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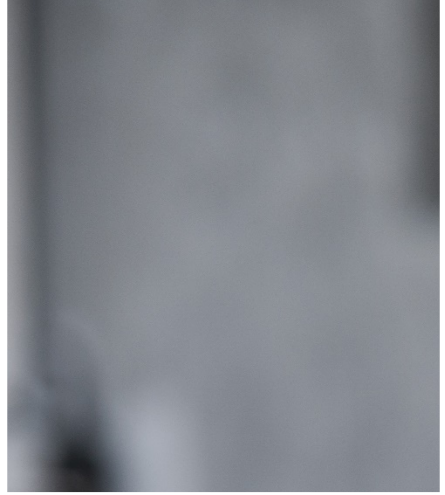
RESILIENCE AND STRENGTH

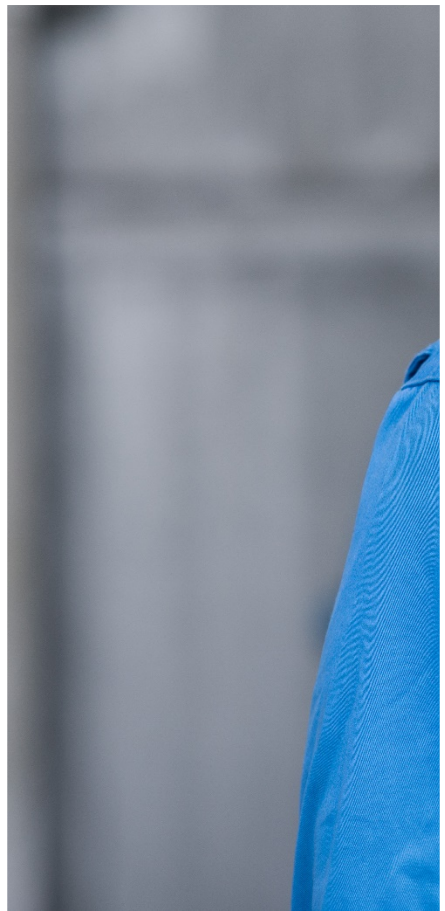
Theme:
Nigeria's Decade of Gas – The Industry Leadership Outlook

Topic:
Gas – Enabler for Industrialization in Nigeria

SEPLAT PETROLEUM DEVELOPMENT COMPANY PLC | February 2021

www.seplatpetroleum.com





OUTLINE

1. POTENTIAL OF NATURAL GAS IN NIGERIAN INDUSTRIAL GROWTH
2. THE EVOLUTION OF NATURAL GAS IN NIGERIA
3. GAS UTILIZATION AND CURRENT REALITIES IN NIGERIA
4. GAS: A CATALYST TO NIGERIA'S INDUSTRIALIZATION AND POWER GENERATION
5. CHALLENGES AND DRIVERS TO THE DEVELOPMENT OF NATURAL GAS
6. THE SEPLAT STORY – STRATEGIC POSITIONING IN GAS

POTENTIAL OF NATURAL GAS IN NIGERIAN INDUSTRIAL GROWTH

› Nigerian Economy (Q3, 2020 NBS)

8.73%

GDP of Oil Sector (Q3, 2020 NBS)
from oil & gas sector

91.27%

GDP of Non-Oil Sector (Q3, 2020 NBS)
from Information & Communication, Agriculture, Construction, Finance & Insurance, Public Administration

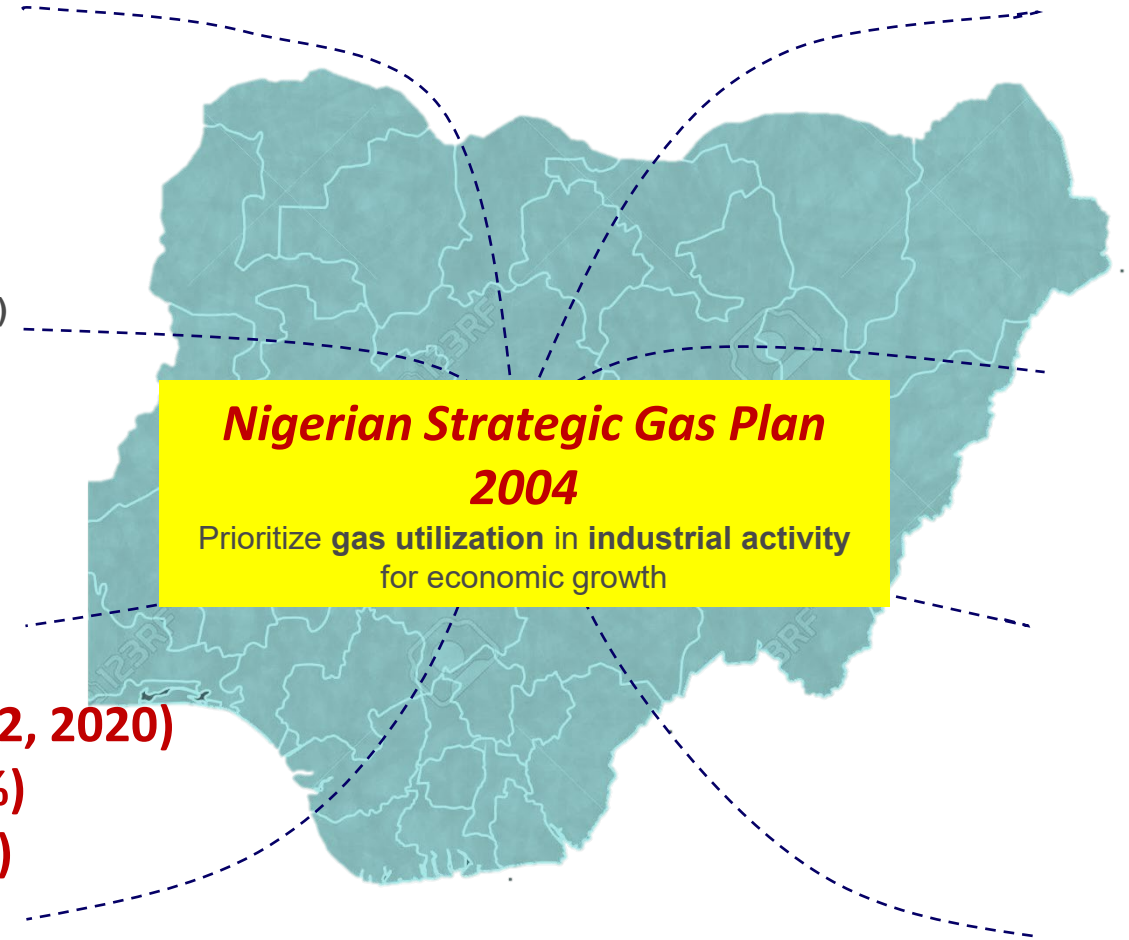
N17.82T

Real GDP

Contribution to Real GDP (Q2, 2020)

1. **Agriculture (21.96%)**
2. **Industries (23.65%)**
3. **Services (54.39%)**

Industries Sector comprises of: Power (Electricity), Gas, Steam, & Airconditioning Supply + Waste Supply, Sewage, Waste Management & Remediation + Construction + Mining & Quarrying + Manufacturing



