

NAEE/IAEE 2018 Conference Review

The new era in the global energy landscape has implications on emerging energy economies because of changes in technology, economics and public policy. These changes have turned major energy importers to exporters; unconventional energy sources becoming conventional and made renewable energy components of the global energy supply mix, significant. These changes portend great consequences, and perhaps, opportunities for emerging economies, like Nigeria, transiting to optimal energy and economic growth for sustainable economic development goals. It is, however, still worrisome that Nigeria is yet to achieve a quantum energy leap to achieve sustainable economic development despite several decades of significant quantum of petroleum revenue that comes with huge hydrocarbon production.

Against this backdrop, the 11th NAEE/IAEE International Conference, held in Abuja on April 22-24, 2018, provided a platform for energy professionals and stakeholders in the private sector, academia and government agencies/institutions to crossbreed ideas and information on the “Dawn of a New Era in the Global Energy Landscape: Implications for an Emerging Economy”. 250 participants attended the opening ceremony at the Petroleum Technology Development Fund (PTDF) Conference Center. Engr. Funsho Kupolokun, former GMD of Nigerian National Petroleum Corporation chaired the conference and the Executive Secretary of PTDF, Dr. Bello Aliyu Gusau was the Chief Host. The IAEE President, David Knapp



Wumi Iledare, NAEE President, Delivers the Welcome Address

and Dave Williams, IAEE Executive Director attended the conference as Special Guests of Honor. Over 60 technical papers were presented on several sub themes of the conference theme. Three plenary sessions

offered opportunities for energy experts to discuss issues relating to the conference theme, and to offer strategies for achieving Nigeria’s economic growth and development, in the face of changing global energy landscape.

Prominent amongst the issues raised at the various plenary sessions were concerns about the four petroleum industry reform bills; failures of the power sector as well as the potentials for utilizing Nigeria’s various energy resources in a sustainable manner. The oil and gas industry was recognized still, as potentially the major driver of Nigeria’s



David Knapp Delivers the Opening Remarks at NAEE 2018

quest for achieving increased economic growth in the new energy era.

Regarding the Oil Sector

Nigeria economy exhibits some resource curse syndrome, such as a stagnant industrialization, very low contribution of the sector to national economy in terms of GDP (currently 10% of GDP). In spite of its low contribution to GDP, the nation has relied heavily on revenue from petroleum for budget allocations, constituting 90% of foreign exchange earnings; 80% of government revenue; and 60% of government tax receipts. This situation culminates in an unbalanced economy.

It was widely acknowledged by stakeholders at the NAEE conference that this situation resulted from a poor institutional and energy sector governance framework, inadequate technical skills to manage the sector, and lack of transparency and accountability in the sector. These issues, in addition to uncertainty in the fiscal framework for the industry, have jeopardized investors’ confidence in the sector.

Against this background, the new

Petroleum Industry Governance Bill (PIGB) is viewed, despite perhaps its imperfections, to provide a shift in paradigm from oil revenue dependence to reliance on hydrocarbon as an input for powering Nigeria's economy. Some of the underpinnings of the new bill, which is awaiting the assent of the president to become an Act include:

- A transition to value creation rather than dependence on oil and gas sales for revenue collection.
- Building governance and institutional structures for efficient management of the sector with clearly define roles.
- Single point authority for revenue collection/management and avoidance of economic populism.
- Enhancement of the role of the market system in creating economic efficiency in the sector.
- Revenue and resource diversification for sustainable economic development.
- Removal of discretionary award of natural resource assets, which for years have constituted barrier to entry in the domestic oil and gas sector.

Regarding the Natural Gas Sector

Globally, natural gas production and consumption have been rising, especially for power generation. This improvement is in accordance with its relatively cleaner and low carbon emission characteristics. Hence, it's increasing deployment as a transition fuel.

Nigeria's demand for natural gas for domestic and export purposes is also rising. Unfortunately, the lack of requisite fiscal policies and infrastructure to maximally exploit its huge natural gas resources remain a great hindrance.

Some of the highlighted challenges limiting gas sector development for economic expansion include:

- Lack of or inadequate fiscal and regulatory framework for the gas sector, thus hindering access to finance for natural gas projects.
- Lack of requisite infrastructure for gathering and processing, as well as transportation of gas.
- The issue of incessant pipeline vandalism and barrier to entry in gas mid-stream and downstream.
- Lack of legal framework for natural gas contracts and poor pricing of the resource. These are disincentives to investors in natural gas infrastructure development.

