

**THE GULF OF GUINEA: THE NIGERIAN GAS MASTER
PLAN AND OPPORTUNITIES FOR THE DEVELOPMENT OF
GAS INFRASTRUCTURE**

BEING

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BY

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1. INTRODUCTORY REMARKS

I feel highly honoured and delighted to be invited to address this August gathering of experts in the Oil and Gas Industry at this auspicious event of the 16th Gulf of Guinea (GOG) Conference holding here in Abidjan, Cote D'Ivoire. I wish to specifically congratulate the Ministry of Petroleum and Energy, Republic of Cote D'Ivoire, (PETROCI) for collaborating with International Gas Union (IGU) and CWC Group to host this Conference.

I am particularly delighted that this year's Conference is designed to examine options for gas monetization, future intra-regional collaborative projects and the role of gas as an economic driver for the region. The aptness of this Conference with the theme '**Optimising Gas Resources in the Gulf of Guinea Region**' stem from the fact new technologies are unlocking new sources of energy like never before. Natural gas is quickly becoming a key source of energy, enabler of economic growth and environmental progress the world over. Currently, the region provides about 25 per cent of the global energy needs and this is expected to increase in the near future.

The tremendous natural gas potential in the Gulf of Guinea is creating investment opportunities for countries from the West and Central Africa in the region, namely: Angola, Benin, Cameroon, Central African Republic (CAR), Cote D'Ivoire, the Democratic Republic of Congo (DRC), Equatorial Guinea, Gabon and The Gambia. Others include Ghana, Guinea, Guinea-Bissau, Liberia, Nigeria, Republic of Congo, Sao Tome and Principe, Senegal, Sierra Leone and Togo. The natural gas endowment of the region that is acclaimed to be most one of the prolific oil & gas provinces in the world, could be exploited by these countries to the full potential, if necessary investments are undertaken to reverse the “natural resource curse” trend associated with the region and feed into the theory of the “Paradox of Plenty”. The total proven gas reserve in the region is in the neighbourhood of 300 trillion cubic feet (tcf). Currently, six countries in the region, namely; Nigeria, Cote D'Ivoire, Angola, Gabon, Republic of Congo and Senegal market natural gas, with Nigeria, Angola and Equatorial Guinea are making concerted efforts toward new investments in the sub-sector.

With the region's proven gas reserve in excess of 200 tcf, it is still experiencing acute energy crisis with more than half of the population

dependent on traditional biomass as primary sources of energy. Also, barely 40% of the population of the GOG countries are having access to a meager 150kwh average electricity consumption per capita. I am very optimistic that this Conference that is unique in every sense, will throw up challenges and proffer solutions for maximizing the utilization of the region's natural gas endowment for its socio-economic advancement and prosperity.

This presentation entitled **“The Gulf of Guinea: The Nigerian Gas Master Plan and Opportunities for Development of Gas Infrastructure”** will attempt to situate the topic within the Nigerian context and the country's strategies for laying a foundation for improved gas infrastructure. Thus, this paper is policy inclined, and therefore intended to pave the way for technical presentations on **“Gas Usage in the Region: Opportunities in Gas to Power and Processing”** by highly distinguished speakers. Importantly, my paper will apprise participants with the developments in Nigeria gas sub-sector, the gas infrastructure being put in place and investment opportunities therein.

2. NIGERIA'S DEVELOPMENT AGENDA

Nigeria's aspiration for economic growth and sustainable development is predicated on various agenda. They include the Nigeria Vision 20:2020 (NV20:2020), Transformation Agenda (TA), 2010-2015, National Implementation Plan (NIP) and Nigerian Integrated Infrastructure Master Plan (NIIMP):

(a) Nigeria Vision 20:2020 (NV20:2020)

The Nigeria Vision 20:2020 is the country's overarching, strategic development long plan for social and economic growth and development between 2010 and 2020. It envisions that **“By 2020, Nigeria will have a Large Strong, Diversified Sustainable and Competitive Economy that Effectively Harnesses the Talents and Energies of its People, and Responsibly Exploits its Natural Endowments to Guarantee a High Standard of Living and Quality of Life to its Citizens”**. The Vision has been fashioned to create a link between the annual budget and the planning process by providing a basis for drawing up the government's policies, programmes, sectoral plans and streamlining where resources should be focused and deployed.

