Trading in Nigerian Carbon Emissions: The Commercial Path to Flare Out?

One of the effects of the long and sustained years of military rule in Nigeria is the tendency for successive governments in Nigeria to enact laws dealing with matters which would ordinarily have been driven by market forces in a typical capitalist (or even mixed) economy. Also, whilst governments of other countries enact fiscal or other regulatory regimes which subtly encourage (or discourage) one form of behaviour by enhancing (or diminishing) its attractiveness, Nigerian governments tend to outrightly prohibit (or mandate) such behaviour and impose fines for non-compliance, without exploring options such, as fiscal incentives (or disincentives), to achieve their objectives. It appears to be a proven fact that outright bans and prohibitions, without fiscal or other commercially-inclined regulations, are seldom able to substantially alter undesirable commercial behaviour. Few issues emphasize this point in Nigeria more than the subject of gas flaring.

With proven reserves of up to 184 trillion cubic feet of natural gas,[1] Nigeria is reputed to have the 7th largest gas reserves in the world. Yet, the country is reportedly losing about US$2.5 billion per year through gas flaring. Natural gas has been flared in Nigeria since the start of oil production in 1956 and despite several express attempts to prohibit gas flaring (for instance, through the enactments of the Petroleum (Amendment) Decree 1973; Associated Gas Re-Injection Decree 1979; Associated Gas Re-Injection (Amendment) Decree (1985); the signing of the Associated Gas Framework Agreement 1992 and most recently, the Gas Flaring (Prohibition and Punishment) Bill 2009),[2] Nigeria is reputed to be one of the biggest flaring nations in the world, with an estimated 18.9 billion cubic meters (BCM) of gas flared per annum, accounting for up to seventeen percent (17%) of the total gas flared in the world.

The failure of the numerous attempts by government to prohibit gas flaring is a testimony to the fact that the lasting solution to the problem of gas flaring is not simply in the outright prohibition of flaring and the imposition of fines for non-compliance. Requisite commercial incentives and sweeteners are required to encourage and facilitate gas utilisation and subtly discourage gas flaring. The Clean Development Mechanism of the Kyoto Protocol to the United Nations Framework Convention on Climate Change (the "**Protocol**") is one of such sweeteners.

The Legal Framework under the Protocol

Under the Protocol, which was designed to give effect to the general prescriptions of the United Nations Framework Convention on Climate Change ("**Convention**"), countries listed in Annex I to the Protocol (mostly developed countries) committed to reducing their CO_2 and Green House Gas ("**GHG**") emission levels to at least five per cent (5%) below the 1990 levels between 2008 to 2012. To fulfil these commitments, Article 6 of the Protocol permitted the trade (i.e. the acquisition and or transfer) of emission reduction units resulting from projects, which is aimed at reducing emissions.

The Protocol specifically establishes the Clean Development Mechanism ("**CDM**") whereby parties not included in Annex I[3] can benefit from project activities resulting in Certified Emission Reductions ("**CERs**"); and parties included in Annex I can use the CERs accruing from such project activities to contribute to compliance with part of their quantified emission limitation and reduction commitments under Article 3 of the Protocol. The CDM engenders a symbiotic relationship whereby Annex I Countries looking to meet pre-determined emission reduction targets are able to finance emission reduction projects in developing countries and retain the emission reductions in respect of such projects, notwithstanding their location in the developing country. Such developing countries benefit from the finance received for such projects whilst the Annex I countries are able to meet their emission reduction targets. In order to be eligible for the CDM, a project must meet two (2) basic but critical criteria, vis **additionality** and **sustainable development**. Essentially, the project must

[1] *"Natural Gas: Repositioning the nation's strategy to meet domestic and global demands,"* by Eng. A. L. Yar'adua, former Group Managing Director of the Nigerian National Petroleum Corporation; Nigerian Gas Association Conference, 2008.
[2] Which has been passed by the Senate of the National Assembly but is yet to be passed by the House of Representatives (the Federal Government of Nigeria has a bicameral legislature).
[3] Mostly developing countries

reduce emissions which would not ordinarily have been reduced in a "business as usual" case. Also, the project must contribute to the sustainable development of the host country.

The CDM is supervised by an Executive Board which liaises with national authorities, to be designated by participating parties to the CDM.[4] The Executive Board of the CDM approves projects and issues CERs to projects which meet the requirements specified in the Protocol and any Annexes thereto, provided that the relevant national authority with respect to such projects has confirmed the eligibility of the project in writing.

