

Regulatory Issues in the Downstream Gas Sector and Emerging Electricity Supply Industry in Nigeria

By Tade Oyewunmi*

Introduction

Securing a reliable, affordable and sustainable energy access and supply in resource-rich countries like Nigeria is essential to economic growth. Generally, such energy access and supply, especially with regards to natural gas or gas utilisation in electricity markets, requires substantial ex ante investments that also requires definite levels of regulatory certainty and efficiency.¹ Furthermore, sound economic wisdom suggests that when government run vertically-integrated utility industries are being transformed into privatised and liberalised sectors (as the Nigerian petroleum and electricity industries has been witnessing over the last 13 years) there are certain variables required for ensuring short, medium and long-term efficiency. These variables include regulatory responsiveness and certainty, an apolitical and independent regulator, a cost-reflective pricing framework, competition and consumer protection.²

While the progress made thus far in the privatisation and liberalisation of the Nigerian electricity supply industry (the “NESI”) as conceived under the National Electric Power Policy (NEPP), 2001 and the Electric Power Sector Reform Act (EPSRA), 2005 is commendable,³ there remains a number of lingering questions bordering on the implications of delays in consolidating the needed reforms in the downstream gas market and overall domestic energy production and supply in the NESI. This paper seeks to briefly examine the implications of the protracted reforms of the Nigerian petroleum industry (especially the domestic or downstream gas sector) to the expected improvements in overall energy access and supply in Nigeria.

Reforming the NESI and Downstream Gas Sector

As of 2012, Nigeria is reported to have the largest proven gas reserves in Africa and the 9th largest in the world, with over 182 trillion cubic feet (Tcf) of proven gas reserves.⁴ However, Nigeria’s gas production and consumption rates fall far short of its potential (even in comparison with other African countries like Algeria and Egypt).⁵ Although gas utilization is said to be the backbone of expected increases in electricity generation and supply, there remains a lingering disequilibrium between the NESI and the petroleum or downstream gas market.⁶ The following has been identified as the main factors to be considered in addressing the challenges of the downstream gas sector and the shortfalls in access and supply:

- Gas availability – balancing accessible resources in the light of growing and fluctuating demand in the domestic, regional and international markets;
- Gas affordability – international and domestic gas pricing and the varying capacity of domestic gas buyers to pay;
- Gas deliverability – Inadequate gas transportation and processing infrastructure;
- Establishing an efficient legal and regulatory framework for domestic gas supply as envisaged under the National Oil and Gas Policy (NOGP), 2004 and the Nigerian Gas Master Plan (NGMP), 2008; and
- Commerciality of supply – establishing the right commercial (legal and contractual) framework and environment to guide and secure ex ante and ex post investments in downstream gas.⁷

The Federal Government of Nigeria (FGN) recently handed over the privatised successor companies of the Power Holding Company of Nigerian (PHCN) to their respective investors. Six power-generation successor companies were established around PHCN’s erstwhile power generation assets, four of which are gas-fired thermal power producers. Furthermore, the National Integrated Power Project (NIPP)⁸ plants which are also an integral part of the projected developments in the NESI are essentially gas based generators. Power generation fuelled by gas is anticipated to grow to over 20,000 megawatts (MW) by 2020 and contribute over 75% of grid capacity.⁹

This projection, however, seems unrealistic, unless the challenges to domestic gas access and supply are effectively resolved. The multiplicity of economic and non-economic objectives without proper identification and implementation of necessary trade-offs between divergent or counter-intuitive objectives in the reform of the downstream gas industry (within the larger petroleum industry reforms) remain a major challenge. Furthermore, the institutional and regulatory failures which induced gross distortions and inefficiency in production, supply

*Tade Oyewunmi is an energy law (doctoral) researcher at the University of Eastern Finland (Joensuu, Finland) and a Senior Counsel at the law firm of Adepetun Caxton-Martins Agbor & Segun, Lagos, Nigeria. He can be reached at oyetade.oyewunmi@uef.fi or toyewunmi@acas-law.com

See footnotes at end of text.