The NV20:2020 is anchored on two specific goals, to be achieved by the year 2020, namely: **a nominal GDP of not less than US\$ 900 billion and a Per Capita Income of not less than US\$ 4,000 by 2020.** The fundamental aim is to improve the quality of life of Nigerians, through rapid, inclusive growth, and balanced development. Apart from the target for 2020 of developing the gas sub-sector to meet domestic and industrial demands, gas production will also be substantially enhanced to take advantage of increasing global demand. It is envisaged that the country's proven reserves will increase gradually from 187 tcf in 2009 to 215 tcf by 2015 and 250 tcf by 2020.

(b) National Implementation Plan (NIP)

The Vision is being implemented through three National Implementation Plans (NIPs), namely: 1st NIP (2010-2013), 2nd NIP (2014-2017) and 3rd (2018-2020). Two of the keys thrusts of the 1st NIP are bridging the infrastructure gap to unleash economic growth and wealth creation as well as optimising the sources of economic growth to increase productivity and competitiveness. The 1st NIP will end by December 2013.

(c) Transformation Agenda (TA), 2010-2015

The TA is Nigeria's blueprint of key policies, programmes and projects to be implemented by the Federal Government of Nigeria (FGN) during the period between May 29, 2011- May 29, 2015. The Agenda prioritises and frontloads the key projects and programmes in the NV20:2020, which can be delivered within the four year tenure of the current Administration in Nigeria. Given that critical physical infrastructure is one of the key areas of intervention, the TA focuses on achieving strong inclusive, non-inflationary growth, particularly with a bias for encouraging local content strategies in key sectors, such as petroleum, natural gas and power, amongst others.

The strategic goals and targets for the sub-sector include, amongst others; the promotion of private sector investment in both upstream and downstream activities of the oil and gas industry; deregulation of the industry and promotion of environmentally-friendly oil and gas exploration and exploitation methods; reduction of gas flared to reduce pollution; promotion of adequate gas supply for domestic use and power generation. It aims also to increase proven gas reserves from of 187

trillion cubic feet (TCF) in 2010 to 220 tcf by 2013, based on projections in the Nigerian Gas Master Plan.

The Nigerian Gas Master Plan came into being in 2008 as a result of the NV 20:2020. The set goals and targets have been attained as reported in the Mid -Term Report of the Transformation Agenda, May 2011 - May 2013 presented by the Nigerian President, His Excellency, Dr. Goodluck Jonathan, GCFR to Nigerians and the entire world during the celebration of his two years tenure in office on May 29, 2013. In particular, is a reduction in gas flared from 25.3 per cent in 2011 to about 20 per cent in 2012 due to Government's increased efforts in the implementation of programmes and projects in the Gas Master Plan and Gas Revolution.

(d) Nigerian Integrated Infrastructure Master Plan (NIIMP)

The NIIMP is Nigeria's coordinated approach to infrastructure development of key sectors of the economy. The NIIMP which is a 30 - Year Plan spanning 2013 - 2043, provides capital allocation framework that identifies the required investments needed to upgrade infrastructure in Nigeria in line with the country's growth aspirations. It also identifies and elaborates on enablers for implementation needed to be put in place for a successful execution. The Plan envisages increase in gas production

capacity from 7,580 to 11,000 million cubic feet per day (mcfpd) by 2018; 15,000 by 2023 and 30,000 by 2043. The increase in gas production is necessary to supply the planned gas powered stations and develop other gas based industries, such as fertilizers, agro-processing, and petrochemicals. It is also intended to grow the gas reserves from the current 187 tcf through accelerated exploration activities during the 30 years period.

Over the first five years of implementation of the NIIMP i.e. 2013 -2018, Nigeria will spend US\$ 30 billion - {US\$ 10 billion to increase Gas production from current levels of 8,000 million cubic feet per day (mcfpd) to 11,000 mcfpd; US\$ 13 billion to increase oil production capacity by 250 000 bpd and US\$ 7 billion} to increase refining capacity by 300 000 bpd. Majority of refining and oil production increase will be funded by the private sector, whereas gas expansion will be funded by the public sector. In all, a projected sum of US\$2.9 trillion (approx. NGN460 trillion) is required to close the country's yawning infrastructure gap over the next 30 years.

