8th African Energy Conference – Paris

The Role of Commercial Banks

Energy challenges in SSA differ vastly according to countries

Energy challenges in Sub Saharan Africa depend on many key factors

Very different countries: geographic location, size and population, economic growth, sovereign ratings and related country risk

Countries with fossil resources such as coal, oil and gas

Countries with hard currency export generating capacities, generally crude oil based

Countries with large populations and fast growing power needs but no hydrocarbon reserves

Energy financing challenges in SSA are linked

The above factors will translate into further financing challenges:

Investors radar, equity funds, commercial and multilateral lending

For countries with a B or less rating, with no “upstream” resources, financing resort often first to donors and multilaterals programs

For countries close or at investment grade ratings (RSA), large funding of all sources abound

Generally a demonstrated local government support will be key to underpin most long term energy finance in SSA

Energy projects in SSA are of two very different nature

Hydrocarbon energy projects in SSA can be separated in two large categories :

Hard currency generators

Upstream oil and large gas reserves portfolio eligible to LNG export schemes
May range from mid-size independent onshore developer to very large offshore programs by joint efforts of IOCs and NOCs (generally Nigeria, Angola and soon Ghana…)

Local currency consumers

Energy generation infrastructure, typically liquid fuels-, coal- or gas-fired power generation. For the latter, the projects extend to the entire upstream / mining investment and combine risks pertaining to the local country and not export performance

The drivers to secure financing are fundamentally different according to these project classes

Hydrocarbons pre-export financing based on known production are standard

Export based financing for the hard currency generator projects remains uneasy but has become closer to international standards

Competitive financing from commercial banks and other sources generally attracted by :

Good geology and appraised reserves

High class IOC or well funded independent sponsors and experienced NOC

Ring fenced and economically balanced PSAs

Liquid export markets for crude or strong LNG off-takers or markets

Pre-export financing of major crude exporting NOCs especially out of IOC operated offshore fields now enjoys cost effective liquidity despite economic crisis (Sonangol raising US$ 1.5 bn in October)

Downstream energy projects tougher to finance

The more challenging and the most interesting project category for the future of SSA own economic development is invariably the second one, including regional or domestic gas – (or coal-) fired local power projects

More complex issues to be overcome by project financiers

Upstream issues relating to reserves development
Infrastructure issues (midstream, IPPs,….)
Power regulated pricing, market pricing and energy costs issues
Creditworthiness and performance of government utilities
Supply performance for private clients
Sovereign signature, short and long term rating
PSCs, access and marketing rights specific to gas
Financing structure, availability and expected levels of returns (IRR)

Project economic soundness more important than legal structures

Eligibility to debt financing of domestic energy projects in Africa stem first from a sound economic sense of specific projects :

Any exploration risk financed by a strong equity cushion and operated by an experienced operator

Access to enough appraised reserves to cover a future gas-to-power market

Economic growth in the country and no public monopoly of power markets

Significant private industrial power demand to create long term off-take base

Long term creditworthiness of the public utility as a central customer ?

Strength of the public electric utility and government support are paramount

The issue of the strength of the public utility demonstrate that such projects are intimately linked to country rating :

Lower rating generally associated with (also stemming from ?) :

Low and inefficient production capacity in a quasi public energy monopoly

High energy production or access costs and low tariffs with no pass through provisions

Low capitalized public utility with structural loss making operations and little accounting and financial information available

Further macro-economic weaknesses may impair eligibility of project to long term finance : currency peg, public deficit, external debt to GDP, FDI level and foreign investors rights, balance of payments, FX reserves etc..

Eskom of South Africa is a strong and relevant case for energy finance

South Africa rating is investment grade (BBB+)

Eskom reports a 2009 loss of US$ 1.25 bn but warns of a US$ 10 bn funding deficit for its expansion program

Long term SA energy infrastructure capex estimated at US$ 51 bn (Rd 385 bn) up to 2013 to grow to US$ 140 bn horizon 2025 to ensure enough generating capacity to meet growing domestic power demand

Funding declared to be ensured through equity, retained earnings, international borrowings and moreover RSA government guarantees and support

Eskom's creditworthiness therefore closely aligned to the country rating

Still doubts remain about the future energy costs of the utility and its inability to pass through the cost to customers (e.g average SA tariff is US$/kwh 0.03 vs 0.08 in average OECD)

All in, despite its recent management turmoil, ESKOM is a well secure off taker for sound long term projects

Energy funding gap is such that all players are needed from equity to debt and guarantees

The World Bank estimates that US$ 42.6 bn are necessary to bring the SSA power sector to standard but US$ 29 bn is forecast as a financing gap compared with what is available