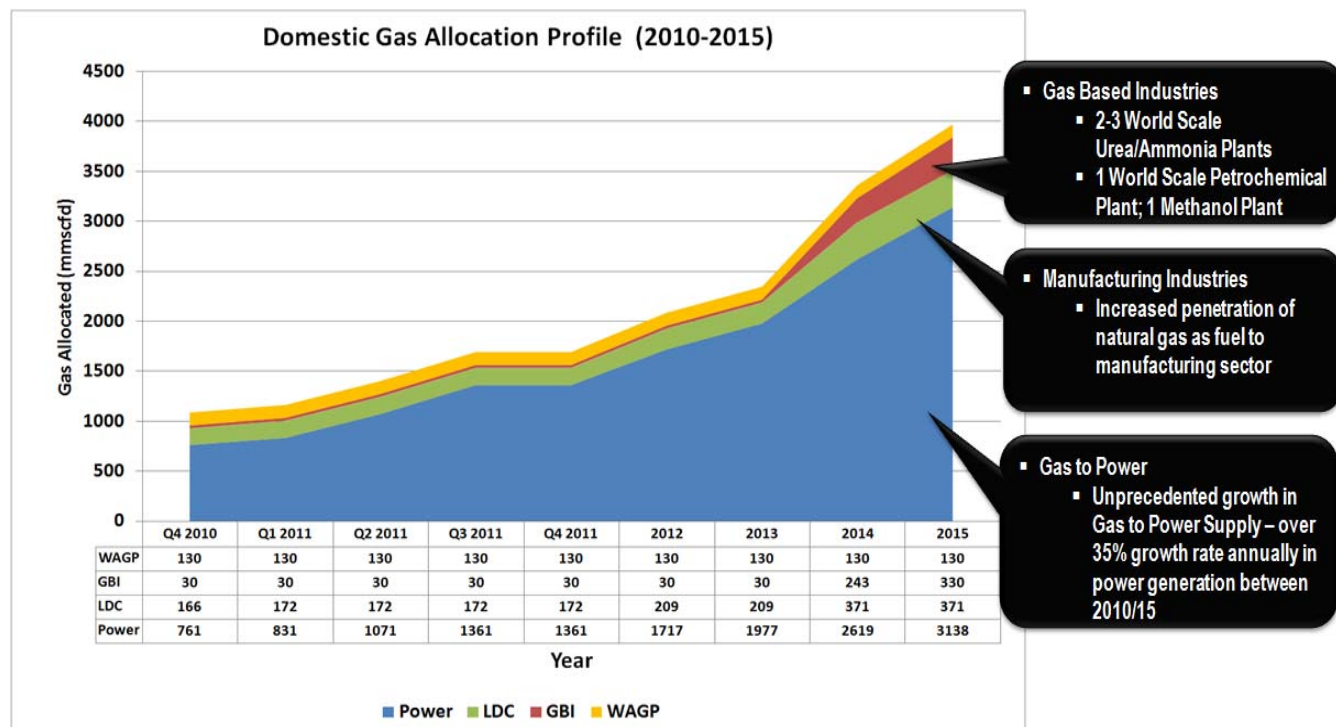


Figure 1: 2010 - 2015 Domestic Gas Utilisation Forecast ¹⁰

and investment choices, high costs of operation, low return on investment and expensive delays and cost overruns in the state energy enterprises are also a major challenge.¹¹

The FGN/PTFP recently published a revised Roadmap for Power Sector Reform (Revision 1) (the “Roadmap”).¹² The reform objectives identified in the Roadmap rightly identified the gas sector reform (through the Petroleum Industry Bill (PIB)) as an outstanding issue. It also identifies the reported challenges of: (a) insufficient fuel/gas supply or gas pipeline infrastructure to power plants; (b) increasing debts to upstream and downstream operatives in the gas-to-power chain; and (c) the unresolved inadequacies in the commerciality of gas-to-power business.¹³ The Roadmap, however, did not provide a clear signal on the consolidation of the outstanding issue of the legal and regulatory framework for the reformed and liberalised domestic gas supply sector. It should be noted that ‘plans’ or ‘roadmaps’ cannot replace or make irrelevant the prerequisite of clearly defined laws and regulations or efficient regulatory institutions created based on well-considered laws and regulations.