3. EVOLUTION OF GAS UTILISATION IN NIGERIA

Gas utilisation in Nigeria has been through a chequered history as phased below:

- i. Phase 1 : Pre-1999, The Demand Constraint Era
 - Era marked by intense flaring
 - Fiscal incentives to stimulate demand
 - Focus on exports (LNG) as most promising source of demand, hence birth of an export oriented gas sector
 - Proliferation of fiscal incentives and absence of a legal framework to regulate the sub-sector

- ii. Phase 2 : 1999 - 2005, The NLNG Era
 - Kick-off and subsequent growth of LNG
 - Beginning of steady decline in flares;
 - Initiation of new export projects - Gas to Liquid etc.;
 - Commencement of consolidation of fiscal and legal regime to incentivise and regulate operations in the sub-sector

- iii. Phase 3: Post 2005: The Demand Boom/Supply Constraint Era
 - Sudden boom in demand from both domestic and export sectors;
 - Sudden shift from demand to supply constraint

- Birth of the Gas Master Plan initiative
- The Gas Master-Plan initiative was borne in response to the sudden boom in gas demand in Nigeria

4. THE NIGERIAN GAS MASTER PLAN (GMP)

The return of democratic rule in Nigeria in 1999 ushered in a paradigm shift with increased focus on harnessing the country's abundant gas reserves through appropriate reform in the gas sub-sector. To facilitate the reform conceived under the development agenda enumerated in the preceding paragraphs, the Nigerian Government introduced the Nigerian Gas Master Plan (GMP) in 2008. The GMP is a guide for the commercial exploitation and management of Nigeria's gas sector and also seeks to grow the Nigerian economy with gas. The aspiration of the Master Plan is to reposition Nigeria in the shortest possible time, as a regional gas supply hub with concurrent presence in the domestic, regional and export market. This is in tandem with of Nigeria's resolve to become a major player in the international gas market as well as lay a solid framework for gas infrastructure development and expansion within the domestic market.

The key objectives of the GMP include the following:

- i. Maximise the Multiplier Effect of Gas in the Domestic Economy
 - Facilitate gas to Power, Fertilizer etc
 - Domestic LPG
 - Stimulate broad gas based industrialization - methanol, fertilizer etc.
- ii. Optimise Nigeria's Share and Competitiveness in High Value Export Markets
 - Selective participation in high value markets
 - Strategic positioning for growth
- iii. Assure long term energy (gas) security for Nigeria
 - Balancing trans-generational needs -managed exploitation

The stated objectives are being pursued through the instrumentality of the Gas Infrastructure Blue Print, Gas Pricing Policy and Domestic Gas Supply Obligation which are enumerated below:

(a) The Gas Infrastructure Blue Print

This is a robust gas infrastructure blueprint developed to foster the implementation of the GMP. The blueprint aims to reduce the overall infrastructure cost as well as ensure a more flexible supply grid nationwide. The gas grid will provide connectivity amongst major gas

reserve sources and the demand centres, thus providing a roadmap that would guide future investment in the gas sub-sector and effective utilisation of gas resources in the key sectors of the economy as well as the regional market.

(b) Gas Pricing Policy

The policy seeks to create a structured and transparent framework for the pricing of gas driven by market forces. The policy, groups the Nigerian domestic market into 3 categories:

- The strategic domestic sector - this being the sector with the greatest multiplier effect on the economy namely Power (to residential and light commercial users).
- The strategic industrial sectors - this being the sector that takes gas as feedstock in the creation of new products e.g. fertilizers, methanol, petrochemical plants and LNG.
- The commercial sector - this being the sector that uses gas as industrial fuel e.g. manufacturing industries.

This categorization of the domestic market will form the basis for the pricing framework which will determine the floor price for the different sectors. The pricing policy also stipulates the establishment of a Strategic Gas Aggregator (SGA) Company, which will manage the demand and

supply of gas in the domestic market and align the reserves obligation accordingly. This SGA Company is already operational in Nigeria.

