



**Africa  
Centre for  
Energy Policy**

## **PUBLIC INTEREST REPORT**



**GHANA GAS, QUESTIONABLE DEALS AND THE NATIONAL INTEREST  
HOW GHANA'S QUEST FOR ENERGY SECURITY FACES IMMINENT DANGER**

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## **List of Abbreviations**

ABFA	Annual Budget Funding Amount
ACEP	Africa Centre for Energy Policy
Afgen	African Power Generation
BDCs	Bulk Distribution Companies
CDB	China Development Bank
EPA	Environmental Protection Agency
EPC	Engineering Procurement Construction
FPSO	Floating Production Storage and Off-loading vessel
GNGC	Ghana National Gas Company or Ghana Gas
GNPC	Ghana National Petroleum Corporation
GOG	Government of Ghana
IEA	Institute of Economic Affairs
JV	Joint Venture
LNG	Liquefied Natural Gas
LPG	Liquefied Petroleum Gas
MW	Megawatts
NPA	National Petroleum Authority
VRA	Volta River Authority
WAGPI	West African Gas Pipeline

## **1.0. Introduction**

For the past three years, the Ghana National Gas Company (GNGC or Ghana Gas) has been in the news for the right and wrong reasons. There is no doubt that the establishment of Ghana Gas brought significant relief to Ghanaians who thought that the country's long standing desire for energy security and affordable energy services were going to be achieved. However, in the Government's desperation to secure a cheaper source of fuel through the development of indigenous gas resources, the institutions involved in this process threw caution to the dogs.

Ghana Gas has not escaped public anger for its alleged involvement in several contracts without due process, including for instance the sole sourcing of contracts to SINOPEC, Quantum Terminals Ltd. and Africa Power Generation Ltd. (Afgem). Ghana Gas has been accused of signing these contracts without following requirements in the Public Procurement Act 2003 (Act 663), entering into international agreements without parliamentary approval and causing to be granted to SINOPEC tax exemptions outside the parliamentary process.

It is important to take note of the denials of these allegations by Management and the Board of Ghana Gas, even though in most cases, such denials have not been forceful. These and many others cited on the Ghanaian media have somehow waned public confidence in the rationale behind the establishment of the company.

In this analysis report, we sought to examine the various issues in contention and to draw attention to the implications for Ghana; and as well as to propose some recommendations.

## **2.0. The Establishment of Ghana Gas**

The Ghana National Gas Company was established in July 2011, following extensive consultations by the Kwesi Botchwey led National Gas Development Task Force, commissioned by President Atta Mills in February 2011, which developed a blue print for the development of Ghana's gas resources. The company was incorporated as a limited liability company with the

mandate to “build, own and operate infrastructure required for the gathering, processing, transporting and marketing of natural gas resources in the country”<sup>1</sup>.

In our view, the establishment of Ghana Gas as a limited liability company is associated with significant risks including governance risks; and these have come to be proven following the sole source of US\$850 million EPC Agreement to SINOPEC for the construction of gas pipelines and a gas processing plant without parliamentary approval, as well as the low level of transparency in the company’s operations. Parliament does not review its financial reports. Also, even though substantial amount of public funds from petroleum revenues have been allocated to the company, it is yet to publish its financial report.

The Petroleum Revenue Management Act 2011 (Act 815) requires GNPC to submit its annual investment programme to Parliament for approval<sup>2</sup>. However, unlike GNPC, Ghana Gas is not subject to this transparent process in spite that public resources are committed to the company. For instance, the whole US\$850 million investment programme of Ghana Gas is collateralized against Ghana’s oil money; and in addition more than US\$140 million of the taxpayers’ money over the last three years has been spent on capitalizing the company and financing its counterpart funding in the China Development Bank (CDB) facility. Yet Parliament has no role in approving its investment programme, which stands at variance with the principles of good governance. It is therefore safe to argue that the intention behind incorporating Ghana Gas as a limited liability company, funded with Ghanaian tax payers’ money was to give it leverage to undertake big projects without public scrutiny and this must be reversed.

### **3.0. Delay in the Completion of the Atuabo Gas Facility**

The most important project of Ghana Gas at the moment is the Atuabo Gas project commonly referred to as the “Western Corridor Gas Infrastructure Development Project”. This includes: the installation of offshore pipeline, onshore pipeline, a gas processing plant, a Natural Gas Liquids export system for the export of LPG; and an office complex. The project, which is being executed by SINOPEC, has failed to meet several completion dates. Indeed, the project has been

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<sup>1</sup> Ghana Gas Corporate Brochure found online at <http://www.ghanagas.com.gh/media/Ghana-Gas-Brochure.pdf>.