Nigerian Strategic Gas Plan 2004

Prioritize **gas utilization** in **industrial activity** for economic growth

› Natural Gas Resource

203.2Tcf

Gas Reserves as @ 2019
only about 25% are being produced or under development with 75% Untapped

7.9Bcfd

Estimated daily gas production
41% is exported, 14% to domestic market & 11% flared

1.6Tcf

Estimated year production
with 127 years to exhaust current gas reserve

25.24%

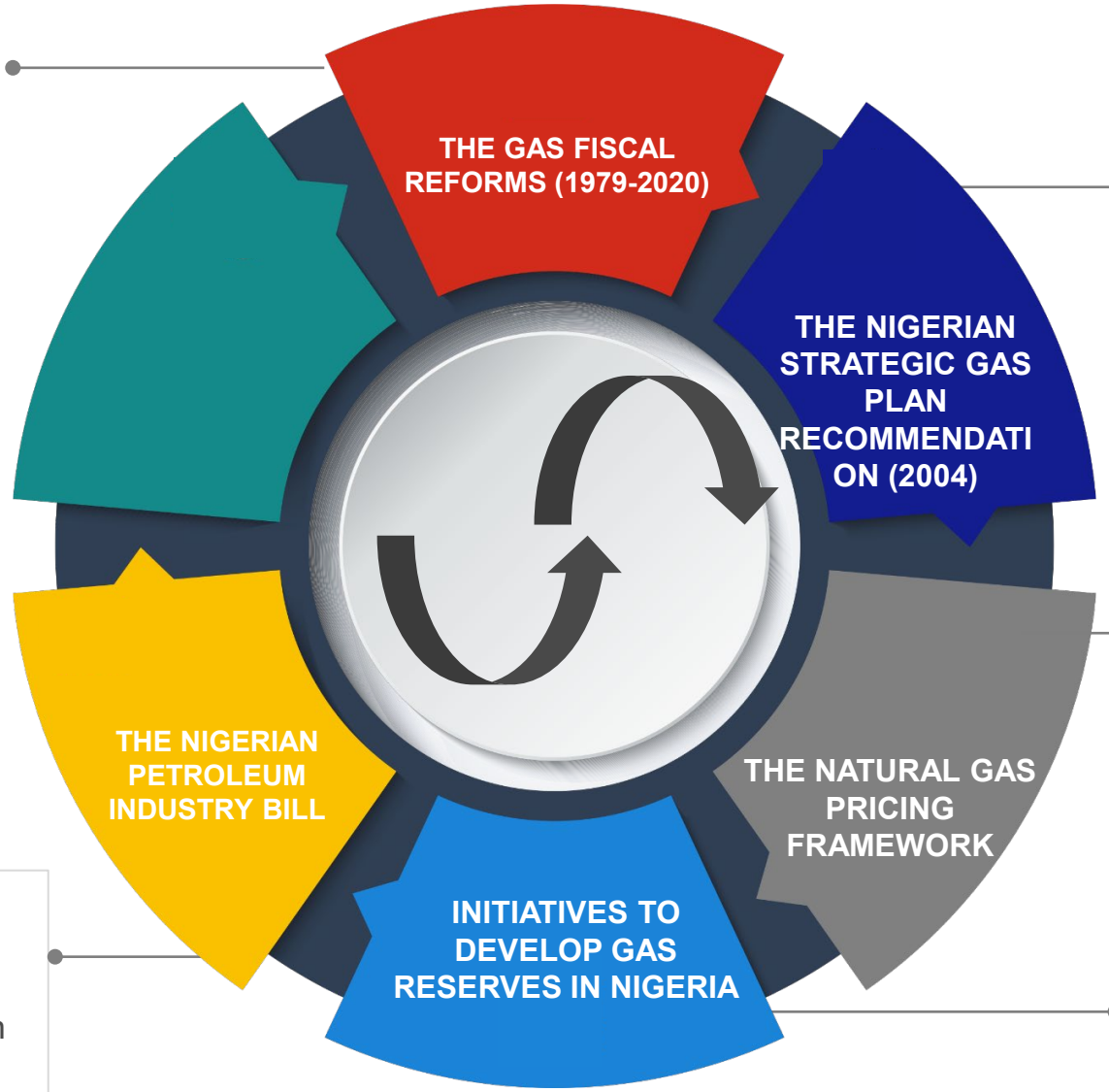
Of the Global Energy Mix
Growing faster than other fossil fuels, thus representing the new green deal for energy transition in Nigeria

Natural Gas is the Energy Transition Fuel to Drive the "Gas Utilization" plan towards Sustainable Industrial Growth in Nigeria

Sources: STATISTA. DPR 2020, NNPC 2019; FIRS 2019;Shell 2019; NEITI 2020; KPMG 2019

THE EVOLUTION OF NATURAL GAS IN NIGERIA

- Associated Gas Reinjection Act (1979, 1984, 1985, 2004)
- Associated Gas Framework Agreement (AGFA), 1991, 1992.
- The Nigerian LNG Fiscal Incentives, Guarantees and Assurance (1990)
- Gas Finance (Misc. Taxation Provisions) Acts (1998, 1999)
- National Domestic Gas Supply & Pricing Regulations (2008)
- The Gas Master Plan (2008)
- The National Gas Policy (2017)
- Flare Gas Prevention of Waste & Pollution Regulations (2018)
- Nigeria Gas Flare Commercialization Program (2018)



- Initiate the rebirth of gas fired power sector with domestic backbone infrastructure.
- The West African Gas Pipeline (WAGP).
- An Enhanced GTL Project (Escravos GTL).
- The Nigeria to Algeria Pipeline (Trans Sahara).

- National Domestic Gas Supply & Pricing Regulations.
- Regulated Price Regime (gas to domestic power).
- Pseudo-Regulated Price Regime (gas to industry).
- Market Led Regime (gas to commercial).

- Over 1 BSCFD of gas supplied to domestic market (for power generation and industry)
- Seven critical projects to bridge gas supply gap and generate 15GW
- Distribution Infrastructure (Escravos-Lagos pipeline expansion; Escravos GTL; Abuja-Kaduna-Kano pipeline; OB3-East West Interconnector)
- Fertilizer Projects (Indorama and Dangote fertilizer plants)

- Create and enabling environment for effective and efficient resource management.
- Create a robust gas commercialization framework to support oil, and gas development.