(c) Domestic Gas Supply Obligation (DGSO)

Given the level of foreign direct investment interests being shown by gas based industries such as fertiliser manufacturers, power producers and methanol producers, the FGN has introduced the Domestic Gas Supply Obligation Regulations to ensure the availability of gas for domestic gas utilisation projects. This is Nigeria's first major attempt to refocus the gas resource for domestic use. The regulation will penalise any defaulter (who fails to pay compensation to any purchaser for any losses suffered as a result of default) to supply gas in compliance with the order of the Gas Aggregator. The policy sets a penalty of \$3.5/mcf of obligation that is under supplied and otherwise flared, and an environmental surcharge of 0.5c/mcf.

The regulation has the following key elements:

- Mandates all oil and gas operators in the country to set aside a pre-determined amount of gas reserves and production for the domestic market.
- Empowers the Nigerian Minister of Petroleum Resources to stipulate the requisite amount of gas to be set aside periodically

by the International Oil Companies (IOC's) for a period of between 5 - 7 years.

- Mandates oil and gas producers to comply with their obligations or face penalty for gas under supplied and or restrict export of gas produced by erring producers or both.
- Establishes a Department of Gas within the Ministry of Petroleum Resources that will oversee the execution of this regulation in concert with the Department of Petroleum Resources (DPR).

5. NIGERIA GAS REVOLUTION

The Nigerian gas revolution is aimed at harnessing the nation's proven reserves of 187 trillion cubic feet plus undiscovered potential of 600 tcf of gas to attract Foreign Direct Investment into Nigeria. The key objectives of the gas revolution include the monetisation of Nigeria's gas reserves through reduction and ultimate stoppage of gas flaring and raising domestic gas supply from the current level of 1.0 billion cf/d to over 10 billion cf/d by 2020. This is basically targeted at feeding the domestic power sector, which has a multi-billion dollar investment blueprint based on the sector's privatisation plan, among other critical sectors like agriculture and industry. It is also expected to enable private participation in the gas value chain and position Nigeria as the regional hub for gas-based industrialization.

6. Overview of Nigerian Huge Gas Potentials

According to statistics from the US Energy Information Administration, (US EIA) Nigeria as at January 2011, had an estimated 187 tcf of proven natural gas, ranking her the 8th largest natural gas reserve holder in the world, followed by Algeria and Egypt ranking the 10th and 17th positions with reserves of 159 and 77 respectively. At this level, Nigeria's gas reserves account for 2.8 per cent of the global total of production. The country's reserves could potentially be as high as 600 tcf, if deliberate steps are taken to explore for gas contrary to the coincidental discovery of the product during oil exploration. These resources are evenly distributed between associated and non-associated gas and are characterised as some of the best quality in the world. However, due to the current low domestic and industrial usage of natural gas and the limited gas distribution infrastructure, Oil industries producing natural gas in associated form have been compelled to flare these gases due to:

- i. Limited numbers of appropriate reservoirs conducive for gas re-injection and storage and the economics of the process;
- ii. The huge financial commitment of majors and absence of interconnecting network of gas pipelines;
- iii. Low technology and low industrial energy consumption in the country;

- iv. Limited regional market; and
- v. Inadequate fiscal and gas pricing policies to encourage investment.

Energy experts say Nigeria has lost US\$2 billion in potential revenue from gas flaring on an annual basis, although the Nigerian national Petroleum Corporation (NNPC) has put the figure at US\$2.5 billion in a 2011 estimate.

7. PROGRESS ON IMPLEMENTATION OF GMP

Significant progress has indeed been made within the gas sub-sector in the past few years. Nigeria's liquefied natural gas (LNG) capacity is growing rapidly and would soon account for approximately 30% of the total Atlantic LNG. Additional LNG projects such as Olokola LNG (OK LNG) and Brass LNG will further enhance Nigeria's LNG capacity. In addition to the export oriented LNG projects, gas in accordance with the FGN domestic utilisation policy, is being leveraged as the fuel to power Nigeria's economic growth. There are presently under construction, 15 gas powered plants to meet domestic electricity needs.

Regionally, there are three key on-going gas projects, the West African Gas Pipeline (WAGP) Project which will supply gas to neighbouring West African countries, the Trans Sahara Gas Pipeline Project which seeks to transport gas to Europe via Algeria and the proposed gas network for the supply of gas to Equatorial Guinea. The Federal Government had recently invited interested global energy companies to bid as potential core investors in the Nigerian Gas Master Plan Infrastructure Blueprint. Over 50 energy companies expressed their interest, out of which 15 were short-listed as core investors. This is an indication of the level of interest created as a result of the Nigerian gas master plan.