Regulating Downstream Gas Access and Supply

The principal legislation for oil and gas activities in Nigeria is the Petroleum Act 1969 (the “Act”). The Act was enacted primarily for crude oil operations and provides very little on gas development and utilisation. The Petroleum (Drilling and Production) Regulations 1969 made pursuant to the Act only requires an oil prospecting licensee to submit a feasibility study programme or proposal for the utilisation of associated or non-associated gas within five years of commencement of crude oil production. A need for reforms was recognized over 10 years ago and some of the initiatives taken in this regard include:

- *The National Oil and Gas Policy (NOGP) 2004*. The objectives of the NOGP includes the establishment of a comprehensive National Gas Master Plan (the “NGMP”), downstream gas sector liberalization and 3rd party access, creating appropriate gas pricing to facilitate efficiency in gas to power, maintaining a balance between domestic growth and gas export revenue earnings. The objectives included enacting a law to consolidate the plans.
- *The Downstream Gas Bill (DGB) 2005 (incorporated into the PIB 2008/2009 and now partly in PIB 2012)*. The DGB was aimed at the efficient regulation of a liberalized downstream gas sector. It was never enacted, but its key provisions can be traced to sections 230 to 256 of the PIB 2012, which was submitted to the National Assembly in July, 2012.
- *The NGMP, 2008*. The NGMP comprises: (i) the gas pricing policy, which provides a framework for establishing the minimum domestic gas price in the strategic demand sectors;¹⁴ (ii) the domestic gas supply obligation (DGSO), which obligates upstream gas producers to supply gas to

Gas to Power 2010 - 2013 Pricing Outlook

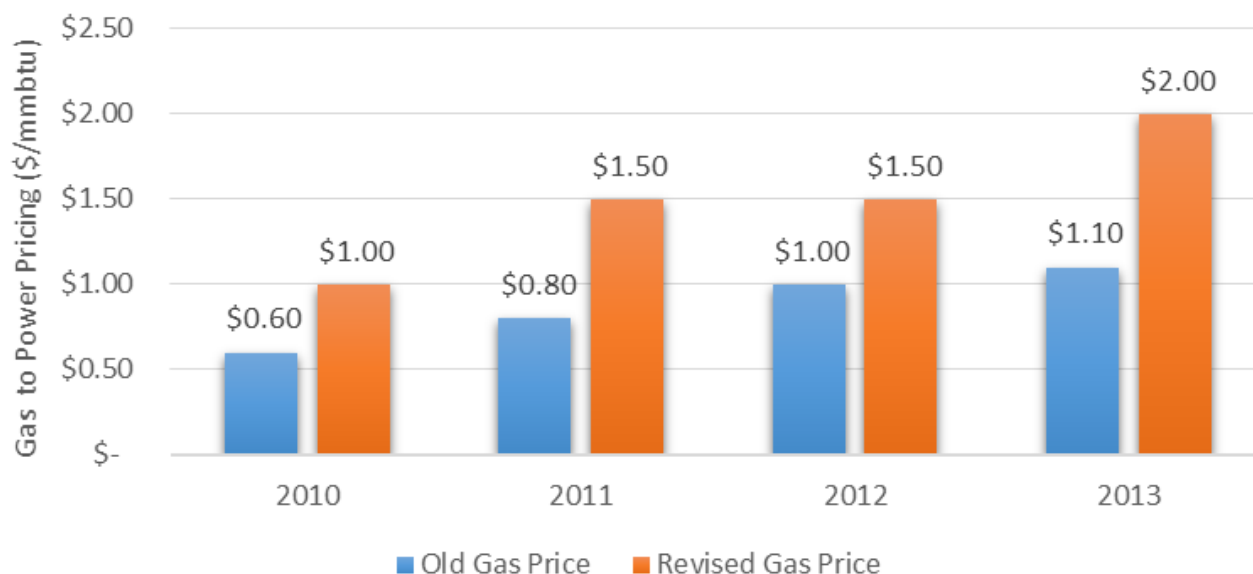


Figure 2: 2010 - 2013 Transitional Pricing Outlook for Gas to Power

the domestic gas market; and (iii) the gas supply infrastructure blueprint.

