>

## Executive Summary

The event started from 4.30 pm and ended at 8.30 pm at the Prins Hall, Alisa Hotel, North Ridge, and was attended by **eighty-three** (83) individuals including members of Parliament, Chief Executives, Heads of Public and Private Institutions in the energy sector as well as other sectors of the economy and some members of the general public.

The event was under the theme, ***“Ghana’s energy sector; the expectations and way forward”*** and was chaired by Dr. Simon Bawakyilllenou of the Institute of Statistical, Social and Economic Research (ISSER). Key resource persons for the round table discussion included Hon. Dr. Kwabena Donkor, Member of Parliament for the Pru East Constituency who also doubles as the Chairman of the Parliamentary Committee on Mines and Energy. Other speakers at the event were Nana Osei-Bonsu, CEO of the Private Enterprise Federation and Dr. Albert Ahenkorah, Executive Secretary of the Energy Commission.

Participants expressed satisfaction with the organization of the event and the subsequent discussions and suggested the next discussion focuses on the **“Politics Of Energy”**. It was also generally hoped that such meetings are regularly put together to address pertinent issues that stifle our sustained development as a people. Participants also had very insightful contributions and recommendations for addressing the country’s power challenges in the long term.

Giving his welcome address, Dr. Eric Twum, Chief Executive Officer of the Institute of Green Growth Solutions bemoaned the lack of a clear cut implementable strategy for resolving Ghana’s recurrent energy crisis. Dr. Twum also called for increased show of leadership at the national level especially from Political leadership in or quest to put the energy challenges permanently behind us as a nation.

Hon. Dr. Kwabena Donkor, who was the first of the resource persons to present, spoke on the topic, ***“Achieving Reliable, Universal and Sustainable Energy for All Ghanaians; A Reality Or A Mirage?”*** In his submission, the Pru East legislator and once deputy Energy Minister indicated that after the first republic, we have lacked ambition as a people, and this has unfortunately reflected in the energy sector. Hon. Dr. Donkor criticised Ghana’s seemingly overdependence on gas from Nigeria to meet the demand for electricity is flawed and not an innovative means to addressing the energy crisis. He further suggested that whoever gives the shortfall of gas supply from Nigeria as the reason for load shedding is not fit to be in office. Hon. Dr. Donkor was also critical of the target to generate 5,000 megawatts (MW) of electricity as contained in the county’s energy policy, describing it as not being ambitious

enough. According to him, we should target 10,000MW of power in the next 10 years as we explore alternative sources of energy.

Dr. Albert H. Ahenkorah on his part, shared a similar assertion, and disclosed that his outfit is currently processing two applications for two companies interested in using coal to generate power in Ghana. Dr. Ahenkorah also stated that Nuclear Energy and renewable energy sources such as solar and wind present other options for electricity generation in Ghana. Dr. Ahenkorah also indicated that consideration is currently being given to the importation of liquefied gas to supplement the West African gas pipeline. Dr. Ahenkorah also stated emphatically that the future for Ghana's power is base load affordable electricity generation.

Regarding petroleum, Dr. Ahenkorah opined that ethanol presents an alternative, but can only be harnessed when the sugar industry is revived.

Nana Osei-Bonsu, in his submission, expressed exceptions to the country's tariff regime, stating that, the way to powering the country's industrialisation dream is to make power more affordable to industries as against residential users. Nana added that it is imperative to create avenues for the private sector in Ghana to build capacity in the energy sector, and also emphasised that as a country, we need to take responsibility to resolving the energy challenges ourselves.

The event was covered by 24 media personnel representing seventeen (17) media houses, which included;

- ✚ GBC Radio
- ✚ Citi FM
- ✚ Daily Graphic
- ✚ TV3
- ✚ Multimedia Group (Adom FM, Joy FM, myjoyonline.com, adomfmonline.com)
- ✚ Starr FM
- ✚ Peace FM
- ✚ Public Agenda
- ✚ Daily Searchlight, among many others.



## Welcome Address

The Chief Executive Officer of the Institute of Green Growth Solutions set the tone for the energy round table discussion with a welcome address. In his address, Dr. Twum was of the opinion that national leadership at various levels has failed in taking the needed responsibility to confronting the energy challenge head-on.

According to him, the needed bold and incisive leadership has eluded Ghana for long, but instead, those at the helm of affairs “have rather scored almost perfect marks” in responding to the energy recurrent energy crisis with rhetoric, propaganda, and the unnecessary politicization of the issue of energy. According to Dr. Twum, “rhetoric and propaganda don’t play the least of roles in solving societal challenges as much as clear, concise action plans coupled with bold decisions do”.



Dr. Eric Twum

Dr. Twum indicated his desire is that going forward; this discussion culminates into clear cut actions and future engagements that will shape policy and the national agenda for sustainable and universal energy for Ghanaians.

## Presentations and recommendations

### Dr. Albert H. Ahenkorah.

Dr. Ahenkorah began his presentation by emphasizing that Ghana’s energy sector encompasses *electricity*, *petroleum*, and *fuel for cooking*, which he stated has been mainly wood fuel.