8. REGIONAL MARKET DEVELOPMENT

(a) West Africa Gas Pipeline (WAGP)

The Nigeria Gas Industry is vigorously pursuing the regional market through the WAGP Project which was established in 1982, following a feasibility report that revealed its commercial viability. The Governments of four African countries namely, Nigeria, Ghana, Benin Republic and Togo signed the Agreement in September 1995. The WAGP currently transports natural gas from Lagos terminal (Nigeria) to three delivery points near Cotonou (Benin), Lome (Togo) and Tema (Ghana)

over a distance of 681km. The pipeline construction and operations obtained financial guarantees of The World Bank. The total project cost is US\$974 million, out of which The World Bank guarantee for Ghana was \$80 million while the Multilateral Investment Guarantee Agency (MIGA) provided a \$75 million political risk guarantee for the West African Gas Pipeline Company which is set up to build, own and operate the pipeline. Plans are in the offing to extend the gas supply to Abidjan.

(b) Trans-Sahara Gas Pipeline (TSGP)

The Trans Saharan Gas Pipeline Project (also known as the Algeria-Nigeria Gas Pipeline Project) is a planned investment of about \$20.0billion. The Project is planned to become operational in 2015. When completed, it will transport up to 30 billion cubic metres of natural gas from Warri (Nigeria) through Niger Republic to Algeria on an annual basis. The aim of the project is to diversify gas supplies to Europe. The pipeline will be built and operated by the partnership of the Nigerian National Petroleum Corporation (NNPC) and Sonatrach. The NNPC and Sonatrach will hold a total of 90 per cent equity shares, while Niger Republic would hold 10 per cent. The total length involved is 4128 kilometers (2565 miles) with the Nigerian section being 1,037 kilometers (644 miles), Niger Republic 841

kilometers (523 miles) and 2,310 kilometers (1440 miles) in Algeria. The French Total Oil Company and Russian Gazprom are interested in participating in the project. This is expected to cost about \$12 billion for the pipeline and \$3 billion for the gathering centres.

The benefits derivable from the project by Africa and Europe are enormous. First, it will contribute to the export diversification drive of the FGN. Secondly, it means an opportunity for closer cooperation, integration and a significant income for the transit countries such as Niger, Burkina Faso and Mali as well as Algeria. Thirdly, it will remedy the European Union gas shortfall estimated at about 18-25billion cubic metres.

9. INVESTMENT OPPORTUNITIES FOR GAS IN NIGERIA

Nigeria domestic gas utilization opportunities are tremendous; some of the demand centres are in the areas of power generation, cement industry, fertilizer, iron and steel plants. Others are petrochemical, aluminium smelting and distribution to industrial centres as source of energy supply. Until last week before its hand over to core investors for management, the erstwhile Power Holding Company of Nigeria (PHCN)

accounted for about 70% of the gas consumed domestically. The Company operates power generating gas plants at Afam, Ughelli, Sapele and Egbin. The combined daily requirements of these plants at peak is about 1500mmcfpd. Government is encouraging Joint Ventures and multinational oil companies operating in Nigeria are encouraged to embark on Independent Power Plant [IPP] Projects as part of the power sector reforms.

Gas is a major feedstock of the petrochemical industry and the gas demand for this industry is put at approximately 60 mm cfpd. The demand results from gas use by the petrochemical plants. The demand therefore increases in direct proportion to production output. The gas demand projection in this sector assumes that all facilities in the sector are operating. The projection also takes into account the anticipated local demand for finished petroleum products, and assumes that new petrochemical plants would be built in 2015. With the increased capacity, gas demand in the oil petrochemical sector could reach almost 80 mm cfpd by 2015 and 100 mm cfpd by 2020.

Nigeria has only one aluminium smelter plant -- the Aluminium Smelter Company of Nigeria (ALSCON) -- with a capacity of 200,000 tpy. ALSCON, which was built in the mid-1990s, operated briefly, and reached a capacity of about 22 % before it became idle in mid-1999. No new aluminium plant capacity additions are foreseen, but if re-activated, gas demand at ALSCON is projected to surpass 140 mm cfpd as projection in 2011.

