2016 OLEF COMMUNIQUE

Issued at the end of the 2016 Oloibiri Lecture Series & Energy Forum (OLEF) held at the PTDF Auditorium, Abuja, Nigeria on Thursday March 3, 2016

The 2016 edition of the Society of Petroleum Engineers Nigeria Council (SPENC) Annual Oloibiri Lecture Series and Energy Forum was held on the 3rd of March 2016 at the PTDF Auditorium, FCT, Abuja.

The theme for the event was "Technological Advances in Hydrocarbon Exploration and Exploitation: Solutions to Global Oil Price Stability".

The paper presentations and panel discussion focused on highlighting the potential benefits of cost-efficient technologies deployed in the Nigerian Oil and Gas Industry in the light of the current and future oil-price shocks.

Engr. George C. Kalu, the SPENC chairman delivered the welcome address. The Speaker of the House of Representatives of the Federal Republic of Nigeria, Rt. Hon. Yakubu Dogara, represented by Hon. Agbedi Yeitiemone Frederick, (Chairman, House committee on gas resources), delivered the opening address at the event. The Honourable minister of state for Petroleum Resources and GMD, NNPC, Dr Ibe Kachikwu, conveyed the minister's address and state of the industry speech.

Engr. Ademola Adeyemi-Bero, Managing Director of First Exploration & Petroleum Development Company Limited was the lead presenter while the immediate past vice chancellor of the University of Port-Harcourt, Prof. Joseph A. Ajeinka delivered the wrap-up address.

OLEF 2016 Panelists were Dr. Maikanti K. Baru (GED E&P, NNPC), Mr. Mordecai Baba-Ladan (Director DPR, represented by Akinyosoye Oluwole - Deputy Director Planning), Mr Nolan O'Neal (Chairman/Managing Director of Mobil Producing Nigeria Unlimited, represented by Mrs. Oluseyi Afolabi - Executive Director/GM Upstream Nigeria Business Development), Mr. Bayo Ojulari (Managing Director of SNEPCo) and Mr. Emeka Ene (Chairman, Petroleum Technology Association of Nigeria, PETAN and Managing Director Oildata Energy Group).

Dr. Emmanuel Egbogah (Chairman of Emerald Energy and former presidential advisor on petroleum matters) was the moderator of the panel session.

Other dignitaries in attendance were Engr. Otis Anyaeji, FNSE, FAEng (President Nigerian Society of Engineers), Hon. Sergius Oguns (House committee on upstream Federal House of

Representatives), Mr. Clay Neff (Chairman/Managing Director, Chevron Nigeria Limited), Engr. Yemi Akinlawon (SPE Regional Director for Africa), Engr. Alex Neyin (Chairman SPE Nigeria Board of Trustees), Mr. Ahmed Aminu Galadima (Ag. Executive Secretary, Petroleum Technology Development Fund (PTDF)).

The Oil and Gas Industry was well represented by several CEOs and senior managers involved in the operations and services sector, Government bodies and indigenous companies.

Observations/Issues

So	ome of the observations/issues raised during the forum were;				
	The prevailing low oil price environment is primarily due to the situation where global oil supply is larger than the demand for crude oil.				
	The glut in global crude oil supply can be attributed to the following factors				
	o Decline in oil demand from Europe and North America				
	 Emergence of oil supplies from the US shale areas 				
	Lifting of sanctions against Iran				
	o Crisis in Syria and Libya giving rise to racketeering of both countries' crude oil				
	 Slow down in the Chinese economy 				
	It is evident that volatility of oil prices goes beyond geopolitics. Other factors, which include Non-OPEC supply growth, exchange rates & inflation, speculation, hedging, investment etc. also distort price stability.				
	Most oil producing countries took advantage of the boom times to save and develop other sectors of their economies. Unfortunately, Nigeria misplaced these opportunities.				
	Specifically, in the Nigerian oil and gas business environment, funding constraints, o theft, high operational costs, long contracting cycle and bureaucratic bottlenecks are critical challenges limiting the ability of the industry to adapt to the crash in oil prices				
	The delay in the passage of the Petroleum Industry Bill (PIB) has constrained investmen				

into the sector to the extent that exploration activities that will increase the national

reserve base are virtually nonexistent.

		nvestment into the oil industry.					
	cor	umber of operating rigs in Nigeria has been on a steady decline from 2013 to 2015 ompared to countries in the Middle East, resulting in minimal exploration and new-field evelopment activities.					
		An average UTC (Unit Technical Cost) of US\$ 20/bbl is required to be achieved and maintained in the oil and gas industry, if Nigerian oil is to remain competitive globally.					
		Prices for natural gas in the domestic market is currently more attractive compared with gas prices in international markets.					
Re	com	ımen	da	tions			
		tech and	the current low oil price regime, effective/efficient adoption and use of nology as well as collaboration between buyers, suppliers and vendors in the oil gas industry, remain key success factors for improving efficiency in operations, as and environmental protection across the industry.				
		The recent collaboration among the key OPEC nations has led to a slight rise in the global oil price. It is expected that the meeting between OPEC and Non-OPEC nations will consequently have an incremental effect on oil prices to approximately \$50/bbl by the second half of 2016. Continued engagement and leadership by Nigeria to pursue this initiative, should be encouraged.					
			he following efforts by Government to reform the oil and gas sector is supported by ne oil industry;				
		C)	30% OPEX reduction provided the emphasis is on eliminating systemic costs and not limited only to reducing cost of services.			
		C)	Development of a robust gas policy and commitment to explore and grow gas production.			
		C)	Review and subsequent passage of the PIB.			
		C)	Reduce the contracting cycle from 2 years to 6 months.			
		C)	Review of the current Production Sharing Contracts (PSC) arrangement.			
		C)	Transit to an improved JV cash call funding by end of 2016.			