The Gas Sector has demonstrated significant strides over the decades

Sources: PWC Oil and Gas trends 2019; PwC, 2020; Bracewell, 2016

THE GAS UTILIZATION PICTURE IN NIGERIA

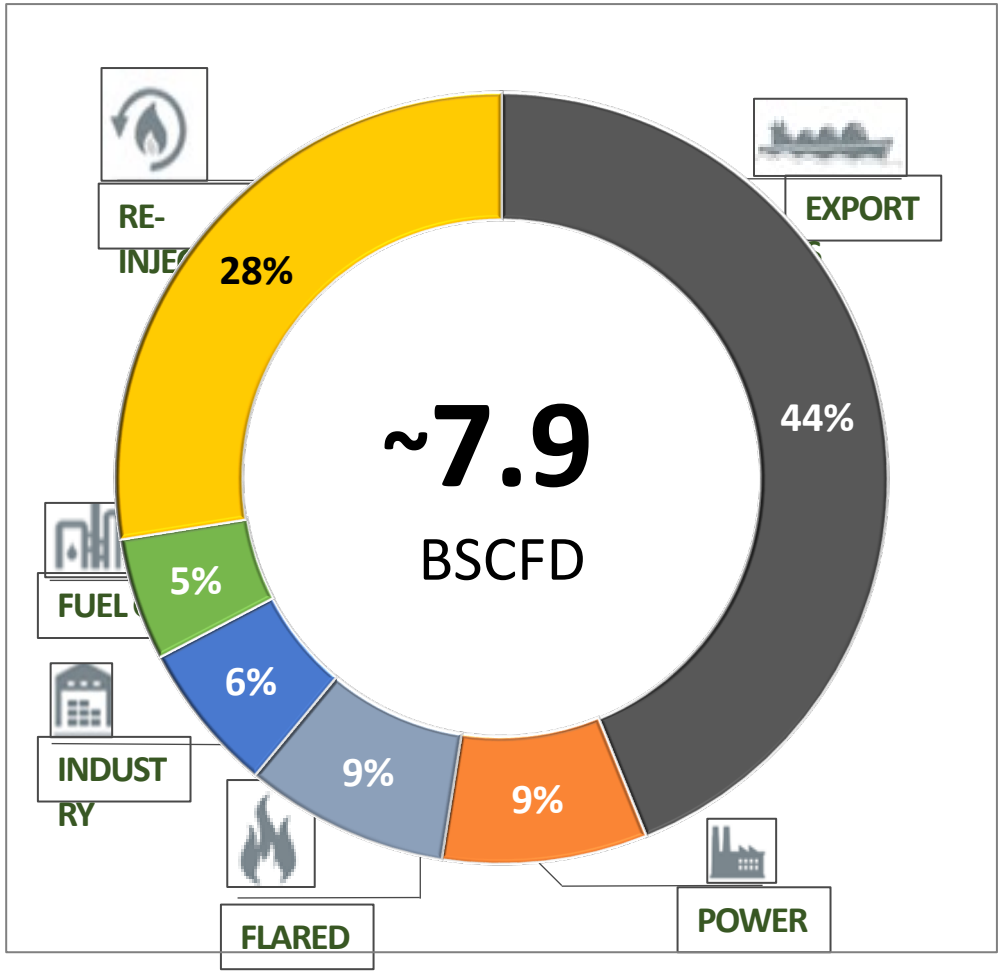
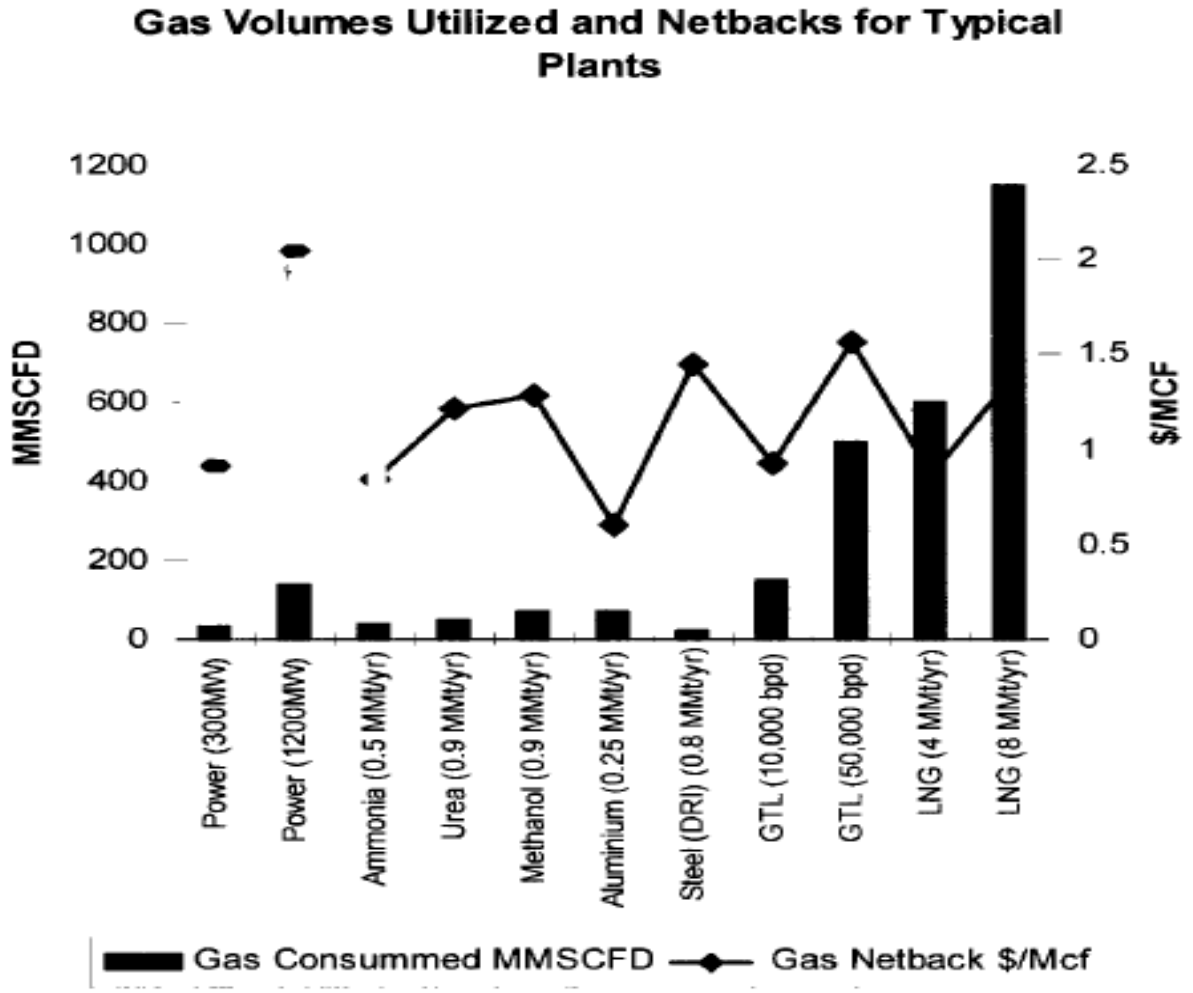


Figure 3.1: Summary of Gas Utilization Project Feed Gas Netbacks[78]