<sup>2</sup> See Section 7(3)b of the Petroleum Revenue Management Act 2011 (Act 815)

delayed for four years as a result of explained and unexplained reasons. The new date has been put at June 2014. However, the most common reason has been funding challenges considering that the disbursement of the CDB facility of US\$3 billion part of which is applied to the gas project has been slow. As of September 2013, US\$598,945,463.25 was disbursed to SINOPEC made up of US\$509,103,643.77 from CDB and \$89,841,819.48 from the Government of Ghana counterpart funding<sup>3</sup>.

But Ghana could have avoided these challenge if Government exercised due diligence in the many financing options that were available to it at the time it entered into this deal. For example, the National Gas Company of Trinidad and Tobago proposed a joint venture with GNPC which then had responsibility for gas commercialization. The Trinidad and Tobago is the fifth-largest exporter of liquefied natural gas (LNG) in the world, and the single largest supplier of LNG to the United States. Resultantly, this country has enormous experience that could have been deployed to build Ghana's gas infrastructure. However, the Government of Ghana changed its decision for a joint venture and instead upheld the recommendation of the National Gas Development Task Force to own the entire project through the CDB facility. The Trinidadians knew that the deal was in danger and Government had already decided on going to China even before the Task Force completed its task. In a release, a former Energy Minister of Trinidad and Tobago, Seepersad-Bachan, said: "After a number of discussions and modifications to the NGC/GNPC execution strategy, the final decision on the way forward for the Jubilee Gas project was based on the final report of the National Gas Development Task Force commissioned by Ghana's president". He said further, "While we await formal confirmation, it is our understanding that a key input to the recommendations was the availability of project financing from the National Bank of a competitor country at very low interest rates that were attractive to the government of Ghana"<sup>4</sup>. The competitor country referred here was China which eventually got the nod from Ghana to finance the project.

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<sup>3</sup> 2013 Annual Report on the Petroleum Funds submitted to Parliament by Seth E. Terkper Minister of Finance. Found at: [http://www.mofep.gov.gh/sites/default/files/reports/2013\\_Annual\\_Petroleum\\_Report.pdf](http://www.mofep.gov.gh/sites/default/files/reports/2013_Annual_Petroleum_Report.pdf).

<sup>4</sup> The Guardian, "No NGC board almost cripples Ghana deal" Thursday, July 7, 2011, (found at: <http://www.guardian.co.tt/business-guardian/2011/07/07/no-ngc-board-almost-cripples-ghana-deal>).

The World Bank also offered to grant Ghana a concessionary facility<sup>5</sup>. The World Bank Sector Leader for Sustainable Development in charge of Ghana, Liberia and Sierra Leone, Waqar Haider, confirmed to the media that the Bank did offer an enclave operation for Ghana for the development of gas infrastructure sometime in 2009/2010. He said, “We did offer the International Bank for Reconstruction and Development (IBRD) loan enclave which is very good long term loan financing”. In the same report, the Bank’s Sector Leader said again, “Of course whenever we provide source of funding, that source of funding is with all the rules and regulations of the Bank. For example, procurement of equipment will have to be through an international competitive tendering process not bilateral. Similarly, there are rules that will have to be followed with regards to financial management of the project”. Ghana rejected the facility from the Bank and what is happening in Ghana Gas now, such as the sole sourcing of procurement contracts, reveals the reasons behind Ghana’s rejection of the facility. By its actions, Ghana has indeed conceded a moral defeat to the World Bank. The price of indecision and or wrong decision is the protracted energy crisis the country has suffered since 2012.

Ghanaians are now paying for the cost of this avoidable delay in the completion of the gas project. Our estimates show that the delay has cost the country an average of US\$550 million per annum and this translates to US\$2.2 billion in four years. The losses come from the Volta River Authority’s (VRA’s) loss of savings and Ghana Gas’s loss of revenues. VRA spends US\$3 million per day on crude oil imports and could have saved half of this if gas was available. This translates to an average of US\$547 million per year. Ghana Gas on the other hand loses the same amount in revenues for not selling gas to VRA. The other revenue losses to Ghana Gas come from the sale of LPG.

