IN THE SECOND SESSION OF THE SIXTH PARLIAMENT OF THE FOURTH REPUBLIC OF GHANA

REPORT OF THE COMMITTEE ON MINES & ENERGY

ON THE

REPORT OF THE COMMITTEE ON MINES AND ENERGY ON THE POWER PURCHASE AGREEMENT BETWEEN THE ELECTRICITY COMPANY OF GHANA AND AMANDI ENERGY LIMITED RELATING TO A 190-240MW COMBINED CYCLE GAS POWER PLANT FACILITY AT ABOADZE

AND THE

ADDENDUM TO THE POWER PURCHASE AGREEMENT BETWEEN THE ELECTRICITY COMPANY OF GHANA AND AMANDI ENERGY LIMITED RELATING TO A 190-240MW COMBINED CYCLE GAS POWER PLANT FACILITY AT ABOADZE

DECEMBER, 2014
REPORT OF THE COMMITTEE ON MINES AND ENERGY ON THE
POWER PURCHASE AGREEMENT BETWEEN THE ELECTRICITY
COMPANY OF GHANA AND AMANDI ENERGY LIMITED RELATING
TO A 190-240 MW COMBINED CYCLE GAS POWER PLANT
FACILITY AT ABOADZE AND ADDENDUM TO THE POWER
PURCHASE AGREEMENT BETWEEN THE ELECTRICITY COMPANY
OF GHANA AND AMANDI ENERGY LIMITED RELATING TO A 190-
240 MW COMBINED CYCLE GAS POWER PLANT FACILITY AT
ABOADZE

1.0 INTRODUCTION


1.2 Subsequent to this, the documents were referred to the Select Committee on Mines and Energy for consideration and report pursuant to Order 188 of the Standing Orders of the House.

2.0 DELIBERATIONS

To consider the Referral, the Select Committee met with the Minister for Energy and Petroleum, Hon. Emmanuel Kofi Armah-Buah and Officials of the Ministry to discuss the provisions of the Agreements. Officials of the Electricity Company of Ghana (ECG) also attended the meeting at the instance of the Committee to assist in the deliberations.

The Committee is grateful to the Officials for attending upon the Committee and for clarifying issues raised during its deliberations.

3.0 REFERENCE DOCUMENTS

In course of deliberations on the Agreements, the Committee made reference to following documents:

i. The 1992 Constitution of the Republic of Ghana;
ii. The Standing Orders of Parliament;

iii. The Public Utility Regulatory Commission Act, 1997 (Act, 538);

iv. The Energy Commission Act, 1997 (Act, 541);

v. The Environmental Protection Agency Act, 1994 (Act 490);

vi. The Environmental Impact Assessment Regulations, 1999 (L.I. 1652); and

vii. Other Agreements Connected to the Power Purchase Agreement including the Government Consent and Support Agreement, the Engineering, Procurement and Construction Contract and the Joint Services Agreement and.

4.0 BACKGROUND INFORMATION

The Government of Ghana continues to adopt strategies aimed at achieving sufficiency in power generation to meet the growing electricity demand of the country. Currently, the Government has developed strategies towards achieving the target of 5,000MW of installed generation capacity by 2016. Amongst the key strategies is the strategy to secure the participation of the private in power generation.

In 2013, Ghana’s total peak demand was about 1,943MW. According to Ghana’s Generation Master Plan, forecast peak demand for 2014 is around 2,200MW. The implication is that by 2015, electricity demand will outstrip the available power from the current installed generation capacity of about 2,850MW. It is in respect of this that the Government has set a target to achieve generation capacity of 5,000MW by 2016 in order to meet the projected demand, maintain surplus electricity for export.

In furtherance of this strategy, the Electricity Company of Ghana (ECG) entered into a Power Purchase Agreement (PPA) with the Amandi Energy Limited on 31st July, 2013 for the purchase of offered capacity and electrical energy to be produced from 190-240MW Combined Cycle Gas Power Plant Facility over a period of twenty-five (25) years.

Subsequent to the execution of Agreement, the parties executed Addendum to the PPA on 24th March, 2014 to amend certain provisions of the Power Purchase Agreement.

5.0 PARTIES TO THE POWER PURCHASE AGREEMENT
The parties to the Power Purchase Agreement are the Electricity Company of Ghana (ECG) and the Amandi Energy Limited.

5.1 **The Electricity Company of Ghana**

The ECG is a wholly-owned electricity distribution company incorporated under the Companies Act, 1963 (Act 179).

The Company is permitted under applicable laws in Ghana to purchase electrical energy from both private and public generation entities.

5.1 **Amandi Energy Limited**

Amandi is a Special Project Company incorporated in Ghana on July 11, 2012 to develop a 190-240MW Combined Cycle Dual Fuel Power Plant Facility at Aboadze in the Western Region. The Company was awarded a Provisional Power General License on 9th October, 2012 by the Energy Commission of Ghana.

Amandi is permitted under applicable laws in Ghana to sell independently produced electrical energy.