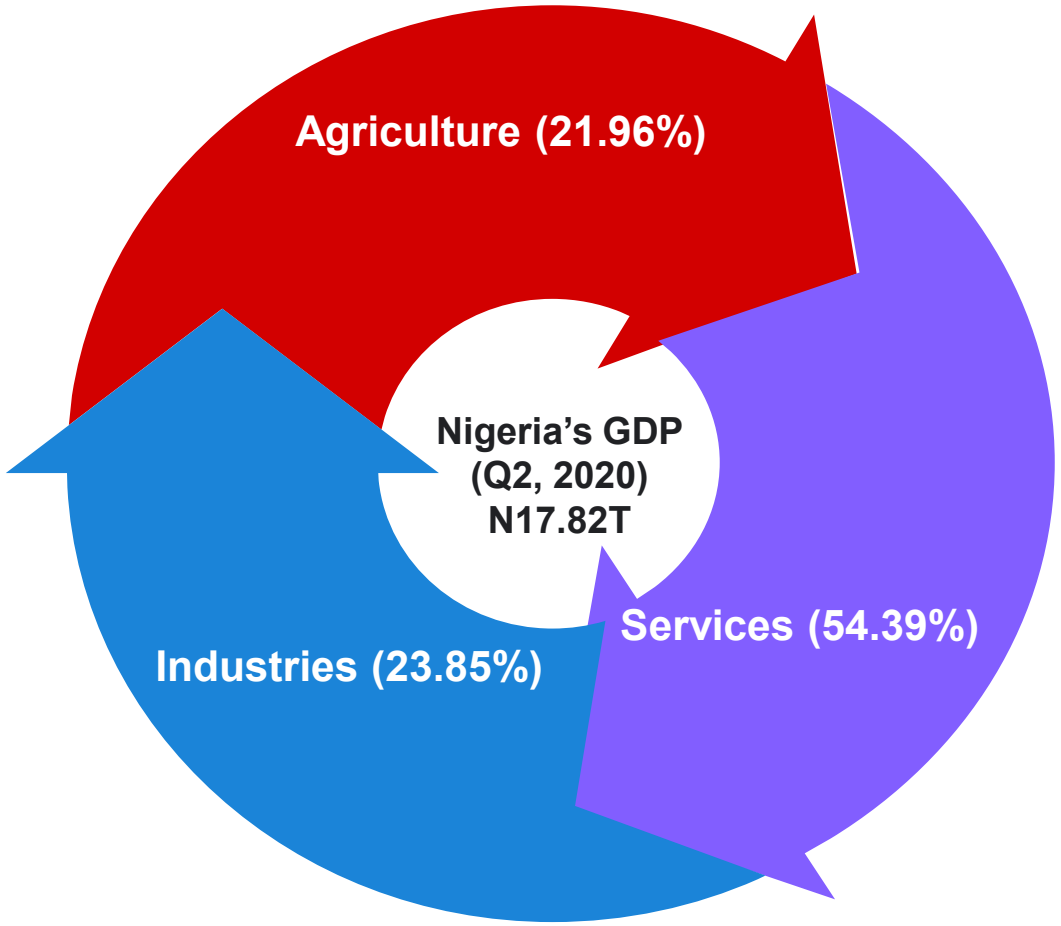
The Amount of Gas Utilized for Domestic Use (Industry/Power sector) is Significantly Low Compared to Export Volumes

Sources: NNPC Nigeria Strategic Gas Plan (2004). Statistical Bulletin, 2019

CURRENT REALITIES AND PRIORITIES IN THE NIGERIAN INDUSTRIAL SECTOR

The FG in June 2004 released a strategic plan for Gas Utilization in prioritized projects for the survival and success of the industrial sector

INDUSTRIAL/ACTIVITY SECTOR



Gas Utilization Projects' Priorities (Nigerian Strategic Gas Plan, 2004)

PRIORITY 1

- **Power Generation**.
- GTL Manufacture.

PRIORITY 2

- LPG Processing.
- Cement Manufacture.
- Steel Manufacture.
- Fertilizer (Ammonia/Urea).

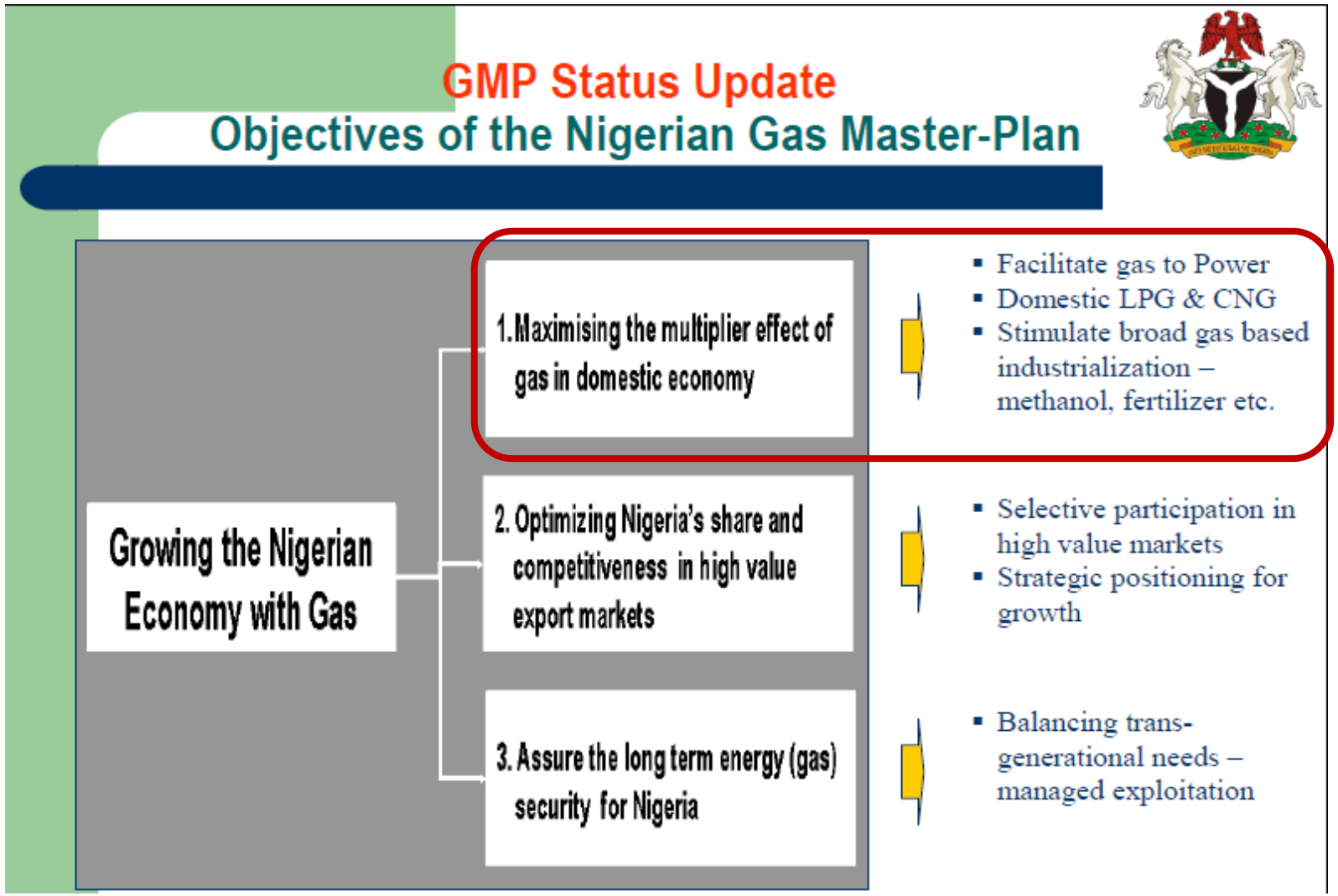
PRIORITY 3

- Further LNG.
- Methanol Plant.
- Aluminum Smelting.