### Electricity (Power).

Dr. Ahenkorah indicated that power generation is mainly from **two sources**; **hydro** and **thermal** and Ghana is currently shedding load of 290MW. He added that though we have an installed capacity of over **2800 MW**, we are unable to meet the demand of **1860 MW** because we are only able to generate **1562 MW** due to challenges.



Dr Albert H. Ahenkorah

## **The Challenge With Power Generation**

Dr. Ahenkorah made it known that the challenges are in two folds. The first challenge has to do with **fuel** and the second challenge is **technical** in nature because critical machines are not available or cannot work. The fuel challenge has been caused due to the unavailability of contracted gas supply from Nigeria since the inauguration of the West African gas pipeline, and further stated that in his opinion, that will not change and it is about time we focused on *other sources of fuel*.

### **Petroleum.**

Dr. Ahenkorah informed participants that we currently import a bulk of our petroleum products.

### **Cooking Fuel.**

According to Dr. Ahenkorah, we are over 60% reliant on traditional fuel (i.e. firewood, charcoal and crop residue), adding that only about 18% of the population use Liquified Petroleum Gas (LPG) for cooking, and this 18% have to compete with commercial vehicles.

### **Energy Efficiency.**

Dr. Ahenkorah stated that energy efficiency is the aspect of the production mix we have not tapped. Despite the fact that Ghana is regarded worldwide as being a promoter of energy efficiency, there are still a lot of opportunities which we have not tapped into, he added. Dr. Ahenkorah stated that, *"In a nutshell we have challenges and they are serious challenges"*.

### **The Way Forward.**

Dr. Ahenkorah intimated that, until 1981, we had excess supply of power and "we had to bring in Kaezar to build an aluminium plant to consume electricity". He further stated that since 1981, the country has not been able to add enough generation to have the deserved reserve, therefore, when one of the machines breaks down, we have to shed load. Additionally, Dr. Ahenkorah stated that what we need as a developing country is **base load affordable electricity generation** and further questioned why some individuals and institutions are against coal, and rhetorically asked that if others are using coal, why not Ghana, and by extension, Africa? He stressed that for power, coal is the future. Dr. Ahenkorah also disclosed that his outfit is currently processing two applications for coal. The Executive Secretary of the Energy Commission also stated that though our reliance on Nigerian gas will be reduced when the country starts gas processing in a few months, it is not the panacea to the problem as the quantity of gas expected from the jubilee and sankofa

fields will not be enough to meet demand. He therefore added that importation of liquefied natural gas is being considered to serve as an alternative in the event the West Africa gas pipeline breaks down again.

### **Other Sources of Fuel**

Dr. Ahenkorah stated that, another future fuel Ghana is considering is **nuclear energy**. He also mentioned that though nuclear has its attendant problems, we could get nuclear powered merchant plants, which will take at least, ten (10) years.

According to Dr. Ahenkorah, another source of fuel is renewable energy, which he indicated is a good source of electricity. He disclosed that at the last count, the Energy Commission had applications totalling 2900MW of which 1900MW is solar and the remaining 1000MW constituting wave and biomass (or waste-to-energy). Every megawatt of solar added, according to Dr. Ahenkorah, demands a megawatt of conventional energy to provide power during the night when the solar panels are not generating power. According to him however, we are currently having challenges with the conventional energy supply which is causing load shedding and adding solar energy at this time is not in the interest of the country. In conclusion to alternative fuel sources, Dr. Ahenkorah indicated that because we are not able to build a conventional power plant to support the solar plant there is the need to have storage, which presents an opportunity for interested applicants

The issue of storage also applies to wind. The instability in the blowing patterns of wind calls for the provision of storage facilities to store the power, Dr. Ahenkorah stated.

With respect to cook fuels, Dr. Ahenkorah stated that Ghana's forest cover is being depleted at an alarming rate. He added that in about a year, Ghana is expected to launch the National Wood Fuel Project which will make it mandatory for anyone who wants to produce firewood or charcoal to plant the trees.

Dr. Ahenkorah was of the view that energy efficiency is a low hanging fruit. In 2007 when the energy saving lamps (CFLs) were introduced over an implementation period of three months, there was a measurable reduction in national load by 104MW. This was more than the generating capacity of the Tema thermal plant which cost over \$200 million to build, he added. According to Dr. Ahenkorah, the project cost \$15.2 million and today houses are saving on the average GHC 21 a month on electricity because of the change in technology. Dr. Ahenkorah added that, another option is the use of the automatic timer switches which automatically turns off freezers at midnight and turns them on during the day.





## Hon. Dr. Kwabena Donkor

Hon. Dr. Donkor began by bemoaning the fact that as a country, we have lacked ambition and audacity to think big since the first republic, especially after the seven year development plan. This trait, in our life he said, seems to reflect in our energy arena. He opined that the sort of generation we should be looking at is a minimum of 10,000MW installed capacity within the next 10 years and emphasizes the need to wean ourselves from the practice of “business as usual” , as it won’t get us anywhere.