In spite of these challenges, with

governments' renewed interest and focus at developing the gas sector through designing separate fiscal policy for natural gas development and the 7-Big wins, the prospect for natural gas development is bright as reviewed at the NAAE/IAEE conference. The 2017 gas sector policy is integrated in its approach and aimed at incentivizing natural gas development and utilization. The policy resolves a number of pertinent gas development issues, as follows:

- Natural gas fiscal terms are disentangled from those of oil to encourage investment in the natural gas sector.
- Enhancement of natural gas utilization using available technologies, as opposed to continued flaring. This will serve as a temporary bridge to the future, especially against the backdrop of inadequate infrastructure.
- Encouraging new participation in the gas sector by creating opportunities for deployment of mini/micro gas capture and extraction technologies instead of venting natural gas.
- Addressing environmental inequality resulting from gas flaring in the Niger Delta, as well as saving the ecosystem within the region.

In addition, the policy provides stringent measures against gas flaring as well as a criterion that those bidding for petroleum projects in the country must have a comprehensive solution to the gas flare problem. These measures will dis-incentivize operators from natural gas value destruction and the consequent environmental damage.

Regarding the Power Sector

There is a consensus among stakeholders at the conference, the strong nexus between energy consumption and economic growth. In spite of the abundant energy resources in Nigeria, GDP is negatively impacted by inadequate electricity supply. For decades, Nigeria's power generation and distribution have barely grown beyond 4.5GW. This is abysmal, for a nation with about 36 Billion barrels of proved crude oil reserve, over 180TCF of natural gas reserves and a population of nearly 200 million people.

Although the government has made efforts to reform the sector, a larger population of the inhabitants still suffers from electricity insecurity. The main causes of failure to implement the electricity sector reforms hinge on the political economy and legal framework and not technology; which in part, arose from the benefits and costs to the

vendors of imported generators, and disco owners' desires to protect and defend their advantages; the degree of ineffectiveness and inefficiency of the regulatory agencies in dealing with the challenges resulting from unbundling the sector and the competition issues therefrom, as well as poor mix of technology.

Regarding Renewable Energy

Renewable energy adoption and utilization in electricity generation have received increasing attention worldwide. This results from increasing interest in environmental sustainability and carbon emissions reduction from energy consumption. Interestingly, Nigeria has huge renewable energy resources. However, they are underdeveloped and underemployed in the electricity sector, partly because of overdependence on petroleum, and inadequate policy and institutional frameworks for adoption and integration of renewables in the energy mix. However, with government's renewed interest in diversifying the energy supply mix, renewables are expected to become a major source of electricity generation, especially for off-grid utilization.

2018 NAAE Stakeholders' Recommendations

The conference x-rayed some of the challenges militating against the Nigerian energy sector, and the prospects for the country, especially in the face of changing global energy landscape. The following are recommendations to energize Nigeria's path in the new energy era:

- There is need to recognize that natural resources exist not as an entitlement for creating economic and environmental damages; hence, Nigeria must manage her petroleum assets transparently and equitably, for energizing the economy through value creation rather than a primary source of revenue.
- The need for strategic investment in refineries for increased production of petroleum products domestically, rather than continued importation, which is unsustainable, as it is prone to price volatility in the international commodities markets as well as geopolitical issues.
- Government must take steps to end

subsidy in the petroleum sector as it has constituted a distortion in the market, as well as a disincentive for investment in the sector.

- Government could re-invest the money meant for subsidy payment into renewable energy and gas infrastructure development projects.
- Government should deploy the right of pre-emption to ensure processing of hydrocarbons in Nigeria, by amending Section 6 of the Petroleum Act.
- There is a need to minimize the footprint of bureaucracy which has been a major cause of the rising cost of oil and gas production in Nigeria.
- Going forward, government institutions must be governed by laws rather than by individuals.
- Government must allow markets and economic efficiency to drive our economic growth and development.
- The bane of Nigeria's poor performance has been lack of long-term strategic plans, thus, there is need for restoration of development plans (long-term economic planning), with macro-economic indices designed to measure and assess performance; rather than the short-termism practiced today. Such long-term strategic plans and the various components of the Petroleum Industry Reform Bills must align with national economic aspirations, promote growth and development in the petroleum and energy sectors, create a conducive business environment, and less bureaucracy for greater ease of doing business.
- Right mix of monetary policies should underpin all efforts toward delivering the country in the new energy era.
- Our reforms must be hinged on market-based solutions. This will improve the business environment as well as investors' confidence.
- In the quest to advancing Nigeria's energy course, effort must be geared towards safeguarding health, safety and the environment.

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