Apart from these losses, Ghana is likely not to realize the full benefits of the 200 bcf of foundation gas given to the country for free (upon agreement by the Jubilee partners) as a result of the delay. The bulk of the gas has been re-injected into the oil wells, but once re-injected; the gas cannot be fully recovered, since a part of it will be dissolved into the oil to increase oil recovery, and thereby translates into petroleum revenues shared between Ghana and the Jubilee partners. In addition to this, the Jubilee partners had to spend a further US\$100 million to

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<sup>5</sup> The World Bank Sector Leader for Sustainable Development in charge of Ghana, Liberia and Sierra Leone, Waqar Haider (Find this online at: <http://ghanaoilwatch.org/index.php/ghana-oil-and-gas-news/3059-how-ghana-dumped-world-bank-for-china-development-bank-over-gas-infrastructure>).

construct an additional re-injection well, which is now being underutilized<sup>6</sup>. However, since the cost of the well is classified as a petroleum cost, it has reduced the revenue base of the Government of Ghana.

Also, the Jubilee partners have complained that the excessive re-injection of gas has affected the productivity of the oil wells, and has caused oil production to be reduced by 3,000 barrels daily<sup>7</sup>. This implies another loss of revenue to the Government of Ghana and its Jubilee partners. The Jubilee Partners are also installing a by-pass to the Gas Plant in Atuabo, suggesting lack of confidence in the completion and operability of the gas plant.

As a result of the delay and the consequences in revenue losses to Ghana Gas, Ghana is likely to default in its repayment of the CDB loan draw down which is due in the middle of 2015 after the expiry of the moratorium period of three years. The assumption behind the repayment schedule was that Ghana Gas would have accumulated revenues if the project was completed and would be able to repay its portion of the loan, but with the delay in the project, the company is unlikely to mobilize revenues to meet its repayment obligation. In furtherance of this, the Ministry of Finance has begun negotiations with GNGC to on-lend to it the CDB loan and the Government of Ghana (GOG) counterpart funding of the project. This will take GNGC's liability to US\$1 billion. A draft on-lending agreement to this effect is currently being reviewed by the parties<sup>8</sup>. This puts the oil money committed to the Government annual budget (the Annual Budget Funding Amount or ABFA) in 2015 in danger as gas revenues are delayed and the entire facility is collateralized against it.

This is because the entire ABFA has been collateralized for the CDB loan, which is a liability to the Government. If government on lends to Ghana Gas, the liability does not shift from the Government since the Master Agreement on the loan is between the Republic of Ghana acting

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<sup>6</sup> General Manager of Tullow Ghana Limited, Charles Darku said to the media that the company spent US\$100 million in developing the third gas rejecting well in October 2013 to augment the existing two wells. He said though it turned out to take less gas than expected there is enough space in the other two wells to accommodate the capacity being injected currently (See this at:

<http://www.ghanaweb.com/GhanaHomePage/NewsArchive/artikel.php?ID=308629>).

<sup>7</sup> See link at: <http://www.reportingoilandgas.org/daily-oil-production-reduces-by-3-thousand-barrels/>. Also, the General Manager of Tullow Ghana Limited, Charles Darku, told journalists at the firm's investor forum in Accra, "If the gas plant was to be completed, we would have been able to increase production from the 100,000 barrels of oil per day (bopd) to the 109,000 bopd by the close of the year," (See link:

<http://allafrica.com/stories/201405090239.html>)

<sup>8</sup> 2013 Annual Report on the Petroleum Funds submitted to Parliament by Seth E. Terkper Minister of Finance.

through the Government on one hand and the CDB on the other. Thus, any delay in gas revenues reduces tightens the liquidity constraints of the Government, which is compelled to find money from other sources to service the debt or in default lose the ABFA. Also, gas revenues by law are part of ABFA hence delay in gas revenues further reduces the security on the loan as provided by ABFA since the projected size of ABFA at the time of loan repayment will not be met. In either case, the ABFA is under threat. What this also means is that Ghana has wasted the three years moratorium on the loan as a result of the delay in the project.

We are of the view that the project faces further delays putting the latest announced completion date of June 2014 in doubt. As at today, our information is that the vessel which will tie in the Ghana Gas pipeline offshore pipeline to the Jubilee Floating Production Storage and Off-loading vessel (FPSO) for the evacuation of gas is yet to arrive in Ghana and as yet there is no indication when it will arrive. When this is completed, the pipeline will have to be hydro-tested before gas flows. With this development, we are confident that the Government will revise the completion date once again.