The CDM in Nigeria

There is currently no existing Nigerian legislation which specifically deals with the subject of CER trading. However, in December 2004, Nigeria acceded to the Protocol[5] thereby setting the stage for the trading of CERs in Nigeria and making qualifying Nigerian emission reduction projects eligible for the issuance of CERs.[6] Also, in 2005, in line with the CDM requirements, the Nigerian government inaugurated the Presidential Implementation Committee on the Clean Development Mechanism ("**PIC-CDM**"). The PIC-CDM is currently responsible for issuing letters of approval for eligible CDM projects in Nigeria and is assisted by the Ministry of Environment, which is mainly involved at the broader policy and national level. The PIC-CDM confirms the eligibility of the project to the CDM Executive Board which thereafter, upon concluding its assessment of the project, issues a CER in respect thereof. Upon issuance, the CERs may be traded between Annex I countries and Nigeria.

Although only a few projects have been fully approved by the Executive Board of the CDM, high potentials for emission reduction still exist in Nigeria. Existing projects benefiting from the initiatives put in place by the Protocol include the Kwale oil-gas processing plant, which consists of the collection and treatment of associated gas from the OML 60 mining lease area, which gas would otherwise have been flared. The treated gas from this plant is piped to the Okpai Power Plant, which is excluded from the emission reduction project. The total emission reduction from the Kwale project is estimated to be the equivalent of 14.9 million tons CO_2 (tCO2e), with average annual emission reductions estimated at 1496 934 tCO2e.

As Nigeria is largely dependent on the exploitation of oil and gas, the petroleum industry accounts for above fifty percent (50%) of the total emissions of GHG in Nigeria (gas flaring alone accounts for an estimated equivalent of 45 million tonnes of CO_2), thereby indicating that baseline emission levels in the Nigerian petroleum industry could typically be higher than average. This provides a ripe environment for projects with emission levels that are lower (even if only slightly), than the baseline level. The Nigerian oil and gas industry is therefore ideal for emission reduction projects which could be financed through a CDM. However, despite the obvious appeal of the Nigerian industry for emission reduction projects, only a few projects appear to have been registered to date.

The apparent reluctance to set up emission reduction projects in Nigeria may not be unconnected with her underdeveloped midstream and downstream petroleum sectors (which nevertheless has a budding market for gas utilisation), and the absence of supportive legislation for such emission reduction projects. Other developing countries with competitively high emission reduction potential have robust legislation and policy to support carbon emission trading. In India for instance, the government strategy is to support emission reduction projects with concrete legal and policy frameworks including subsidies and favourable tax regimes.

[4] See Decision 3/CMP.1

[5] Nigeria had become signatory to the Convention itself in June 1992 and had ratified the Convention in August 1994.

[6] The Protocol falls within the category of international agreements which impose financial, political and social obligations on Nigeria. Therefore, by the provisions of Section 3(1)(b) of the Treaties (Making Procedures, etc.) Act, ratification of same by the Federal Government suffices to make it enforceable in Nigeria. The Protocol was ratified in March 2005.

In the absence of special legislation and policies for emission reduction projects in Nigeria and with a grossly underdeveloped midstream and downstream petroleum industry, realistic flare-out deadlines cannot be determined.[7]

Conclusion

The Nigerian National Assembly has traditionally sought to eradicate gas flaring by enacting legislation that prohibit gas flaring and imposing fines for this practice. As was stated at the beginning of this Article, bans and imposition of fines for non-compliance are, by themselves, seldom sufficient to substantially alter commercial behaviour. The mere prohibition of gas flaring will continue to leave oil companies weighing the cost of the fines as against the costs of investing in non-commercial gas utilisation projects; and oftentimes it is more commercially favourable to pay the fines than to invest in gas utilisation projects.[8] Any realistic attempt to prevent gas flaring must involve active steps to incentivise gas utilisation and development, through the development of infrastructure to increase downstream demand for gas and the implementation of schemes which reward gas utilisation, such as the CDM.

[7] The Gas Flaring (Prohibition and Punishment) Bill (2009), passed by the Senate, proposes December 2010 as the deadline for the full implementation of the prohibition of gas flaring.

[8] Theoretically, the penalties could be raised such that they are higher than the costs of investing in new projects. However, without any guarantee of reasonable returns on investments, it is doubtful that higher penalties will drive investment in gas utilisation.