The funding response to these challenges will be brought by the concerted actions of all key players to ensure a proper balance of equity/debt/multilateral :

- Governments
- Sponsors and developers
- Private equity funds , including the equity arms of multilaterals (FMO, Proparco, IFC,…)
- Multilaterals (AFDB, World bank, ECAs, …)
- Commercial banks for all debt layers including the mezzanine part necessary to close deals while getting a larger share in the risk / reward

Private Equity Funds active in SSA

Fund	Size	Strategy
ACTIS	US$2,9bn raised end 2008 for PE investments in Africa, Asia	Promote sustainable growth of private sector. Diversified sectors, infrastructure (power) and growth cap. Included
Advanced Finance & Investment Group (AFIG)	Raising US$ 150m . CDC, UK's development finance institution among sponsors	Targeting growth companies in West Africa (with Cash flow). Senegal, Nigeria Ivo. Coast and Ghana among core target countries. IRR target 20-25 %
Aldwych International Group	Founded by ex traders investors. Sponsors include Shell Foudation, FMO (Neth. Govt) Founded 2004 . Size unknown.	Development, construction, and management of power asset backed projects, inclusing energy. Very active in Africa through all funding sources, from equity to debt.
AUREOS	Originating from Mauritius in 2001. Over US$ 1 bn raised, including US$ 250 m in 2008 for its Global African fund.	ECOWAS countries among targets. Growing midsize firms. US$ 2 to 10 m investment range, 15 to 20% IRR objective. No specific industry expertise.
Emerging Africa Infrastructure Fund (EAIF)	US$ 500 m	Mostly debt, senior and sub, mezzanine arrangements. Energy, Infrastructure and greenfield projects.
Emerging Capital Partners	US$ 1,6 bn raised todate since 2000	High growth companies … Strong focus on natural resources, power etc..

Excludes funds of multilaterals (FMO, IFC, Proparco…), funds non specifically investing in SSA but doing it as part of their investment and industrial strategy (4D)

Africa Fortesa and 4D, a showcase in Senegal of a SSA domestic energy project

4D Global Energy Capital Development Funds are invested into an integrated gas reserve-to-power markets project in Senegal

Project is carried out by Africa Fortesa Corporation, through the development of a large gas resource base, a rigs asset base and a drilling force, and a long term gas selling contractual base to serve growing local power markets

4D is a responsible and leading private equity investor in an integrated energy project very typical of a challenging economic and country environment of SSA

Because gas is domestic, cost effective relative to imported liquid fuels as power feedstock, bringing significant tax and royalty contribution to Senegal, it makes high sense and brings economic value to the country

Further to its large equity contribution to date for the upstream reserves development, 4D therefore strongly believes that the basis for additional financing by senior debt providers such as commercial banks is now ready

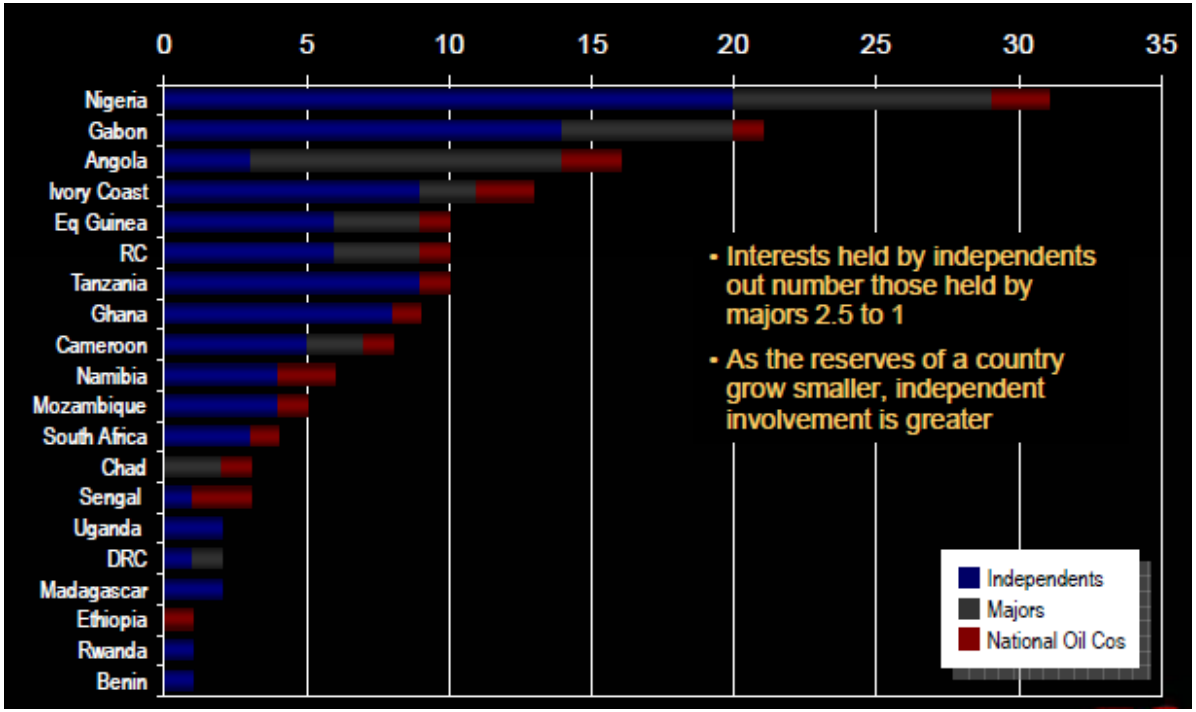
Fortesa is a strong example of an integrated energy project calling for a complete and diversified funding by all quoted sources, including multilaterals