There are also outstanding commercial issues that have not been resolved. At the moment, there is no single commercial agreement in place for the supply of gas when the project is completed. Typically, there should be a Gas Purchase Agreement between Ghana Gas and GNPC, a Gas Sales Agreement between Ghana Gas and VRA; and a Gas Supply Agreement between Ghana Gas and the Jubilee Partners who are also required to sell their share of the gas produced to Ghana Gas. There is even more confusion over the role of the institutions involved. For instance, whilst the Energy Commission Act 1997 (Act 541) gives the Commission mandate to license gas transportation infrastructure installation and operations, the Minister of Energy and Petroleum is proposing to exercise this power in the new Petroleum (Exploration and Production) Bill. Similarly, where as the Public Utilities Regulatory Commission (PURC) Act 1997 (Act 538) empowers the PURC to set tariffs for the use of gas transportation infrastructure, the Minister of Energy and Petroleum is proposing to exercise that power in the same Petroleum (Exploration and Production) Bill.

These challenges that confront gas infrastructure development in the country have thrown the entire gas sub-sector into total confusion, which must not be trivialized or the consequences will become even greater.

#### **4.0. LPG Project, Quantum Petroleum and Environmental Risks**

Another controversy is the Memorandum of Understanding (MOU) signed between Ghana Gas and Quantum Terminals Ltd which has given the latter 25 years exclusive right to build and operate LPG holding facility for the LPG from the gas processing plant. Quantum Terminals Ltd. and its Subsidiary SAGE are being contracted as the sole Off-taker of the entire LPG from the gas processing plant for 25 years. Quantum Terminals Ltd. will also market the Ghana Gas LPG in the downstream market. Whether this is an MOU or a sole-sourced contract, this arrangement between the two companies raises an important question. Why did Ghana Gas not open the opportunity to other Bulk Distribution Companies (BDCs) in Ghana?

Ghana Gas must come clear on this as there is suspicion that the project was manipulated to favour Quantum Terminals Ltd. through sole sourcing. Ghana Gas must also disclose the beneficial ownership information of Quantum Terminals Ltd. to convince Ghanaians why the deal was fair and in the interest of the country.

Besides the procurement problems, there are also environmental concerns on the project. Since the project commenced, the most significant environmental risks communities are exposed to relate to the plan for the transportation of LPG from the Atuabo area. Although the original plan for LPG transportation favored the use of sea vessels as a result of which a jetty was to be constructed, Ghana Gas has once again thrown caution to the dogs. LPG will now be transported to Accra by road through trucks. With about 700 metric tons of LPG expected daily, it will take about 40 LPG trucks travelling every day on the roads from Atuabo through the main Elubo highway to the market. This poses serious health and environmental risks to communities and cities along the road. More so, in most of the communities that are likely to be affected, there exist no access roads; and even if there are, these communities are not safe when there is an accident. This decision to off-take and transport the LPG by road is without permits from the Environmental Protection Agency (EPA) and the National Petroleum Authority (NPA). It is believed that the change from sea to land transportation was deliberately done to favour the Quantum Terminals Ltd. deal. This situation calls for urgent actions from the EPA and NPA as Ghana Gas cannot be an island on its own.

Another environmental concern relates to the use of Isopetane, another type of natural gas liquid, used for the generation of power. We can confirm that the power plant expected to be built at Atuabo to use the Isopetane for power generation is one year behind schedule. This means that if the gas project is completed ahead of the power plant, the Isopetane will have to be flared. This puts communities further at risk. Again, Ghana Gas solely sourced the construction of this power plant to GTG Ltd. without going through any competitive tendering process.

## **5.0. Ghana Gas and Afigen Deal**

According to the 22nd April 2014 issue of Upstream Magazine, Ghana Gas and Afigen have signed a Joint Venture Agreement to build an LNG re-gasification facility and to sell re-gasified LNG to Ghana. The re-gasification facility is to be located in Benin but LNG will be transported via the West Africa Gas Pipeline. Understandably, this is expected to provide energy security to Ghana. The President has promised that by 2016, electricity generation capacity will increase to 5,000 MW. But this depends largely on availability of cheap fuel which is seriously in doubt considering the modest levels of potentially available indigenous gas in addition to Nigeria Gas supplied to Ghana.

However, there are important issues that must be interrogated about this project.