The Industries, Services and Agriculture activity sectors represents Key Contributors to Nigeria's (GDP) Industrial Growth, with significant Headroom for Improvement via prioritizing (Power Generation) via Gas

Sources:; Nigerian Strategy Gas Plan (2004). GDP Report Q3, 2020 (NBS). CBN. Reuters, 2020; Business Day, 2020

GAS: A CATALYST TO NIGERIA'S INDUSTRIALIZATION



› The Gas (**Gas Utilization Projects' Priorities)** development has significant multiplier effects and benefits to Nigeria's economy such as:

- improvement of GDP growth
- reduction of huge production costs with reduced power costs for manufacturing industries
- attracting investments
- raise standard of living, develop human capital and reduces environmental degradation

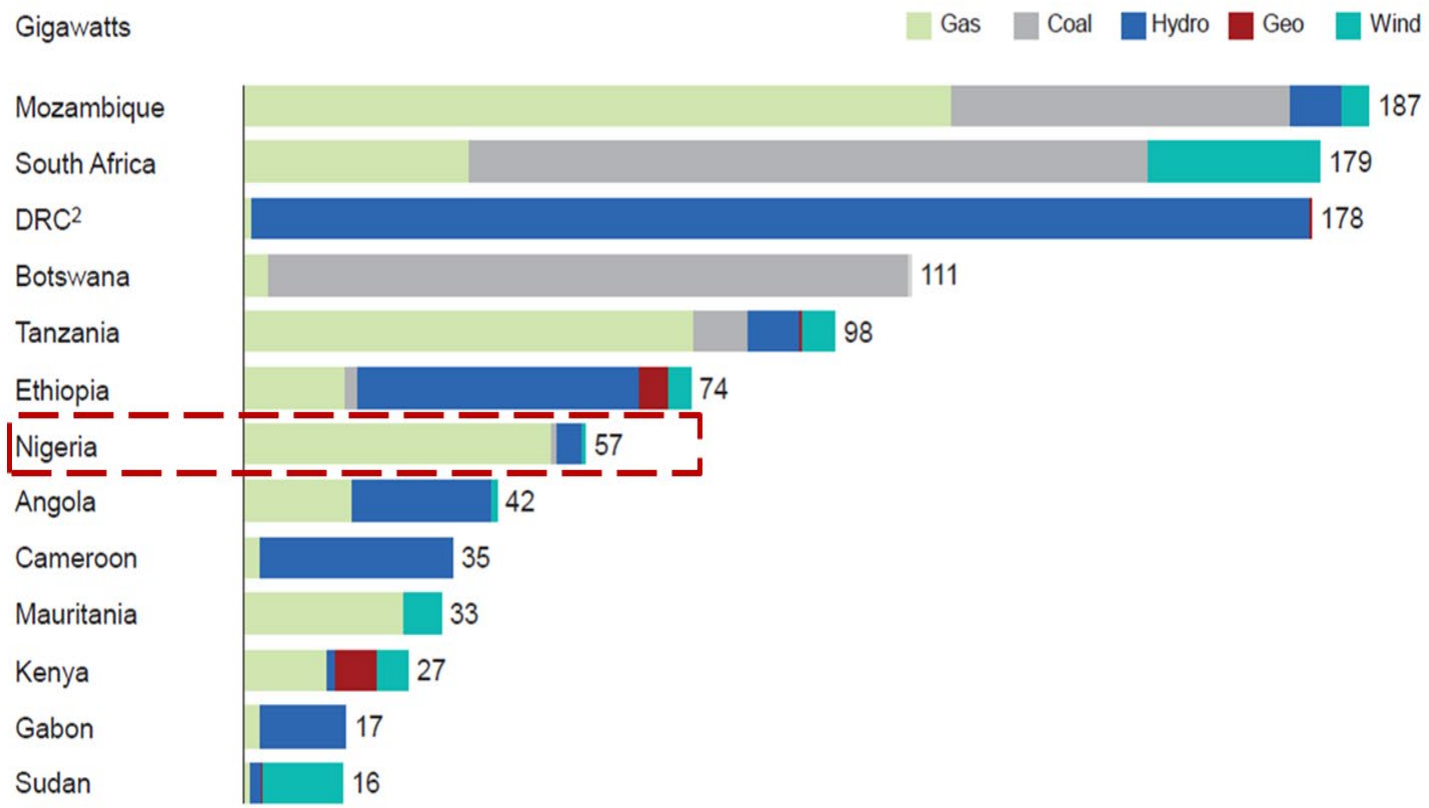
Source: FBN Quest, 2018

Harnessing Gas Reserves would Position Nigeria for Significant Industrial Growth and Domestic Energy Security

Sources: Nigerian Gas Plan Update (2009).

GAS AS A CATALYST IN NIGERIA'S INDUSTRIALIZATION: **POWER GENERATION**

Power-generation potential for select sub-Saharan African countries by technology[1]



1 Potential from domestic resources only; gas includes all conventional proven/speculative reserves, and hydro includes all technically exploitable potential.
2 Democratic Republic of the Congo.

Source: *Geothermal: International Market Overview Report*, Geothermal Energy Association, May 2012, geo-energy.org; International Energy Statistics, US Energy Information Administration, 2013, eia.gov; *National-Scale Wind Resource Assessment for Power Generation*, National Renewable Energy Laboratory, June 2013, nrel.gov; Rystad Energy database, rystadenergy.com; *World Energy Resources: 2013 Survey*, World Energy Council, October 2013, worldenergy.org

Nigeria has the largest proven gas reserves in SSA, 9th in the world. Gas discoveries have been incidental to oil, there in need to develop and commercialize gas reserves

Only about **9%** of gas produced in Nigeria is used for power generation this contributes 85% to total electricity generation. Only 3-4GW of power is available to Nigerians

Use of new gas power generating technologies can be used to improve generation efficiencies and operational capacity available to minimize capacity losses