The Pru East legislator pointed out that the question of power supply is not a partisan issue, but rather unfortunately, the media has succeeded in reflecting the thinking of Ghanaians into turning energy into a partisan agenda. A best practice from Norway is that no one single political party in government can change any of the petroleum laws. This will ensure the nation as a whole owns the problem. Ghana must begin to think outside party political positions.

Hon. Dr. Donkor called for affordable supply not in terms of the inefficient use of power we have in the country currently, but in the sense of realigning cost. Industries are saddled with tariffs that are not economic or desirable. He added that, in almost every serious jurisdiction, consumers pay more for power than industry, which is not the case in Ghana because we do not want to pay as individuals and our government reflects our thinking, and “the animal” called democracy has held our governments hostage. According to him, it is not only a matter of political choice but a matter of reality. For example, it costs more to draw power to Sunyani than to draw 30MW of power to AngloGold Ashanti, and in the very least, the economic cost of providing the service should reflect in the tariff regime.

He called on Ghanaians to accept the fundamental reality that industry must not subsidize domestic consumption. We need to change our thinking as individuals and put pressure on government that, the long term interest of Ghana needs to be precedent over our four year electoral cycle. Hon. Dr. Donkor also called for increased advocacy on the part of Civil Society Organisations (CSOs).

### **Our Alternatives**

In terms of security of supply, he stated that there is the need to plan with the fact that Nigerian gas is unreliable, and therefore creates the need to look at alternatives. Hon. Dr. Donkor emphasised the need to begin to think of security and sustainability of supply and called for boldness. He indicated that we have two major issues when it comes to power - the issue of capacity - both installed and available and the second is the issue of fuel.

Hon. Dr. Donkor opined that, the assertion that our problems will be solved when the Ghana Gas project goes live is flawed and questioned the use of our gas for power generation at the expense of agriculture, especially when 60% of our population earn a living from the sector. He said that one of the reasons for low productivity in Ghana is the very limited use of fertilizer, which could be attributed to the limited gas supply needed as an input for fertilizer production.

Renewable sources, according to Hon. Dr. Donkor provide another option, and though there has been a lot of interest with solar, he indicated we are looking at solar in the wrong way. He mentioned that incorporating solar into our residential buildings and all buildings of public institutions will ensure that we make real use of solar. Another alternative he stated is wind, but lamented that we are not wind rich.

Hon. Dr. Donkor also mentioned coal as an alternative and indicated that it is cheaper than gas because our gas discoveries are in deep waters and the cost of extraction is high.

## Nana Osei-Bonsu

Nana Osei-Bonsu emphasised that the primary purpose of power is to create economic empowerment. He reiterated Hon. Dr. Donkor's introductory remarks by stating that in Ghana, we charge people who use energy for productive purposes to create jobs or development more than what the residential users pay, which is a disincentive to industries. According to Nana, a cardinal issue to power for industries and businesses is predictability and if we cannot predict the delivery, production and transmission, it makes it difficult for businesses to plan. Nana Osei-Bonsu also challenged Hon. Dr. Donkor, who is also the chairman of the Parliamentary Committee on Energy, to ensure efforts are galvanized on all fronts to make a difference since government is not only the executive, but includes the legislature and judiciary.

Nana emphasised that the future is not as bleak as it is today because of the second compact signed with the Millennium Challenge Authority (MCA) and the government of Ghana. He however questioned if we have the guts, technical expertise, knowledge and the policies to dictate what we want. According to the CEO of Private Enterprises Federation, businesses are ready to come to the table, but over the years, there has been the lack of political will to enforce previous recommendations from the private sector.



## The Way Forward

Nana intimated that it is the responsibility of all from parliament to businesses to ensure capacity building for Small and Medium Enterprises (SMEs) as well as assist our financial systems to be able to provide the syndicated amounts that require the capital for the development of the energy sector and added that we have a responsibility to our people and solving our own challenges must start from us.

Nana Osei-Bonsu emphasised that is the need for public awareness for people to realise that every energy waste contributes to the destruction of the nation and we need to be efficient with power for businesses to take advantage, he mentioned. The cost of doing business, according to him, is about 30% compared to 3% in other jurisdictions.

Regarding solar, he added that we need to be effective with employing this renewable energy source, using local resources to be able to provide for the small communities instead of thinking big along the national grid.

According to Nana Osei-Bonsu, the new compact, has clearly emphasised private sector led development as the main objective, and if it's going to be private sector led, then there is the need to think with the business people because they are the ones who know what they want. Nana challenged that, if we glorify ourselves that we are a middle income country, then it is incumbent on us to create the avenue for businesses to benefit, and also bemoaned the fact that most of the key sectors of the economy are dominated by foreign owned businesses

Nana Osei-Bonsu concluded by saying that, there is a shortfall in energy generation, supply, and distribution, but the private sector is ready and willing to fill in this gap. He however stressed the need for government to create an enabling environment including implementable policies, otherwise we will be going back another 10 years after the end of this opportunity with the Millennium Challenge Authority.



## PICTURE GALLERY