6.0 **SCOPE OF THE POWER PURCHASE AGREEMENT**

By the provisions contained under Section 3 of the Power Purchase Agreement, Amandi has committed to make available to the ECG for purchase the contracted capacity and the contracted energy. The energy to be supplied by Amandi is required to be delivered at a designated point.

6.0 **DESCRIPTION OF THE PROJECT**

The project involves the development, construction, ownership, operation and management of a 190-240MW Combined Cycle Dual Fuel Power Plant to be located near Aboadze in the Western Region of Ghana. The Plant is designed for dual fuel operation (Natural Gas and Light Crude Oil). For the efficient use of resources, the site of the power plant has been strategically chosen. The plant will be located close to landing point of the West African Gas Pipeline and the tie-in point of the Ghana Gas Infrastructure Project both of which are situated at Aboadze.

7.0 **ESTIMATED COST OF THE PROJECT**
7.1 The total cost of the project is estimated to range between **Four Hundred and Nine Million, One Hundred and Twenty Thousand United States Dollars (US$409,120,000.00)** and **Five Hundred and Twenty-Eight Million, Eight Hundred and Twenty Thousand United States Dollars (US$528,820,000.00)**. The projection is dependent on the type of equipment that the Amandi Energy Limited would choose for the construction of the power plant and the capacity to be installed.

The breakdown of the estimated cost based on a 240MW equipment from Siemens and a 190MW equipment from General Electric (GE) is indicated in Table I.

**TABLE I: ESTIMATED COST OF THE POWER PLANT BASED ON TYPE OF EQUIPMENT**

<table>
<thead>
<tr>
<th>Description</th>
<th>Siemens–240MW (US$)</th>
<th>GE – 190MW (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering, Procurement and Construction (EPC) Cost</td>
<td>356,510,000.00</td>
<td>265,720,000.00</td>
</tr>
<tr>
<td>Construction, Management &amp; commercial services</td>
<td>4,000,000.00</td>
<td>4,000,000.00</td>
</tr>
<tr>
<td>Construction Insurance</td>
<td>13,800,000.00</td>
<td>11,170,000.00</td>
</tr>
<tr>
<td>O &amp; M Mobilization Costs</td>
<td>3,000,000.00</td>
<td>3,000,000.00</td>
</tr>
<tr>
<td>EPC Import Related Fees</td>
<td>6,840,000.00</td>
<td>5,780,000.00</td>
</tr>
<tr>
<td>Owners Engineer Fee</td>
<td>2,000,000.00</td>
<td>2,000,000.00</td>
</tr>
<tr>
<td>Initial Working Capital</td>
<td>15,090,000.00</td>
<td>11,570,000.00</td>
</tr>
<tr>
<td>Non-EPC Costs (Land, Off-site works, Development costs)</td>
<td>26,360,000.00</td>
<td>25,610,000.00</td>
</tr>
<tr>
<td>Interest During Construction (IDC)</td>
<td>37,950,000.00</td>
<td>29,270,000.00</td>
</tr>
<tr>
<td>Lenders Upfront Fee</td>
<td>8,270,000.00</td>
<td>6,470,000.00</td>
</tr>
<tr>
<td>Senior Debt Service Reserve</td>
<td>30,120,000.00</td>
<td>23,600,000.00</td>
</tr>
<tr>
<td>Other Fees and Duties</td>
<td>24,890,000.00</td>
<td>20,920,000.00</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>528,820,000.00</strong></td>
<td><strong>409,120,000.00</strong></td>
</tr>
</tbody>
</table>

8.0 PROJECT FINANCING

8.1 The project will be financed on a limited recourse project finance basis with debt-to-equity ratio of 75:25. Despite this arrangement, Amandi Energy Limited has undertaken to revise the debt-to-equity ratio to 70:30.

8.2 The Project Finance approach to investment financing will be used to raise funds for the implementation of the project. By this approach, the
shareholders of the Amandi Energy Limited would contribute a significant portion of the equity funding requirement. To fulfill this, the company has secured an international strategic investor with the relevant technical expertise and track record in the development of similar projects to contribute the equity funding requirement.

8.3 The debt portion will consist of two tranches to be funded equally by the Development Finance Institutions and International Commercial Lenders.

9.0 PRICING AND PAYMENT OF THE COST OF POWER

9.1 The pricing of the electricity to be produced from the plant is clearly set out under the Agreement. Under Section 9 of the Agreement, the total electricity charge shall be the total capacity charge plus the energy charge and excess Starts Charges. The calculation of the elements of the total electricity charge is spelt out under Agreement. Amandi may also charge increased cost to be approved by the PURC where specified conditions result in increased cost (Section 10 of the PPA). The ECG on the other hand will be entitled to pay a reduced tariff in case of any benefit accruing to Amandi which lead to any decrease cost (Section 11 of PPA).

9.2 The total electricity charge is to be paid monthly on the due date as provided for under the Agreement. ECG will also pay the energy charge for all energy to be supplied by the Amandi Company Limited during the commissioning of the plant. This notwithstanding, any payments due to the ECG as a result of fuel reconciliation under a Gas Supply Agreement will be refunded under Section 9.3 of the PPA. The parties have agreed that payment of tariffs shall be in Ghana Cedis (Section 14.1 of the PPA).