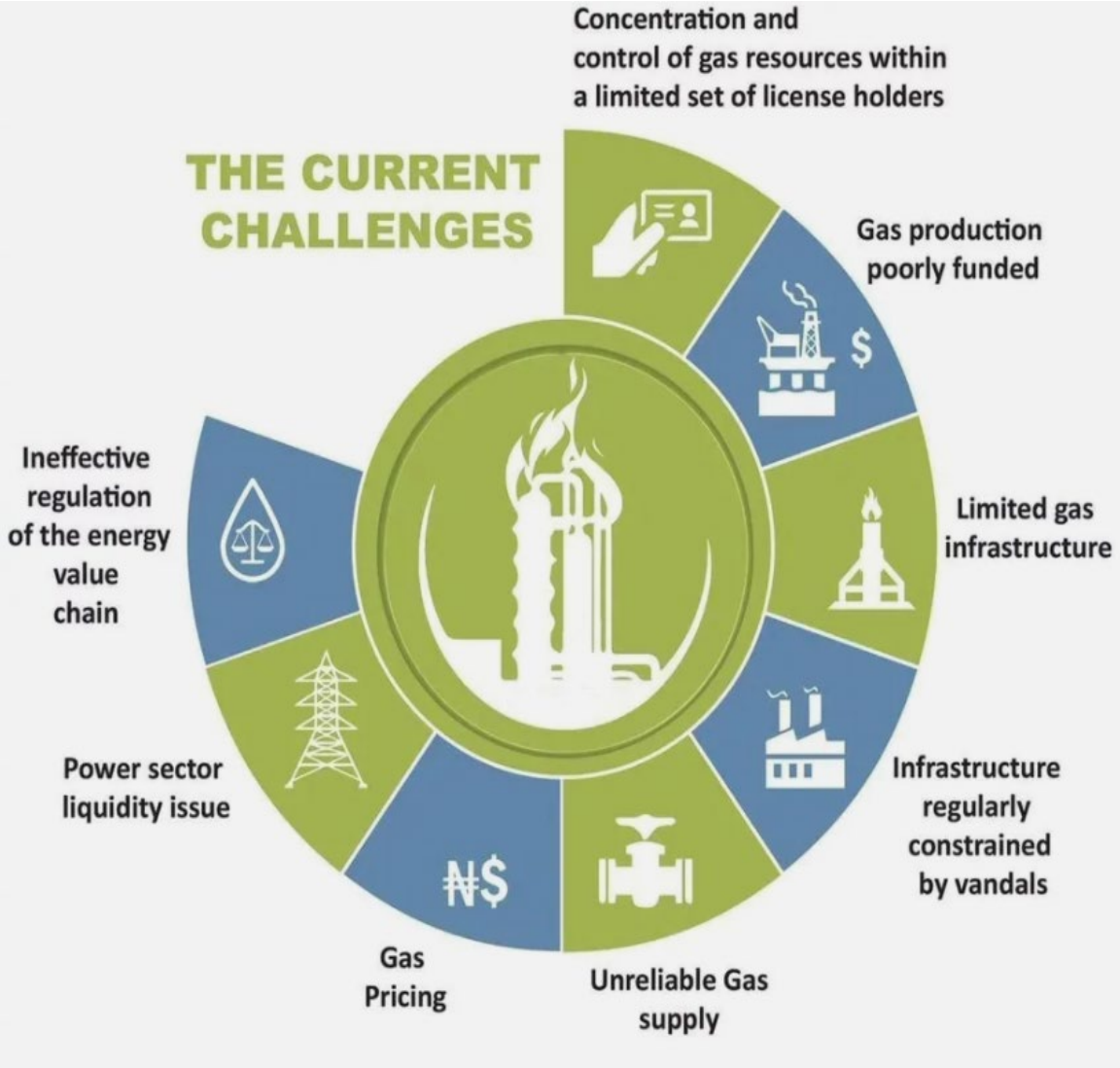
By heat content, natural gas requires the lowest amount of energy to generate a Kwh of electricity which makes it significantly more efficient than other fuel types

Gas to power also ensures significant cost savings estimated at about ₦45million as use of gas displaces diesel generation at a reduced rate per Kwh

Nigeria has significant Power Generation Potential from Gas (within the Energy Mix) which can Close its Power (Electricity) Deficit

Sources: EIA, 2019; PwC, 2019

CHALLENGES TO THE DEVELOPMENT OF NATURAL GAS IN NIGERIA

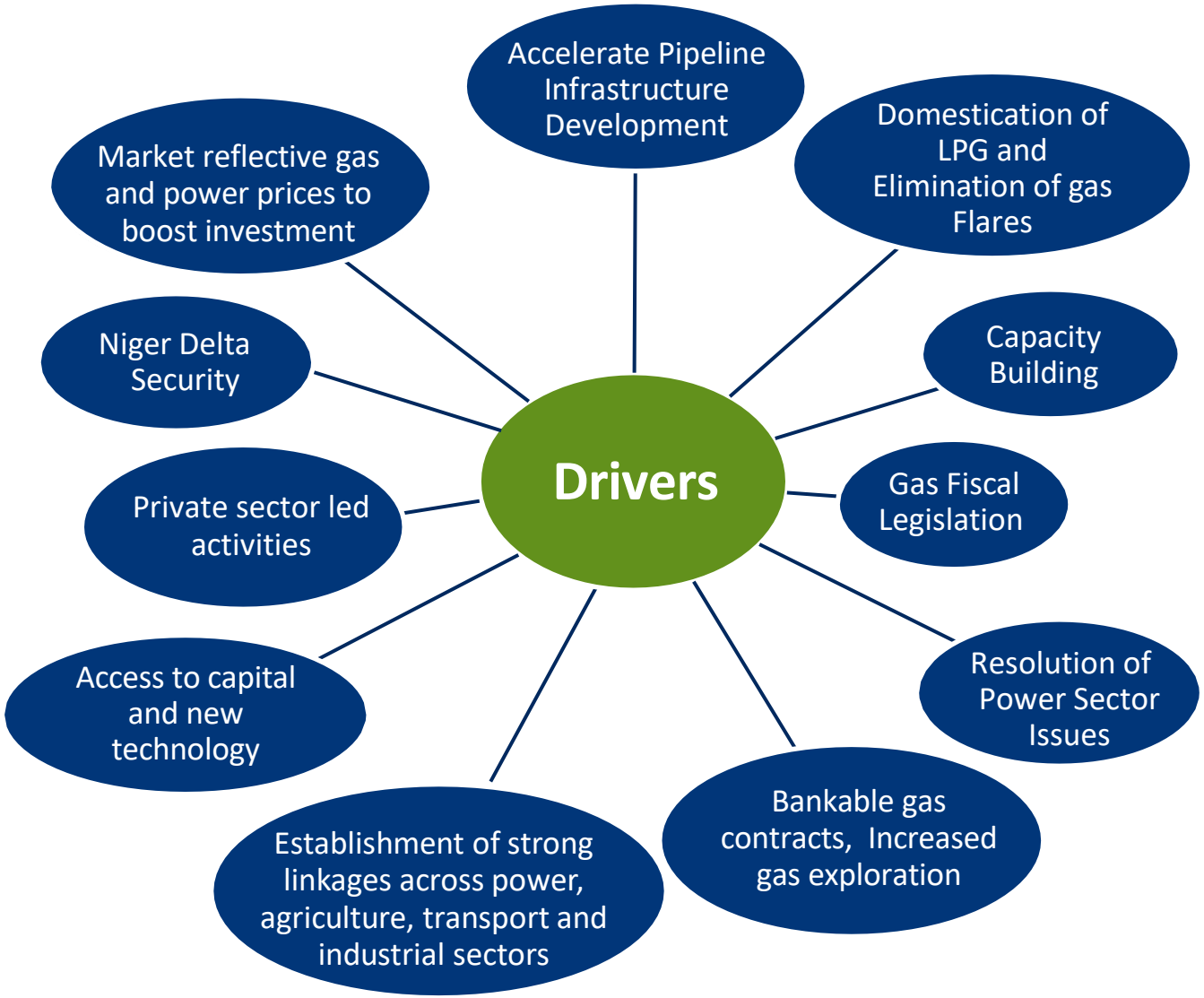


- Capital intensity, under-investment, delayed delivery of planned gas infrastructure and a poor pipeline network strand gas resources
- Lack of cost reflective tariffs and huge debts in the power sector (36% of every ₦10 worth of electricity sold unpaid as at 2018).
- Lack of clear gas fiscal terms for PSCs and delay in passage of the PIB has reduced investor confidence and crippled investments in the sector
- Foreign exchange risk due to revenues received in Naira against dollar-based investments with risk of foreign loans due to volatility
- High loan interest rates as well as delays in JV funding makes it difficult to fund capital intensive, long term gas projects
- Non-bankable offtake agreements and lack of a properly diversified consumer base for gas suppliers impacts investor confidence
- Infrastructure security remains a major challenge with inadequate legal framework on pipeline security and weak enforcement
- Parties to gas contracts do not honor the terms of the contract such as take or pay clauses