- *The National Domestic Gas Supply and Pricing Policy 2008 (the "Policy") and the National Domestic Gas Supply and Pricing Regulations 2008 (the "Regulations").*¹⁵ To some extent, the Policy and Regulations have provided a regulatory basis for recent developments in the implementation of the NGMP. The Policy focuses on the three strategic sectors of the economy as identified under the NGMP. Each demand sector has a dedicated pricing regime and current revised transitional pricing structure for gas supplied for electricity as depicted in Figure 2.¹⁶

The Regulation establishes a Department of Gas (DoG) within a "Ministry of Energy" to regulate the gas sector as provided under the NGMP and relevant policies.¹⁷ The DoG should among other things regulate and monitor gas pricing and the DGSO, and establish guidelines/code of conduct for domestic gas operators. However, the current and future legal status of the DoG is quite unclear, to the extent that there is no ministry currently called "Ministry of Energy" among other issues. The Regulations were made pursuant to the Act and the Act only recognizes a Minister of Petroleum Resources (MPR).¹⁸ Furthermore, the DoG is currently located within the Department of Petroleum Resources (DPR), which is a department under the Ministry of Petroleum Resources headed by the MPR. In addition, the DPR is famous for its own inefficiencies, legal and operational handicaps as the regulator of the Nigerian petroleum industry.

The Regulations also entrust the DoG with the responsibility of ensuring equitable and transparent access to the downstream gas transportation network.¹⁹ It, however, fails to specify any other relevant conditions or guidelines in this regard such as competition and grounds for denying new entrants access to the existing network. It is also doubtful whether a DoG working under the MPR (a political institution) can efficiently regulate a competitive and liberalized downstream gas sector, which is supposed to run primarily by commercial and contracting principles. One needs to ask if these institutional and regulatory provisions are more or less of the pre-reform framework that was deemed inefficient.

Clause 3 of the Regulations provides for the establishment of a domestic gas aggregator. This has been effected by the incorporation of the Gas Aggregation Company of Nigeria (GACN) Limited in 2010. The GACN among other things is responsible for processing requests from domestic gas buyers, managing the allocation of gas to domestic buyers, facilitating negotiations of Gas Supply and Aggregation Agreements (GSAA), and managing an escrow account on behalf of domestic gas sellers, etc.²⁰

- *The PIB 2012.* The PIB 2012 proposes the creation of the Downstream Petroleum Regulatory Agency (DPR) and the Upstream Petroleum Inspectorate (UPI) as semi-autonomous regulators. The DPR and UPI should, among other things, take over the functions, assets and liabilities of the DPR and the DoG relat-

ing to downstream gas. The DPRA will also assume the role of the current Petroleum Products Pricing and Regulatory Agency. Furthermore, the PIB 2012 also recognizes the role of the domestic gas aggregator and reflects the key provisions of the DGB, NOGP and NGMP with regards to downstream gas pricing and supply, third party access, consumer protection and competition, etc.

Current, Medium and Long Term Issues

In resolving some of the challenges of downstream gas supply to the NESI, the Roadmap recounts that an Inter-Ministerial Domestic Gas Committee (with membership from the Ministry of Power, the MPR, upstream gas companies and the GACN) was recently formed to provide necessary regulatory and supervisory oversight.²¹ While this move shows commitment at the highest level of government, it begs the question as to the inefficiencies of the current legal and regulatory framework. One solution maybe to: (i) enable the DoG to function effectively and semi-autonomously by enacting or amending existing law or regulations; or (ii) empowering the Nigerian Electricity Regulatory Commission (NERC)²² to regulate downstream gas and electricity supply by amending existing law or regulations; or (iii) enacting a well-considered PIB and implementing its proposals for the downstream gas sector.