African gas reserves will become a key contributor to energy challenges in SSA

Gas for domestic power in SSA is becoming a key subject of financing

Enormous potential of mid-sized gas fields (500 bcf to 5 tcf) as candidates for local or regional power generation and too short for LNG

New financing challenges are looming for these projects, which are often groomed by independents

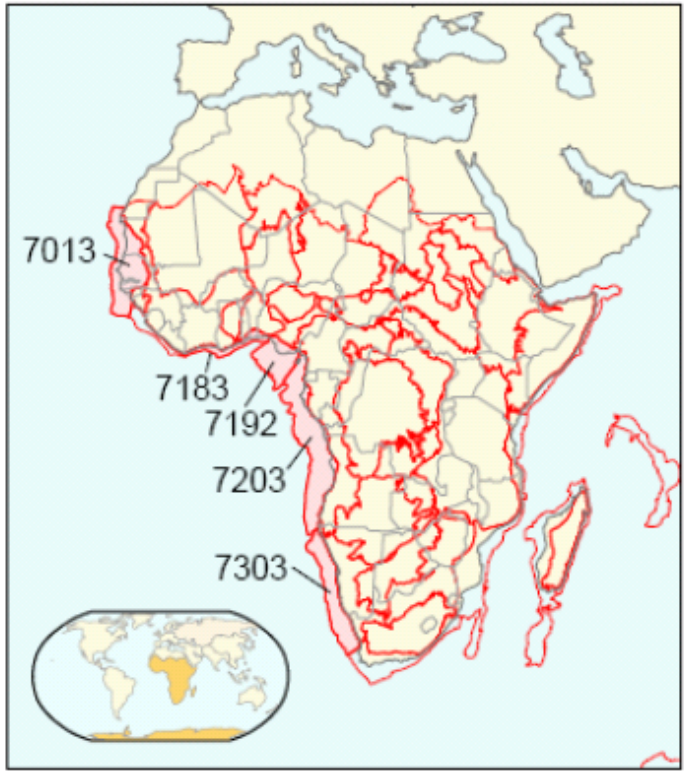


Source : Zeus Energy Consulting

In 2007, Nigeria represented 91% of the total of SSA gas reserves

SSA gas reserves are in Nigeria and other places too

Sub-Saharan Africa Oil and Gas Potential



Undiscovered Resources				
7013	Senegal	Oil[(1)]:	0.2	Bbls
		Gas:	0.9	Tcf
7183	Guld of Guinea	Oil[(1)]:	1.3	Bbls
		Gas:	10.1	Tcf
7192	Niger Delta	Oil[(1)]:	46.5	Bbls
		Gas:	132.7	Tcf
7203	West-Central	Oil[(1)]:	34.0	Bbls
		Gas:	88.0	Tcf
7303	Orange River	Oil[(1)]:	0.2	Bbls
		Gas:	3.6	Tcf
Total		**Oil[(1)]:**	**82.2**	**Bbls**
		Gas:	**235.3**	**Tcf**