10.0 DEVELOPMENT BOND

Under Section 7.5 of the PPA, the Amandi Energy Limited has undertaken to provide a Development Bond to the ECG immediately after the approval by Parliament of the Government Consent and Support Agreement.

11.0 OBSERVATIONS AND RECOMMENDATIONS

The Committee made the following observations during its deliberations on the Agreements.

11.1 Increased Power Generation Capacity
The Committee noted that upon the full performance of the Agreement, the project would increase the country's total installed capacity by 190-240MW which amounts to an increase of approximately 7-9% based on the current installed capacity of about 2,845MW. The Committee deems this as a significant contribution which would make it possible to supply electric power to Ghanaians and help address the perennial shortages experienced from time to time. This would lead to improvement in the standard of living of Ghanaians through the provision of reliable power supply and promotion of industrial development and help reduce poverty.

11.2 Potential for Job Creation

It was also noted that the successful execution of the project will lead to the creation of both direct and indirect jobs. The Officials of the ECG informed the Committee that, as part of the development and construction of the power project, an estimated 600 jobs would be created at peak of construction. Again, about 200 permanent employment is expected to be created over the 25 year period. This will go a long way to help address the level of employment in the country.

11.3 Plan to Minimize Environmental Impacts

The Committee was informed that Amandi had already conducted an Environmental and Social Impact Assessment Study and based on this developed the Environmental Management Plan to manage environmental effects. As part of the environmental permit for the environmental studies, public consultation processes were undertaken. The Committee was informed that the Environmental Protection Agency (EPA) has reviewed the study and the Plan, and accordingly issued Amandi with the requisite environmental permits for the project.

Again, per Section 20 of the PPA, Amandi has undertaken to provide to the ECG a written assurance to the effect that all policies, procedures and conduct regarding environmental matters have been complied with. The Committee was therefore satisfied that adequate measures have been taken to minimize environmental impacts.

11.4 Liability of the State under the PPA
It was gratifying to note that the State has not assumed any direct financial obligations under the Power Purchase Agreement. In recognition of the capital intensive nature of power projects, the State has however executed a Consent and Support Agreement to provide general support as a way of attracting private sector investment into the sector. By this, the Government has undertaken to assume payment obligations of the ECG in the event that a default is not cured by the ECG. To ensure that this does not happen easily, a payment security arrangement has been agreed under the Power Purchase Agreement. The value of the security to be provided by ECG under the PPA is *Ten Million United States Dollars (US$10,000,000.00).* The Committee is of the view that such an arrangement will engender the necessary confidence needed to attract investors into the sector and also relieve the State of the burden of financial capital intensive projects from public funds.

11.5 Extensive Consultations

The Committee was also noted that the PPA is a product of extensive consultation the ECG received the inputs of host of relevant key Stakeholders in course of the execution of the Power Purchase Agreement and its related documents. The ECG held consultations with institutions including the Ministry of Finance and Economic Planning, the Ministry of Justice and Attorney-General’s Department, the Public Utilities Regulatory Authority (PURC), the Energy Commission and the Ghana Grid company Limited. The wide consultations ensured that the all relevant matters are dealt with to produce an Agreement which serves the national interest.

11.6 Applicable Law of the Agreement

The Committee noted that the applicable law provided under Section 1 of the Power Purchase Agreement has been expanded under the Addendum to the Power Purchase Agreement. Per Section 2 of the Addendum to the PPA, the definition of applicable law to the PPA has been defined to include the laws of Ghana, government policy as well as orders and directives of relevant authorities in the power sector. The Committee believes that such arrangement provides ample opportunity to the State to make reforms in the sector for optimum benefit.

12.0 CONCLUSION AND RECOMMENDATION
The Committee has duly discharged its mandate by scrutinizing the Power Purchase Agreement and its Addendum and is of the view that the Agreement serves the national interest by securing adequate power supply for industrial and domestic consumption.

The project is also seen as a significant step towards improving availability of power for economic and social development.

The Committee observes that Power Purchase Agreements do not ordinarily come to Parliament for ratification. However, on the basis of the fact that Government Consent and Support is being sought as part of this Agreement and in recognition of the fact that the House has already approved the Government Consent and Support Agreement connected to this PPA upon the recommendation of the Finance Committee, the Committee on Mines and Energy recommends to the House for approval the Power Purchase Agreement between the Electricity Company of Ghana and Amandi Energy Limited relating to a 190-240MW Combined Cycle Gas Power Plant Facility at Aboadze and the Addendum to the Power Purchase Agreement between the Electricity Company of Ghana and Amandi Energy Limited relating to a 190-240MW Combined Cycle Gas Power Plant Facility at Aboadze.

Respectfully submitted.

HON. KWABENA DONKOR (DR.)
CHAIRMAN, COMMITTEE ON MINES AND ENERGY

PEACE FIAWOYIFE (MS.)
CLERK TO THE COMMITTEE