- a. Benin does not produce natural gas and its demand for gas together with Togo's demand will amount to 60 mmscf per day unlike Ghana which will soon produce gas and is expected to buy 100mmscf per day from the Benin facility (in addition) for a minimum of five years. In this case it is curious why Ghana Gas, a company funded by Ghanaian tax payers, has agreed to jointly build an LNG facility in another country, and then turns around to buy the LNG produced in this facility. Ghana therefore provides security for the entire project and assumes all the risk involved in the project, similar to the West African Gas Pipeline (WAGPI) Project.
- b. Ghana as a Joint Venture (JV) partner will acquire shares with tax payers' money for the financing of a facility located outside the boundaries of the country, creating jobs and incomes for the people of Benin at the expense of Ghanaians.

c. One of the challenges of the West Africa Gas Project is the situation where the pipeline is ruptured or breached. This has already happened twice in Benin putting Ghana's gas supply security at risk. Thus, if the reason for exploring an LNG is energy security, it is more appropriate to build the facility in Ghana.

d. There is the possibility that the LNG project in Benin will be securitized by Ghana's cheaper Jubilee gas. The joint venture company will bring relatively expensive LNG and with the project security provided by Ghana gas, the contractual arrangement will likely have a pay-or-take clause. The expected price of re-gasified LNG is between US\$14 and US\$16 per mmbtu, against WAGPI price of about \$8. Indigenous gas will even be lower. Thus, in the event cheaper indigenous gas is available to meet demand, Ghana will be too exposed to financial risks with serious implications for the cash flow of Ghana Gas. Further, the financing risk of the project increases as revenues from the sale of Jubilee gas will be relied on as guarantee for any Letters of Credit Ghana Gas has to establish for supply of gas from Benin.

e. Under the project, another company, SOCAR Trading, is to source the LNG for re-gasification before re-gasified LNG is sold to Ghana. It is important to note that SOCAR Trading has not yet made any commitment to the project. Why Ghana cannot source LNG and pay for re-gasifying it at the re-gas plant increases the risk of the project since Ghana will have no contract with SOCAR.

In our considered opinion, we do not think the Government of Ghana can approve such a JV arrangement. The Ghanaian people deserve to know the details of the JV Agreement and the approvals from Government that supported this deal. Again, as an international agreement, the deal has not been subjected to parliamentary approval.

The Africa Centre for Energy Policy (ACEP) strongly believes that with these challenges and problems hanging on Ghana Gas, the company is gradually becoming a failed project and needs immediate resuscitation by Government. The future of Ghana's economic transformation hinges on availability of reliable, affordable and secure fuel for power generation and other industrial uses. The President's promise of 5,000MW of generation capacity remains a dream for now until there is a clear path as to where Ghana Gas is going. The lack of transparency in Ghana Gas has

even further threatened Ghana's move to access the second compact of the US Millennium Challenge Account which is supposed to support an LNG project in Ghana.

## **6.0. Some Observations**

ACEP would like to draw attention to the following observations.

- a. Membership of the Deputy Chief of Staff (Dr Valerie Sawyer) on the Board of Ghana Gas is wrong. The Deputy Chief of Staff is part of the Presidency and should not be serving on boards of state-owned entities. It creates difficulties for the sector Minister in the supervision of Ghana Gas.
- b. The indecision and personal interest, which caused the protracted delays in the development of Jubilee gas, is being repeated with the development of Sankofa Gas (which is forecast to have more gas than Jubilee). The Sankofa JV Partners announced to Government two years ago their readiness to develop and commercialize the gas in line with the Petroleum Agreement and to date Government has not been able to make a decision for development to start.
- c. Lack of transparency in the activities of Ghana Gas and the failure of Government to act decisively on matters of the gas development is beginning to cast doubt in the minds of the International Oil Companies about the country's determination to apply the gas to the benefits of the people of Ghana.
- d. There is a general view among oil and gas players in and outside Ghana that the current managers of the country's oil and gas are working for their personal interest against the national interest and they are worried the oil discovery could become a curse rather than a blessing.

## **7.0. Some Recommendations**

First, there should be increased oversight at the highest level of Government on the activities of Ghana Gas. This will promote good corporate governance and public accountability of the company that is being funded with tax payers' money. Ghana Gas should be put under parliamentary scrutiny to make them more accountable.

Second, Ghana Gas must be restructured. In the short to medium term, the company should be put under GNPC as its subsidiary and be supported to become an independent company in the long-term. Thus, the Board of Ghana Gas should be dissolved whilst Management is integrated into GNPC which originally had responsibility for gas commercialization in Ghana.

Third, during the Institute of Economic Affairs (IEA) Presidential Debate in 2012, the President promised to undertake a technical audit of Ghana Gas and this would have brought to the fore all the challenges and problems outlined above. The President must disclose the status of the said audit and the extent to which efforts have been made to address the problems.