Note
(1) Includes NGLs

Source: USGS

Gas development in Nigeria will keep a benchmark role in SSA

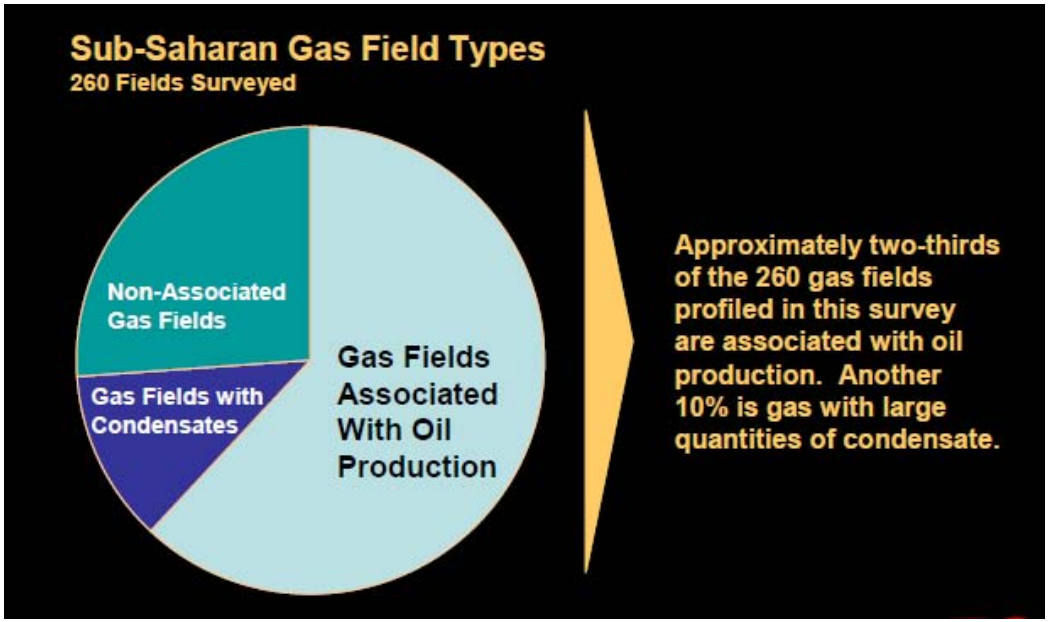
A recent survey by Zeus Energy Consulting identified 260 gas fields and 340 lease blocks , many of whom bear potential deposits of between 1 to 5 tcf

Zeus anticipates that the extent and number of SSA countries monetizing their gas will grow exponentially because

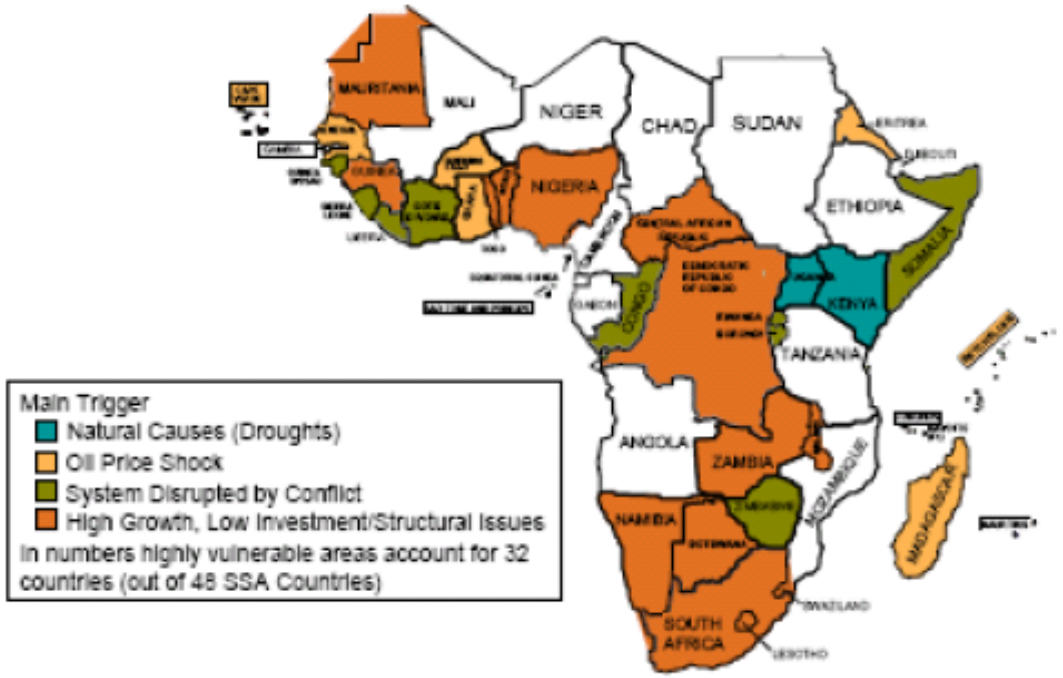
=> Challenges on associated gas in Nigeria if overcome will broaden investment

=> Many countries have more favorable terms than Nigeria

=> Independents which are more open to alliances with technology firms are more prolific outside of Nigeria, Angola and Equatorial Guinea



Areas of Ongoing or Imminent Power Shortfalls in Sub-Saharan Africa



World Bank AFTEG-AFTSN

Sources: Briceno-Garmendia (2006); Eberhard and others (2008).