Currently, the downstream gas supply market in Nigeria comprises mainly (i) the Nigerian Gas Company (“NGC”) Limited,²³ and (ii) upstream oil and gas producers currently in Joint Venture/Joint Operating Agreements (JV/JOA) with the Nigerian National Petroleum Corporation (NNPC). The PIB proposes the re-registration of the NGC as a public limited liability company and its becoming independent from NNPC while inheriting some of NNPC’s assets and liabilities. It also proposes the transfer of NNPC’s interests in JV/JOAs to a newly incorporated Nigerian Assets Management Company (NAMC). These proposals, among others, raises certain concerns about probable future transaction costs and commercial implications for the supply of gas to the NESI. It is noted that the NGC and GACN participated in the execution of Gas Supply and Aggregation Agreements (GSAAs) and Gas Transportation Agreements (GTAs) as part of the NESI’s reform process. Also, upstream oil and gas producers and independents continue to negotiate and execute Gas Supply and Purchase Agreements with investors in the NESI. The imminent and probable risks of whether or not the PIB will be passed as it is or a radically different set of law(s) will be passed seems to have been contained by the considerable provisions in some of these agreements with regards legal and political risk mitigation. Also, there are arrangements for the provision of World Bank Partial Risk Guarantees (PRGs) through: (i) the International Bank for Reconstruction and Development (IBRD); and (ii) the Nigeria Electricity and Gas Improvement Project (NEGIP) financed by the International Development Association (IDA). There is also the Political Risk Insurance (PRI) package offered through the Multilateral Investment Guarantee Agency (MIGA).

In April, 2013, the World Bank provided its first PRG for the sum of US\$145 million in support of a GSAA involving the PHCN, Egbin Power Plc., Chevron Nigeria Ltd, and Deutsche Bank.²⁴ The PRGs generally cover risks associated with changes in law and regulatory/tariff framework, failure to meet contractual payment obligations by the government owned entity, while the PRI covers risks such as transfer and convertibility, expropriation, war and civil disturbance, and breach of contract.

Conclusion

From all indications, the establishment of a commercially viable NESI in which access and supply of energy is reliable, affordable and sustainable in the short, medium and long term is largely dependent on the successful and effective reform and liberalization of the downstream gas sector of the Nigerian Petroleum industry. The role of a responsive and efficient regulator and an established framework based on laws and regulations (as opposed to plans and roadmaps) in this regard cannot be over-emphasized. As the scenarios unfold and stakeholders are dealing with the knotty issues and challenges, it is important to see the reforms which started about 13 years ago as a means to an end and not an end in itself. The end is the actual successful implementation of clear policy objectives and the guaranty of reliable and affordable energy access and supply to Nigerians.

Footnotes

¹ Prasad V.S.N. Tallapragada, ‘Nigeria’s Electricity Sector- Electricity and Gas Pricing Barriers’ (First Quarter 2009), International Association for Energy Economics Journal, pg. 29 – 34; The Organisation for Economic Co-operation and Development/International Energy Agency (OECD/IEA, Energy Policies of IEA Countries: the United Kingdom 2012 Review, (IEA Publications, Paris, 2012), pg. 1 – 182 at 132 – 133.

² OECD/IEA, Lessons from Liberalised Electricity Markets, (IEA Publications, Paris, 2005), p. 1 - 124; Ashley C. Brown, Jon Stern, Bernard Tenenbaum and Defne Gencer, Handbook for Evaluating Infrastructure

Regulatory Systems (The International Bank for Reconstruction and Development/The World Bank, 2006), p. 1 – 418 at pp.60–61.

³ The power sector reform process is currently in the late pre-transitional phase, following the payment by investors for respective equity and concession interests in the power generation and distribution assets erstwhile held by the Power Holding Company of Nigeria (PHCN). See the Presidential Task Force on Power (PTFP), The Roadmap for Power Sector Reform – Revision 1, August 2013, pg. 1 – 66 at 6 available at <www.nigeriapowerreform.org/content/Roadmap%20for%20Power%20Sector%20Reform%20-%20Revision%201.pdf>; see also <www.nigeriaelectricityprivatisation.com/?page_id=2>; <www.nigeriaelectricityprivatisation.com/?m=201302>

⁴ BP Statistical Review of World Energy June, 2013 at pg. 22, available at <www.bp.com/content/dam/bp/pdf/statistical-review/statistical_review_of_world_energy_2013.pdf>

⁵ Ibid at pg. 23.