In addition, opportunity exist for the development of gas supply to residential consumers and small industrial estates, however we recognise that the cost of infrastructure can be typically high. The GMP seeks to address this and ensure that the strategy in place is such that the back bone infrastructure together with the infrastructure necessary to jump start the market is available. Currently Gaslink and Shell Nigeria Gas already operate in this market.

Nigeria has the potential for a large market for LPG. At present, the domestic market could be a viable outlet for LPG. Nigeria imports about 20,000 tons of LPG out of a total estimated market demand of 200,000 tons per year (tpy). The total current average domestic gas demand in

Nigeria is estimated at about 600 mm cubic feet per day (cfpd). Average domestic gas consumption from a recent study, has the potential to increase to 1,900 mm cfpd by 2015 and ultimately to over 4,800 mm cfpd by 2020. There is therefore a considerable growth potential for domestic Nigerian LPG to displace other fuels used for cooking, if the local distribution logistics can be resolved.

A comprehensive gas infrastructure development programme is projected to attract an industry wide investment outlay of over \$16 billion within the next four years. Opportunities for investments exist in the areas of Financial Services, Gas Transmission Pipelines, Pipe Milling and Fabrication Yards, Upstream Gas Development, LNG and LPG Plants and Gas Processing Facility/Gas Based Manufacturing Industries.

Government has thrown open the investment opportunities in the areas of Free Trade Zone Infrastructure, Port Infrastructure and Real Estate Development which the proposed Ogidingbe Gas based Industrial Park is offering. The Park which is designed to emerge as Africa's largest Gas city, ultimately aims to create the largest gas industrial park in Sub-Saharan Africa with Fertilizer, Methanol and Power projects.

10. PETROLEUM INDUSTRY BILL (PIB)

The PIB which is a comprehensive piece of legislation that is intended to turn around the oil and gas industry in Nigeria, has been approved by the FGN and currently awaiting passage into Law. In order to ensure enduring transparency and accountability, the current Administration in Nigeria redrafted the PIB to ensure that it meets the aspirations of all stakeholders, given the realities and future expectations in the global energy market. The FGN is also pursuing its stated objectives of reducing gas flaring, through the encouragement of accelerated gas development projects. Uncommitted gas flare points have been identified and arrangements concluded to take ‘gas at flare’ and give it to indigenous, third party companies that are willing to invest in gas monetization.

11. ISSUES/CHALLENGES IN THE GAS SUB-SECTOR

Although there is a robust portfolio of gas investment opportunities to underpin the objectives of the GMP, there are the issues of sustaining this portfolio with available and affordable supply. Also, the current structure of the Nigerian gas sector is not robust enough to cope with the sudden increase in demand for the following reasons:

- i. **Oligopolistic structure of the Gas market-** Nigerian gas market is controlled by few major players;
- ii. Vertical integration is another key feature of the gas market- Essential facilities such as gas plants and pipelines are controlled by the largest incumbents. Government owned NNPC/NGC control the downstream sector and Shell operated Joint Venture controlled the upstream sector of the gas market.
- iii. **Huge sunk costs and several long term Gas Supply Agreements**
 - Because of the huge capital required to develop gas, long term supply agreements with payment guarantees are required to ensure sustainable supply;
 - Bankable commercial agreement is key to the development of domestic market
- iv. **Barriers to entry into the Gas Market in Nigeria**
 - There is no third party access rules currently in place
 - Some players do not have access to the gas market
- v. **Gas Agreements -**
 - Significant portion of currently supplied domestic gas not backed by a standard Gas Supply Price Agreement (GSPA); and
 - As investment deepens in the sector, bankable GSPAs are required.

vi. **Outstanding Debt**

- IOCs/NNPC are owed over N10 billion by the domestic market (largely by the defunct PHCN) from supplies made historically over the last few years.

vii. Other commercial issues such as lack of world class agreements, unpaid debts contribute to making the domestic gas market a less attractive market for investors.

viii. **Revenue Securitization**

- History of non-payment for gas in domestic market - mainly from the Government Parastatals such as PHCN, ALSCON*, DSC* etc. This has created a drag in IOC's willingness to invest heavily in supply unless adequate interventions on revenue security are provided.

ix. **Bankable Agreements**

- In view of the size of capital investments required to supply, gas agreements are critical and need to be enforceable;
- The current domestic market is not matured and agreements need to be improved upon to enable investor confidence;
- The power sector, re-structuring has created lack of clarity on who the counterparties to an agreement are; and
- Other challenges mitigating against sustained supply growth are lack of confidence in the ability of buyers to pay and the perceived weakness of GSPA's in terms of the protection they offer the supplier.