The numerous challenges within the gas sector needs to be addressed to ensure viable investments to drive industrial growth

Source: : Baseline Report, 2016; NERC, 2019; FBN Quest, 2018; Shell, 2019; Africa Energy Portal, 2017 . *FBN Quest, 2018*

DRIVERS FOR FUTURE GROWTH OF THE GAS SECTOR



The direction is laudable. However, building institutional capacity to drive transition and effective is critical to deliver and sustain this revolution

Need to drive investments through liquidity pools such as the capital markets, bonds and PFAs as well as exploring a myriad of financing options to provide funding for gas infrastructure projects

Source: FBN Quest, 2018

THE SEPLAT STORY

Strategic Positioning in Gas

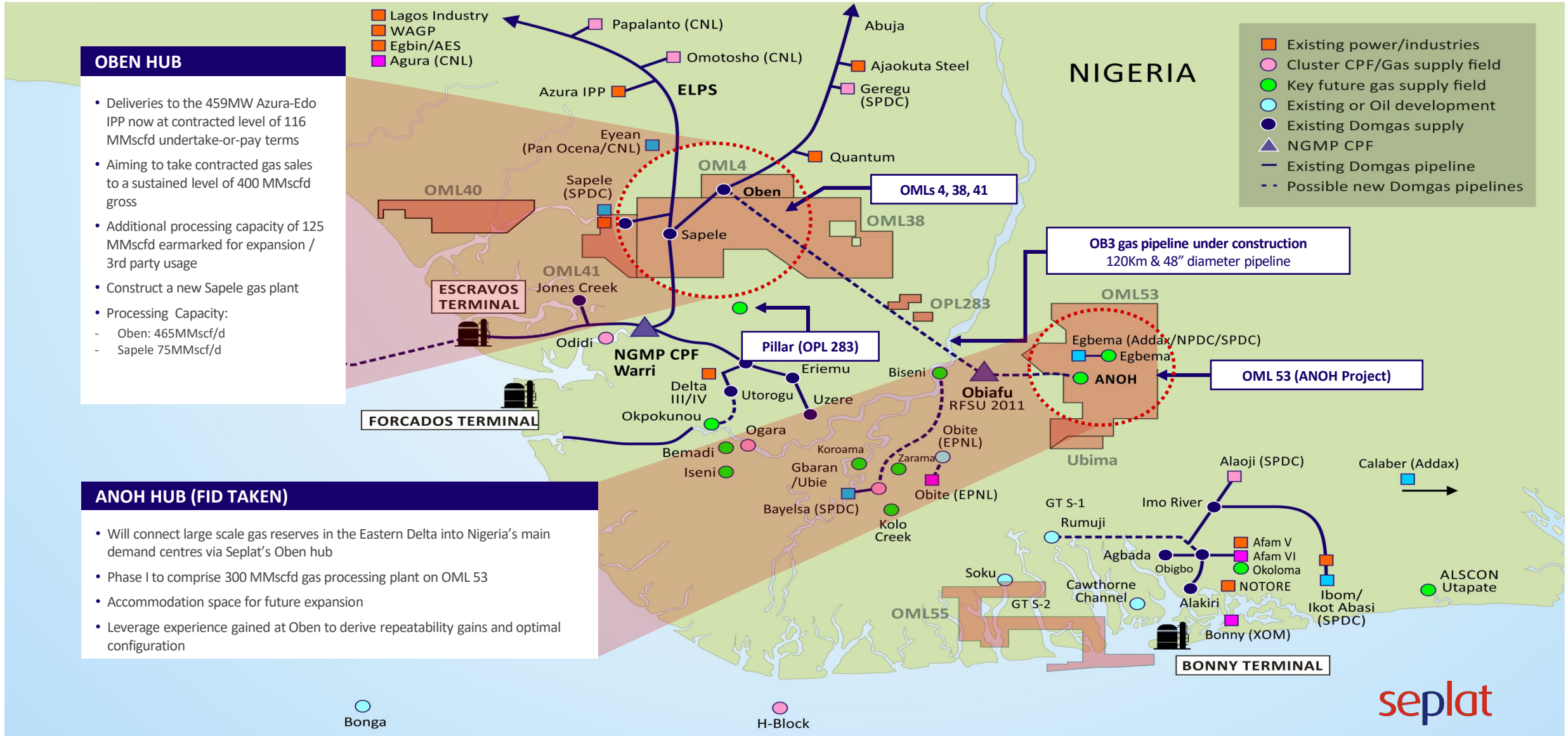
SEPLAT'S STRATEGICALLY POSITIONED GAS HUBS

OBEN HUB

- Deliveries to the 459MW Azura-Edo IPP now at contracted level of 116 MMscfd undertake-or-pay terms
- Aiming to take contracted gas sales to a sustained level of 400 MMscfd gross
- Additional processing capacity of 125 MMscfd earmarked for expansion / 3rd party usage
- Construct a new Sapele gas plant
- Processing Capacity:
  - Oben: 465MMscf/d
  - Sapele 75MMscf/d

ANOH HUB (FID TAKEN)

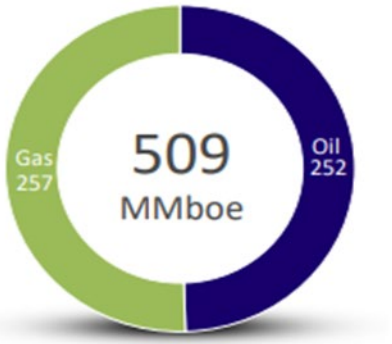
- Will connect large scale gas reserves in the Eastern Delta into Nigeria's main demand centres via Seplat's Oben hub
- Phase I to comprise 300 MMscfd gas processing plant on OML 53
- Accommodation space for future expansion
- Leverage experience gained at Oben to derive repeatability gains and optimal configuration



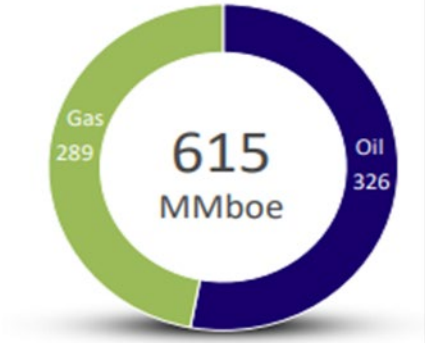
SEPLAT: DELIVERING POWER TO THE DOMESTIC MARKET