⁶ Akin Iwayemi, ‘Nigeria’s Dual Energy Problems: Policy Issues and Challenges’ IAEE Energy Forum (4th Quarter, 2008), 17-21. See also the Generation Report of the Presidential Task Force on Power (PTFP) available at <http://nigeriapowerreform.org>; Premium Times, ‘Nigeria’s power generation declines to 10-month low, says presidential task force’ Published: October 21, 2013.

⁷ Engr. Abubakar L. Yar’adua (Former GMD, NNPC), ‘The Nigerian Gas Master-Plan’ a paper delivered at the Nigeria Gas Stakeholders Forum, Abuja, Nigeria, November, 26, 2007, p. 1 – 51 at 24, available at <www.pppra-nigeria.org/presentation_2.pdf> ; Engr. F.M Kupolokun (Former GMD, NNPC), ‘Nigeria and the future gas market’ a paper delivered at the Baker Institute Energy Forum, Rice University, Houston, USA on May 2, 2006, available at www.nnpcgroup.com/PublicRelations/NNPCinthenews/tabid/92/articleType/ArticleView/articleId/211/Nigeria-and-the-future-gas-market.aspx;

⁸ The NIPP was conceived in 2004 as a government funded initiative to support the NESI while the reforms took effect. It was originally designed around 7 (seven) gas-fired power stations (now 10 (ten) power stations) in the Niger Delta, it includes the transmission infrastructure needed to evacuate the added power into the national grid and the distribution infrastructure to electrify communities in which the power stations and major substations are located. The Federal Government of Nigeria incorporated the Niger Delta Power Holding Company Limited (NDPHC) as the corporate vehicle to hold the NIPP assets. The privatization of the NIPP Plants has now been slated for mid-2014.

⁹ The PTFP (n4) at p. 24.

¹⁰ Dr. David Ige, ‘Gas to Power – Status and Outlook’ paper presented at the 2011 Electric Power Investor Forum: Lagos, Dubai, London, New York, Johannesburg, p. 1 – 16, available at <http://gacn-nigeria.com/images/stories/download/PresentationGACN_gastopower.pdf>

¹¹ See Iwayemi (n7) at p. 18.

¹² Published in August, 2013.

¹³ PTFP (n4) at p. 8 and 9.

¹⁴ Adepetun Caxton-Martins Agbor & Segun (ACAS), ‘A review of the Nigerian Gas Pricing and Supply Framework’, (Oil & Gas Update, January 2009) p. 1 – 4 at 2, available at <www.acas-law.com/cipxprobe/publications/OIL%20UPDATE.pdf>

¹⁵ The Regulations were made pursuant to the Petroleum Act 1969.

¹⁶ Dr. David Ige, ‘the Gas Aggregation Company Nigeria Limited (GACN) “Strategic Aggregator” Roles and Functions In the Nigerian Domestic Gas Market, published by GACN, pg. 1 – 24 at 11, available at <<http://gacn-nigeria.com/images/stories/download/PresentationRoleofAggregatorinDomgasMarket.pdf>>

¹⁷ Clause 1, Regulations 2008.

¹⁸ The EPSRA also only talks about a Minister of Power & Steel with regards to the NESI.

¹⁹ Clause 2(g), the Regulations, 2008.

²⁰ See <<http://gacn-nigeria.com/index.php/aboutus/faqs/36-what-are-the-functions-of-the-aggregator>>

²¹ PTFP (n4) at pg. 19.

²² The NERC is the semi-autonomous entity created under the EPSRA 2005 as the regulator of the NESI.

²³ A subsidiary of the Nigerian National Petroleum Corporation (NNPC) responsible for downstream gas transmission and supply network.

²⁴ The World Bank, ‘World Bank to Help Nigeria Improve Gas Supply and Reliability, and Bring More Electricity to Nigerian Consumers’ April, 2013, available at <www.worldbank.org/en/news/press-release/2013/04/22/world-bank-to-help-nigeria-improve-gas-supply-and-reliability-and-bring-more-electricity-to-nigerian-consumers>