12. RECENT/PROPOSED INTERVENTIONS IN THE NIGERIAN GAS INFRASTRUCTURE

- (i) FGN has unveiled US\$ 450m (N70.2 b) to radically improve the gas infrastructure and electricity transmission across the country;
- (ii) Improvement of electricity infrastructure through funding totaling US\$1.47bn from The WB US\$800m, French Dev. Bank US\$170m and US\$500m Chinese EXIM Bank;
- (iii) US\$1billion had been spent in the past 1 year in almost 1000km of gas pipeline development to significantly improve Gas infrastructure, gas supply growth and stimulation of gas industrialization, the most expensive in the past 30 years. It is aimed at developing the sector, the create job opportunities and make Nigeria the regional hub for gas based industries;
- (iv) Implementation of the GMP to attract over US\$30billion in gas infrastructure investment is on course and FGN is working with all stakeholders in the sector and IOCs to increase gas supply to Independent Power Plants (IPPs); and
- (v) As part of delivering on the GMP, FGN plans to spend about US\$5 within the next three years on the backbone pipeline network project (some already on going) which include the expansion of the Escravos-Lagos Pipeline system, the link between the East and West i.e. Obiobi/Oben pipeline and the QIT/Obigbo, Obi 3, Ajaokuta, Kano pipelines. This will not only serve as the country's gateway to efficient and sustainable domestic gas supply, but will also form the primary foundation for the planned Trans Sahara Gas pipeline Project. On completion and delivery of projects from 2015, the country would be delivering on five bcf/d of gas against the current less than two bcf/d. With the network in place, Nigeria will be in a position to ensure that gas from everywhere can get to the major market because there will be

full connectivity from Exxonmobil to Lagos and to the North and vice-versa.

13. PROSPECTS AND OPPORTUNITIES FOR INTERNATIONAL INVESTORS

The prospects and opportunities for international investors in the gas sub-sector are bright given Nigeria's huge proven gas reserve of 187 tcf, the unexplored 600 tcf and the very attractive returns on investment. Nigeria's ratings by the International rating Agencies, have improved, as against the downgrade of many other developed and emerging economies, in the recent past. Currently, the country is rated Fitch: BB-Stable, up from previous BB-negative by Fitch; BB-Stable, up from previous B+ by Standards and Moody's: and Ba3 Stable by Moody's. These ratings are expected to remain good in the near and medium-term. The implication of Nigeria's robust GDP growth rate of 7-8% envisaged in the medium-term for 2013 and the improved ratings, is that the climate is fast becoming conducive and attractive for investment in gas infrastructure in Nigeria. The FDI inflow of US\$8.9 billion to the country in 2012, the largest in Africa, is a testament to this. Government is committed to sustained implementation of the Gas Master Plan in collaboration with the Private sector, including foreign investors who expected to play a key role in Nigeria's future development.

14. CONCLUSION/RECOMMENDATION

The challenges in the gas sector appear daunting, but the fundamentals are bright for Nigerian Gas. The time left for Nigeria to make something tangible from her gas resources and to benefit the Gulf of Guinea is here. Investors, policy makers and oil and gas industry operators present are encouraged to make committed decision for investment in the Nigerian gas sub-sector given the array of opportunities enumerated above.

The largest obligation rests with the government. A robust and thriving gas sector is contingent upon good legal framework that will clearly specify the rules of engagement. The law will necessarily provide good legal framework that will encourage investment in the gas sector. The gas sector will only thrive under an effective regulatory structure. These are the necessary conditions that would ensure private sector commitment in the gas sector. In this regard, the FGN is poised to ensuring necessary legal coverage for investors.

The gas revolution, has highlighted massive funding gap which the private sector should latch on for participation, as the Government is incapable of providing the required funding within the targeted programme time frame. The Private sector participation is even more compelling given

the GMP estimates that at least \$150 billion is required in new investments across the upstream, midstream and downstream gas sector over the next four years.

There could not have been any better fora to present our story better other than at this Conference of experts on oil and gas.

Thank you for your attention.

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