o Eliminate middle men in crude oil sales.

facilities among industry players. ☐ Four (4) critical challenges identified as bottlenecks to Nigerian Oil and Gas industry growth can be addressed through the following; Sustaining low cost oil production: Achievable through the promotion of value-added local content and funding Nigerian companies using the Nigeria Content fund. O Stranded gas-to-market: Becomes realistic through encouraging the construction of modular gas plants and embedded gas-to-power projects. Sufficiency of petroleum products: Can be achieved by building of modular refineries, initiating a gas-powered transport system and establishing regional fuel supply reserves and security. Security: Can be assured by adoption of pipeline monitoring technology to drastically reduce all pipeline losses. ☐ The industry supports the following proposed NNPC restructuring program provided that it leads to increased efficiency, greater transparency and accountability; o Emergence of five (5) operational areas viz; Upstream, Midstream, Downstream, Refining and Other ventures with thirty (30) independent companies operating with a commercial mindset. • The current Group Executive Directors to be replaced with CEOs. o The CEOs and the MDs of the independent companies will be responsible and accountable in growing their respective businesses and delivering benefits to all stakeholders. Additional measures proposed to address the effect of sliding crude oil prices include; Placing more emphasis on gas commercialization, processing of gas into highvalue products for both domestic use and export. o Effective use of new technologies, rig-less operations and new crude oil

enhancement methods to increase production.

 Focus on low-cost, high-yield production, development projects and alternative funding arrangements to relieve the cash-call burden on the Federal Government. The industry notes the recent \$1.2Bn NNPC-CNL JV

o Employ effective/efficient collaboration, common standards and shared

accelerated upstream financing programme, which is intended to add an incremental 41,000 bopd and 127 MMscfd of gas over a 3 year period.

- o Incorporation of the existing Joint Ventures starting with the divested assets to allow the JVs secure funding for its growth.
- Synergies in joint development of assets and joint utilization of both crude oil and gas pipelines and terminals.

The industry requires novel, cost-effective front-end exploration technology and also efficient drilling technology that ultimately minimizes the cost of finding hydrocarbons and optimizes their rate of production.
25-30 Rigs are required yearly to achieve a sustainable oil production of 3 million bopd.
Encouraging the adoption of innovative technology such as water shut-off, short-radius horizontal side-track drilling in existing brown field assets, will ensure low-cost oil production.
A strong local refining and petrochemical industry will provide the catalyst for the country's growth in a declining oil price environment.
Open access to the pipeline infrastructure and a pipeline network code and tariff mechanism is critical for developing the natural gas market.
NNPC should negotiate fiscal terms for compensation for gas development with the different PSCs to ensure fairness and competitiveness.
Effective collaboration among industry players and between the industry and the academia in research and development was also suggested as a panacea to the current industry problems.
The oil industry can collaborate to contribute technology and process expertise in the diversification of Nigeria's economy in areas such as agriculture and manufacturing.

Conclusion

The Theme for the 2016 Oloibiri Lecture Series and Energy Forum highlights the need for the acquisition and utilisation of technology as a means for driving down development and production costs in the Oil and Gas Industry. The price shock currently witnessed in the industry can also be considered as a security concern to the nation. Crude oil is the main stay of the Nigerian economy and will remain so for some time into the future. To this end,

there is an urgent need for the present Government to develop the agricultural and mining sectors as a means of economic diversification.

Technology can be applied effectively to fast track the following;

- 1. Upstream development contract approvals
- 2. Necessary permits for exploration and exploitation
- 3. Finding and appraising new commercial reserves
- 4. Producing from challenging structures and environments
- 5. Treating/refining hydrocarbon by products and delivering to appropriate marketers/end users

Presentations during the OLEF 2016 made a compelling case for stakeholders to embrace recent technological advances. A strong case was also made for the Government to look incountry for the processing and consumption of produced hydrocarbons. Domestic gas sales are currently higher than average global gas prices. The promotion of regionally distributed modular refineries is a way forward out of current downstream products-supply inefficiency.

The Annual Lecture Series organized by SPENC to honour the Oloibiri Community, where Nigeria's first prolific oil well is situated, continues to provide a platform where Industry leaders, policy makers and other stakeholders converge to exchange ideas and offer solutions for the advancement of the industry.

SPE is an organization with over 143,000 members. Shell has been the traditional sponsor of OLEF. This year, the Petroleum Training Development Fund (PTDF) partnered with SPENC to provide the venue and facilities for the Lecture Series. The organization has pledged to continue this collaboration with SPENC to support the OLEF in future lecture series. For this commitment, SPENC is deeply grateful.

We are also grateful for the support of other sponsors of OLEF 2016 – NAPIMS, SPDC and Arkad Oil and Gas.

God bless the Federal Republic of Nigeria.

Almeto set

Engr. George C. Kalu KSM

Chairman, SPE Nigeria Council