SIGNIFICANT RESERVES AND RESOURCE BASE TO UNDERPIN LONG TERM CONTRACTS

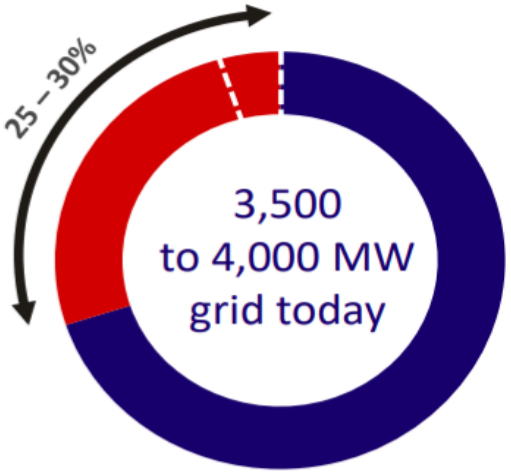
TOTAL WI 2P GAS RESERVES (Bscf)



TOTAL WI 2C GAS RESOURCES (Bscf)



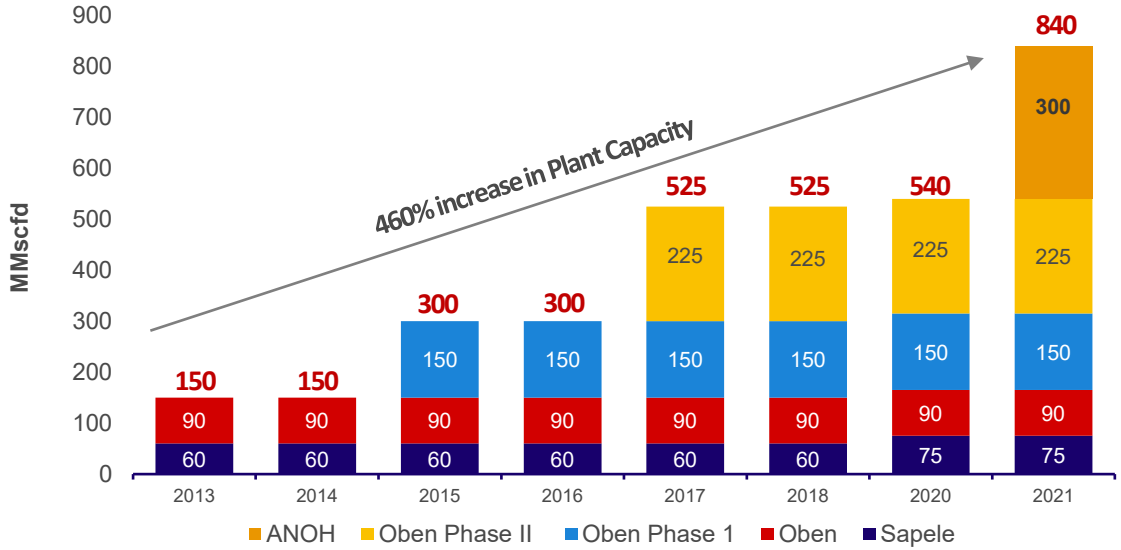
SEPLAT'S CURRENT OUTPUT CAN UNDERPIN SIGNIFICANT POWER GENERATION



- **Estimated current active power generation**
- **Seplats current supply capability**

Source: www.nesistats.org; Company data and estimates

GROWTH IN GAS PROCESSING CAPACITY



- Strategically positioned to access Nigeria's main demand centers.
- Current well stock delivering 300 - 350MMscfd (Gross).
- New Sapele Gas Plant processing capacity (PC) is 75MMscfd, increases PC in the West to 540MMscfd (Oben and Sapele).
- Seplat currently contributes about 30% of gas to power generation in Nigeria.
- ANOH Project to add 300MMscfd capacity and unlock over 1,200MW of gas constrained power generation capacity

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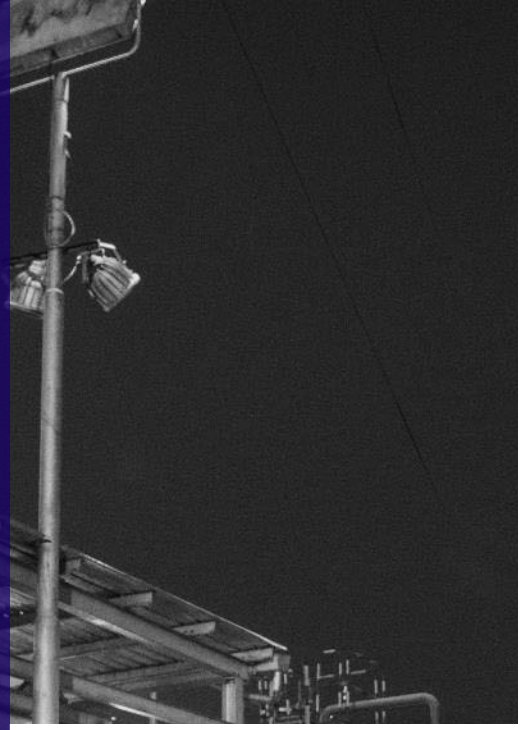

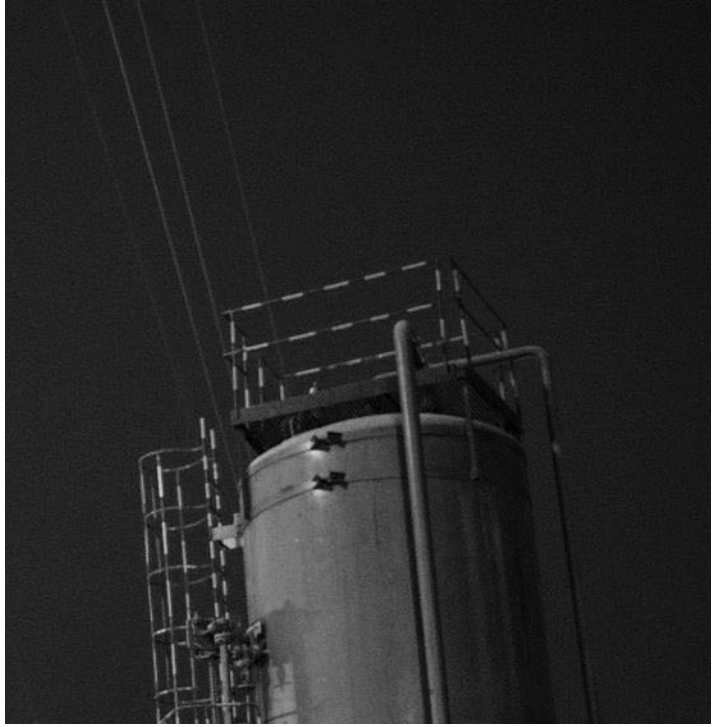

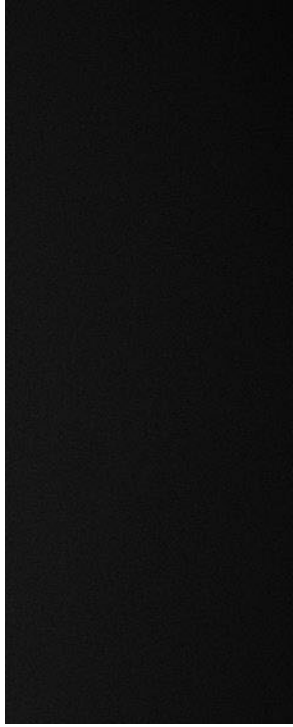

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